Pelton, Jason M (DEC)

From: Smeal, Monica <monica.smeal@aptim.com>
Sent: Thursday, April 18, 2019 9:08 AM
To: Pelton, Jason M (DEC); Hesler, Donald (DEC)
Subject: FW: N62470.16.D.9004.N4008518F6147 NWIRP Bethpage Site 1Submittal SD-04-001 - Off-Site Common Backfill Source
Attachments: N62470.16.D.9004.F6147 SD-04-001 Enclosures.pdf

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Jason,
My first attempt to send this email was returned due to the file size exceeding the limit. I've removed the Submittal Transmittal form and just included the Enclosures in hopes that it will make it through this time.

MONICA L. SMEAL
Project Manager

APTIM | Diversified Services

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M 757 390 6043
E monica.smeal@aptim.com

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Norfolk, VA 23510

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From: Smeal, Monica
Sent: Thursday, April 18, 2019 8:52 AM
To: Murray, Brian S CIV NAVFAC MIDLANT, EV <brian.s.murray@navy.mil>; Tancreti, Leo P CIV NAVFAC MIDLANT, PWD New London <leo.tancreti@navy.mil>; Shukis, Christopher R CIV NAVFAC MIDLANT, PWD New London <christopher.shukis@navy.mil>; jason.pelton@dec.ny.gov; Hesler, Donald (DEC) (donald.hesler@dec.ny.gov) <donald.hesler@dec.ny.gov>
Cc: Collins, Timothy (CFS) <Timothy.Collins@aptim.com>; McCutcheon, Sean <sean.mccutcheon@aptim.com>
Subject: N62470.16.D.9004.N4008518F6147 NWIRP Bethpage Site 1Submittal SD-04-001 - Off-Site Common Backfill Source

Brian,
Please find attached Submittal SD-04-001. On March 13, 2019, APTIM collected clean common backfill samples from a stockpile at an off-site source located at Country Pointe at Plainview, 1425 Old Country Road, Plainview NY 11803.

The analytical data, historical data, and geotechnical testing data for this common backfill off-site source are enclosed. Additionally, enclosed is correspondence between APTIM and TetraTech regarding gradation requirements outlined in Section 2.02 of the Project Specification 31 23 00. This email states that gradation specifications can be disregarded as long as the soil meets the acceptable USGS Soil Classifications.

Please review and approve this off-site source as a source for use as backfill throughout Site 1.

Thank you,

MONICA L. SMEAL
Project Manager

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McCutcheon, Sean

From: Nesbit, Scott <Scott.Nesbit@tetratech.com>
Sent: Tuesday, April 16, 2019 2:06 PM
To: McCutcheon, Sean
Cc: Collins, Timothy (CFS)
Subject: RE: 9004.F6147 Bethpage Site 1 Import Soil Specification

EXTERNAL SENDER

Sean, As long as the material provided as common fill meets the acceptable USCS soil classifications identified in Section 2.02, the requirements for percent passing the No. 40 sieve and No. 200 sieve can be disregarded. Additional requirements for the fill including compaction, density testing, etc., remain unchanged.

Not sure how you need to document this but I would suggest reaching out to KOR to formally document the request and the change.

Thanks, Scott

From: McCutcheon, Sean <sean.mccutcheon@aptim.com>
Sent: Tuesday, April 16, 2019 9:51 AM
To: Nesbit, Scott <Scott.Nesbit@tetratech.com>
Cc: Collins, Timothy (CFS) <Timothy.Collins@aptim.com>
Subject: 9004.F6147 Bethpage Site 1 Import Soil Specification

Hi Scott,

As discussed on the phone this morning, please see the attached Project Specification 31 23 00. As noted during the call, the % finer than #40 sieve requirement in section 2.02 is where we will have issues in finding a fill source.

Respectfully,

SEAN MCCUTCHEON
Engineer

APTIM | Technical Services

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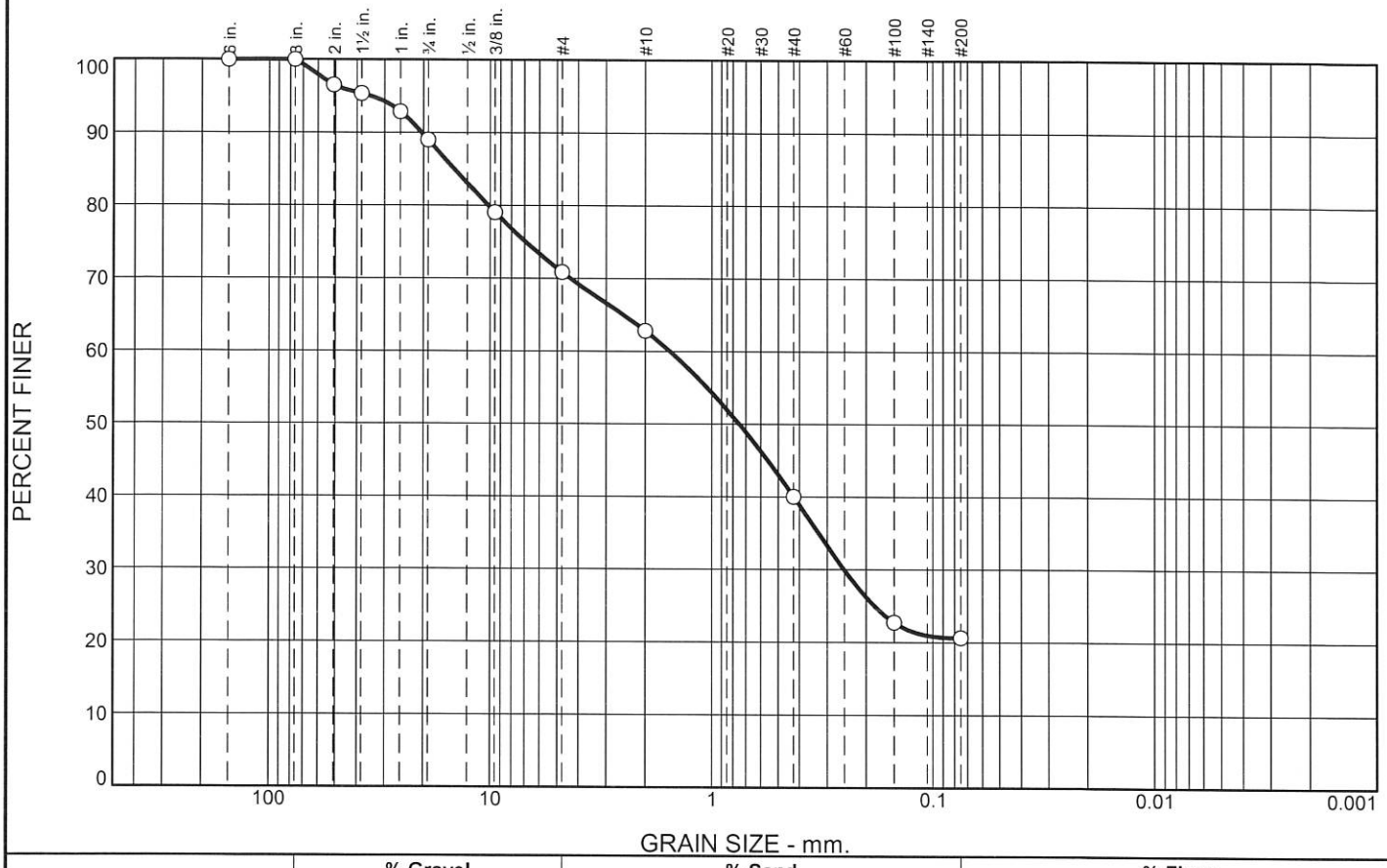
Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	11.0	18.2	8.0	22.8	19.4	20.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
6	100.0	100.0	
3	100.0		
2	96.5		
1.5	95.4		
1	92.9		
.75	89.0		
.375	79.1		
#4	70.8		
#10	62.8		
#40	40.0	75.0 - 100.0	X
#100	22.7		
#200	20.6	0.0 - 48.0	

* APTIM FILL. SSW APPENDIX :1

Soil Description

BROWN SANDY SOIL WITH LITTLE SILT,TRACE OF BRICK,RCA AND ASPHALT. SAMPLED AND DELIVERED BY CLIENT ON 4/4/19

Atterberg Limits

PL= NP LL= NV PI= NA

Coefficients

D_{90}= 20.3971 D_{85}= 14.5360 D_{60}= 1.5453
D_{50}= 0.7505 D_{30}= 0.2516 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= SM AASHTO=

Remarks

REPORT#A207-R. ASTM TESTS - ASTM D422, D1140, D4318 & D2487. PARTICLE SIZE ANALYSIS,-200, LL, PL & SOIL CLASSIFICATION

Location: NWIRP BETHPAGE
Sample Number: BORROW FILL **Depth:** NA **Date:** 4/8/19

MUNICIPAL TESTING LABORATORY, INC.

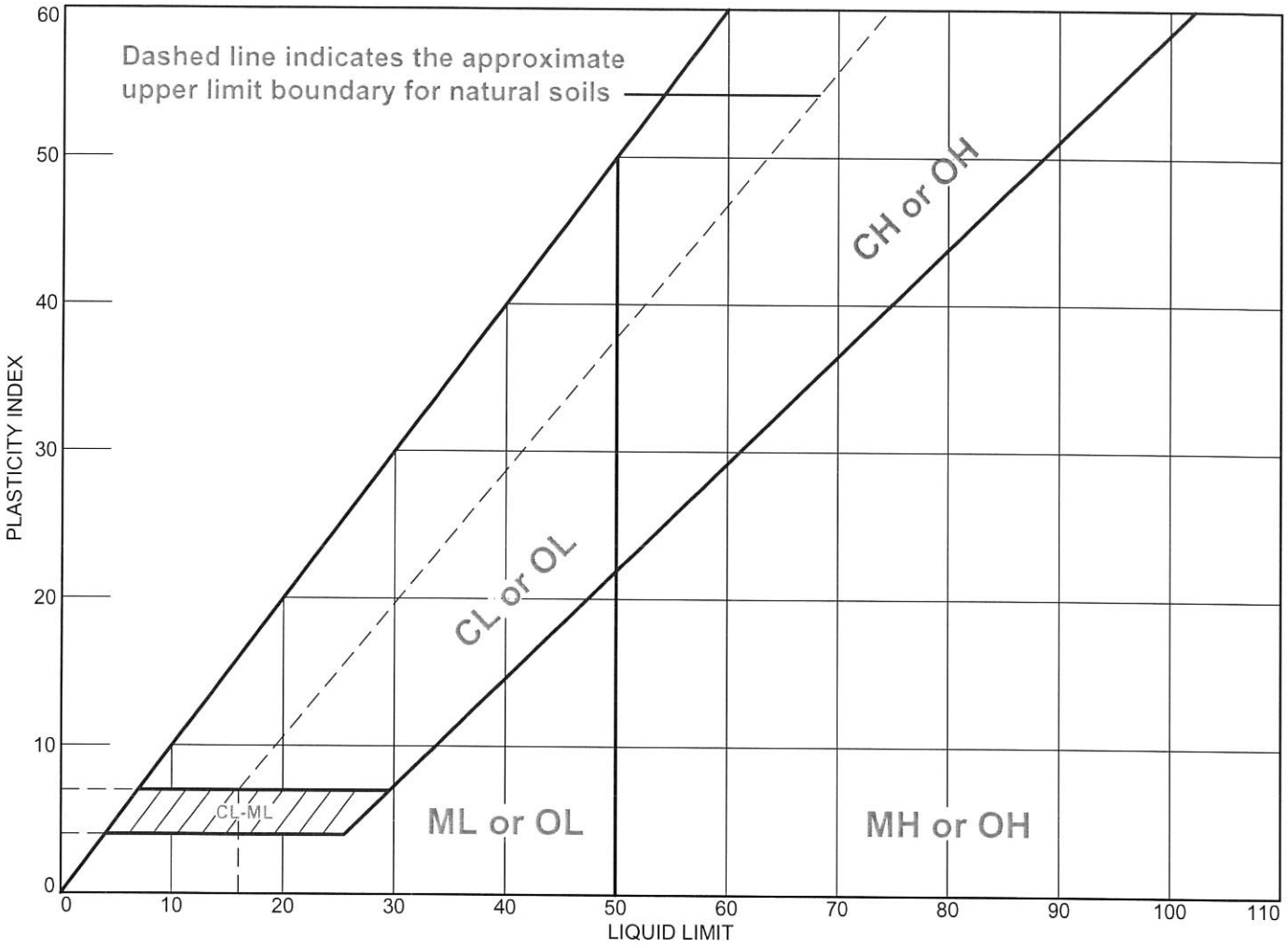
Hauppauge, NY

Client: APTIM
Project: NWIRP BETHPAGE

Project No: F6147501164 **Figure**

Tested By: W.MONSEES **Checked By:** M.MATHEW

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	BROWN SANDY SOIL WITH LITTLE SILT,TRACE OF BRICK,RCA AND ASPHALT. SAMPLED AND	NV	NP	NP	40	20.6	SM

Project No. F6147501164 **Client:** APTIM

Project: NWIRP BETHPAGE

● **Location:** NWIRP BETHPAGE **Depth:** NA **Sample Number:** BORROW FILL

MUNICIPAL TESTING LABORATORY, INC.

Hauppauge, NY

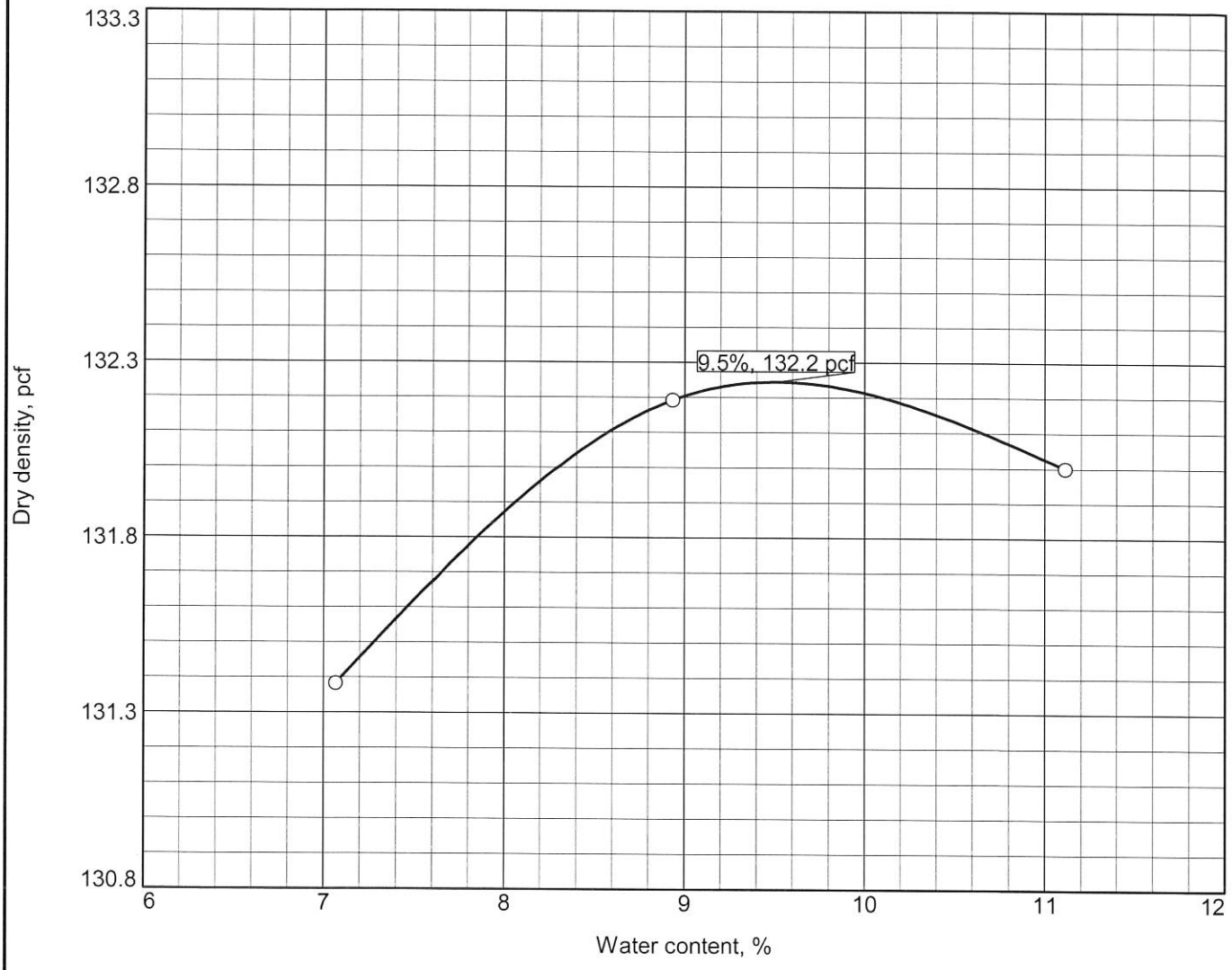
Remarks:

● MTL REPORT# A207-R.ASTM D2487. SOIL CLASSIFICATION. GROUP SYMBOL:SM

Figure

Tested By: W.MONSEES **Checked By:** M.MATHEW

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method C Standard

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
NA	SM		6.6		NV	NP	11	20.6

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 132.2 pcf Optimum moisture = 9.5 %	BROWN SANDY SOIL WITH LITTLE SILT,TRACE OF BRICK,RCA AND ASPHALT. SAMPLED AND DELIVERED
Project No. F6147501164 **Client:** APTIM **Project:** NWIRP BETHPAGE ○ **Location:** NWIRP BETHPAGE **Sample Number:** BORROW FILL	**Remarks:** REPORT#A208. ASTM D698. DATE:4/08/19
MUNICIPAL TESTING LABORATORY, INC. **Hauppauge, NY**	**Figure**

Tested By: W.MONSEES **Checked By:** M.MATHEW

MUNICIPAL TESTING LABORATORY, INC.

375 RABRO DRIVE, HAUPPAUGE, NY 11788
PHONE: 631 761 5555, FAX: 631 761 5560

CHAIN OF CUSTODY RECORD

CLIENT: APTIM Timothy.Collins@aptim.com
ADDRESS: 999 S. Oyster Bay Rd.
PHONE: 410 409 7307 FAX: CELL:
CONTACT: Tim Collins
PROJECT: 501164 NWIRP Bethpage
COMPONENT/MATRIX/ TYPE: GRL
SAMPLED BY: TC
SAMPLING DATE &TIME: 4/4/19
SPECIFICATION/METHOD/AGENCY:
SAMPLE ID: SAND + COMMON FILL BORROW
SAMPLE LOCATION: ? BORROW
TESTS NEEDED: GRADATION / PROCTOR
REMARKS: D422 + D698

2 Seperate Samples

MTL # A-207 & A208
4/8/19 N

ALL INFORMATION MUST BE FILLED TO AVOID DELAY IN PROCESSING AND TESTING

DELIVERED BY:	RECEIVED BY:	DATE:
TC	RP	4/4/19

1.0 DESCRIPTION OF SUBCONTRACT WORK

1.1 **Subcontractor's** base scope is to provide geotechnical services in accordance with this **Subcontract Scope of Work** and the attached Project Specifications.

1.2 The description of the **Subcontract Work** represents **Company's** and **Subcontractor's** commercially reasonable efforts to define the technical information and tasks necessary for the performance of the **Subcontract Work**, but the **Parties** acknowledge that **Subcontractor's** obligations under the **Subcontract** include, but are not limited to, the following:

- **Subcontractor** shall perform laboratory geotechnical testing of fill in accordance with the Project Specifications included in **Appendix 2**:
  - American Society for Testing and Materials (ASTM) D 2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
    - Fill shall be in compliance with ASTM D 2487 soil classification groups GW, GP, GM, GC, SW, SP, SM, SC, ML, and CL, or any combination of these groups.
    - Fill shall not contain stones larger than six-inches or 2/3 the loose thickness of each lift, whichever is smaller and shall have a minimum of 75 percent passing the No. 40 sieve and a maximum of 48 percent passing the No. 200 sieve.
  - ASTM D 422, Standard Test Method for Particle-Size Analysis of Soils
  - ASTM D 1140, Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75-µm) Sieve
  - ASTM D 4318, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
  - ASTM D 698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft3 (600 kN-m/m3))
  - **Company** will be responsible for collecting the recommended sample for testing.
  - **Subcontractor** to provide pricing per sample, inclusive of all the aforementioned testing methods.
- **Subcontractor** shall perform in-place density tests in accordance with the specifications included in **Appendix 2**:
  - ASTM D 6938, Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
    - Three tests for every 20,000 square feet per lift.
  - ASTM D 2937 Test Method for Density of Soil in Place by the Drive-Cylinder Method
    - Verify density test results by performing an ASTM D 2937 density test at a location already ASTM D6938 tested as specified herein. Perform an ASTM D2937 density test at the start of the job, and for every five-acre area on which common fill is placed.
  - Fill shall be compacted to 90 percent of ASTM D 698
  - Site drawings included as **Appendix 2** show the excavation areas to be tested.
  - **Subcontractor** to provide pricing per half-day visits, inclusive of all the aforementioned testing methods and travel expenses.
- **Subcontractor** will provide **Company** with all laboratory testing results documentation in a within three days of sample receipt.

LabLink Analytical Data Report .
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84365-1	Solids, Percent		SM2540 G 18TH ED MOD	93.8		%			1	-----	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Acetone	67-64-1	SW846 8260C	**39**		**ug/kg**	**9.4**	**7.0**	**1**	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Benzene	71-43-2	SW846 8260C	0.37	U	ug/kg	0.47	0.37	1	2,900	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	2-Butanone (MEK)	78-93-3	SW846 8260C	7.0	U	ug/kg	9.4	7.0	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	n-Butylbenzene	104-51-8	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	sec-Butylbenzene	135-98-8	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	tert-Butylbenzene	98-06-6	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Carbon tetrachloride	56-23-5	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	1,400	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Chlorobenzene	108-90-7	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Chloroform	67-66-3	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	10,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	17,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	9,800	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,1-Dichloroethane	75-34-3	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	19,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,2-Dichloroethane	107-06-2	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	2,300	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,1-Dichloroethene	75-35-4	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	0.91	U	ug/kg	0.94	0.91	1	59,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,4-Dioxane	123-91-1	SW846 8260C	94	U	ug/kg	120	94	1	9,800	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Ethylbenzene	100-41-4	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	30,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	62,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Methylene chloride	75-09-2	SW846 8260C	2.8	U	ug/kg	4.7	2.8	1	51,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	n-Propylbenzene	103-65-1	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Tetrachloroethene	127-18-4	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	5,500	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Toluene	108-88-3	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,1,1-Trichloroethane	71-55-6	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Trichloroethene	79-01-6	SW846 8260C	0.75	U	ug/kg	0.94	0.75	1	10,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	47,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	47,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Vinyl chloride	75-01-4	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	210	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	m,p-Xylene		SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	o-Xylene	95-47-6	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	Xylene (total)	1330-20-7	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-001	3/13/2019	10:40
JC84365-1	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*105*		*%*			*1*	-----	*NWIRP-S1-WC-CF-001*	*3/13/2019*	*10:40*
JC84365-1	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*103*		*%*			*1*	-----	*NWIRP-S1-WC-CF-001*	*3/13/2019*	*10:40*
JC84365-1	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*95.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-001*	*3/13/2019*	*10:40*
JC84365-1	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*96.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-001*	*3/13/2019*	*10:40*
JC84365-2	Solids, Percent		SM2540 G 18TH ED MOD	92.5		%			1	-----	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Acetone	67-64-1	SW846 8260C	**142**		**ug/kg**	**13**	**9.4**	**1**	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Benzene	71-43-2	SW846 8260C	0.50	U	ug/kg	0.63	0.50	1	2,900	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	2-Butanone (MEK)	78-93-3	SW846 8260C	9.4	U	ug/kg	13	9.4	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	n-Butylbenzene	104-51-8	SW846 8260C	0.63	U	ug/kg	2.5	0.63	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	sec-Butylbenzene	135-98-8	SW846 8260C	0.63	U	ug/kg	2.5	0.63	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	tert-Butylbenzene	98-06-6	SW846 8260C	0.63	U	ug/kg	2.5	0.63	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Carbon tetrachloride	56-23-5	SW846 8260C	1.3	U	ug/kg	2.5	1.3	1	1,400	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Chlorobenzene	108-90-7	SW846 8260C	1.3	U	ug/kg	2.5	1.3	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Chloroform	67-66-3	SW846 8260C	0.63	U	ug/kg	2.5	0.63	1	10,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.94	U	ug/kg	1.3	0.94	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.63	U	ug/kg	1.3	0.63	1	17,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.63	U	ug/kg	1.3	0.63	1	9,800	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,1-Dichloroethane	75-34-3	SW846 8260C	0.63	U	ug/kg	1.3	0.63	1	19,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,2-Dichloroethane	107-06-2	SW846 8260C	0.63	U	ug/kg	1.3	0.63	1	2,300	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,1-Dichloroethene	75-35-4	SW846 8260C	0.94	U	ug/kg	1.3	0.94	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	1.2	U	ug/kg	1.3	1.2	1	59,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.94	U	ug/kg	1.3	0.94	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,4-Dioxane	123-91-1	SW846 8260C	130	U	ug/kg	160	130	1	9,800	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Ethylbenzene	100-41-4	SW846 8260C	0.94	U	ug/kg	1.3	0.94	1	30,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.63	U	ug/kg	1.3	0.63	1	62,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Methylene chloride	75-09-2	SW846 8260C	3.8	U	ug/kg	6.3	3.8	1	51,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	n-Propylbenzene	103-65-1	SW846 8260C	0.63	U	ug/kg	2.5	0.63	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Tetrachloroethene	127-18-4	SW846 8260C	1.3	U	ug/kg	2.5	1.3	1	5,500	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Toluene	108-88-3	SW846 8260C	**0.62**	**J**	**ug/kg**	**1.3**	**0.94**	**1**	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,1,1-Trichloroethane	71-55-6	SW846 8260C	1.3	U	ug/kg	2.5	1.3	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Trichloroethene	79-01-6	SW846 8260C	1.0	U	ug/kg	1.3	1.0	1	10,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	1.3	U	ug/kg	2.5	1.3	1	47,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	1.3	U	ug/kg	2.5	1.3	1	47,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Vinyl chloride	75-01-4	SW846 8260C	1.3	U	ug/kg	2.5	1.3	1	210	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	m,p-Xylene		SW846 8260C	0.94	U	ug/kg	1.3	0.94	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	o-Xylene	95-47-6	SW846 8260C	0.94	U	ug/kg	1.3	0.94	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	Xylene (total)	1330-20-7	SW846 8260C	0.94	U	ug/kg	1.3	0.94	1	100,000	NWIRP-S1-WC-CF-002	3/13/2019	10:45
JC84365-2	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*105*		*%*			*1*	-----	*NWIRP-S1-WC-CF-002*	*3/13/2019*	*10:45*
JC84365-2	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*101*		*%*			*1*	-----	*NWIRP-S1-WC-CF-002*	*3/13/2019*	*10:45*
JC84365-2	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-002*	*3/13/2019*	*10:45*

LabLink Analytical Data Report .
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84365-2	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-002*	*3/13/2019*	*10:45*
JC84365-3	Solids, Percent		SM2540 G 18TH ED MOD	90.9		%			1	-----	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Acetone	67-64-1	SW846 8260C	**43.2**		**ug/kg**	**9.5**	**7.1**	**1**	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Benzene	71-43-2	SW846 8260C	0.38	U	ug/kg	0.47	0.38	1	2,900	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	2-Butanone (MEK)	78-93-3	SW846 8260C	7.1	U	ug/kg	9.5	7.1	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	n-Butylbenzene	104-51-8	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	sec-Butylbenzene	135-98-8	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	tert-Butylbenzene	98-06-6	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Carbon tetrachloride	56-23-5	SW846 8260C	0.95	U	ug/kg	1.9	0.95	1	1,400	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Chlorobenzene	108-90-7	SW846 8260C	0.95	U	ug/kg	1.9	0.95	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Chloroform	67-66-3	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	10,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.71	U	ug/kg	0.95	0.71	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.47	U	ug/kg	0.95	0.47	1	17,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.47	U	ug/kg	0.95	0.47	1	9,800	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,1-Dichloroethane	75-34-3	SW846 8260C	0.47	U	ug/kg	0.95	0.47	1	19,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,2-Dichloroethane	107-06-2	SW846 8260C	0.47	U	ug/kg	0.95	0.47	1	2,300	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,1-Dichloroethene	75-35-4	SW846 8260C	0.71	U	ug/kg	0.95	0.71	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	0.92	U	ug/kg	0.95	0.92	1	59,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.71	U	ug/kg	0.95	0.71	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,4-Dioxane	123-91-1	SW846 8260C	95	U	ug/kg	120	95	1	9,800	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Ethylbenzene	100-41-4	SW846 8260C	0.71	U	ug/kg	0.95	0.71	1	30,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.47	U	ug/kg	0.95	0.47	1	62,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Methylene chloride	75-09-2	SW846 8260C	2.8	U	ug/kg	4.7	2.8	1	51,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	n-Propylbenzene	103-65-1	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Tetrachloroethene	127-18-4	SW846 8260C	0.95	U	ug/kg	1.9	0.95	1	5,500	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Toluene	108-88-3	SW846 8260C	**0.43**	**J**	**ug/kg**	**0.95**	**0.71**	**1**	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,1,1-Trichloroethane	71-55-6	SW846 8260C	0.95	U	ug/kg	1.9	0.95	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Trichloroethene	79-01-6	SW846 8260C	0.76	U	ug/kg	0.95	0.76	1	10,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	0.95	U	ug/kg	1.9	0.95	1	47,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	0.95	U	ug/kg	1.9	0.95	1	47,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Vinyl chloride	75-01-4	SW846 8260C	0.95	U	ug/kg	1.9	0.95	1	210	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	m,p-Xylene		SW846 8260C	0.71	U	ug/kg	0.95	0.71	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	o-Xylene	95-47-6	SW846 8260C	0.71	U	ug/kg	0.95	0.71	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	Xylene (total)	1330-20-7	SW846 8260C	0.71	U	ug/kg	0.95	0.71	1	100,000	NWIRP-S1-WC-CF-003	3/13/2019	10:48
JC84365-3	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*107*		*%*			*1*	-----	*NWIRP-S1-WC-CF-003*	*3/13/2019*	*10:48*
JC84365-3	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*104*		*%*			*1*	-----	*NWIRP-S1-WC-CF-003*	*3/13/2019*	*10:48*
JC84365-3	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*96.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-003*	*3/13/2019*	*10:48*
JC84365-3	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*96.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-003*	*3/13/2019*	*10:48*
JC84365-4	Solids, Percent		SM2540 G 18TH ED MOD	88.7		%			1	-----	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Acetone	67-64-1	SW846 8260C	**18.2**		**ug/kg**	**8.7**	**6.5**	**1**	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Benzene	71-43-2	SW846 8260C	0.35	U	ug/kg	0.43	0.35	1	2,900	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	2-Butanone (MEK)	78-93-3	SW846 8260C	6.5	U	ug/kg	8.7	6.5	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	n-Butylbenzene	104-51-8	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	sec-Butylbenzene	135-98-8	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	tert-Butylbenzene	98-06-6	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Carbon tetrachloride	56-23-5	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	1,400	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Chlorobenzene	108-90-7	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Chloroform	67-66-3	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	10,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	17,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	9,800	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,1-Dichloroethane	75-34-3	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	19,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,2-Dichloroethane	107-06-2	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	2,300	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,1-Dichloroethene	75-35-4	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	0.85	U	ug/kg	0.87	0.85	1	59,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,4-Dioxane	123-91-1	SW846 8260C	87	U	ug/kg	110	87	1	9,800	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Ethylbenzene	100-41-4	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	30,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	62,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Methylene chloride	75-09-2	SW846 8260C	2.6	U	ug/kg	4.3	2.6	1	51,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	n-Propylbenzene	103-65-1	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Tetrachloroethene	127-18-4	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	5,500	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Toluene	108-88-3	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,1,1-Trichloroethane	71-55-6	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Trichloroethene	79-01-6	SW846 8260C	0.69	U	ug/kg	0.87	0.69	1	10,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	47,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	47,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Vinyl chloride	75-01-4	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	210	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	m,p-Xylene		SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	o-Xylene	95-47-6	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	Xylene (total)	1330-20-7	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-004	3/13/2019	10:48
JC84365-4	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*108*		*%*			*1*	-----	*NWIRP-S1-WC-CF-004*	*3/13/2019*	*10:48*
JC84365-4	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*102*		*%*			*1*	-----	*NWIRP-S1-WC-CF-004*	*3/13/2019*	*10:48*

LabLink Analytical Data Report .
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84365-4	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*95.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-004*	*3/13/2019*	*10:48*
JC84365-4	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-004*	*3/13/2019*	*10:48*
JC84365-5	Solids, Percent		SM2540 G 18TH ED MOD	89.1		%			1	-----	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Acetone	67-64-1	SW846 8260C	**23.6**		**ug/kg**	**9.4**	**7.0**	**1**	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Benzene	71-43-2	SW846 8260C	0.37	U	ug/kg	0.47	0.37	1	2,900	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	2-Butanone (MEK)	78-93-3	SW846 8260C	7.0	U	ug/kg	9.4	7.0	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	n-Butylbenzene	104-51-8	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	sec-Butylbenzene	135-98-8	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	tert-Butylbenzene	98-06-6	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Carbon tetrachloride	56-23-5	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	1,400	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Chlorobenzene	108-90-7	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Chloroform	67-66-3	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	10,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	17,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	9,800	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,1-Dichloroethane	75-34-3	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	19,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,2-Dichloroethane	107-06-2	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	2,300	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,1-Dichloroethene	75-35-4	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	0.91	U	ug/kg	0.94	0.91	1	59,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,4-Dioxane	123-91-1	SW846 8260C	94	U	ug/kg	120	94	1	9,800	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Ethylbenzene	100-41-4	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	30,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.47	U	ug/kg	0.94	0.47	1	62,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Methylene chloride	75-09-2	SW846 8260C	2.8	U	ug/kg	4.7	2.8	1	51,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	n-Propylbenzene	103-65-1	SW846 8260C	0.47	U	ug/kg	1.9	0.47	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Tetrachloroethene	127-18-4	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	5,500	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Toluene	108-88-3	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,1,1-Trichloroethane	71-55-6	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Trichloroethene	79-01-6	SW846 8260C	0.75	U	ug/kg	0.94	0.75	1	10,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	47,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	47,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Vinyl chloride	75-01-4	SW846 8260C	0.94	U	ug/kg	1.9	0.94	1	210	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	m,p-Xylene		SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	o-Xylene	95-47-6	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	Xylene (total)	1330-20-7	SW846 8260C	0.70	U	ug/kg	0.94	0.70	1	100,000	NWIRP-S1-WC-CF-005	3/13/2019	10:52
JC84365-5	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*106*		*%*			*1*	-----	*NWIRP-S1-WC-CF-005*	*3/13/2019*	*10:52*
JC84365-5	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*101*		*%*			*1*	-----	*NWIRP-S1-WC-CF-005*	*3/13/2019*	*10:52*
JC84365-5	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*96.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-005*	*3/13/2019*	*10:52*
JC84365-5	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*98.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-005*	*3/13/2019*	*10:52*
JC84365-6	Solids, Percent		SM2540 G 18TH ED MOD	92.8		%			1	-----	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Acetone	67-64-1	SW846 8260C	**61**		**ug/kg**	**9.8**	**7.3**	**1**	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Benzene	71-43-2	SW846 8260C	0.39	U	ug/kg	0.49	0.39	1	2,900	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	2-Butanone (MEK)	78-93-3	SW846 8260C	7.3	U	ug/kg	9.8	7.3	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	n-Butylbenzene	104-51-8	SW846 8260C	0.49	U	ug/kg	2.0	0.49	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	sec-Butylbenzene	135-98-8	SW846 8260C	0.49	U	ug/kg	2.0	0.49	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	tert-Butylbenzene	98-06-6	SW846 8260C	0.49	U	ug/kg	2.0	0.49	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Carbon tetrachloride	56-23-5	SW846 8260C	0.98	U	ug/kg	2.0	0.98	1	1,400	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Chlorobenzene	108-90-7	SW846 8260C	0.98	U	ug/kg	2.0	0.98	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Chloroform	67-66-3	SW846 8260C	0.49	U	ug/kg	2.0	0.49	1	10,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.73	U	ug/kg	0.98	0.73	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.49	U	ug/kg	0.98	0.49	1	17,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.49	U	ug/kg	0.98	0.49	1	9,800	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,1-Dichloroethane	75-34-3	SW846 8260C	0.49	U	ug/kg	0.98	0.49	1	19,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,2-Dichloroethane	107-06-2	SW846 8260C	0.49	U	ug/kg	0.98	0.49	1	2,300	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,1-Dichloroethene	75-35-4	SW846 8260C	0.73	U	ug/kg	0.98	0.73	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	0.96	U	ug/kg	0.98	0.96	1	59,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.73	U	ug/kg	0.98	0.73	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,4-Dioxane	123-91-1	SW846 8260C	98	U	ug/kg	120	98	1	9,800	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Ethylbenzene	100-41-4	SW846 8260C	0.73	U	ug/kg	0.98	0.73	1	30,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.49	U	ug/kg	0.98	0.49	1	62,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Methylene chloride	75-09-2	SW846 8260C	2.9	U	ug/kg	4.9	2.9	1	51,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	n-Propylbenzene	103-65-1	SW846 8260C	0.49	U	ug/kg	2.0	0.49	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Tetrachloroethene	127-18-4	SW846 8260C	0.98	U	ug/kg	2.0	0.98	1	5,500	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Toluene	108-88-3	SW846 8260C	**0.39**	**J**	**ug/kg**	**0.98**	**0.73**	**1**	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,1,1-Trichloroethane	71-55-6	SW846 8260C	0.98	U	ug/kg	2.0	0.98	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Trichloroethene	79-01-6	SW846 8260C	0.78	U	ug/kg	0.98	0.78	1	10,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	0.98	U	ug/kg	2.0	0.98	1	47,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	0.98	U	ug/kg	2.0	0.98	1	47,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Vinyl chloride	75-01-4	SW846 8260C	0.98	U	ug/kg	2.0	0.98	1	210	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	m,p-Xylene		SW846 8260C	0.73	U	ug/kg	0.98	0.73	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	o-Xylene	95-47-6	SW846 8260C	0.73	U	ug/kg	0.98	0.73	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	Xylene (total)	1330-20-7	SW846 8260C	0.73	U	ug/kg	0.98	0.73	1	100,000	NWIRP-S1-WC-CF-006	3/13/2019	11:00
JC84365-6	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*107*		*%*			*1*	-----	*NWIRP-S1-WC-CF-006*	*3/13/2019*	*11:00*

LabLink Analytical Data Report .
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84365-6	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*101*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-006*	*3/13/2019*	*11:00*
JC84365-6	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*96.0*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-006*	*3/13/2019*	*11:00*
JC84365-6	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*95.0*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-006*	*3/13/2019*	*11:00*
JC84365-7	Solids, Percent		SM2540 G 18TH ED MOD	93.7		%			1	-----	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Acetone	67-64-1	SW846 8260C	**39.4**		**ug/kg**	**16**	**12**	**1**	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Benzene	71-43-2	SW846 8260C	0.63	U	ug/kg	0.78	0.63	1	2,900	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	2-Butanone (MEK)	78-93-3	SW846 8260C	12	U	ug/kg	16	12	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	n-Butylbenzene	104-51-8	SW846 8260C	0.78	U	ug/kg	3.1	0.78	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	sec-Butylbenzene	135-98-8	SW846 8260C	0.78	U	ug/kg	3.1	0.78	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	tert-Butylbenzene	98-06-6	SW846 8260C	0.78	U	ug/kg	3.1	0.78	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Carbon tetrachloride	56-23-5	SW846 8260C	1.6	U	ug/kg	3.1	1.6	1	1,400	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Chlorobenzene	108-90-7	SW846 8260C	1.6	U	ug/kg	3.1	1.6	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Chloroform	67-66-3	SW846 8260C	0.78	U	ug/kg	3.1	0.78	1	10,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,2-Dichlorobenzene	95-50-1	SW846 8260C	1.2	U	ug/kg	1.6	1.2	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.78	U	ug/kg	1.6	0.78	1	17,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.78	U	ug/kg	1.6	0.78	1	9,800	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,1-Dichloroethane	75-34-3	SW846 8260C	0.78	U	ug/kg	1.6	0.78	1	19,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,2-Dichloroethane	107-06-2	SW846 8260C	0.78	U	ug/kg	1.6	0.78	1	2,300	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,1-Dichloroethene	75-35-4	SW846 8260C	1.2	U	ug/kg	1.6	1.2	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	1.5	U	ug/kg	1.6	1.5	1	59,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	1.2	U	ug/kg	1.6	1.2	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,4-Dioxane	123-91-1	SW846 8260C	160	U	ug/kg	200	160	1	9,800	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Ethylbenzene	100-41-4	SW846 8260C	1.2	U	ug/kg	1.6	1.2	1	30,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.78	U	ug/kg	1.6	0.78	1	62,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Methylene chloride	75-09-2	SW846 8260C	4.7	U	ug/kg	7.8	4.7	1	51,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	n-Propylbenzene	103-65-1	SW846 8260C	0.78	U	ug/kg	3.1	0.78	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Tetrachloroethene	127-18-4	SW846 8260C	1.6	U	ug/kg	3.1	1.6	1	5,500	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Toluene	108-88-3	SW846 8260C	1.2	U	ug/kg	1.6	1.2	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,1,1-Trichloroethane	71-55-6	SW846 8260C	1.6	U	ug/kg	3.1	1.6	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Trichloroethene	79-01-6	SW846 8260C	1.3	U	ug/kg	1.6	1.3	1	10,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	1.6	U	ug/kg	3.1	1.6	1	47,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	1.6	U	ug/kg	3.1	1.6	1	47,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Vinyl chloride	75-01-4	SW846 8260C	1.6	U	ug/kg	3.1	1.6	1	210	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	m,p-Xylene		SW846 8260C	1.2	U	ug/kg	1.6	1.2	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	o-Xylene	95-47-6	SW846 8260C	1.2	U	ug/kg	1.6	1.2	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	Xylene (total)	1330-20-7	SW846 8260C	1.2	U	ug/kg	1.6	1.2	1	100,000	NWIRP-S1-WC-CF-007	3/13/2019	11:05
JC84365-7	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*108*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-007*	*3/13/2019*	*11:05*
JC84365-7	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*101*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-007*	*3/13/2019*	*11:05*
JC84365-7	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*97.0*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-007*	*3/13/2019*	*11:05*
JC84365-7	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*98.0*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-007*	*3/13/2019*	*11:05*
JC84365-8	Solids, Percent		SM2540 G 18TH ED MOD	93.4		%			1	-----	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Acetone	67-64-1	SW846 8260C	**84.3**		**ug/kg**	**9.7**	**7.3**	**1**	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Benzene	71-43-2	SW846 8260C	0.39	U	ug/kg	0.49	0.39	1	2,900	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	2-Butanone (MEK)	78-93-3	SW846 8260C	7.3	U	ug/kg	9.7	7.3	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	n-Butylbenzene	104-51-8	SW846 8260C	0.49	U	ug/kg	1.9	0.49	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	sec-Butylbenzene	135-98-8	SW846 8260C	0.49	U	ug/kg	1.9	0.49	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	tert-Butylbenzene	98-06-6	SW846 8260C	0.49	U	ug/kg	1.9	0.49	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Carbon tetrachloride	56-23-5	SW846 8260C	0.97	U	ug/kg	1.9	0.97	1	1,400	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Chlorobenzene	108-90-7	SW846 8260C	0.97	U	ug/kg	1.9	0.97	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Chloroform	67-66-3	SW846 8260C	0.49	U	ug/kg	1.9	0.49	1	10,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.73	U	ug/kg	0.97	0.73	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.49	U	ug/kg	0.97	0.49	1	17,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.49	U	ug/kg	0.97	0.49	1	9,800	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,1-Dichloroethane	75-34-3	SW846 8260C	0.49	U	ug/kg	0.97	0.49	1	19,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,2-Dichloroethane	107-06-2	SW846 8260C	0.49	U	ug/kg	0.97	0.49	1	2,300	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,1-Dichloroethene	75-35-4	SW846 8260C	0.73	U	ug/kg	0.97	0.73	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	0.95	U	ug/kg	0.97	0.95	1	59,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.73	U	ug/kg	0.97	0.73	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,4-Dioxane	123-91-1	SW846 8260C	97	U	ug/kg	120	97	1	9,800	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Ethylbenzene	100-41-4	SW846 8260C	0.73	U	ug/kg	0.97	0.73	1	30,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.49	U	ug/kg	0.97	0.49	1	62,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Methylene chloride	75-09-2	SW846 8260C	2.9	U	ug/kg	4.9	2.9	1	51,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	n-Propylbenzene	103-65-1	SW846 8260C	0.49	U	ug/kg	1.9	0.49	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Tetrachloroethene	127-18-4	SW846 8260C	0.97	U	ug/kg	1.9	0.97	1	5,500	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Toluene	108-88-3	SW846 8260C	**0.68**	**J**	**ug/kg**	**0.97**	**0.73**	**1**	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,1,1-Trichloroethane	71-55-6	SW846 8260C	0.97	U	ug/kg	1.9	0.97	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Trichloroethene	79-01-6	SW846 8260C	0.78	U	ug/kg	0.97	0.78	1	10,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	0.97	U	ug/kg	1.9	0.97	1	47,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	0.97	U	ug/kg	1.9	0.97	1	47,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Vinyl chloride	75-01-4	SW846 8260C	0.97	U	ug/kg	1.9	0.97	1	210	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	m,p-Xylene		SW846 8260C	0.73	U	ug/kg	0.97	0.73	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	o-Xylene	95-47-6	SW846 8260C	0.73	U	ug/kg	0.97	0.73	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08
JC84365-8	Xylene (total)	1330-20-7	SW846 8260C	0.73	U	ug/kg	0.97	0.73	1	100,000	NWIRP-S1-WC-CF-008	3/13/2019	11:08

LabLink Analytical Data Report .
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84365-8	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*107*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-008*	*3/13/2019*	*11:08*
JC84365-8	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*102*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-008*	*3/13/2019*	*11:08*
JC84365-8	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*97.0*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-008*	*3/13/2019*	*11:08*
JC84365-8	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*97.0*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-008*	*3/13/2019*	*11:08*
JC84365-9	Solids, Percent		SM2540 G 18TH ED MOD	93.5		%			1	-----	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Acetone	67-64-1	SW846 8260C	**86.6**		**ug/kg**	**12**	**8.7**	**1**	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Benzene	71-43-2	SW846 8260C	0.47	U	ug/kg	0.58	0.47	1	2,900	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	2-Butanone (MEK)	78-93-3	SW846 8260C	8.7	U	ug/kg	12	8.7	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	n-Butylbenzene	104-51-8	SW846 8260C	0.58	U	ug/kg	2.3	0.58	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	sec-Butylbenzene	135-98-8	SW846 8260C	0.58	U	ug/kg	2.3	0.58	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	tert-Butylbenzene	98-06-6	SW846 8260C	0.58	U	ug/kg	2.3	0.58	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Carbon tetrachloride	56-23-5	SW846 8260C	1.2	U	ug/kg	2.3	1.2	1	1,400	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Chlorobenzene	108-90-7	SW846 8260C	1.2	U	ug/kg	2.3	1.2	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Chloroform	67-66-3	SW846 8260C	0.58	U	ug/kg	2.3	0.58	1	10,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.87	U	ug/kg	1.2	0.87	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.58	U	ug/kg	1.2	0.58	1	17,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.58	U	ug/kg	1.2	0.58	1	9,800	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,1-Dichloroethane	75-34-3	SW846 8260C	0.58	U	ug/kg	1.2	0.58	1	19,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,2-Dichloroethane	107-06-2	SW846 8260C	0.58	U	ug/kg	1.2	0.58	1	2,300	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,1-Dichloroethene	75-35-4	SW846 8260C	0.87	U	ug/kg	1.2	0.87	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	1.1	U	ug/kg	1.2	1.1	1	59,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.87	U	ug/kg	1.2	0.87	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,4-Dioxane	123-91-1	SW846 8260C	120	U	ug/kg	150	120	1	9,800	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Ethylbenzene	100-41-4	SW846 8260C	0.87	U	ug/kg	1.2	0.87	1	30,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.58	U	ug/kg	1.2	0.58	1	62,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Methylene chloride	75-09-2	SW846 8260C	3.5	U	ug/kg	5.8	3.5	1	51,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	n-Propylbenzene	103-65-1	SW846 8260C	0.58	U	ug/kg	2.3	0.58	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Tetrachloroethene	127-18-4	SW846 8260C	1.2	U	ug/kg	2.3	1.2	1	5,500	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Toluene	108-88-3	SW846 8260C	0.87	U	ug/kg	1.2	0.87	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,1,1-Trichloroethane	71-55-6	SW846 8260C	1.2	U	ug/kg	2.3	1.2	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Trichloroethene	79-01-6	SW846 8260C	0.93	U	ug/kg	1.2	0.93	1	10,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	1.2	U	ug/kg	2.3	1.2	1	47,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	1.2	U	ug/kg	2.3	1.2	1	47,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Vinyl chloride	75-01-4	SW846 8260C	1.2	U	ug/kg	2.3	1.2	1	210	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	m,p-Xylene		SW846 8260C	0.87	U	ug/kg	1.2	0.87	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	o-Xylene	95-47-6	SW846 8260C	0.87	U	ug/kg	1.2	0.87	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	Xylene (total)	1330-20-7	SW846 8260C	0.87	U	ug/kg	1.2	0.87	1	100,000	NWIRP-S1-WC-CF-009	3/13/2019	11:17
JC84365-9	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*108*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-009*	*3/13/2019*	*11:17*
JC84365-9	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*102*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-009*	*3/13/2019*	*11:17*
JC84365-9	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*96.0*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-009*	*3/13/2019*	*11:17*
JC84365-9	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*96.0*		*%*			*1*	*-----*	*NWIRP-S1-WC-CF-009*	*3/13/2019*	*11:17*
JC84365-10	Solids, Percent		SM2540 G 18TH ED MOD	95.1		%			1	-----	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Acetone	67-64-1	SW846 8260C	**8.5**	**J**	**ug/kg**	**9.2**	**6.9**	**1**	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Benzene	71-43-2	SW846 8260C	0.37	U	ug/kg	0.46	0.37	1	2,900	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	2-Butanone (MEK)	78-93-3	SW846 8260C	6.9	U	ug/kg	9.2	6.9	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	n-Butylbenzene	104-51-8	SW846 8260C	0.46	U	ug/kg	1.8	0.46	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	sec-Butylbenzene	135-98-8	SW846 8260C	0.46	U	ug/kg	1.8	0.46	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	tert-Butylbenzene	98-06-6	SW846 8260C	0.46	U	ug/kg	1.8	0.46	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Carbon tetrachloride	56-23-5	SW846 8260C	0.92	U	ug/kg	1.8	0.92	1	1,400	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Chlorobenzene	108-90-7	SW846 8260C	0.92	U	ug/kg	1.8	0.92	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Chloroform	67-66-3	SW846 8260C	0.46	U	ug/kg	1.8	0.46	1	10,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.69	U	ug/kg	0.92	0.69	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.46	U	ug/kg	0.92	0.46	1	17,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.46	U	ug/kg	0.92	0.46	1	9,800	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,1-Dichloroethane	75-34-3	SW846 8260C	0.46	U	ug/kg	0.92	0.46	1	19,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,2-Dichloroethane	107-06-2	SW846 8260C	0.46	U	ug/kg	0.92	0.46	1	2,300	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,1-Dichloroethene	75-35-4	SW846 8260C	0.69	U	ug/kg	0.92	0.69	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	0.90	U	ug/kg	0.92	0.90	1	59,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.69	U	ug/kg	0.92	0.69	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,4-Dioxane	123-91-1	SW846 8260C	92	U	ug/kg	120	92	1	9,800	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Ethylbenzene	100-41-4	SW846 8260C	0.69	U	ug/kg	0.92	0.69	1	30,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.46	U	ug/kg	0.92	0.46	1	62,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Methylene chloride	75-09-2	SW846 8260C	2.8	U	ug/kg	4.6	2.8	1	51,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	n-Propylbenzene	103-65-1	SW846 8260C	0.46	U	ug/kg	1.8	0.46	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Tetrachloroethene	127-18-4	SW846 8260C	0.92	U	ug/kg	1.8	0.92	1	5,500	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Toluene	108-88-3	SW846 8260C	0.69	U	ug/kg	0.92	0.69	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,1,1-Trichloroethane	71-55-6	SW846 8260C	0.92	U	ug/kg	1.8	0.92	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Trichloroethene	79-01-6	SW846 8260C	0.74	U	ug/kg	0.92	0.74	1	10,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	0.92	U	ug/kg	1.8	0.92	1	47,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	0.92	U	ug/kg	1.8	0.92	1	47,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	Vinyl chloride	75-01-4	SW846 8260C	0.92	U	ug/kg	1.8	0.92	1	210	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	m,p-Xylene		SW846 8260C	0.69	U	ug/kg	0.92	0.69	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	o-Xylene	95-47-6	SW846 8260C	0.69	U	ug/kg	0.92	0.69	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22

LabLink Analytical Data Report .
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84365-10	Xylene (total)	1330-20-7	SW846 8260C	0.69	U	ug/kg	0.92	0.69	1	100,000	NWIRP-S1-WC-CF-010	3/13/2019	11:22
JC84365-10	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*109*		*%*			*1*	-----	*NWIRP-S1-WC-CF-010*	*3/13/2019*	*11:22*
JC84365-10	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*102*		*%*			*1*	-----	*NWIRP-S1-WC-CF-010*	*3/13/2019*	*11:22*
JC84365-10	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*95.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-010*	*3/13/2019*	*11:22*
JC84365-10	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-010*	*3/13/2019*	*11:22*
JC84365-11	Solids, Percent		SM2540 G 18TH ED MOD	95.7		%			1	-----	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Acetone	67-64-1	SW846 8260C	**23.3**		**ug/kg**	**10**	**7.7**	**1**	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Benzene	71-43-2	SW846 8260C	0.41	U	ug/kg	0.51	0.41	1	2,900	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	2-Butanone (MEK)	78-93-3	SW846 8260C	7.7	U	ug/kg	10	7.7	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	n-Butylbenzene	104-51-8	SW846 8260C	0.51	U	ug/kg	2.0	0.51	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	sec-Butylbenzene	135-98-8	SW846 8260C	0.51	U	ug/kg	2.0	0.51	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	tert-Butylbenzene	98-06-6	SW846 8260C	0.51	U	ug/kg	2.0	0.51	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Carbon tetrachloride	56-23-5	SW846 8260C	1.0	U	ug/kg	2.0	1.0	1	1,400	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Chlorobenzene	108-90-7	SW846 8260C	1.0	U	ug/kg	2.0	1.0	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Chloroform	67-66-3	SW846 8260C	0.51	U	ug/kg	2.0	0.51	1	10,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.77	U	ug/kg	1.0	0.77	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.51	U	ug/kg	1.0	0.51	1	17,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.51	U	ug/kg	1.0	0.51	1	9,800	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,1-Dichloroethane	75-34-3	SW846 8260C	0.51	U	ug/kg	1.0	0.51	1	19,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,2-Dichloroethane	107-06-2	SW846 8260C	0.51	U	ug/kg	1.0	0.51	1	2,300	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,1-Dichloroethene	75-35-4	SW846 8260C	0.77	U	ug/kg	1.0	0.77	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	1.0	U	ug/kg	1.0	1.0	1	59,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.77	U	ug/kg	1.0	0.77	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,4-Dioxane	123-91-1	SW846 8260C	100	U	ug/kg	130	100	1	9,800	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Ethylbenzene	100-41-4	SW846 8260C	0.77	U	ug/kg	1.0	0.77	1	30,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.51	U	ug/kg	1.0	0.51	1	62,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Methylene chloride	75-09-2	SW846 8260C	3.1	U	ug/kg	5.1	3.1	1	51,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	n-Propylbenzene	103-65-1	SW846 8260C	0.51	U	ug/kg	2.0	0.51	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Tetrachloroethene	127-18-4	SW846 8260C	1.0	U	ug/kg	2.0	1.0	1	5,500	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Toluene	108-88-3	SW846 8260C	0.77	U	ug/kg	1.0	0.77	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,1,1-Trichloroethane	71-55-6	SW846 8260C	1.0	U	ug/kg	2.0	1.0	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Trichloroethene	79-01-6	SW846 8260C	0.82	U	ug/kg	1.0	0.82	1	10,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	1.0	U	ug/kg	2.0	1.0	1	47,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	1.0	U	ug/kg	2.0	1.0	1	47,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Vinyl chloride	75-01-4	SW846 8260C	1.0	U	ug/kg	2.0	1.0	1	210	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	m,p-Xylene		SW846 8260C	0.77	U	ug/kg	1.0	0.77	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	o-Xylene	95-47-6	SW846 8260C	0.77	U	ug/kg	1.0	0.77	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	Xylene (total)	1330-20-7	SW846 8260C	0.77	U	ug/kg	1.0	0.77	1	100,000	NWIRP-S1-WC-CF-011	3/13/2019	11:26
JC84365-11	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*107*		*%*			*1*	-----	*NWIRP-S1-WC-CF-011*	*3/13/2019*	*11:26*
JC84365-11	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*100*		*%*			*1*	-----	*NWIRP-S1-WC-CF-011*	*3/13/2019*	*11:26*
JC84365-11	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-011*	*3/13/2019*	*11:26*
JC84365-11	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-011*	*3/13/2019*	*11:26*
JC84365-12	Solids, Percent		SM2540 G 18TH ED MOD	92.3		%			1	-----	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Acetone	67-64-1	SW846 8260C	**67.7**		**ug/kg**	**10**	**7.8**	**1**	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Benzene	71-43-2	SW846 8260C	0.42	U	ug/kg	0.52	0.42	1	2,900	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	2-Butanone (MEK)	78-93-3	SW846 8260C	7.8	U	ug/kg	10	7.8	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	n-Butylbenzene	104-51-8	SW846 8260C	0.52	U	ug/kg	2.1	0.52	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	sec-Butylbenzene	135-98-8	SW846 8260C	0.52	U	ug/kg	2.1	0.52	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	tert-Butylbenzene	98-06-6	SW846 8260C	0.52	U	ug/kg	2.1	0.52	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Carbon tetrachloride	56-23-5	SW846 8260C	1.0	U	ug/kg	2.1	1.0	1	1,400	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Chlorobenzene	108-90-7	SW846 8260C	1.0	U	ug/kg	2.1	1.0	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Chloroform	67-66-3	SW846 8260C	0.52	U	ug/kg	2.1	0.52	1	10,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.78	U	ug/kg	1.0	0.78	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.52	U	ug/kg	1.0	0.52	1	17,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.52	U	ug/kg	1.0	0.52	1	9,800	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,1-Dichloroethane	75-34-3	SW846 8260C	0.52	U	ug/kg	1.0	0.52	1	19,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,2-Dichloroethane	107-06-2	SW846 8260C	0.52	U	ug/kg	1.0	0.52	1	2,300	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,1-Dichloroethene	75-35-4	SW846 8260C	0.78	U	ug/kg	1.0	0.78	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	1.0	U	ug/kg	1.0	1.0	1	59,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.78	U	ug/kg	1.0	0.78	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,4-Dioxane	123-91-1	SW846 8260C	100	U	ug/kg	130	100	1	9,800	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Ethylbenzene	100-41-4	SW846 8260C	0.78	U	ug/kg	1.0	0.78	1	30,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.52	U	ug/kg	1.0	0.52	1	62,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Methylene chloride	75-09-2	SW846 8260C	3.1	U	ug/kg	5.2	3.1	1	51,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	n-Propylbenzene	103-65-1	SW846 8260C	0.52	U	ug/kg	2.1	0.52	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Tetrachloroethene	127-18-4	SW846 8260C	1.0	U	ug/kg	2.1	1.0	1	5,500	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Toluene	108-88-3	SW846 8260C	**0.57**	**J**	**ug/kg**	**1.0**	**0.78**	**1**	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,1,1-Trichloroethane	71-55-6	SW846 8260C	1.0	U	ug/kg	2.1	1.0	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Trichloroethene	79-01-6	SW846 8260C	0.83	U	ug/kg	1.0	0.83	1	10,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	1.0	U	ug/kg	2.1	1.0	1	47,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	1.0	U	ug/kg	2.1	1.0	1	47,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Vinyl chloride	75-01-4	SW846 8260C	1.0	U	ug/kg	2.1	1.0	1	210	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	m,p-Xylene		SW846 8260C	0.78	U	ug/kg	1.0	0.78	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30

LabLink Analytical Data Report .
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84365-12	o-Xylene	95-47-6	SW846 8260C	0.78	U	ug/kg	1.0	0.78	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	Xylene (total)	1330-20-7	SW846 8260C	0.78	U	ug/kg	1.0	0.78	1	100,000	NWIRP-S1-WC-CF-012	3/13/2019	11:30
JC84365-12	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*108*		*%*			*1*	-----	*NWIRP-S1-WC-CF-012*	*3/13/2019*	*11:30*
JC84365-12	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*101*		*%*			*1*	-----	*NWIRP-S1-WC-CF-012*	*3/13/2019*	*11:30*
JC84365-12	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-012*	*3/13/2019*	*11:30*
JC84365-12	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-012*	*3/13/2019*	*11:30*
JC84365-13	Solids, Percent		SM2540 G 18TH ED MOD	88.6		%			1	-----	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Acetone	67-64-1	SW846 8260C	**24.4**		**ug/kg**	**8.7**	**6.5**	**1**	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Benzene	71-43-2	SW846 8260C	0.35	U	ug/kg	0.43	0.35	1	2,900	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	2-Butanone (MEK)	78-93-3	SW846 8260C	6.5	U	ug/kg	8.7	6.5	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	n-Butylbenzene	104-51-8	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	sec-Butylbenzene	135-98-8	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	tert-Butylbenzene	98-06-6	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Carbon tetrachloride	56-23-5	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	1,400	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Chlorobenzene	108-90-7	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Chloroform	67-66-3	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	10,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,2-Dichlorobenzene	95-50-1	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,3-Dichlorobenzene	541-73-1	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	17,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,4-Dichlorobenzene	106-46-7	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	9,800	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,1-Dichloroethane	75-34-3	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	19,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,2-Dichloroethane	107-06-2	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	2,300	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,1-Dichloroethene	75-35-4	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	cis-1,2-Dichloroethene	156-59-2	SW846 8260C	0.85	U	ug/kg	0.87	0.85	1	59,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	trans-1,2-Dichloroethene	156-60-5	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,4-Dioxane	123-91-1	SW846 8260C	87	U	ug/kg	110	87	1	9,800	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Ethylbenzene	100-41-4	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	30,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Methyl Tert Butyl Ether	1634-04-4	SW846 8260C	0.43	U	ug/kg	0.87	0.43	1	62,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Methylene chloride	75-09-2	SW846 8260C	2.6	U	ug/kg	4.3	2.6	1	51,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	n-Propylbenzene	103-65-1	SW846 8260C	0.43	U	ug/kg	1.7	0.43	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Tetrachloroethene	127-18-4	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	5,500	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Toluene	108-88-3	SW846 8260C	**0.36**	**J**	**ug/kg**	**0.87**	**0.65**	**1**	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,1,1-Trichloroethane	71-55-6	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Trichloroethene	79-01-6	SW846 8260C	0.69	U	ug/kg	0.87	0.69	1	10,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,2,4-Trimethylbenzene	95-63-6	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	47,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	1,3,5-Trimethylbenzene	108-67-8	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	47,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Vinyl chloride	75-01-4	SW846 8260C	0.87	U	ug/kg	1.7	0.87	1	210	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	m,p-Xylene		SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	o-Xylene	95-47-6	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	Xylene (total)	1330-20-7	SW846 8260C	0.65	U	ug/kg	0.87	0.65	1	100,000	NWIRP-S1-WC-CF-013	3/13/2019	11:41
JC84365-13	*Dibromofluoromethane*	*1868-53-7*	*SW846 8260C*	*106*		*%*			*1*	-----	*NWIRP-S1-WC-CF-013*	*3/13/2019*	*11:41*
JC84365-13	*1,2-Dichloroethane-D4*	*17060-07-0*	*SW846 8260C*	*100*		*%*			*1*	-----	*NWIRP-S1-WC-CF-013*	*3/13/2019*	*11:41*
JC84365-13	*Toluene-D8*	*2037-26-5*	*SW846 8260C*	*97.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-013*	*3/13/2019*	*11:41*
JC84365-13	*4-Bromofluorobenzene*	*460-00-4*	*SW846 8260C*	*96.0*		*%*			*1*	-----	*NWIRP-S1-WC-CF-013*	*3/13/2019*	*11:41*

Red, Shaded, Italicized results exceeding Project Remediation Goals.
Found 0 results exceeding regulatory limits.
***** Indicates result outside regulatory limits.***

[1]Fill material criteria are based on 6 NYCCR Part 375, Table 375-6.8(b): Restricted Use Soil Cleanup Objectives, Protection of Public Health, Residential. Following the receipt of the analytical results, the project team will review the data to ensure that the analytical results meet the fill material criteria.
Draft Final Sampling and Analysis Plan/Quality Assurance Plan Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York, February 2019.

Laboratory Qualifiers:
J = Estimated value.
U = Not detected; the analyte was analyzed for, but not detected above the associated detection limit.

% = percent
LOD = limit of detection
LOQ = limit of quantitation
(s) *= surrogates*

µg/kg = microgram/kilogram = ppb

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

NOREAS, Inc.

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Fill Material Samples

SGS Job Number: JC84365

Sampling Date: 03/13/19

Report to:

APTIM

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Total number of pages in report: 82

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General Manager

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Sample Summary

NOREAS, Inc.

Job No: JC84365

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: Fill Material Samples

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
JC84365-1	03/13/19	10:40	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-001
JC84365-2	03/13/19	10:45	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-002
JC84365-3	03/13/19	10:48	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-003
JC84365-4	03/13/19	10:48	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-004
JC84365-5	03/13/19	10:52	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-005
JC84365-6	03/13/19	11:00	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-006
JC84365-7	03/13/19	11:05	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-007
JC84365-8	03/13/19	11:08	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-008
JC84365-9	03/13/19	11:17	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-009
JC84365-10	03/13/19	11:22	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-010
JC84365-11	03/13/19	11:26	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-011
JC84365-12	03/13/19	11:30	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-012
JC84365-13	03/13/19	11:41	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-013

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	NOREAS, Inc.	**Job No**	JC84365
Site:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reser	**Report Date**	3/28/2019 9:36:38 AM

On 03/14/2019, 13 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 1.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC84365 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: SO **Batch ID:** V3C6771

- All samples were analyzed within the recommended method holding time.
- Sample(s) JC84365-1MS, JC84365-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for Acetone are outside control limits for sample JC84365-2DUP. Outside control limits due to sample non-homogeneity.
- JC84365-2DUP for Toluene: RPD acceptable due to low DUP and sample concentrations.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN93005

- Sample(s) JC84365-1DUP were used as the QC samples for Solids, Percent.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC84365
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC84365-1	**NWIRP-S1-WC-CF-001**					
Acetone		39.0	9.4	7.0	ug/kg	SW846 8260C
JC84365-2	**NWIRP-S1-WC-CF-002**					
Acetone		142	13	9.4	ug/kg	SW846 8260C
Toluene		0.62 J	1.3	0.94	ug/kg	SW846 8260C
JC84365-3	**NWIRP-S1-WC-CF-003**					
Acetone		43.2	9.5	7.1	ug/kg	SW846 8260C
Toluene		0.43 J	0.95	0.71	ug/kg	SW846 8260C
JC84365-4	**NWIRP-S1-WC-CF-004**					
Acetone		18.2	8.7	6.5	ug/kg	SW846 8260C
JC84365-5	**NWIRP-S1-WC-CF-005**					
Acetone		23.6	9.4	7.0	ug/kg	SW846 8260C
JC84365-6	**NWIRP-S1-WC-CF-006**					
Acetone		61.0	9.8	7.3	ug/kg	SW846 8260C
Toluene		0.39 J	0.98	0.73	ug/kg	SW846 8260C
JC84365-7	**NWIRP-S1-WC-CF-007**					
Acetone		39.4	16	12	ug/kg	SW846 8260C
JC84365-8	**NWIRP-S1-WC-CF-008**					
Acetone		84.3	9.7	7.3	ug/kg	SW846 8260C
Toluene		0.68 J	0.97	0.73	ug/kg	SW846 8260C
JC84365-9	**NWIRP-S1-WC-CF-009**					
Acetone		86.6	12	8.7	ug/kg	SW846 8260C
JC84365-10	**NWIRP-S1-WC-CF-010**					
Acetone		8.5 J	9.2	6.9	ug/kg	SW846 8260C

Summary of Hits

Job Number: JC84365
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC84365-11	**NWIRP-S1-WC-CF-011**					
Acetone		23.3	10	7.7	ug/kg	SW846 8260C
JC84365-12	**NWIRP-S1-WC-CF-012**					
Acetone		67.7	10	7.8	ug/kg	SW846 8260C
Toluene		0.57 J	1.0	0.78	ug/kg	SW846 8260C
JC84365-13	**NWIRP-S1-WC-CF-013**					
Acetone		24.4	8.7	6.5	ug/kg	SW846 8260C
Toluene		0.36 J	0.87	0.65	ug/kg	SW846 8260C

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-001
Lab Sample ID: JC84365-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 93.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150331.D	1	03/18/19 11:11	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.7 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	39.0	9.4	7.0	4.7	ug/kg	
71-43-2	Benzene	0.37 U	0.47	0.37	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	7.0 U	9.4	7.0	3.5	ug/kg	
104-51-8	n-Butylbenzene	0.47 U	1.9	0.47	0.38	ug/kg	
135-98-8	sec-Butylbenzene	0.47 U	1.9	0.47	0.34	ug/kg	
98-06-6	tert-Butylbenzene	0.47 U	1.9	0.47	0.33	ug/kg	
56-23-5	Carbon tetrachloride	0.94 U	1.9	0.94	0.51	ug/kg	
108-90-7	Chlorobenzene	0.94 U	1.9	0.94	0.33	ug/kg	
67-66-3	Chloroform	0.47 U	1.9	0.47	0.35	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.70 U	0.94	0.70	0.29	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.47 U	0.94	0.47	0.34	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.47 U	0.94	0.47	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	0.47 U	0.94	0.47	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	0.47 U	0.94	0.47	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	0.70 U	0.94	0.70	0.61	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.91 U	0.94	0.91	0.89	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.70 U	0.94	0.70	0.62	ug/kg	
123-91-1	1,4-Dioxane	94 U	120	94	34	ug/kg	
100-41-4	Ethylbenzene	0.70 U	0.94	0.70	0.52	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.47 U	0.94	0.47	0.33	ug/kg	
75-09-2	Methylene chloride	2.8 U	4.7	2.8	2.3	ug/kg	
103-65-1	n-Propylbenzene	0.47 U	1.9	0.47	0.29	ug/kg	
127-18-4	Tetrachloroethene	0.94 U	1.9	0.94	0.43	ug/kg	
108-88-3	Toluene	0.70 U	0.94	0.70	0.35	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.94 U	1.9	0.94	0.40	ug/kg	
79-01-6	Trichloroethene	0.75 U	0.94	0.75	0.71	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.94 U	1.9	0.94	0.59	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.94 U	1.9	0.94	0.33	ug/kg	
75-01-4	Vinyl chloride	0.94 U	1.9	0.94	0.44	ug/kg	
	m,p-Xylene	0.70 U	0.94	0.70	0.70	ug/kg	
95-47-6	o-Xylene	0.70 U	0.94	0.70	0.55	ug/kg	
1330-20-7	Xylene (total)	0.70 U	0.94	0.70	0.55	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-001		
Lab Sample ID:	JC84365-1	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.8
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		75-127%
17060-07-0	1,2-Dichloroethane-D4	103%		75-130%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	96%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-002		
Lab Sample ID:	JC84365-2	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.5
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150332.D	1	03/18/19 11:34	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	4.3 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	142	13	9.4	6.3	ug/kg	
71-43-2	Benzene	0.50 U	0.63	0.50	0.47	ug/kg	
78-93-3	2-Butanone (MEK)	9.4 U	13	9.4	4.7	ug/kg	
104-51-8	n-Butylbenzene	0.63 U	2.5	0.63	0.51	ug/kg	
135-98-8	sec-Butylbenzene	0.63 U	2.5	0.63	0.46	ug/kg	
98-06-6	tert-Butylbenzene	0.63 U	2.5	0.63	0.44	ug/kg	
56-23-5	Carbon tetrachloride	1.3 U	2.5	1.3	0.69	ug/kg	
108-90-7	Chlorobenzene	1.3 U	2.5	1.3	0.45	ug/kg	
67-66-3	Chloroform	0.63 U	2.5	0.63	0.47	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.94 U	1.3	0.94	0.38	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.63 U	1.3	0.63	0.45	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.63 U	1.3	0.63	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	0.63 U	1.3	0.63	0.48	ug/kg	
107-06-2	1,2-Dichloroethane	0.63 U	1.3	0.63	0.59	ug/kg	
75-35-4	1,1-Dichloroethene	0.94 U	1.3	0.94	0.82	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.2 U	1.3	1.2	1.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.94 U	1.3	0.94	0.84	ug/kg	
123-91-1	1,4-Dioxane	130 U	160	130	46	ug/kg	
100-41-4	Ethylbenzene	0.94 U	1.3	0.94	0.69	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.63 U	1.3	0.63	0.44	ug/kg	
75-09-2	Methylene chloride	3.8 U	6.3	3.8	3.1	ug/kg	
103-65-1	n-Propylbenzene	0.63 U	2.5	0.63	0.39	ug/kg	
127-18-4	Tetrachloroethene	1.3 U	2.5	1.3	0.58	ug/kg	
108-88-3	Toluene	0.62	1.3	0.94	0.47	ug/kg	J
71-55-6	1,1,1-Trichloroethane	1.3 U	2.5	1.3	0.54	ug/kg	
79-01-6	Trichloroethene	1.0 U	1.3	1.0	0.96	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.3 U	2.5	1.3	0.80	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.3 U	2.5	1.3	0.45	ug/kg	
75-01-4	Vinyl chloride	1.3 U	2.5	1.3	0.59	ug/kg	
	m,p-Xylene	0.94 U	1.3	0.94	0.94	ug/kg	
95-47-6	o-Xylene	0.94 U	1.3	0.94	0.73	ug/kg	
1330-20-7	Xylene (total)	0.94 U	1.3	0.94	0.73	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-002		
Lab Sample ID:	JC84365-2	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.5
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-003		
Lab Sample ID:	JC84365-3	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	90.9
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150333.D	1	03/18/19 11:58	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.8 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	43.2	9.5	7.1	4.7	ug/kg	
71-43-2	Benzene	0.38 U	0.47	0.38	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	7.1 U	9.5	7.1	3.5	ug/kg	
104-51-8	n-Butylbenzene	0.47 U	1.9	0.47	0.39	ug/kg	
135-98-8	sec-Butylbenzene	0.47 U	1.9	0.47	0.35	ug/kg	
98-06-6	tert-Butylbenzene	0.47 U	1.9	0.47	0.33	ug/kg	
56-23-5	Carbon tetrachloride	0.95 U	1.9	0.95	0.52	ug/kg	
108-90-7	Chlorobenzene	0.95 U	1.9	0.95	0.34	ug/kg	
67-66-3	Chloroform	0.47 U	1.9	0.47	0.35	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.71 U	0.95	0.71	0.29	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.47 U	0.95	0.47	0.34	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.47 U	0.95	0.47	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	0.47 U	0.95	0.47	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	0.47 U	0.95	0.47	0.45	ug/kg	
75-35-4	1,1-Dichloroethene	0.71 U	0.95	0.71	0.62	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.92 U	0.95	0.92	0.91	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.71 U	0.95	0.71	0.63	ug/kg	
123-91-1	1,4-Dioxane	95 U	120	95	35	ug/kg	
100-41-4	Ethylbenzene	0.71 U	0.95	0.71	0.52	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.47 U	0.95	0.47	0.33	ug/kg	
75-09-2	Methylene chloride	2.8 U	4.7	2.8	2.4	ug/kg	
103-65-1	n-Propylbenzene	0.47 U	1.9	0.47	0.30	ug/kg	
127-18-4	Tetrachloroethene	0.95 U	1.9	0.95	0.44	ug/kg	
108-88-3	Toluene	0.43	0.95	0.71	0.36	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.95 U	1.9	0.95	0.40	ug/kg	
79-01-6	Trichloroethene	0.76 U	0.95	0.76	0.72	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.95 U	1.9	0.95	0.60	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.95 U	1.9	0.95	0.34	ug/kg	
75-01-4	Vinyl chloride	0.95 U	1.9	0.95	0.44	ug/kg	
	m,p-Xylene	0.71 U	0.95	0.71	0.71	ug/kg	
95-47-6	o-Xylene	0.71 U	0.95	0.71	0.55	ug/kg	
1330-20-7	Xylene (total)	0.71 U	0.95	0.71	0.55	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-003		
Lab Sample ID:	JC84365-3	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	90.9
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		75-127%
17060-07-0	1,2-Dichloroethane-D4	104%		75-130%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	96%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-004
Lab Sample ID: JC84365-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 88.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150334.D	1	03/18/19 12:21	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	6.5 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	18.2	8.7	6.5	4.3	ug/kg	
71-43-2	Benzene	0.35 U	0.43	0.35	0.33	ug/kg	
78-93-3	2-Butanone (MEK)	6.5 U	8.7	6.5	3.2	ug/kg	
104-51-8	n-Butylbenzene	0.43 U	1.7	0.43	0.35	ug/kg	
135-98-8	sec-Butylbenzene	0.43 U	1.7	0.43	0.32	ug/kg	
98-06-6	tert-Butylbenzene	0.43 U	1.7	0.43	0.30	ug/kg	
56-23-5	Carbon tetrachloride	0.87 U	1.7	0.87	0.48	ug/kg	
108-90-7	Chlorobenzene	0.87 U	1.7	0.87	0.31	ug/kg	
67-66-3	Chloroform	0.43 U	1.7	0.43	0.32	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.65 U	0.87	0.65	0.26	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.43 U	0.87	0.43	0.31	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.43 U	0.87	0.43	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	0.43 U	0.87	0.43	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	0.43 U	0.87	0.43	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	0.65 U	0.87	0.65	0.57	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.85 U	0.87	0.85	0.83	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.65 U	0.87	0.65	0.58	ug/kg	
123-91-1	1,4-Dioxane	87 U	110	87	32	ug/kg	
100-41-4	Ethylbenzene	0.65 U	0.87	0.65	0.48	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.43 U	0.87	0.43	0.31	ug/kg	
75-09-2	Methylene chloride	2.6 U	4.3	2.6	2.2	ug/kg	
103-65-1	n-Propylbenzene	0.43 U	1.7	0.43	0.27	ug/kg	
127-18-4	Tetrachloroethene	0.87 U	1.7	0.87	0.40	ug/kg	
108-88-3	Toluene	0.65 U	0.87	0.65	0.33	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.87 U	1.7	0.87	0.37	ug/kg	
79-01-6	Trichloroethene	0.69 U	0.87	0.69	0.66	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.87 U	1.7	0.87	0.55	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.87 U	1.7	0.87	0.31	ug/kg	
75-01-4	Vinyl chloride	0.87 U	1.7	0.87	0.41	ug/kg	
	m,p-Xylene	0.65 U	0.87	0.65	0.65	ug/kg	
95-47-6	o-Xylene	0.65 U	0.87	0.65	0.51	ug/kg	
1330-20-7	Xylene (total)	0.65 U	0.87	0.65	0.51	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-004		
Lab Sample ID:	JC84365-4	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	88.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-005		
Lab Sample ID:	JC84365-5	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150335.D	1	03/18/19 12:44	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	6.0 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	23.6	9.4	7.0	4.7	ug/kg	
71-43-2	Benzene	0.37 U	0.47	0.37	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	7.0 U	9.4	7.0	3.5	ug/kg	
104-51-8	n-Butylbenzene	0.47 U	1.9	0.47	0.38	ug/kg	
135-98-8	sec-Butylbenzene	0.47 U	1.9	0.47	0.34	ug/kg	
98-06-6	tert-Butylbenzene	0.47 U	1.9	0.47	0.33	ug/kg	
56-23-5	Carbon tetrachloride	0.94 U	1.9	0.94	0.51	ug/kg	
108-90-7	Chlorobenzene	0.94 U	1.9	0.94	0.33	ug/kg	
67-66-3	Chloroform	0.47 U	1.9	0.47	0.35	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.70 U	0.94	0.70	0.29	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.47 U	0.94	0.47	0.34	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.47 U	0.94	0.47	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	0.47 U	0.94	0.47	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	0.47 U	0.94	0.47	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	0.70 U	0.94	0.70	0.61	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.91 U	0.94	0.91	0.90	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.70 U	0.94	0.70	0.62	ug/kg	
123-91-1	1,4-Dioxane	94 U	120	94	34	ug/kg	
100-41-4	Ethylbenzene	0.70 U	0.94	0.70	0.52	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.47 U	0.94	0.47	0.33	ug/kg	
75-09-2	Methylene chloride	2.8 U	4.7	2.8	2.3	ug/kg	
103-65-1	n-Propylbenzene	0.47 U	1.9	0.47	0.29	ug/kg	
127-18-4	Tetrachloroethene	0.94 U	1.9	0.94	0.43	ug/kg	
108-88-3	Toluene	0.70 U	0.94	0.70	0.35	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.94 U	1.9	0.94	0.40	ug/kg	
79-01-6	Trichloroethene	0.75 U	0.94	0.75	0.71	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.94 U	1.9	0.94	0.59	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.94 U	1.9	0.94	0.33	ug/kg	
75-01-4	Vinyl chloride	0.94 U	1.9	0.94	0.44	ug/kg	
	m,p-Xylene	0.70 U	0.94	0.70	0.70	ug/kg	
95-47-6	o-Xylene	0.70 U	0.94	0.70	0.55	ug/kg	
1330-20-7	Xylene (total)	0.70 U	0.94	0.70	0.55	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-005		
Lab Sample ID:	JC84365-5	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	98%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-006		
Lab Sample ID:	JC84365-6	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.8
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150336.D	1	03/18/19 13:07	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.5 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	61.0	9.8	7.3	4.9	ug/kg	
71-43-2	Benzene	0.39 U	0.49	0.39	0.37	ug/kg	
78-93-3	2-Butanone (MEK)	7.3 U	9.8	7.3	3.7	ug/kg	
104-51-8	n-Butylbenzene	0.49 U	2.0	0.49	0.40	ug/kg	
135-98-8	sec-Butylbenzene	0.49 U	2.0	0.49	0.36	ug/kg	
98-06-6	tert-Butylbenzene	0.49 U	2.0	0.49	0.34	ug/kg	
56-23-5	Carbon tetrachloride	0.98 U	2.0	0.98	0.54	ug/kg	
108-90-7	Chlorobenzene	0.98 U	2.0	0.98	0.35	ug/kg	
67-66-3	Chloroform	0.49 U	2.0	0.49	0.36	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.73 U	0.98	0.73	0.30	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.49 U	0.98	0.49	0.35	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.49 U	0.98	0.49	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	0.49 U	0.98	0.49	0.38	ug/kg	
107-06-2	1,2-Dichloroethane	0.49 U	0.98	0.49	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	0.73 U	0.98	0.73	0.64	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.96 U	0.98	0.96	0.94	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.73 U	0.98	0.73	0.65	ug/kg	
123-91-1	1,4-Dioxane	98 U	120	98	36	ug/kg	
100-41-4	Ethylbenzene	0.73 U	0.98	0.73	0.54	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.49 U	0.98	0.49	0.34	ug/kg	
75-09-2	Methylene chloride	2.9 U	4.9	2.9	2.4	ug/kg	
103-65-1	n-Propylbenzene	0.49 U	2.0	0.49	0.31	ug/kg	
127-18-4	Tetrachloroethene	0.98 U	2.0	0.98	0.45	ug/kg	
108-88-3	Toluene	0.39	0.98	0.73	0.37	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.98 U	2.0	0.98	0.42	ug/kg	
79-01-6	Trichloroethene	0.78 U	0.98	0.78	0.75	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.98 U	2.0	0.98	0.62	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.98 U	2.0	0.98	0.35	ug/kg	
75-01-4	Vinyl chloride	0.98 U	2.0	0.98	0.46	ug/kg	
	m,p-Xylene	0.73 U	0.98	0.73	0.73	ug/kg	
95-47-6	o-Xylene	0.73 U	0.98	0.73	0.57	ug/kg	
1330-20-7	Xylene (total)	0.73 U	0.98	0.73	0.57	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-006		
Lab Sample ID:	JC84365-6	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.8
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	95%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-007		
Lab Sample ID:	JC84365-7	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150337.D	1	03/18/19 13:30	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	3.4 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	39.4	16	12	7.8	ug/kg	
71-43-2	Benzene	0.63 U	0.78	0.63	0.59	ug/kg	
78-93-3	2-Butanone (MEK)	12 U	16	12	5.9	ug/kg	
104-51-8	n-Butylbenzene	0.78 U	3.1	0.78	0.64	ug/kg	
135-98-8	sec-Butylbenzene	0.78 U	3.1	0.78	0.57	ug/kg	
98-06-6	tert-Butylbenzene	0.78 U	3.1	0.78	0.55	ug/kg	
56-23-5	Carbon tetrachloride	1.6 U	3.1	1.6	0.86	ug/kg	
108-90-7	Chlorobenzene	1.6 U	3.1	1.6	0.56	ug/kg	
67-66-3	Chloroform	0.78 U	3.1	0.78	0.58	ug/kg	
95-50-1	1,2-Dichlorobenzene	1.2 U	1.6	1.2	0.48	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.78 U	1.6	0.78	0.56	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.78 U	1.6	0.78	0.54	ug/kg	
75-34-3	1,1-Dichloroethane	0.78 U	1.6	0.78	0.60	ug/kg	
107-06-2	1,2-Dichloroethane	0.78 U	1.6	0.78	0.74	ug/kg	
75-35-4	1,1-Dichloroethene	1.2 U	1.6	1.2	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.5 U	1.6	1.5	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	1.2 U	1.6	1.2	1.0	ug/kg	
123-91-1	1,4-Dioxane	160 U	200	160	57	ug/kg	
100-41-4	Ethylbenzene	1.2 U	1.6	1.2	0.87	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.78 U	1.6	0.78	0.55	ug/kg	
75-09-2	Methylene chloride	4.7 U	7.8	4.7	3.9	ug/kg	
103-65-1	n-Propylbenzene	0.78 U	3.1	0.78	0.49	ug/kg	
127-18-4	Tetrachloroethene	1.6 U	3.1	1.6	0.73	ug/kg	
108-88-3	Toluene	1.2 U	1.6	1.2	0.59	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.6 U	3.1	1.6	0.67	ug/kg	
79-01-6	Trichloroethene	1.3 U	1.6	1.3	1.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.6 U	3.1	1.6	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.6 U	3.1	1.6	0.56	ug/kg	
75-01-4	Vinyl chloride	1.6 U	3.1	1.6	0.74	ug/kg	
	m,p-Xylene	1.2 U	1.6	1.2	1.2	ug/kg	
95-47-6	o-Xylene	1.2 U	1.6	1.2	0.91	ug/kg	
1330-20-7	Xylene (total)	1.2 U	1.6	1.2	0.91	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-007		
Lab Sample ID:	JC84365-7	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	98%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-008		
Lab Sample ID:	JC84365-8	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.4
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150338.D	1	03/18/19 13:53	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.5 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	84.3	9.7	7.3	4.9	ug/kg	
71-43-2	Benzene	0.39 U	0.49	0.39	0.37	ug/kg	
78-93-3	2-Butanone (MEK)	7.3 U	9.7	7.3	3.6	ug/kg	
104-51-8	n-Butylbenzene	0.49 U	1.9	0.49	0.40	ug/kg	
135-98-8	sec-Butylbenzene	0.49 U	1.9	0.49	0.36	ug/kg	
98-06-6	tert-Butylbenzene	0.49 U	1.9	0.49	0.34	ug/kg	
56-23-5	Carbon tetrachloride	0.97 U	1.9	0.97	0.54	ug/kg	
108-90-7	Chlorobenzene	0.97 U	1.9	0.97	0.34	ug/kg	
67-66-3	Chloroform	0.49 U	1.9	0.49	0.36	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.73 U	0.97	0.73	0.30	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.49 U	0.97	0.49	0.35	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.49 U	0.97	0.49	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	0.49 U	0.97	0.49	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	0.49 U	0.97	0.49	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	0.73 U	0.97	0.73	0.64	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.95 U	0.97	0.95	0.93	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.73 U	0.97	0.73	0.65	ug/kg	
123-91-1	1,4-Dioxane	97 U	120	97	36	ug/kg	
100-41-4	Ethylbenzene	0.73 U	0.97	0.73	0.54	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.49 U	0.97	0.49	0.34	ug/kg	
75-09-2	Methylene chloride	2.9 U	4.9	2.9	2.4	ug/kg	
103-65-1	n-Propylbenzene	0.49 U	1.9	0.49	0.30	ug/kg	
127-18-4	Tetrachloroethene	0.97 U	1.9	0.97	0.45	ug/kg	
108-88-3	Toluene	0.68	0.97	0.73	0.37	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.97 U	1.9	0.97	0.41	ug/kg	
79-01-6	Trichloroethene	0.78 U	0.97	0.78	0.74	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.97 U	1.9	0.97	0.62	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.97 U	1.9	0.97	0.35	ug/kg	
75-01-4	Vinyl chloride	0.97 U	1.9	0.97	0.46	ug/kg	
	m,p-Xylene	0.73 U	0.97	0.73	0.73	ug/kg	
95-47-6	o-Xylene	0.73 U	0.97	0.73	0.57	ug/kg	
1330-20-7	Xylene (total)	0.73 U	0.97	0.73	0.57	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-008		
Lab Sample ID:	JC84365-8	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.4
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-009		
Lab Sample ID:	JC84365-9	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.5
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150339.D	1	03/18/19 14:16	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	4.6 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	86.6	12	8.7	5.8	ug/kg	
71-43-2	Benzene	0.47 U	0.58	0.47	0.44	ug/kg	
78-93-3	2-Butanone (MEK)	8.7 U	12	8.7	4.3	ug/kg	
104-51-8	n-Butylbenzene	0.58 U	2.3	0.58	0.47	ug/kg	
135-98-8	sec-Butylbenzene	0.58 U	2.3	0.58	0.42	ug/kg	
98-06-6	tert-Butylbenzene	0.58 U	2.3	0.58	0.41	ug/kg	
56-23-5	Carbon tetrachloride	1.2 U	2.3	1.2	0.64	ug/kg	
108-90-7	Chlorobenzene	1.2 U	2.3	1.2	0.41	ug/kg	
67-66-3	Chloroform	0.58 U	2.3	0.58	0.43	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.87 U	1.2	0.87	0.35	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.58 U	1.2	0.58	0.42	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.58 U	1.2	0.58	0.40	ug/kg	
75-34-3	1,1-Dichloroethane	0.58 U	1.2	0.58	0.45	ug/kg	
107-06-2	1,2-Dichloroethane	0.58 U	1.2	0.58	0.55	ug/kg	
75-35-4	1,1-Dichloroethene	0.87 U	1.2	0.87	0.76	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.1 U	1.2	1.1	1.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.87 U	1.2	0.87	0.78	ug/kg	
123-91-1	1,4-Dioxane	120 U	150	120	42	ug/kg	
100-41-4	Ethylbenzene	0.87 U	1.2	0.87	0.64	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.58 U	1.2	0.58	0.41	ug/kg	
75-09-2	Methylene chloride	3.5 U	5.8	3.5	2.9	ug/kg	
103-65-1	n-Propylbenzene	0.58 U	2.3	0.58	0.36	ug/kg	
127-18-4	Tetrachloroethene	1.2 U	2.3	1.2	0.54	ug/kg	
108-88-3	Toluene	0.87 U	1.2	0.87	0.44	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.2 U	2.3	1.2	0.50	ug/kg	
79-01-6	Trichloroethene	0.93 U	1.2	0.93	0.89	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.2 U	2.3	1.2	0.74	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.2 U	2.3	1.2	0.42	ug/kg	
75-01-4	Vinyl chloride	1.2 U	2.3	1.2	0.55	ug/kg	
	m,p-Xylene	0.87 U	1.2	0.87	0.87	ug/kg	
95-47-6	o-Xylene	0.87 U	1.2	0.87	0.68	ug/kg	
1330-20-7	Xylene (total)	0.87 U	1.2	0.87	0.68	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-009		
Lab Sample ID:	JC84365-9	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.5
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	96%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-010
Lab Sample ID: JC84365-10 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 95.1
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150343.D	1	03/18/19 15:49	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.7 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	8.5	9.2	6.9	4.6	ug/kg	J
71-43-2	Benzene	0.37 U	0.46	0.37	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	6.9 U	9.2	6.9	3.4	ug/kg	
104-51-8	n-Butylbenzene	0.46 U	1.8	0.46	0.38	ug/kg	
135-98-8	sec-Butylbenzene	0.46 U	1.8	0.46	0.34	ug/kg	
98-06-6	tert-Butylbenzene	0.46 U	1.8	0.46	0.32	ug/kg	
56-23-5	Carbon tetrachloride	0.92 U	1.8	0.92	0.51	ug/kg	
108-90-7	Chlorobenzene	0.92 U	1.8	0.92	0.33	ug/kg	
67-66-3	Chloroform	0.46 U	1.8	0.46	0.34	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.69 U	0.92	0.69	0.28	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.46 U	0.92	0.46	0.33	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.46 U	0.92	0.46	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	0.46 U	0.92	0.46	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	0.46 U	0.92	0.46	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	0.69 U	0.92	0.69	0.61	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.90 U	0.92	0.90	0.88	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.69 U	0.92	0.69	0.62	ug/kg	
123-91-1	1,4-Dioxane	92 U	120	92	34	ug/kg	
100-41-4	Ethylbenzene	0.69 U	0.92	0.69	0.51	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.46 U	0.92	0.46	0.32	ug/kg	
75-09-2	Methylene chloride	2.8 U	4.6	2.8	2.3	ug/kg	
103-65-1	n-Propylbenzene	0.46 U	1.8	0.46	0.29	ug/kg	
127-18-4	Tetrachloroethene	0.92 U	1.8	0.92	0.43	ug/kg	
108-88-3	Toluene	0.69 U	0.92	0.69	0.35	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.92 U	1.8	0.92	0.39	ug/kg	
79-01-6	Trichloroethene	0.74 U	0.92	0.74	0.70	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.92 U	1.8	0.92	0.59	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.92 U	1.8	0.92	0.33	ug/kg	
75-01-4	Vinyl chloride	0.92 U	1.8	0.92	0.43	ug/kg	
	m,p-Xylene	0.69 U	0.92	0.69	0.69	ug/kg	
95-47-6	o-Xylene	0.69 U	0.92	0.69	0.54	ug/kg	
1330-20-7	Xylene (total)	0.69 U	0.92	0.69	0.54	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-010		
Lab Sample ID:	JC84365-10	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	95.1
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-011
Lab Sample ID: JC84365-11 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 95.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150344.D	1	03/18/19 16:12	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.1 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	23.3	10	7.7	5.1	ug/kg	
71-43-2	Benzene	0.41 U	0.51	0.41	0.39	ug/kg	
78-93-3	2-Butanone (MEK)	7.7 U	10	7.7	3.8	ug/kg	
104-51-8	n-Butylbenzene	0.51 U	2.0	0.51	0.42	ug/kg	
135-98-8	sec-Butylbenzene	0.51 U	2.0	0.51	0.37	ug/kg	
98-06-6	tert-Butylbenzene	0.51 U	2.0	0.51	0.36	ug/kg	
56-23-5	Carbon tetrachloride	1.0 U	2.0	1.0	0.56	ug/kg	
108-90-7	Chlorobenzene	1.0 U	2.0	1.0	0.36	ug/kg	
67-66-3	Chloroform	0.51 U	2.0	0.51	0.38	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.77 U	1.0	0.77	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.51 U	1.0	0.51	0.37	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.51 U	1.0	0.51	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	0.51 U	1.0	0.51	0.39	ug/kg	
107-06-2	1,2-Dichloroethane	0.51 U	1.0	0.51	0.48	ug/kg	
75-35-4	1,1-Dichloroethene	0.77 U	1.0	0.77	0.67	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.0 U	1.0	1.0	0.98	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.77 U	1.0	0.77	0.68	ug/kg	
123-91-1	1,4-Dioxane	100 U	130	100	37	ug/kg	
100-41-4	Ethylbenzene	0.77 U	1.0	0.77	0.57	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.51 U	1.0	0.51	0.36	ug/kg	
75-09-2	Methylene chloride	3.1 U	5.1	3.1	2.6	ug/kg	
103-65-1	n-Propylbenzene	0.51 U	2.0	0.51	0.32	ug/kg	
127-18-4	Tetrachloroethene	1.0 U	2.0	1.0	0.47	ug/kg	
108-88-3	Toluene	0.77 U	1.0	0.77	0.39	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.0 U	2.0	1.0	0.44	ug/kg	
79-01-6	Trichloroethene	0.82 U	1.0	0.82	0.78	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.0 U	2.0	1.0	0.65	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.0 U	2.0	1.0	0.37	ug/kg	
75-01-4	Vinyl chloride	1.0 U	2.0	1.0	0.48	ug/kg	
	m,p-Xylene	0.77 U	1.0	0.77	0.76	ug/kg	
95-47-6	o-Xylene	0.77 U	1.0	0.77	0.60	ug/kg	
1330-20-7	Xylene (total)	0.77 U	1.0	0.77	0.60	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-011		
Lab Sample ID:	JC84365-11	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	95.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		75-127%
17060-07-0	1,2-Dichloroethane-D4	100%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-012		
Lab Sample ID:	JC84365-12	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.3
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150345.D	1	03/18/19 16:35	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.2 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	67.7	10	7.8	5.2	ug/kg	
71-43-2	Benzene	0.42 U	0.52	0.42	0.39	ug/kg	
78-93-3	2-Butanone (MEK)	7.8 U	10	7.8	3.9	ug/kg	
104-51-8	n-Butylbenzene	0.52 U	2.1	0.52	0.42	ug/kg	
135-98-8	sec-Butylbenzene	0.52 U	2.1	0.52	0.38	ug/kg	
98-06-6	tert-Butylbenzene	0.52 U	2.1	0.52	0.37	ug/kg	
56-23-5	Carbon tetrachloride	1.0 U	2.1	1.0	0.57	ug/kg	
108-90-7	Chlorobenzene	1.0 U	2.1	1.0	0.37	ug/kg	
67-66-3	Chloroform	0.52 U	2.1	0.52	0.39	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.78 U	1.0	0.78	0.32	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.52 U	1.0	0.52	0.37	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.52 U	1.0	0.52	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	0.52 U	1.0	0.52	0.40	ug/kg	
107-06-2	1,2-Dichloroethane	0.52 U	1.0	0.52	0.49	ug/kg	
75-35-4	1,1-Dichloroethene	0.78 U	1.0	0.78	0.68	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.0 U	1.0	1.0	1.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.78 U	1.0	0.78	0.69	ug/kg	
123-91-1	1,4-Dioxane	100 U	130	100	38	ug/kg	
100-41-4	Ethylbenzene	0.78 U	1.0	0.78	0.58	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.52 U	1.0	0.52	0.37	ug/kg	
75-09-2	Methylene chloride	3.1 U	5.2	3.1	2.6	ug/kg	
103-65-1	n-Propylbenzene	0.52 U	2.1	0.52	0.33	ug/kg	
127-18-4	Tetrachloroethene	1.0 U	2.1	1.0	0.48	ug/kg	
108-88-3	Toluene	0.57	1.0	0.78	0.39	ug/kg	J
71-55-6	1,1,1-Trichloroethane	1.0 U	2.1	1.0	0.44	ug/kg	
79-01-6	Trichloroethene	0.83 U	1.0	0.83	0.79	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.0 U	2.1	1.0	0.66	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.0 U	2.1	1.0	0.37	ug/kg	
75-01-4	Vinyl chloride	1.0 U	2.1	1.0	0.49	ug/kg	
	m,p-Xylene	0.78 U	1.0	0.78	0.78	ug/kg	
95-47-6	o-Xylene	0.78 U	1.0	0.78	0.61	ug/kg	
1330-20-7	Xylene (total)	0.78 U	1.0	0.78	0.61	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-012		
Lab Sample ID:	JC84365-12	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.3
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-013
Lab Sample ID: JC84365-13 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 88.6
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150346.D	1	03/18/19 16:58	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	6.5 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	24.4	8.7	6.5	4.3	ug/kg	
71-43-2	Benzene	0.35 U	0.43	0.35	0.33	ug/kg	
78-93-3	2-Butanone (MEK)	6.5 U	8.7	6.5	3.2	ug/kg	
104-51-8	n-Butylbenzene	0.43 U	1.7	0.43	0.35	ug/kg	
135-98-8	sec-Butylbenzene	0.43 U	1.7	0.43	0.32	ug/kg	
98-06-6	tert-Butylbenzene	0.43 U	1.7	0.43	0.30	ug/kg	
56-23-5	Carbon tetrachloride	0.87 U	1.7	0.87	0.48	ug/kg	
108-90-7	Chlorobenzene	0.87 U	1.7	0.87	0.31	ug/kg	
67-66-3	Chloroform	0.43 U	1.7	0.43	0.32	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.65 U	0.87	0.65	0.26	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.43 U	0.87	0.43	0.31	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.43 U	0.87	0.43	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	0.43 U	0.87	0.43	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	0.43 U	0.87	0.43	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	0.65 U	0.87	0.65	0.57	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.85 U	0.87	0.85	0.83	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.65 U	0.87	0.65	0.58	ug/kg	
123-91-1	1,4-Dioxane	87 U	110	87	32	ug/kg	
100-41-4	Ethylbenzene	0.65 U	0.87	0.65	0.48	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.43 U	0.87	0.43	0.31	ug/kg	
75-09-2	Methylene chloride	2.6 U	4.3	2.6	2.2	ug/kg	
103-65-1	n-Propylbenzene	0.43 U	1.7	0.43	0.27	ug/kg	
127-18-4	Tetrachloroethene	0.87 U	1.7	0.87	0.40	ug/kg	
108-88-3	Toluene	0.36	0.87	0.65	0.33	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.87 U	1.7	0.87	0.37	ug/kg	
79-01-6	Trichloroethene	0.69 U	0.87	0.69	0.66	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.87 U	1.7	0.87	0.55	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.87 U	1.7	0.87	0.31	ug/kg	
75-01-4	Vinyl chloride	0.87 U	1.7	0.87	0.41	ug/kg	
	m,p-Xylene	0.65 U	0.87	0.65	0.65	ug/kg	
95-47-6	o-Xylene	0.65 U	0.87	0.65	0.51	ug/kg	
1330-20-7	Xylene (total)	0.65 U	0.87	0.65	0.51	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-013		
Lab Sample ID:	JC84365-13	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	88.6
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		75-127%
17060-07-0	1,2-Dichloroethane-D4	100%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	96%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

JC84365

SO SLL

CHAIN-OF-CUSTODY RECORD

COC Number: 501164-20190313
Subcontract Services Agreement # TBD

NOREAS Environmental Science Engineering & Construction

APTIM

APTIM - 150 Boush Street, Suite 701, Norfolk, VA 23510 (757) 640-6200

SGS Accutest -New Jersey	2235 US-130, Dayton, NJ 08810 Phone: (732) 329-0200
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York	*Fill Material Samples*
F6147 / 501164	Natasha Kelley Sullivan / (410)529-7598
NAVY	Monica L. Smeal E.I.T.

	#	Sample ID	Date	Time	Matrix	# of Containers	Sample Container Number	Preservation	Volatiles SW-846 5035A/8260B												
1	1	NWIRP-S1-WC-CF-001	03/13/19	1040		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 60 ml glass jar, none	x												
2	2	NWIRP-S1-WC-CF-002	03/13/19	1045		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												
3	3	NWIRP-S1-WC-CF-003	03/13/19	1048		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												
4	4	NWIRP-S1-WC-CF-004	03/13/19	1048		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												
5	5	NWIRP-S1-WC-CF-005	03/13/19	1052		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												
6	6	NWIRP-S1-WC-CF-006	03/13/19	1100		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												
7	7	NWIRP-S1-WC-CF-007	03/13/19	1105		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												
8	8	NWIRP-S1-WC-CF-008	03/13/19	1106		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												
9	9	NWIRP-S1-WC-CF-009	03/13/19	1117		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												
10	10	NWIRP-S1-WC-CF-010	03/13/19	1122		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	x												

**** See attached list for SPECIFIC COMPOUNDS***
(please run most appopriate method to meet the action level requirements .

P92
14DY
4021

INITIAL ASESSMENT 3/19
LABEL VERIFICATION

Turnaround Time Requested: ☐ 14 Day TAT

Received By: McCutcheon, Sean, APTIM

COMMENTS:

Laboratory Project No:

	Transfers: Relinquished By	Date	Time	Transfers: Accepted By	Date	Time
1	Sampler's Signature	Date	Time	Laboratory Sample Custody Signature	Date	Time
2		3/14/19	1600	FEDEX		
3		3/14/19	0945			
4						

Report Format: *Full Report*
Deliverables: EDD Excel+NIRIS
Fax results to Natasha Sullivan (410) 529-7599

FEDEX 7860 1642 4080

2.8°C - ip IR278

1/2

JC84365

CHAIN-OF-CUSTODY RECORD

COC Number: 501164-20190313
Subcontract Services Agreement # TBD

NOREAS Environmental Science Engineering & Construction

APTIM

APTIM - 150 Boush Street, Suite 701, Norfolk, VA 23510 (757) 640-6200

Lab Contact/Lab	SGS Accutest -New Jersey
Lab Receiving Address	2235 US-130, Dayton, NJ 08810 Phone: (732) 329-0200
Project Name	Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York
Sample Location	*Fill Material Samples*
	F6147
Project Number	501164
APTIM Contact	Natasha Kelley Sullivan
APTIM Contact Phone	(410)529-7598
Client/Prog	NAVY
Project Manager	Monica L. Smeal E.I.T.

Analysis Desired: Volatiles SW-846 5035A/8260B

	Item No.	Sample ID	Date	Time	Water	Soil	Sample Description	Containers	Volatiles SW-846 5035A/8260B
11	11	NWIRP-S1-WC-CF-011	03/13/19	1126		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 60 ml glass jar, none	X
12	12	NWIRP-S1-WC-CF-012	03/13/19	1130		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
13	13	NWIRP-S1-WC-CF-013	03/13/19	1141		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X

***** See attached list for SPECIFIC COMPOUNDS***
(please run most appopriate method to meet the action level requirements .

Turnaround Time Required	Sampled By	COMMENTS	Laboratory Report No.
☐ 14 Day TAT	*McCutcheon, Sean, APTIM*		

Transfer Number	Transfers Relinquished By	Date	Time	Transfers Accepted By	Date	Time	
1	Sampler's Signature	Date	Time	Laboratory Sample Custody Si	Date	Time	Report Format: *Full Report*
2	[signature]	3/13/19	1600	FX			Deliverables: EDD Excel+NIRIS
3		3/14/19	9:45	[signature]			Fax results to Natasha Sullivan (410) 529-7599
4							

2/2

5.1

5

JC84365: Chain of Custody
Page 2 of 3

SGS Sample Receipt Summary

Job Number: JC84365 **Client:** NOREAS-CB&I JV (NCBI) **Project:** BACKFILL - BETHPAGE, NY

Date / Time Received: 3/14/2019 9:45:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (1.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC84365: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

NOREAS, Inc.

Job No: JC84365

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: Fill Material Samples

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC84365-1	Collected: 13-MAR-19 10:40 By: NK		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-001						
JC84365-1	SW846 8260C	18-MAR-19 11:11	PS			V8260SCO
JC84365-1	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-2	Collected: 13-MAR-19 10:45 By: NK		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-002						
JC84365-2	SW846 8260C	18-MAR-19 11:34	PS			V8260SCO
JC84365-2	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-3	Collected: 13-MAR-19 10:48 By: NK		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-003						
JC84365-3	SW846 8260C	18-MAR-19 11:58	PS			V8260SCO
JC84365-3	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-4	Collected: 13-MAR-19 10:48 By: NK		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-004						
JC84365-4	SW846 8260C	18-MAR-19 12:21	PS			V8260SCO
JC84365-4	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-5	Collected: 13-MAR-19 10:52 By: NK		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-005						
JC84365-5	SW846 8260C	18-MAR-19 12:44	PS			V8260SCO
JC84365-5	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-6	Collected: 13-MAR-19 11:00 By: NK		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-006						
JC84365-6	SW846 8260C	18-MAR-19 13:07	PS			V8260SCO
JC84365-6	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-7	Collected: 13-MAR-19 11:05 By: NK		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-007						
JC84365-7	SW846 8260C	18-MAR-19 13:30	PS			V8260SCO

Internal Sample Tracking Chronicle

NOREAS, Inc.

Job No: JC84365

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: Fill Material Samples

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC84365-7	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-8	Collected: 13-MAR-19 11:08 By: NK NWIRP-S1-WC-CF-008		Received: 14-MAR-19 By: DG			
JC84365-8	SW846 8260C	18-MAR-19 13:53	PS			V8260SCO
JC84365-8	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-9	Collected: 13-MAR-19 11:17 By: NK NWIRP-S1-WC-CF-009		Received: 14-MAR-19 By: DG			
JC84365-9	SW846 8260C	18-MAR-19 14:16	PS			V8260SCO
JC84365-9	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-10	Collected: 13-MAR-19 11:22 By: NK NWIRP-S1-WC-CF-010		Received: 14-MAR-19 By: DG			
JC84365-10	SW846 8260C	18-MAR-19 15:49	PS			V8260SCO
JC84365-10	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-11	Collected: 13-MAR-19 11:26 By: NK NWIRP-S1-WC-CF-011		Received: 14-MAR-19 By: DG			
JC84365-11	SW846 8260C	18-MAR-19 16:12	PS			V8260SCO
JC84365-11	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-12	Collected: 13-MAR-19 11:30 By: NK NWIRP-S1-WC-CF-012		Received: 14-MAR-19 By: DG			
JC84365-12	SW846 8260C	18-MAR-19 16:35	PS			V8260SCO
JC84365-12	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104
JC84365-13	Collected: 13-MAR-19 11:41 By: NK NWIRP-S1-WC-CF-013		Received: 14-MAR-19 By: DG			
JC84365-13	SW846 8260C	18-MAR-19 16:58	PS			V8260SCO
JC84365-13	SM2540 G 18TH ED MOD	19-MAR-19 16:00	BG			SOL104

SGS Internal Chain of Custody

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84365-1.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-1.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-1.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-1.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-1.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-1.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-1.3	Secured Storage	Prashant Shukla	03/18/19 12:20	Retrieve from Storage
JC84365-1.3	Prashant Shukla	GCMS3C	03/18/19 12:20	Load on Instrument
JC84365-1.3	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-1.3	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-1.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-1.4	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-1.4	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-1.4	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-1.4	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-2.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-2.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-2.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-2.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-2.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-2.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-2.3	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-2.3	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-2.3	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-2.3	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-2.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-2.4	Secured Storage	Prashant Shukla	03/18/19 12:20	Retrieve from Storage
JC84365-2.4	Prashant Shukla	GCMS3C	03/18/19 12:20	Load on Instrument
JC84365-2.4	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-2.4	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-3.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-3.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-3.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-3.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-3.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage

SGS Internal Chain of Custody

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84365-3.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-3.3	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-3.3	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-3.3	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-3.3	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-3.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-4.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-4.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-4.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-4.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-4.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-4.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-4.3	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-4.3	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-4.3	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-4.3	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-4.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-5.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-5.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-5.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-5.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-5.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-5.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-5.3	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-5.3	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-5.3	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-5.3	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-5.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-6.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-6.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-6.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-6.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage

SGS Internal Chain of Custody

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84365-6.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-6.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-6.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-6.4	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-6.4	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-6.4	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-6.4	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-7.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-7.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-7.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-7.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-7.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-7.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-7.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-7.4	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-7.4	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-7.4	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-7.4	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-8.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-8.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-8.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-8.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-8.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-8.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-8.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-8.4	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-8.4	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-8.4	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-8.4	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-9.1	Secured Storage	Brittany Klimek	03/14/19 20:54	Retrieve from Storage
JC84365-9.1	Brittany Klimek	Secured Storage	03/14/19 20:55	Return to Storage
JC84365-9.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-9.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage

SGS Internal Chain of Custody

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84365-9.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-9.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-9.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-9.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-9.3	Secured Storage	Prashant Shukla	03/18/19 10:09	Retrieve from Storage
JC84365-9.3	Prashant Shukla	GCMS3C	03/18/19 10:09	Load on Instrument
JC84365-9.3	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-9.3	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-9.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-9.4	Secured Storage	Brittany Klimek	03/14/19 20:54	Retrieve from Storage
JC84365-9.4	Brittany Klimek	Secured Storage	03/14/19 20:55	Return to Storage
JC84365-10.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-10.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-10.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-10.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-10.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-10.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-10.3	Secured Storage	Prashant Shukla	03/18/19 12:20	Retrieve from Storage
JC84365-10.3	Prashant Shukla	GCMS3C	03/18/19 12:20	Load on Instrument
JC84365-10.3	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-10.3	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-10.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-11.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-11.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-11.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-11.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-11.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-11.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-11.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-11.4	Secured Storage	Prashant Shukla	03/18/19 12:20	Retrieve from Storage
JC84365-11.4	Prashant Shukla	GCMS3C	03/18/19 12:20	Load on Instrument
JC84365-11.4	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-11.4	Prashant Shukla		03/19/19 09:29	Depleted

SGS Internal Chain of Custody

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84365-12.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-12.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-12.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-12.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-12.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-12.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-12.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-12.4	Secured Storage	Prashant Shukla	03/18/19 12:20	Retrieve from Storage
JC84365-12.4	Prashant Shukla	GCMS3C	03/18/19 12:20	Load on Instrument
JC84365-12.4	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-12.4	Prashant Shukla		03/19/19 09:29	Depleted
JC84365-13.1	Secured Storage	Matthew Robbins	03/18/19 17:23	Retrieve from Storage
JC84365-13.1	Matthew Robbins	Secured Staging Area	03/18/19 17:23	Return to Storage
JC84365-13.1	Secured Staging Area	Dave Hunkele	03/20/19 05:17	Retrieve from Storage
JC84365-13.1	Dave Hunkele	Secured Storage	03/20/19 05:20	Return to Storage
JC84365-13.2	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-13.3	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-13.4	Fauzia Rahman	Secured Storage	03/14/19 17:28	Return to Storage
JC84365-13.4	Secured Storage	Prashant Shukla	03/18/19 12:20	Retrieve from Storage
JC84365-13.4	Prashant Shukla	GCMS3C	03/18/19 12:20	Load on Instrument
JC84365-13.4	GCMS3C	Prashant Shukla	03/19/19 09:29	Unload from Instrument
JC84365-13.4	Prashant Shukla		03/19/19 09:29	Depleted

QC Evaluation: DOD QSM5 Limits

Job Number: JC84365
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V3C6771	SW846 8260C						
V3C6771-BS	67-64-1	Acetone	BSP	REC	124	%	36-164
V3C6771-BS	71-43-2	Benzene	BSP	REC	102	%	77-121
V3C6771-BS	78-93-3	2-Butanone (MEK)	BSP	REC	123	%	51-148
V3C6771-BS	104-51-8	n-Butylbenzene	BSP	REC	96	%	70-128
V3C6771-BS	135-98-8	sec-Butylbenzene	BSP	REC	95	%	73-126
V3C6771-BS	98-06-6	tert-Butylbenzene	BSP	REC	95	%	73-125
V3C6771-BS	56-23-5	Carbon tetrachloride	BSP	REC	105	%	70-135
V3C6771-BS	108-90-7	Chlorobenzene	BSP	REC	100	%	79-120
V3C6771-BS	67-66-3	Chloroform	BSP	REC	96	%	78-123
V3C6771-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	100	%	78-121
V3C6771-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	98	%	77-121
V3C6771-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	97	%	75-120
V3C6771-BS	75-34-3	1,1-Dichloroethane	BSP	REC	101	%	76-125
V3C6771-BS	107-06-2	1,2-Dichloroethane	BSP	REC	100	%	73-128
V3C6771-BS	75-35-4	1,1-Dichloroethene	BSP	REC	101	%	70-131
V3C6771-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	102	%	77-123
V3C6771-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	100	%	74-125
V3C6771-BS	123-91-1	1,4-Dioxane	BSP	REC	121	%	55-138
V3C6771-BS	100-41-4	Ethylbenzene	BSP	REC	96	%	76-122
V3C6771-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	107	%	73-125
V3C6771-BS	75-09-2	Methylene chloride	BSP	REC	99	%	70-128
V3C6771-BS	103-65-1	n-Propylbenzene	BSP	REC	93	%	73-125
V3C6771-BS	127-18-4	Tetrachloroethene	BSP	REC	107	%	73-128
V3C6771-BS	108-88-3	Toluene	BSP	REC	98	%	77-121
V3C6771-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	98	%	73-130
V3C6771-BS	79-01-6	Trichloroethene	BSP	REC	102	%	77-123
V3C6771-BS	95-63-6	1,2,4-Trimethylbenzene	BSP	REC	93	%	75-123
V3C6771-BS	108-67-8	1,3,5-Trimethylbenzene	BSP	REC	94	%	73-124
V3C6771-BS	75-01-4	Vinyl chloride	BSP	REC	90	%	56-135
V3C6771-BS		m,p-Xylene	BSP	REC	97	%	77-124
V3C6771-BS	95-47-6	o-Xylene	BSP	REC	96	%	77-123
V3C6771-BS	1330-20-7	Xylene (total)	BSP	REC	97	%	78-124
V3C6771-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	100	%	78-119
V3C6771-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	100	%	71-136
V3C6771-BS	2037-26-5	Toluene-D8	BSP	SURR	98	%	85-116
V3C6771-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	98	%	79-119
JC84365-1MS	67-64-1	Acetone	MS	REC	86	%	36-164
JC84365-1MS	71-43-2	Benzene	MS	REC	98	%	77-121
JC84365-1MS	78-93-3	2-Butanone (MEK)	MS	REC	92	%	51-148
JC84365-1MS	104-51-8	n-Butylbenzene	MS	REC	58	%	70-128
JC84365-1MS	135-98-8	sec-Butylbenzene	MS	REC	67	%	73-126
JC84365-1MS	98-06-6	tert-Butylbenzene	MS	REC	74	%	73-125

* Sample used for QC is not from job JC84365

QC Evaluation: DOD QSM5 Limits

Job Number: JC84365
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC84365-1MS	56-23-5	Carbon tetrachloride	MS	REC	102	%	70-135
JC84365-1MS	108-90-7	Chlorobenzene	MS	REC	86	%	79-120
JC84365-1MS	67-66-3	Chloroform	MS	REC	97	%	78-123
JC84365-1MS	95-50-1	1,2-Dichlorobenzene	MS	REC	75	%	78-121
JC84365-1MS	541-73-1	1,3-Dichlorobenzene	MS	REC	73	%	77-121
JC84365-1MS	106-46-7	1,4-Dichlorobenzene	MS	REC	72	%	75-120
JC84365-1MS	75-34-3	1,1-Dichloroethane	MS	REC	103	%	76-125
JC84365-1MS	107-06-2	1,2-Dichloroethane	MS	REC	89	%	73-128
JC84365-1MS	75-35-4	1,1-Dichloroethene	MS	REC	106	%	70-131
JC84365-1MS	156-59-2	cis-1,2-Dichloroethene	MS	REC	102	%	77-123
JC84365-1MS	156-60-5	trans-1,2-Dichloroethene	MS	REC	99	%	74-125
JC84365-1MS	123-91-1	1,4-Dioxane	MS	REC	118	%	55-138
JC84365-1MS	100-41-4	Ethylbenzene	MS	REC	83	%	76-122
JC84365-1MS	1634-04-4	Methyl Tert Butyl Ether	MS	REC	93	%	73-125
JC84365-1MS	75-09-2	Methylene chloride	MS	REC	98	%	70-128
JC84365-1MS	103-65-1	n-Propylbenzene	MS	REC	72	%	73-125
JC84365-1MS	127-18-4	Tetrachloroethene	MS	REC	87	%	73-128
JC84365-1MS	108-88-3	Toluene	MS	REC	90	%	77-121
JC84365-1MS	71-55-6	1,1,1-Trichloroethane	MS	REC	98	%	73-130
JC84365-1MS	79-01-6	Trichloroethene	MS	REC	99	%	77-123
JC84365-1MS	95-63-6	1,2,4-Trimethylbenzene	MS	REC	72	%	75-123
JC84365-1MS	108-67-8	1,3,5-Trimethylbenzene	MS	REC	73	%	73-124
JC84365-1MS	75-01-4	Vinyl chloride	MS	REC	107	%	56-135
JC84365-1MS		m,p-Xylene	MS	REC	83	%	77-124
JC84365-1MS	95-47-6	o-Xylene	MS	REC	83	%	77-123
JC84365-1MS	1330-20-7	Xylene (total)	MS	REC	83	%	78-124
JC84365-1MS	1868-53-7	Dibromofluoromethane	MS	SURR	106	%	78-119
JC84365-1MS	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	94	%	71-136
JC84365-1MS	2037-26-5	Toluene-D8	MS	SURR	99	%	85-116
JC84365-1MS	460-00-4	4-Bromofluorobenzene	MS	SURR	98	%	79-119
JC84365-2DUP	67-64-1	Acetone	DUP	RPD	82 [a]	%	20
JC84365-2DUP	71-43-2	Benzene	DUP	RPD	0	%	20
JC84365-2DUP	78-93-3	2-Butanone (MEK)	DUP	RPD	0	%	20
JC84365-2DUP	104-51-8	n-Butylbenzene	DUP	RPD	0	%	20
JC84365-2DUP	135-98-8	sec-Butylbenzene	DUP	RPD	0	%	20
JC84365-2DUP	98-06-6	tert-Butylbenzene	DUP	RPD	0	%	20
JC84365-2DUP	56-23-5	Carbon tetrachloride	DUP	RPD	0	%	20
JC84365-2DUP	108-90-7	Chlorobenzene	DUP	RPD	0	%	20
JC84365-2DUP	67-66-3	Chloroform	DUP	RPD	0	%	20
JC84365-2DUP	95-50-1	1,2-Dichlorobenzene	DUP	RPD	0	%	20
JC84365-2DUP	541-73-1	1,3-Dichlorobenzene	DUP	RPD	0	%	20
JC84365-2DUP	106-46-7	1,4-Dichlorobenzene	DUP	RPD	0	%	20
JC84365-2DUP	75-34-3	1,1-Dichloroethane	DUP	RPD	0	%	20
JC84365-2DUP	107-06-2	1,2-Dichloroethane	DUP	RPD	0	%	20
JC84365-2DUP	75-35-4	1,1-Dichloroethene	DUP	RPD	0	%	20

* Sample used for QC is not from job JC84365

QC Evaluation: DOD QSM5 Limits

Job Number: JC84365
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC84365-2DUP	156-59-2	cis-1,2-Dichloroethene	DUP	RPD	0	%	20
JC84365-2DUP	156-60-5	trans-1,2-Dichloroethene	DUP	RPD	0	%	20
JC84365-2DUP	123-91-1	1,4-Dioxane	DUP	RPD	0	%	20
JC84365-2DUP	100-41-4	Ethylbenzene	DUP	RPD	0	%	20
JC84365-2DUP	1634-04-4	Methyl Tert Butyl Ether	DUP	RPD	0	%	20
JC84365-2DUP	75-09-2	Methylene chloride	DUP	RPD	0	%	20
JC84365-2DUP	103-65-1	n-Propylbenzene	DUP	RPD	0	%	20
JC84365-2DUP	127-18-4	Tetrachloroethene	DUP	RPD	0	%	20
JC84365-2DUP	108-88-3	Toluene	DUP	RPD	200 [b]	%	20
JC84365-2DUP	71-55-6	1,1,1-Trichloroethane	DUP	RPD	0	%	20
JC84365-2DUP	79-01-6	Trichloroethene	DUP	RPD	0	%	20
JC84365-2DUP	95-63-6	1,2,4-Trimethylbenzene	DUP	RPD	0	%	20
JC84365-2DUP	108-67-8	1,3,5-Trimethylbenzene	DUP	RPD	0	%	20
JC84365-2DUP	75-01-4	Vinyl chloride	DUP	RPD	0	%	20
JC84365-2DUP		m,p-Xylene	DUP	RPD	0	%	20
JC84365-2DUP	95-47-6	o-Xylene	DUP	RPD	0	%	20
JC84365-2DUP	1330-20-7	Xylene (total)	DUP	RPD	0	%	20
JC84365-2DUP	1868-53-7	Dibromofluoromethane	DUP	SURR	107	%	78-119
JC84365-2DUP	17060-07-0	1,2-Dichloroethane-D4	DUP	SURR	102	%	71-136
JC84365-2DUP	2037-26-5	Toluene-D8	DUP	SURR	97	%	85-116
JC84365-2DUP	460-00-4	4-Bromofluorobenzene	DUP	SURR	97	%	79-119
V3C6771-MB	1868-53-7	Dibromofluoromethane	MB	SURR	99	%	78-119
V3C6771-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	94	%	71-136
V3C6771-MB	2037-26-5	Toluene-D8	MB	SURR	98	%	85-116
V3C6771-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	97	%	79-119
JC84365-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	105	%	78-119
JC84365-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	71-136
JC84365-1	2037-26-5	Toluene-D8	SAMP	SURR	95	%	85-116
JC84365-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	96	%	79-119
JC84365-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	105	%	78-119
JC84365-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	101	%	71-136
JC84365-2	2037-26-5	Toluene-D8	SAMP	SURR	97	%	85-116
JC84365-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	79-119
JC84365-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	78-119
JC84365-3	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	104	%	71-136
JC84365-3	2037-26-5	Toluene-D8	SAMP	SURR	96	%	85-116
JC84365-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	96	%	79-119
JC84365-4	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	78-119
JC84365-4	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	71-136
JC84365-4	2037-26-5	Toluene-D8	SAMP	SURR	95	%	85-116
JC84365-4	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	79-119
JC84365-5	1868-53-7	Dibromofluoromethane	SAMP	SURR	106	%	78-119
JC84365-5	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	101	%	71-136
JC84365-5	2037-26-5	Toluene-D8	SAMP	SURR	96	%	85-116
JC84365-5	460-00-4	4-Bromofluorobenzene	SAMP	SURR	98	%	79-119

* Sample used for QC is not from job JC84365

QC Evaluation: DOD QSM5 Limits

Job Number: JC84365
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC84365-6	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	78-119
JC84365-6	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	101	%	71-136
JC84365-6	2037-26-5	Toluene-D8	SAMP	SURR	96	%	85-116
JC84365-6	460-00-4	4-Bromofluorobenzene	SAMP	SURR	95	%	79-119
JC84365-7	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	78-119
JC84365-7	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	101	%	71-136
JC84365-7	2037-26-5	Toluene-D8	SAMP	SURR	97	%	85-116
JC84365-7	460-00-4	4-Bromofluorobenzene	SAMP	SURR	98	%	79-119
JC84365-8	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	78-119
JC84365-8	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	71-136
JC84365-8	2037-26-5	Toluene-D8	SAMP	SURR	97	%	85-116
JC84365-8	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	79-119
JC84365-9	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	78-119
JC84365-9	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	71-136
JC84365-9	2037-26-5	Toluene-D8	SAMP	SURR	96	%	85-116
JC84365-9	460-00-4	4-Bromofluorobenzene	SAMP	SURR	96	%	79-119
JC84365-10	1868-53-7	Dibromofluoromethane	SAMP	SURR	109	%	78-119
JC84365-10	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	71-136
JC84365-10	2037-26-5	Toluene-D8	SAMP	SURR	95	%	85-116
JC84365-10	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	79-119
JC84365-11	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	78-119
JC84365-11	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	100	%	71-136
JC84365-11	2037-26-5	Toluene-D8	SAMP	SURR	97	%	85-116
JC84365-11	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	79-119
JC84365-12	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	78-119
JC84365-12	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	101	%	71-136
JC84365-12	2037-26-5	Toluene-D8	SAMP	SURR	97	%	85-116
JC84365-12	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	79-119
JC84365-13	1868-53-7	Dibromofluoromethane	SAMP	SURR	106	%	78-119
JC84365-13	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	100	%	71-136
JC84365-13	2037-26-5	Toluene-D8	SAMP	SURR	97	%	85-116
JC84365-13	460-00-4	4-Bromofluorobenzene	SAMP	SURR	96	%	79-119

(a) Outside control limits due to sample non-homogeneity.
(b) RPD acceptable due to low DUP and sample concentrations.

* Sample used for QC is not from job JC84365

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3C6771-MB	3C150329.D	1	03/18/19	PS	n/a	n/a	V3C6771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC84365-1, JC84365-2, JC84365-3, JC84365-4, JC84365-5, JC84365-6, JC84365-7, JC84365-8, JC84365-9, JC84365-10, JC84365-11, JC84365-12, JC84365-13

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/kg	
71-43-2	Benzene	ND	0.50	0.38	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	3.7	ug/kg	
104-51-8	n-Butylbenzene	ND	2.0	0.41	ug/kg	
135-98-8	sec-Butylbenzene	ND	2.0	0.37	ug/kg	
98-06-6	tert-Butylbenzene	ND	2.0	0.35	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	0.55	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	0.35	ug/kg	
67-66-3	Chloroform	ND	2.0	0.37	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.36	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.39	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.47	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.66	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.96	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.67	ug/kg	
123-91-1	1,4-Dioxane	ND	130	37	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.55	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.35	ug/kg	
75-09-2	Methylene chloride	ND	5.0	2.5	ug/kg	
103-65-1	n-Propylbenzene	ND	2.0	0.31	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	0.46	ug/kg	
108-88-3	Toluene	ND	1.0	0.38	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.43	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.76	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.64	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.36	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	0.47	ug/kg	
	m,p-Xylene	ND	1.0	0.75	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.58	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/kg	

Method Blank Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3C6771-MB	3C150329.D	1	03/18/19	PS	n/a	n/a	V3C6771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC84365-1, JC84365-2, JC84365-3, JC84365-4, JC84365-5, JC84365-6, JC84365-7, JC84365-8, JC84365-9, JC84365-10, JC84365-11, JC84365-12, JC84365-13

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	75-127%
17060-07-0	1,2-Dichloroethane-D4	94%	75-130%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	97%	79-127%

Blank Spike Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3C6771-BS	3C150327.D	1	03/18/19	PS	n/a	n/a	V3C6771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC84365-1, JC84365-2, JC84365-3, JC84365-4, JC84365-5, JC84365-6, JC84365-7, JC84365-8, JC84365-9, JC84365-10, JC84365-11, JC84365-12, JC84365-13

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	200	248	124	48-149
71-43-2	Benzene	50	50.8	102	74-117
78-93-3	2-Butanone (MEK)	200	246	123	65-143
104-51-8	n-Butylbenzene	50	48.1	96	74-123
135-98-8	sec-Butylbenzene	50	47.7	95	74-123
98-06-6	tert-Butylbenzene	50	47.6	95	73-124
56-23-5	Carbon tetrachloride	50	52.6	105	69-136
108-90-7	Chlorobenzene	50	50.1	100	79-117
67-66-3	Chloroform	50	48.1	96	76-119
95-50-1	1,2-Dichlorobenzene	50	50.0	100	77-117
541-73-1	1,3-Dichlorobenzene	50	49.1	98	75-117
106-46-7	1,4-Dichlorobenzene	50	48.5	97	76-115
75-34-3	1,1-Dichloroethane	50	50.3	101	75-124
107-06-2	1,2-Dichloroethane	50	50.0	100	74-124
75-35-4	1,1-Dichloroethene	50	50.7	101	64-129
156-59-2	cis-1,2-Dichloroethene	50	50.9	102	74-118
156-60-5	trans-1,2-Dichloroethene	50	50.2	100	71-125
123-91-1	1,4-Dioxane	1250	1510	121	64-128
100-41-4	Ethylbenzene	50	47.9	96	75-118
1634-04-4	Methyl Tert Butyl Ether	50	53.3	107	75-123
75-09-2	Methylene chloride	50	49.3	99	73-120
103-65-1	n-Propylbenzene	50	46.5	93	75-120
127-18-4	Tetrachloroethene	50	53.3	107	69-128
108-88-3	Toluene	50	48.8	98	74-117
71-55-6	1,1,1-Trichloroethane	50	49.1	98	73-131
79-01-6	Trichloroethene	50	50.8	102	80-120
95-63-6	1,2,4-Trimethylbenzene	50	46.5	93	76-119
108-67-8	1,3,5-Trimethylbenzene	50	47.1	94	74-119
75-01-4	Vinyl chloride	50	44.9	90	55-145
	m,p-Xylene	100	96.6	97	75-120
95-47-6	o-Xylene	50	48.1	96	75-119
1330-20-7	Xylene (total)	150	145	97	76-119

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3C6771-BS	3C150327.D	1	03/18/19	PS	n/a	n/a	V3C6771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC84365-1, JC84365-2, JC84365-3, JC84365-4, JC84365-5, JC84365-6, JC84365-7, JC84365-8, JC84365-9, JC84365-10, JC84365-11, JC84365-12, JC84365-13

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	75-127%
17060-07-0	1,2-Dichloroethane-D4	100%	75-130%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	98%	79-127%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC84365-1MS	3C150340.D	1	03/18/19	PS	n/a	n/a	V3C6771
JC84365-1	3C150331.D	1	03/18/19	PS	n/a	n/a	V3C6771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC84365-1, JC84365-2, JC84365-3, JC84365-4, JC84365-5, JC84365-6, JC84365-7, JC84365-8, JC84365-9, JC84365-10, JC84365-11, JC84365-12, JC84365-13

CAS No.	Compound	JC84365-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Limits
67-64-1	Acetone	39.0		172	187	86	10-157
71-43-2	Benzene	0.47 U		43	42.1	98	58-125
78-93-3	2-Butanone (MEK)	9.4 U		172	159	92	29-146
104-51-8	n-Butylbenzene	1.9 U		43	24.8	58	23-149
135-98-8	sec-Butylbenzene	1.9 U		43	29.0	67	33-147
98-06-6	tert-Butylbenzene	1.9 U		43	31.7	74	39-145
56-23-5	Carbon tetrachloride	1.9 U		43	43.8	102	51-143
108-90-7	Chlorobenzene	1.9 U		43	37.1	86	54-130
67-66-3	Chloroform	1.9 U		43	41.6	97	61-125
95-50-1	1,2-Dichlorobenzene	0.94 U		43	32.2	75	41-134
541-73-1	1,3-Dichlorobenzene	0.94 U		43	31.4	73	41-135
106-46-7	1,4-Dichlorobenzene	0.94 U		43	30.8	72	41-133
75-34-3	1,1-Dichloroethane	0.94 U		43	44.3	103	61-131
107-06-2	1,2-Dichloroethane	0.94 U		43	38.2	89	56-126
75-35-4	1,1-Dichloroethene	0.94 U		43	45.4	106	53-132
156-59-2	cis-1,2-Dichloroethene	0.94 U		43	43.7	102	57-125
156-60-5	trans-1,2-Dichloroethene	0.94 U		43	42.6	99	56-130
123-91-1	1,4-Dioxane	120 U		1070	1270	118	53-140
100-41-4	Ethylbenzene	0.94 U		43	35.6	83	49-132
1634-04-4	Methyl Tert Butyl Ether	0.94 U		43	40.1	93	58-123
75-09-2	Methylene chloride	4.7 U		43	42.2	98	57-123
103-65-1	n-Propylbenzene	1.9 U		43	31.1	72	41-139
127-18-4	Tetrachloroethene	1.9 U		43	37.3	87	39-154
108-88-3	Toluene	0.94 U		43	38.9	90	54-127
71-55-6	1,1,1-Trichloroethane	1.9 U		43	42.0	98	57-138
79-01-6	Trichloroethene	0.94 U		43	42.7	99	52-140
95-63-6	1,2,4-Trimethylbenzene	1.9 U		43	31.1	72	39-142
108-67-8	1,3,5-Trimethylbenzene	1.9 U		43	31.4	73	40-140
75-01-4	Vinyl chloride	1.9 U		43	46.1	107	43-146
	m,p-Xylene	0.94 U		86	71.0	83	45-137
95-47-6	o-Xylene	0.94 U		43	35.8	83	48-135
1330-20-7	Xylene (total)	0.94 U		129	107	83	46-137

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC84365-1MS	3C150340.D	1	03/18/19	PS	n/a	n/a	V3C6771
JC84365-1	3C150331.D	1	03/18/19	PS	n/a	n/a	V3C6771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC84365-1, JC84365-2, JC84365-3, JC84365-4, JC84365-5, JC84365-6, JC84365-7, JC84365-8, JC84365-9, JC84365-10, JC84365-11, JC84365-12, JC84365-13

CAS No.	Surrogate Recoveries	MS	JC84365-1	Limits
1868-53-7	Dibromofluoromethane	106%	105%	75-127%
17060-07-0	1,2-Dichloroethane-D4	94%	103%	75-130%
2037-26-5	Toluene-D8	99%	95%	80-120%
460-00-4	4-Bromofluorobenzene	98%	96%	79-127%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC84365-2DUP	3C150342.D	1	03/18/19	PS	n/a	n/a	V3C6771
JC84365-2	3C150332.D	1	03/18/19	PS	n/a	n/a	V3C6771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC84365-1, JC84365-2, JC84365-3, JC84365-4, JC84365-5, JC84365-6, JC84365-7, JC84365-8, JC84365-9, JC84365-10, JC84365-11, JC84365-12, JC84365-13

CAS No.	Compound	JC84365-2 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
67-64-1	Acetone	142		59.2		82* [a]	40
71-43-2	Benzene	0.63 U		ND		nc	30
78-93-3	2-Butanone (MEK)	13 U		ND		nc	30
104-51-8	n-Butylbenzene	2.5 U		ND		nc	30
135-98-8	sec-Butylbenzene	2.5 U		ND		nc	30
98-06-6	tert-Butylbenzene	2.5 U		ND		nc	30
56-23-5	Carbon tetrachloride	2.5 U		ND		nc	30
108-90-7	Chlorobenzene	2.5 U		ND		nc	30
67-66-3	Chloroform	2.5 U		ND		nc	30
95-50-1	1,2-Dichlorobenzene	1.3 U		ND		nc	30
541-73-1	1,3-Dichlorobenzene	1.3 U		ND		nc	30
106-46-7	1,4-Dichlorobenzene	1.3 U		ND		nc	30
75-34-3	1,1-Dichloroethane	1.3 U		ND		nc	30
107-06-2	1,2-Dichloroethane	1.3 U		ND		nc	30
75-35-4	1,1-Dichloroethene	1.3 U		ND		nc	30
156-59-2	cis-1,2-Dichloroethene	1.3 U		ND		nc	30
156-60-5	trans-1,2-Dichloroethene	1.3 U		ND		nc	30
123-91-1	1,4-Dioxane	160 U		ND		nc	30
100-41-4	Ethylbenzene	1.3 U		ND		nc	30
1634-04-4	Methyl Tert Butyl Ether	1.3 U		ND		nc	30
75-09-2	Methylene chloride	6.3 U		ND		nc	36
103-65-1	n-Propylbenzene	2.5 U		ND		nc	30
127-18-4	Tetrachloroethene	2.5 U		ND		nc	30
108-88-3	Toluene	0.62	J	ND		200* [b]	24
71-55-6	1,1,1-Trichloroethane	2.5 U		ND		nc	30
79-01-6	Trichloroethene	1.3 U		ND		nc	30
95-63-6	1,2,4-Trimethylbenzene	2.5 U		ND		nc	30
108-67-8	1,3,5-Trimethylbenzene	2.5 U		ND		nc	30
75-01-4	Vinyl chloride	2.5 U		ND		nc	30
	m,p-Xylene	1.3 U		ND		nc	32
95-47-6	o-Xylene	1.3 U		ND		nc	30
1330-20-7	Xylene (total)	1.3 U		ND		nc	33

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC84365-2DUP	3C150342.D	1	03/18/19	PS	n/a	n/a	V3C6771
JC84365-2	3C150332.D	1	03/18/19	PS	n/a	n/a	V3C6771

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC84365-1, JC84365-2, JC84365-3, JC84365-4, JC84365-5, JC84365-6, JC84365-7, JC84365-8, JC84365-9, JC84365-10, JC84365-11, JC84365-12, JC84365-13

CAS No.	Surrogate Recoveries	DUP	JC84365-2	Limits
1868-53-7	Dibromofluoromethane	107%	105%	75-127%
17060-07-0	1,2-Dichloroethane-D4	102%	101%	75-130%
2037-26-5	Toluene-D8	97%	97%	80-120%
460-00-4	4-Bromofluorobenzene	97%	97%	79-127%

(a) Outside control limits due to sample non-homogeneity.
(b) RPD acceptable due to low DUP and sample concentrations.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample: V3C6743-BFB
Lab File ID: 3C149621.D
Instrument ID: GCMS3C
Injection Date: 02/13/19
Injection Time: 17:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	20405	18.6		Pass
75	30.0 - 60.0% of mass 95	53912	49.2		Pass
95	Base peak, 100% relative abundance	109629	100.0		Pass
96	5.0 - 9.0% of mass 95	7437	6.78		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	102597	93.6		Pass
175	5.0 - 9.0% of mass 174	7596	6.93	(7.40) [a]	Pass
176	95.0 - 101.0% of mass 174	99168	90.5	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	6330	5.77	(6.38) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3C6743-IC6743	3C149623.D	02/13/19	18:33	01:06	Initial cal 0.5
V3C6743-IC6743	3C149624.D	02/13/19	18:56	01:29	Initial cal 1
V3C6743-IC6743	3C149628.D	02/13/19	20:29	03:02	Initial cal 2
V3C6743-IC6743	3C149629.D	02/13/19	20:52	03:25	Initial cal 4
V3C6743-IC6743	3C149630.D	02/13/19	21:15	03:48	Initial cal 8
V3C6743-IC6743	3C149631.D	02/13/19	21:39	04:12	Initial cal 20
V3C6743-ICC6743	3C149632.D	02/13/19	22:02	04:35	Initial cal 50
V3C6743-IC6743	3C149633.D	02/13/19	22:25	04:58	Initial cal 100
V3C6743-IC6743	3C149634.D	02/13/19	22:48	05:21	Initial cal 200
V3C6743-ICV6743	3C149637.D	02/13/19	23:59	06:32	Initial cal verification 50
V3C6743-ICV6743	3C149638.D	02/14/19	00:23	06:56	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample:	V3C6771-BFB	**Injection Date:**	03/18/19
Lab File ID:	3C150326.D	**Injection Time:**	08:53
Instrument ID:	GCMS3C		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14419	17.8		Pass
75	30.0 - 60.0% of mass 95	38976	48.1		Pass
95	Base peak, 100% relative abundance	81013	100.0		Pass
96	5.0 - 9.0% of mass 95	5255	6.49		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	78965	97.5		Pass
175	5.0 - 9.0% of mass 174	5632	6.95	(7.13) [a]	Pass
176	95.0 - 101.0% of mass 174	76024	93.8	(96.3) [a]	Pass
177	5.0 - 9.0% of mass 176	5116	6.32	(6.73) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3C6771-CC6743	3C150326.D	03/18/19	08:53	00:00	Continuing cal 50
V3C6771-BS	3C150327.D	03/18/19	09:29	00:36	Blank Spike
V3C6771-MB	3C150329.D	03/18/19	10:25	01:32	Method Blank
JC84365-1	3C150331.D	03/18/19	11:11	02:18	NWIRP-S1-WC-CF-001
JC84365-2	3C150332.D	03/18/19	11:34	02:41	NWIRP-S1-WC-CF-002
JC84365-3	3C150333.D	03/18/19	11:58	03:05	NWIRP-S1-WC-CF-003
JC84365-4	3C150334.D	03/18/19	12:21	03:28	NWIRP-S1-WC-CF-004
JC84365-5	3C150335.D	03/18/19	12:44	03:51	NWIRP-S1-WC-CF-005
JC84365-6	3C150336.D	03/18/19	13:07	04:14	NWIRP-S1-WC-CF-006
JC84365-7	3C150337.D	03/18/19	13:30	04:37	NWIRP-S1-WC-CF-007
JC84365-8	3C150338.D	03/18/19	13:53	05:00	NWIRP-S1-WC-CF-008
JC84365-9	3C150339.D	03/18/19	14:16	05:23	NWIRP-S1-WC-CF-009
JC84365-1MS	3C150340.D	03/18/19	14:40	05:47	Matrix Spike
JC84365-2DUP	3C150342.D	03/18/19	15:26	06:33	Duplicate
JC84365-10	3C150343.D	03/18/19	15:49	06:56	NWIRP-S1-WC-CF-010
JC84365-11	3C150344.D	03/18/19	16:12	07:19	NWIRP-S1-WC-CF-011
JC84365-12	3C150345.D	03/18/19	16:35	07:42	NWIRP-S1-WC-CF-012
JC84365-13	3C150346.D	03/18/19	16:58	08:05	NWIRP-S1-WC-CF-013
ZZZZZZ	3C150347.D	03/18/19	17:22	08:29	(unrelated sample)
ZZZZZZ	3C150348.D	03/18/19	17:45	08:52	(unrelated sample)
ZZZZZZ	3C150349.D	03/18/19	18:08	09:15	(unrelated sample)
ZZZZZZ	3C150350.D	03/18/19	18:31	09:38	(unrelated sample)
ZZZZZZ	3C150351.D	03/18/19	18:54	10:01	(unrelated sample)
V3C6771-ECC6743	3C150352.D	03/18/19	19:17	10:24	Ending cal 50

Internal Standard Area Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	V3C6771-CC6743	**Injection Date:**	03/18/19
Lab File ID:	3C150326.D	**Injection Time:**	08:53
Instrument ID:	GCMS3C	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	61688	2.58	268301	4.03	357029	4.69	318681	7.40	179143	9.32
Upper Limit [a]	123376	3.08	536602	4.53	714058	5.19	637362	7.90	358286	9.82
Lower Limit [b]	30844	2.08	134151	3.53	178515	4.19	159341	6.90	89572	8.82

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V3C6771-BS	61197	2.58	272270	4.03	362170	4.69	320894	7.40	177347	9.32
V3C6771-MB	47843	2.57	263242	4.03	353390	4.69	312639	7.40	173676	9.32
JC84365-1	56632	2.57	255974	4.03	351287	4.69	322765	7.40	182770	9.32
JC84365-2	55259	2.57	251159	4.03	347621	4.69	311179	7.40	176085	9.32
JC84365-3	53540	2.57	248110	4.03	341034	4.69	315484	7.40	179456	9.32
JC84365-4	55068	2.57	247343	4.03	348472	4.69	317515	7.40	178821	9.32
JC84365-5	55810	2.57	255142	4.03	357452	4.69	322011	7.40	179168	9.32
JC84365-6	48804	2.57	242503	4.03	339123	4.69	309743	7.40	174337	9.32
JC84365-7	54863	2.57	249513	4.03	350011	4.69	316852	7.40	177719	9.32
JC84365-8	52292	2.57	241843	4.03	341381	4.69	308686	7.40	172950	9.32
JC84365-9	52016	2.57	240624	4.03	337042	4.69	307720	7.40	175584	9.32
JC84365-1MS	41840	2.57	247323	4.03	344208	4.69	309100	7.40	169410	9.32
JC84365-2DUP	54448	2.57	238163	4.03	336312	4.69	304016	7.40	171969	9.32
JC84365-10	51923	2.57	246368	4.03	348107	4.69	319422	7.40	180037	9.32
JC84365-11	48229	2.57	244694	4.03	349424	4.69	312402	7.40	174564	9.32
JC84365-12	52869	2.57	249818	4.03	351779	4.69	317900	7.40	177735	9.32
JC84365-13	48497	2.57	246007	4.03	345488	4.69	310274	7.40	174557	9.32
ZZZZZZ	54810	2.57	243132	4.03	338888	4.69	312336	7.39	169307	9.32
ZZZZZZ	48362	2.57	242374	4.03	344108	4.69	298360	7.40	149998	9.32
ZZZZZZ	56573	2.57	250532	4.03	348993	4.69	312597	7.40	170533	9.32
ZZZZZZ	53446	2.57	251003	4.03	350837	4.69	317557	7.40	178351	9.32
ZZZZZZ	48953	2.57	252708	4.03	354437	4.69	316821	7.40	174368	9.32
V3C6771-ECC6743	53217	2.58	251879	4.03	344446	4.69	307913	7.40	173550	9.32

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Method: SW846 8260C **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC84365-1	3C150331.D	105	103	95	96
JC84365-2	3C150332.D	105	101	97	97
JC84365-3	3C150333.D	107	104	96	96
JC84365-4	3C150334.D	108	102	95	97
JC84365-5	3C150335.D	106	101	96	98
JC84365-6	3C150336.D	107	101	96	95
JC84365-7	3C150337.D	108	101	97	98
JC84365-8	3C150338.D	107	102	97	97
JC84365-9	3C150339.D	108	102	96	96
JC84365-10	3C150343.D	109	102	95	97
JC84365-11	3C150344.D	107	100	97	97
JC84365-12	3C150345.D	108	101	97	97
JC84365-13	3C150346.D	106	100	97	96
JC84365-1MS	3C150340.D	106	94	99	98
JC84365-2DUP	3C150342.D	107	102	97	97
V3C6771-BS	3C150327.D	100	100	98	98
V3C6771-MB	3C150329.D	99	94	98	97

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	75-127%
S2 = 1,2-Dichloroethane-D4	75-130%
S3 = Toluene-D8	80-120%
S4 = 4-Bromofluorobenzene	79-127%

Initial Calibration Summary

Job Number: JC84365 **Sample:** V3C6743-ICC6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C149632.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Response Factor Report MS3C

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
Last Update : Fri Feb 15 09:30:13 2019
Response via : Initial Calibration

Calibration Files
4 =3C149629.D 8 =3C149630.D 0.5 =3C149623.D 50 =3C149632.D
100 =3C149633.D 1 =3C149624.D 200 =3C149634.D 20 =3C149631.D
2 =3C149628.D =

Compound	4	8	0.5	50	100	1	200	20	2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------											
2) ethanol										0.000	-1.00
3) tertiary butyl alcohol	1.056	1.147		1.164	1.113		1.067	1.127	1.041	1.102	4.31
4) 1,4-dioxane	0.131	0.123		0.142	0.140		0.135	0.135		0.134	4.96
5) I pentafluorobenzene ----------ISTD----------											
6) chlorodifluoromethane	0.320	0.313		0.327	0.291		0.266	0.320	0.283	0.303	7.64
7) dichlorodifluoromethane	0.436	0.469		0.476	0.428	0.382	0.387	0.468	0.409	0.432	8.59
8) chloromethane	0.372	0.389		0.385	0.342	0.322	0.317	0.382	0.344	0.357	8.13
9) 1,3-butadiene	0.248	0.242		0.251	0.225	0.242	0.204	0.253	0.192	0.232	9.91
10) vinyl chloride	0.389	0.398		0.400	0.359	0.267	0.332	0.391	0.333	0.359	12.92
11) bromomethane	0.237	0.235		0.234	0.184		0.168	0.237	0.207	0.215	13.40
12) chloroethane	0.228	0.234		0.238	0.215	0.156	0.209	0.235	0.190	0.213	13.14
13) vinyl Bromide	0.316	0.335		0.346	0.315	0.233	0.301	0.340	0.277	0.308	12.28
14) trichlorofluoromethane	0.544	0.577	0.497	0.589	0.538	0.476	0.515	0.574	0.467	0.531	8.45
15) ethyl ether	0.157	0.156		0.164	0.154		0.145	0.164	0.118	0.151	10.69
16) 2-chloropropane	0.119	0.127		0.136	0.126	0.117	0.113	0.129	0.098	0.121	9.63
17) acrolein	0.023	0.030		0.036	0.033		0.032	0.033		0.031	14.56
18) freon 113	0.268	0.266		0.288	0.269	0.225	0.255	0.281	0.180	0.254	13.92
19) 1,1-dichloroethene	0.283	0.295		0.312	0.291	0.275	0.271	0.305	0.231	0.283	8.87
20) acetone	0.016	0.016		0.017	0.016	0.015	0.015	0.016	0.013	0.016	7.61
21) acetonitrile	0.027	0.024		0.025	0.022		0.021	0.024		0.024	7.93
22) iodomethane *This compound does not meet initial calibration criteria*	0.108	0.126		0.326	0.329		0.311	0.191		0.232	44.37

Initial Calibration Summary

Job Number: JC84365 **Sample:** V3C6743-ICC6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C149632.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

23) carbon disulfide
0.826 0.803 0.819 0.761 0.712 0.805 0.822 0.793 5.28
24) methylene chloride
0.338 0.319 0.316 0.290 0.276 0.316 0.310 0.309 6.67
25) methyl acetate
0.155 0.160 0.160 0.148 0.141 0.155 0.125 0.149 8.50
26) methyl tert butyl ether
0.794 0.779 0.816 0.748 0.772 0.716 0.782 0.625 0.754 7.96
27) trans-1,2-dichloroethene
0.332 0.326 0.348 0.321 0.337 0.304 0.343 0.265 0.322 8.32
28) hexane
0.525 0.526 0.545 0.498 0.546 0.468 0.552 0.420 0.510 9.01
29) di-isopropyl ether
0.956 0.961 0.807 1.000 0.911 0.992 0.864 0.978 0.771 0.916 9.16
30) ethyl tert-butyl ether
0.935 0.936 0.768 0.996 0.912 0.981 0.875 0.968 0.773 0.905 9.34
31) 2-butanone
0.023 0.026 0.028 0.025 0.025 0.027 0.019 0.025 11.52
32) 1,1-dichloroethane
0.539 0.552 0.406 0.584 0.540 0.550 0.510 0.576 0.454 0.523 11.16
33) chloroprene
0.484 0.495 0.402 0.519 0.481 0.489 0.460 0.506 0.351 0.465 11.70
34) acrylonitrile
0.062 0.061 0.069 0.063 0.061 0.065 0.064 5.03
35) vinyl acetate
0.050 0.052 0.063 0.061 0.059 0.058 0.057 9.43
36) ethyl acetate
0.011 0.028 0.036 0.033 0.032 0.032 0.029 31.43
----- Linear regression ----- Coefficient = 0.9963
Response Ratio = -0.00125 + 0.03349 *A

37) 2,2-dichloropropane
0.492 0.480 0.534 0.498 0.495 0.475 0.512 0.365 0.482 10.49
38) cis-1,2-dichloroethene
0.355 0.360 0.381 0.355 0.340 0.335 0.375 0.283 0.348 8.75
39) propionitrile
0.029 0.030 0.030 0.027 0.031 0.027 0.029 0.024 0.028 7.90
40) bromochloromethane
0.202 0.204 0.210 0.192 0.198 0.182 0.210 0.163 0.195 8.16
41) tetrahydrofuran
0.023 0.026 0.025 0.024 0.023 0.024 4.50
42) chloroform
0.587 0.570 0.597 0.555 0.637 0.529 0.584 0.469 0.566 8.87
43) tert-Butyl Formate
0.173 0.164 0.206 0.205 0.210 0.181 0.116 0.179 18.50
44) isobutyl alcohol
0.043 0.044 0.047 0.042 0.041 0.046 0.044 5.28
45) dibromofluoromethane (s)
0.357 0.363 0.359 0.367 0.364 0.361 0.362 0.360 0.358 0.361 0.93
46) methacrylonitrile
0.080 0.086 0.094 0.089 0.086 0.089 0.063 0.084 12.09
47) 1,1,1-trichloroethane
0.519 0.525 0.566 0.531 0.502 0.508 0.550 0.387 0.511 10.62
48) cyclohexane
0.543 0.573 0.508 0.571 0.524 0.442 0.494 0.565 0.483 0.523 8.56
49) 1,1-dichloropropene
0.181 0.173 0.186 0.170 0.160 0.181 0.123 0.168 12.92
50) tert-amyl alcohol
0.022 0.022 0.022 0.023 0.022 0.022 0.022 1.91
51) carbon tetrachloride

	0.403	0.415	0.459	0.443	0.363	0.426	0.433	0.288	0.404	13.60
52) I 1,4-difluorobenzene	----------ISTD----------									
53) 1,2-dichloroethane-d4 (s)										
	0.273	0.271	0.278	0.269	0.265	0.279	0.267	0.269	0.274	0.272	1.75
54) 2,2,4-trimethylpentane										
	0.936	0.949		0.995	0.939	0.974	0.888	1.002	0.735	0.927	9.26
55) tert-amyl methyl ether										
	0.209	0.209		0.223	0.214	0.216	0.206	0.212	0.168	0.207	8.03
56) n-butyl alcohol										
	0.004	0.004		0.005	0.005		0.005	0.004		0.005	13.85
57) benzene										
	0.959	0.955	0.838	0.976	0.911	1.007	0.859	0.975	0.796	0.920	7.93
58) heptane										
	0.195	0.204		0.212	0.204		0.194	0.216	0.152	0.197	10.90
59) isopropyl acetate										
	0.209	0.209		0.223	0.214		0.206	0.212		0.212	2.77
60) 1,2-dichloroethane										
	0.305	0.287		0.293	0.279	0.347	0.268	0.293	0.264	0.292	8.95
61) trichloroethene										
	0.256	0.261		0.269	0.253	0.254	0.241	0.269	0.197	0.250	9.24
62) ethyl acrylate										
	0.200	0.198		0.216	0.205		0.201	0.204		0.204	3.01
63) 2-nitropropane										
	0.058	0.057		0.066	0.065		0.065	0.062		0.062	6.04
64) 2-chloroethyl vinyl ether										
	0.123	0.123	0.110	0.128	0.120	0.138	0.115	0.124	0.106	0.121	7.99
65) methyl methacrylate										
	0.042	0.049		0.058	0.055		0.053	0.054		0.052	10.93
66) 1,2-dichloropropane										
	0.215	0.226		0.232	0.218	0.249	0.207	0.227	0.174	0.219	10.13
67) methylcyclohexane										
	0.507	0.477		0.477	0.449		0.423	0.488	0.445	0.466	6.23
68) dibromomethane										
	0.122	0.120		0.128	0.123	0.115	0.120	0.125	0.104	0.120	6.13
69) bromodichloromethane										
	0.264	0.263		0.307	0.301	0.297	0.294	0.280	0.216	0.278	10.69
70) epichlorohydrin										
	0.015	0.014		0.016	0.015		0.015	0.015		0.015	3.25
71) cis-1,3-dichloropropene										
	0.331	0.333		0.379	0.369	0.374	0.356	0.358	0.281	0.348	9.22
72) 4-methyl-2-pentanone										
	0.027	0.028		0.033	0.031	0.031	0.030	0.031	0.023	0.029	10.37
73) 3-methyl-1-butanol										
										0.000	-1.00
74) I chlorobenzene-d5	----------ISTD----------									
75) toluene-d8 (s)										
	1.238	1.242	1.234	1.240	1.240	1.233	1.234	1.245	1.232	1.238	0.35
76) toluene										
	0.742	0.733	0.658	0.750	0.705	0.804	0.666	0.742	0.623	0.714	7.87
77) trans-1,3-dichloropropene										
	0.308	0.317		0.373	0.355	0.326	0.347	0.338	0.260	0.328	10.57
78) ethyl methacrylate										
	0.254	0.268		0.298	0.278	0.309	0.269	0.273	0.233	0.273	8.70
79) 1,1,2-trichloroethane										
	0.177	0.176		0.183	0.172	0.204	0.164	0.184	0.144	0.176	9.72
80) 2-hexanone										
	0.066	0.066		0.071	0.067	0.078	0.066	0.068	0.056	0.067	9.40
81) tetrachloroethene										

```
           0.346 0.359 0.268 0.373 0.351 0.366 0.334 0.368 0.283   0.339   11.23
 82)  1,3-dichloropropane
           0.360 0.372 0.304 0.377 0.347 0.406 0.331 0.365 0.327   0.354    8.68
 83)  butyl acetate
           0.128 0.129       0.137 0.127       0.127 0.129 0.108   0.126    6.88
 84)  dibromochloromethane
           0.178 0.189       0.240 0.241 0.202 0.240 0.211 0.154   0.207   15.59
 85)  1,2-dibromoethane
           0.259 0.260       0.279 0.257 0.269 0.248 0.263 0.202   0.255    9.05
 86)  n-butyl ether
           1.189 1.224 1.061 1.225 1.145 1.291 1.107 1.206 1.005   1.161    7.78
 87)  chlorobenzene
           0.817 0.807 0.713 0.815 0.766 0.920 0.733 0.796 0.704   0.786    8.48
 88)  1,1,1,2-tetrachloroethane
           0.239 0.242       0.293 0.283 0.268 0.282 0.265 0.201   0.259   11.64
 89)  ethylbenzene
           1.421 1.421 1.316 1.438 1.341 1.585 1.273 1.429 1.206   1.381    8.03
 90)  m,p-xylene
           0.563 0.570 0.514 0.567 0.526 0.620 0.500 0.557 0.480   0.544    7.93
 91)  o-xylene
           1.152 1.120 1.039 1.137 1.059 1.202 1.026 1.120 0.975   1.092    6.56
 92)  styrene
           0.884 0.908 0.775 0.940 0.873 0.979 0.853 0.907 0.753   0.875    8.35
 93)  bromoform
           0.097 0.104       0.144 0.152       0.160 0.118         0.129   20.48
            ----- Linear regression -----  Coefficient =  0.9974
              Response Ratio = -0.00744 + 0.15778 *A

 94)  butyl acrylate
           0.344 0.362       0.416 0.396 0.422 0.409 0.382 0.303   0.379   10.79
 95)  isopropylbenzene
           1.457 1.451 1.234 1.482 1.375 1.520 1.324 1.471 1.214   1.392    8.03
 96)  cis-1,4-dichloro-2-butene
           0.065 0.070       0.083 0.082       0.086 0.075         0.077   10.64

 97) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
 98)  4-bromofluorobenzene (s)
           0.817 0.838 0.846 0.815 0.808 0.824 0.799 0.821 0.830   0.822    1.76
 99)  bromobenzene
           0.672 0.692 0.626 0.686 0.636 0.776 0.604 0.680 0.594   0.663    8.40
100)  1,1,2,2-tetrachloroethane
           0.452 0.441 0.431 0.469 0.442 0.522 0.437 0.458 0.404   0.451    7.20
101)  trans-1,4-dichloro-2-butene
           0.033 0.039       0.064 0.063       0.065 0.049         0.052   26.81
            ----- Linear regression -----  Coefficient =  0.9983
              Response Ratio = -0.00341 + 0.06526 *A

102)  1,2,3-trichloropropane
           0.146 0.149       0.154 0.144       0.140 0.150 0.122   0.143    7.35
103)  n-propylbenzene
           3.142 3.207       3.152 2.863 3.518 2.622 3.207 2.613   3.041   10.38
104)  2-chlorotoluene
           0.648 0.666 0.534 0.657 0.612 0.708 0.578 0.653 0.539   0.622    9.67
105)  4-chlorotoluene
           0.653 0.657 0.541 0.660 0.615 0.687 0.585 0.654 0.533   0.620    9.00
106)  1,3,5-trimethylbenzene
           2.272 2.322 2.008 2.346 2.182 2.568 2.028 2.326 1.858   2.212    9.78
107)  tert-butylbenzene
           2.074 2.090 1.725 2.087 1.946 2.146 1.819 2.129 1.702   1.969    8.99
108)  1,2,4-trimethylbenzene
```

```
            2.332 2.357 2.033 2.353 2.192 2.567 2.051 2.339 2.041   2.252    8.18
109)  sec-butylbenzene
            3.002 3.055 2.332 3.055 2.837 3.218 2.617 3.118 2.519   2.861   10.67
110)  1,3-dichlorobenzene
            1.351 1.360 1.248 1.352 1.261 1.463 1.180 1.341 1.163   1.302    7.41
111)  p-isopropyltoluene
            2.633 2.677 2.236 2.705 2.531 2.685 2.338 2.724 2.130   2.518    8.95
112)  1,4-dichlorobenzene
            1.321 1.348 1.389 1.347 1.256 1.604 1.197 1.337 1.183   1.331    9.36
113)  1,2-dichlorobenzene
            1.237 1.234 1.210 1.256 1.179 1.427 1.124 1.239 1.079   1.220    7.97
114)  n-butylbenzene
            1.299 1.329 1.033 1.352 1.281 1.313 1.213 1.356 1.022   1.244   10.45
115)  1,2-dibromo-3-chloropropane
            0.070 0.085       0.114 0.115       0.115 0.096 0.052   0.092   26.79
             ----- Linear regression -----  Coefficient =  0.9990
               Response Ratio = -0.00335 + 0.11529 *A

116)  1,3,5-Trichlorobenzene
            1.248 1.221 1.024 1.254 1.178 1.335 1.100 1.244 1.049   1.184    8.84
117)  1,2,4-trichlorobenzene
            1.044 1.055 0.945 1.071 1.015 1.189 0.933 1.050 0.873   1.019    9.10
118)  hexachlorobutadiene
            0.644 0.652       0.700 0.676 0.603 0.623 0.692 0.490   0.635   10.62
119)  naphthalene
            1.797 1.779 1.723 1.894 1.795 2.068 1.652 1.859 1.500   1.785    8.87
120)  1,2,3-trichlorobenzene
            0.988 0.977 0.879 1.003 0.938 1.039 0.862 0.993 0.830   0.945    7.66
121)  hexachloroethane
            0.237 0.265       0.373 0.394       0.403 0.310         0.330   21.17
             ----- Linear regression -----  Coefficient =  0.9985
               Response Ratio = -0.01860 + 0.40159 *A

122)  Benzyl chloride
            0.614 0.640       0.896 0.905       0.913 0.757         0.788   17.42
123)  2-ethylhexyl acrylate
                  0.317       0.524 0.536       0.530 0.396         0.460   21.54
             ----- Linear regression -----  Coefficient =  0.9989
               Response Ratio = -0.00815 + 0.54600 *A

124)  2-methylnaphthalene
            1.092 1.111       1.162 1.021       0.894 1.136         1.069    9.21
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M3C6743.M         Fri Feb 15 11:14:06 2019   MS3C
```

Initial Calibration Verification

Job Number: JC84365 **Sample:** V3C6743-ICV6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C149637.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\V3C6743\3C149637.D Vial: 17
Acq On : 13 Feb 2019 11:59 pm Operator: juntaep
Sample : ICV6743-50 Inst : MS3C
Misc : MS32156,V3C6743,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
Last Update : Fri Feb 15 09:30:13 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	99	0.00	2.58
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.102	1.177	-6.8	100	0.00	2.64
4		1,4-dioxane	0.134	0.144	-7.5	100	0.00	5.29
5	I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	4.03
6		chlorodifluoromethane	0.303	0.316	-4.3	95	0.00	1.10
7		dichlorodifluoromethane	0.432	0.505	-16.9	104	0.00	1.08
8		chloromethane	0.357	0.380	-6.4	97	0.00	1.22
9		1,3-butadiene	0.232	0.288	-24.1	113	0.00	1.32
10		vinyl chloride	0.359	0.402	-12.0	99	0.00	1.30
11		bromomethane	0.215	0.255	-18.6	107	0.00	1.54
12		chloroethane	0.213	0.239	-12.2	99	0.00	1.62
13		vinyl Bromide	0.308	0.275	10.7	78	0.00	1.75
14		trichlorofluoromethane	0.531	0.594	-11.9	99	0.00	1.77
15		ethyl ether	0.151	0.158	-4.6	95	0.00	1.99
16		2-chloropropane	0.121	0.131	-8.3	95	0.00	2.07
17		acrolein	0.031	0.031	0.0	84	0.00	2.14
18		freon 113	0.254	0.300	-18.1	103	0.00	2.13
19		1,1-dichloroethene	0.283	0.287	-1.4	91	0.00	2.16
20		acetone		----------NA----------				
21		acetonitrile		----------NA----------				
22		iodomethane	0.232	0.286	-23.3	86	0.00	2.29
23		carbon disulfide	0.793	0.886	-11.7	106	0.00	2.31
24		methylene chloride	0.309	0.305	1.3	95	0.00	2.56
25		methyl acetate	0.149	0.149	0.0	92	0.00	2.47
26		methyl tert butyl ether	0.754	0.806	-6.9	97	0.00	2.71
27		trans-1,2-dichloroethene	0.322	0.337	-4.7	95	0.00	2.73
28		hexane	0.510	0.525	-2.9	95	0.00	2.88
29		di-isopropyl ether	0.916	0.931	-1.6	92	0.00	3.08
30		ethyl tert-butyl ether	0.905	0.924	-2.1	91	0.00	3.37
31		2-butanone	0.025	0.027	-8.0	96	0.00	3.60
32		1,1-dichloroethane	0.523	0.572	-9.4	96	0.00	3.10
33		chloroprene	0.465	0.535	-15.1	101	0.00	3.13
34		acrylonitrile	0.064	0.068	-6.3	97	0.00	2.80
35		vinyl acetate	0.057	0.061	-7.0	95	0.00	3.12
		----------	True	Calc.	% Drift	----------		
36		ethyl acetate	50.000	50.550	-1.1	89	0.00	3.61
		----------	AvgRF	CCRF	% Dev	----------		
37		2,2-dichloropropane	0.482	0.524	-8.7	97	0.00	3.54

Initial Calibration Verification

Job Number: JC84365 **Sample:** V3C6743-ICV6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C149637.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

			True	Calc.	% Drift			
38		cis-1,2-dichloroethene	0.348	0.377	-8.3	98	0.00	3.58
39		propionitrile	0.028	0.029	-3.6	96	0.00	3.72
40		bromochloromethane	0.195	0.204	-4.6	96	0.00	3.78
41		tetrahydrofuran	0.024	0.026	-8.3	99	0.00	3.78
42		chloroform	0.566	0.585	-3.4	97	0.00	3.85
43		tert-Butyl Formate	0.179	0.144	19.6	69	0.00	3.86
44		isobutyl alcohol	0.044	0.045	-2.3	95	0.00	4.26
45	S	dibromofluoromethane (s)	0.361	0.367	-1.7	98	0.00	3.99
46		methacrylonitrile	0.084	0.091	-8.3	96	0.00	3.81
47		1,1,1-trichloroethane	0.511	0.550	-7.6	96	0.00	3.96
48		cyclohexane	0.523	0.585	-11.9	101	0.00	3.94
49		1,1-dichloropropene	0.168	0.184	-9.5	97	0.00	4.11
50		tert-amyl alcohol	0.022	0.022	0.0	96	0.00	4.33
51		carbon tetrachloride	0.404	0.452	-11.9	97	0.00	4.07
52	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	4.69
53	S	1,2-dichloroethane-d4 (s)	0.272	0.264	2.9	96	0.00	4.31
54		2,2,4-trimethylpentane	0.927	0.958	-3.3	94	0.00	4.26
55		tert-amyl methyl ether	0.207	0.204	1.4	90	0.00	4.36
56		n-butyl alcohol	0.005	0.005	0.0	95	0.00	4.90
57		benzene	0.920	0.959	-4.2	96	0.00	4.28
58		heptane	0.197	0.231	-17.3	107	0.00	4.45
59		isopropyl acetate	0.212	0.204	3.8	90	0.00	4.36
60		1,2-dichloroethane	0.292	0.288	1.4	96	0.00	4.38
61		trichloroethene	0.250	0.267	-6.8	98	0.00	4.90
62		ethyl acrylate	0.204	0.206	-1.0	94	0.00	5.04
63		2-nitropropane	0.062	0.067	-8.1	99	0.00	5.75
64		2-chloroethyl vinyl ether	0.121	0.122	-0.8	94	0.00	5.76
65		methyl methacrylate	0.052	0.056	-7.7	95	0.00	5.27
66		1,2-dichloropropane	0.219	0.224	-2.3	95	0.00	5.17
67		methylcyclohexane	0.466	0.465	0.2	96	0.00	5.01
68		dibromomethane	0.120	0.127	-5.8	98	0.00	5.30
69		bromodichloromethane	0.278	0.295	-6.1	95	0.00	5.45
70		epichlorohydrin	0.015	0.016	-6.7	97	0.00	5.85
71		cis-1,3-dichloropropene	0.348	0.376	-8.0	97	0.00	5.89
72		4-methyl-2-pentanone	0.029	0.031	-6.9	94	0.00	6.04
73		3-methyl-1-butanol		----------NA----------				
74	I	chlorobenzene-d5	1.000	1.000	0.0	98	0.00	7.40
75	S	toluene-d8 (s)	1.238	1.242	-0.3	98	0.00	6.08
76		toluene	0.714	0.748	-4.8	98	0.00	6.15
77		trans-1,3-dichloropropene	0.328	0.345	-5.2	91	0.00	6.44
78		ethyl methacrylate	0.273	0.274	-0.4	90	0.00	6.47
79		1,1,2-trichloroethane	0.176	0.181	-2.8	97	0.00	6.60
80		2-hexanone	0.067	0.068	-1.5	94	0.00	6.80
81		tetrachloroethene		----------NA----------				
82		1,3-dichloropropane	0.354	0.374	-5.6	97	0.00	6.75
83		butyl acetate	0.126	0.131	-4.0	94	0.00	6.89
84		dibromochloromethane	0.207	0.244	-17.9	100	0.00	6.92
85		1,2-dibromoethane	0.255	0.257	-0.8	90	0.00	7.02
86		n-butyl ether	1.161	1.174	-1.1	94	0.00	7.47
87		chlorobenzene	0.786	0.805	-2.4	97	0.00	7.42
88		1,1,1,2-tetrachloroethane	0.259	0.291	-12.4	98	0.00	7.51
89		ethylbenzene	1.381	1.441	-4.3	98	0.00	7.49
90		m,p-xylene	0.544	0.576	-5.9	100	0.00	7.60
91		o-xylene	1.092	1.141	-4.5	98	0.00	7.93
92		styrene	0.875	0.923	-5.5	96	0.00	7.96
93		bromoform	50.000	49.962	0.1	102	0.00	8.13

Initial Calibration Verification

Job Number: JC84365 **Sample:** V3C6743-ICV6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C149637.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

			AvgRF	CCRF	% Dev			
94		butyl acrylate	0.379	0.407	-7.4	96	0.00	7.92
95		isopropylbenzene	1.392	1.494	-7.3	99	0.00	8.23
96		cis-1,4-dichloro-2-butene	0.077	0.076	1.3	90	0.00	8.36
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	9.33
98	S	4-bromofluorobenzene (s)	0.822	0.818	0.5	98	0.00	8.40
99		bromobenzene	0.663	0.673	-1.5	96	0.00	8.51
100		1,1,2,2-tetrachloroethane	0.451	0.446	1.1	93	0.00	8.55

		True	Calc.	% Drift			
101	trans-1,4-dichloro-2-bute	50.000	55.414	-10.8	104	0.00	8.60

		AvgRF	CCRF	% Dev			
102	1,2,3-trichloropropane	0.143	0.148	-3.5	94	0.00	8.59
103	n-propylbenzene	3.041	3.179	-4.5	98	0.00	8.57
104	2-chlorotoluene	0.622	0.655	-5.3	97	0.00	8.66
105	4-chlorotoluene	0.620	0.667	-7.6	99	0.00	8.75
106	1,3,5-trimethylbenzene	2.212	2.341	-5.8	97	0.00	8.72
107	tert-butylbenzene	1.969	2.115	-7.4	99	0.00	8.97
108	1,2,4-trimethylbenzene	2.252	2.396	-6.4	99	0.00	9.02
109	sec-butylbenzene	2.861	3.129	-9.4	100	0.00	9.14
110	1,3-dichlorobenzene	1.302	1.335	-2.5	96	0.00	9.26
111	p-isopropyltoluene	2.518	2.758	-9.5	99	0.00	9.26
112	1,4-dichlorobenzene	1.331	1.309	1.7	95	0.00	9.34
113	1,2-dichlorobenzene	1.220	1.221	-0.1	95	0.00	9.64
114	n-butylbenzene	1.244	1.365	-9.7	98	0.00	9.59

		True	Calc.	% Drift			
115	1,2-dibromo-3-chloropropa	50.000	49.548	0.9	95	0.00	10.27

		AvgRF	CCRF	% Dev			
116	1,3,5-Trichlorobenzene	1.184	1.197	-1.1	93	0.00	10.39
117	1,2,4-trichlorobenzene	1.019	1.013	0.6	92	0.00	10.89
118	hexachlorobutadiene	0.635	0.681	-7.2	95	0.00	10.97
119	naphthalene	1.785	1.801	-0.9	93	0.00	11.08
120	1,2,3-trichlorobenzene	0.945	0.928	1.8	90	0.00	11.27

		True	Calc.	% Drift			
121	hexachloroethane	50.000	51.693	-3.4	104	0.00	9.80

		AvgRF	CCRF	% Dev			
122	Benzyl chloride	0.788	0.675	14.3	73	0.00	9.46

		True	Calc.	% Drift			
123	2-ethylhexyl acrylate	10.000	9.962	0.4	94	0.00	11.02

		AvgRF	CCRF	% Dev			
124	2-methylnaphthalene	1.069	1.159	-8.4	97	0.00	11.94

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3C149632.D M3C6743.M Fri Feb 15 11:14:05 2019 MS3C

Initial Calibration Verification

Job Number: JC84365 **Sample:** V3C6743-ICV6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C149638.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V3C6743\3C149638.D Vial: 18
Acq On : 14 Feb 2019 12:23 am Operator: juntaep
Sample : ICV6743-50 Inst : MS3C
Misc : MS32156,V3C6743,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
Last Update : Thu Feb 14 14:08:59 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	90	0.00	2.57
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	4.03
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		1,3-butadiene		----------NA----------				
10		vinyl chloride		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		vinyl Bromide		----------NA----------				
14		trichlorofluoromethane		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein		----------NA----------				
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone	0.016	0.015	6.3	85	0.00	2.25
21		acetonitrile	0.024	0.023	4.2	89	0.00	2.51
22		iodomethane		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		ethyl tert-butyl ether		----------NA----------				
31		2-butanone		----------NA----------				
32		1,1-dichloroethane		----------NA----------				
33		chloroprene		----------NA----------				
34		acrylonitrile		----------NA----------				
35		vinyl acetate		----------NA----------				
		----------	True	Calc.	% Drift	----------		
36		ethyl acetate		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
37		2,2-dichloropropane		----------NA----------				

Initial Calibration Verification

Job Number: JC84365 **Sample:** V3C6743-ICV6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C149638.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

38		cis-1,2-dichloroethene		----------NA----------					
39		propionitrile		----------NA----------					
40		bromochloromethane		----------NA----------					
41		tetrahydrofuran		----------NA----------					
42		chloroform		----------NA----------					
43		tert-Butyl Formate		----------NA----------					
44		isobutyl alcohol		----------NA----------					
45	S	dibromofluoromethane (s)	0.361	0.358	0.8	95	0.00	3.99	
46		methacrylonitrile		----------NA----------					
47		1,1,1-trichloroethane		----------NA----------					
48		cyclohexane		----------NA----------					
49		1,1-dichloropropene		----------NA----------					
50		tert-amyl alcohol		----------NA----------					
51		carbon tetrachloride		----------NA----------					
52	I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	4.69	
53	S	1,2-dichloroethane-d4 (s)	0.272	0.265	2.6	95	0.00	4.31	
54		2,2,4-trimethylpentane		----------NA----------					
55		tert-amyl methyl ether		----------NA----------					
56		n-butyl alcohol		----------NA----------					
57		benzene		----------NA----------					
58		heptane		----------NA----------					
59		isopropyl acetate		----------NA----------					
60		1,2-dichloroethane		----------NA----------					
61		trichloroethene		----------NA----------					
62		ethyl acrylate		----------NA----------					
63		2-nitropropane		----------NA----------					
64		2-chloroethyl vinyl ether		----------NA----------					
65		methyl methacrylate		----------NA----------					
66		1,2-dichloropropane		----------NA----------					
67		methylcyclohexane		----------NA----------					
68		dibromomethane		----------NA----------					
69		bromodichloromethane		----------NA----------					
70		epichlorohydrin		----------NA----------					
71		cis-1,3-dichloropropene		----------NA----------					
72		4-methyl-2-pentanone		----------NA----------					
73		3-methyl-1-butanol		----------NA----------					
74	I	chlorobenzene-d5	1.000	1.000	0.0	97	0.00	7.40	
75	S	toluene-d8 (s)	1.238	1.236	0.2	97	0.00	6.08	
76		toluene		----------NA----------					
77		trans-1,3-dichloropropene		----------NA----------					
78		ethyl methacrylate		----------NA----------					
79		1,1,2-trichloroethane		----------NA----------					
80		2-hexanone		----------NA----------					
81		tetrachloroethene	0.339	0.390	-15.0	101	0.00	6.62	
82		1,3-dichloropropane		----------NA----------					
83		butyl acetate		----------NA----------					
84		dibromochloromethane		----------NA----------					
85		1,2-dibromoethane		----------NA----------					
86		n-butyl ether		----------NA----------					
87		chlorobenzene		----------NA----------					
88		1,1,1,2-tetrachloroethane		----------NA----------					
89		ethylbenzene		----------NA----------					
90		m,p-xylene		----------NA----------					
91		o-xylene		----------NA----------					
92		styrene		----------NA----------					
		----------	True	Calc.	% Drift			----------	
93		bromoform		----------NA----------					

			AvgRF	CCRF	% Dev		
94		butyl acrylate		NA			
95		isopropylbenzene		NA			
96		cis-1,4-dichloro-2-butene		NA			
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00 9.33
98	S	4-bromofluorobenzene (s)	0.822	0.817	0.6	97	0.00 8.40
99		bromobenzene		NA			
100		1,1,2,2-tetrachloroethane		NA			

			True	Calc.	% Drift
101		trans-1,4-dichloro-2-bute		NA	

			AvgRF	CCRF	% Dev
102		1,2,3-trichloropropane		NA	
103		n-propylbenzene		NA	
104		2-chlorotoluene		NA	
105		4-chlorotoluene		NA	
106		1,3,5-trimethylbenzene		NA	
107		tert-butylbenzene		NA	
108		1,2,4-trimethylbenzene		NA	
109		sec-butylbenzene		NA	
110		1,3-dichlorobenzene		NA	
111		p-isopropyltoluene		NA	
112		1,4-dichlorobenzene		NA	
113		1,2-dichlorobenzene		NA	
114		n-butylbenzene		NA	

			True	Calc.	% Drift
115		1,2-dibromo-3-chloropropa		NA	

			AvgRF	CCRF	% Dev
116		1,3,5-Trichlorobenzene		NA	
117		1,2,4-trichlorobenzene		NA	
118		hexachlorobutadiene		NA	
119		naphthalene		NA	
120		1,2,3-trichlorobenzene		NA	

			True	Calc.	% Drift
121		hexachloroethane		NA	

			AvgRF	CCRF	% Dev
122		Benzyl chloride		NA	

			True	Calc.	% Drift
123		2-ethylhexyl acrylate		NA	

			AvgRF	CCRF	% Dev
124		2-methylnaphthalene		NA	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3C149632.D M3C6743.M Thu Feb 14 14:13:20 2019 MS3C

Continuing Calibration Summary

Job Number: JC84365 **Sample:** V3C6771-CC6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C150326.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ma...19\v3c6771\3c150326.d Vial: 1
Acq On : 18 Mar 2019 8:53 am Operator: Prashans
Sample : CC6743-50 Inst : MS3C
Misc : MS33210,V3C6771,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
Last Update : Mon Sep 13 11:48:20 2010
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	103	0.00	2.58
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.102	1.167	-5.9	103	0.00	2.64
4		1,4-dioxane	0.134	0.157	-17.2	114	0.00	5.29
5	I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	4.03
6		chlorodifluoromethane	0.303	0.300	1.0	92	0.00	1.10
7		dichlorodifluoromethane	0.432	0.319	26.2#	67	0.00	1.08
8		chloromethane	0.357	0.307	14.0	80	0.00	1.22
9		1,3-butadiene	0.232	0.238	-2.6	94	0.00	1.32
10		vinyl chloride	0.359	0.310	13.6	77	0.00	1.30
11		bromomethane	0.215	0.192	10.7	82	0.00	1.54
12		chloroethane	0.213	0.200	6.1	84	0.00	1.62
13		vinyl Bromide	0.308	0.221	28.2#	64	0.00	1.75
14		trichlorofluoromethane	0.531	0.457	13.9	77	0.00	1.77
15		ethyl ether	0.151	0.165	-9.3	100	0.00	1.99
16		2-chloropropane	0.121	0.117	3.3	86	0.00	2.07
17		acrolein	0.031	0.044	-41.9#	122	0.00	2.14
18		freon 113	0.254	0.277	-9.1	96	0.00	2.13
19		1,1-dichloroethene	0.283	0.281	0.7	90	0.00	2.16
20		acetone	0.016	0.019	-18.7	109	0.00	2.25
21		acetonitrile	0.024	0.027	-12.5	107	0.00	2.51
22		iodomethane	0.232	0.242	-4.3	74	0.00	2.29
23		carbon disulfide	0.793	0.755	4.8	92	0.00	2.31
24		methylene chloride	0.309	0.298	3.6	94	0.00	2.56
25		methyl acetate	0.149	0.162	-8.7	101	0.00	2.47
26		methyl tert butyl ether	0.754	0.793	-5.2	97	0.00	2.71
27		trans-1,2-dichloroethene	0.322	0.318	1.2	91	0.00	2.73
28		hexane	0.510	0.519	-1.8	95	0.00	2.88
29		di-isopropyl ether	0.916	0.905	1.2	90	0.00	3.08
30		ethyl tert-butyl ether	0.905	0.907	-0.2	91	0.00	3.37
31		2-butanone	0.025	0.030	-20.0	109	0.00	3.60
32		1,1-dichloroethane	0.523	0.517	1.1	88	0.00	3.09
33		chloroprene	0.465	0.454	2.4	87	0.00	3.13
34		acrylonitrile	0.064	0.077	-20.3#	110	0.00	2.80
35		vinyl acetate	0.057	0.071	-24.6#	111	0.00	3.12
		----------	True	Calc.	% Drift	----------		
36		ethyl acetate	50.000	57.261	-14.5	103	0.00	3.61
		----------	AvgRF	CCRF	% Dev	----------		
37		2,2-dichloropropane	0.482	0.462	4.1	86	0.00	3.54

Continuing Calibration Summary

Job Number: JC84365 **Sample:** V3C6771-CC6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C150326.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

			True	Calc.	% Drift			
38		cis-1,2-dichloroethene	0.348	0.350	-0.6	92	0.00	3.57
39		propionitrile	0.028	0.033	-17.9	112	0.00	3.72
40		bromochloromethane	0.195	0.206	-5.6	98	0.00	3.78
41		tetrahydrofuran	0.024	0.029	-20.8#	112	0.00	3.78
42		chloroform	0.566	0.535	5.5	89	0.00	3.84
43		tert-Butyl Formate	0.179	0.170	5.0	83	0.00	3.86
44		isobutyl alcohol	0.044	0.041	6.8	87	0.00	4.26
45	S	dibromofluoromethane (s)	0.361	0.366	-1.4	100	0.00	3.99
46		methacrylonitrile	0.084	0.102	-21.4#	109	0.00	3.81
47		1,1,1-trichloroethane	0.511	0.489	4.3	86	0.00	3.96
48		cyclohexane	0.523	0.481	8.0	84	0.00	3.94
49		1,1-dichloropropene	0.168	0.165	1.8	88	0.00	4.11
50		tert-amyl alcohol	0.022	0.021	4.5	92	0.00	4.33
51		carbon tetrachloride	0.404	0.414	-2.5	90	0.00	4.07
52	I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	4.69
53	S	1,2-dichloroethane-d4 (s)	0.272	0.271	0.4	97	0.00	4.31
54		2,2,4-trimethylpentane	0.927	0.888	4.2	86	0.00	4.26
55		tert-amyl methyl ether	0.207	0.225	-8.7	97	0.00	4.36
56		n-butyl alcohol	0.005	0.006	-20.0	112	0.00	4.90
57		benzene	0.920	0.914	0.7	90	0.00	4.28
58		heptane	0.197	0.192	2.5	87	0.00	4.45
59		isopropyl acetate	0.212	0.225	-6.1	97	0.00	4.36
60		1,2-dichloroethane	0.292	0.288	1.4	95	0.00	4.38
61		trichloroethene	0.250	0.252	-0.8	90	0.00	4.90
62		ethyl acrylate	0.204	0.250	-22.5#	112	0.00	5.04
63		2-nitropropane	0.062	0.071	-14.5	103	0.00	5.75
64		2-chloroethyl vinyl ether	0.121	0.138	-14.0	104	0.00	5.76
65		methyl methacrylate	0.052	0.062	-19.2	103	0.00	5.27
66		1,2-dichloropropane	0.219	0.221	-0.9	91	0.00	5.17
67		methylcyclohexane	0.466	0.435	6.7	88	0.00	5.01
68		dibromomethane	0.120	0.133	-10.8	100	0.00	5.29
69		bromodichloromethane	0.278	0.308	-10.8	97	0.00	5.45
70		epichlorohydrin	0.015	0.020	-33.3#	117	0.00	5.84
71		cis-1,3-dichloropropene	0.348	0.383	-10.1	97	0.00	5.89
72		4-methyl-2-pentanone	0.029	0.037	-27.6#	109	0.00	6.03
73		3-methyl-1-butanol		----------NA----------				
74	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	7.40
75	S	toluene-d8 (s)	1.238	1.204	2.7	97	0.00	6.08
76		toluene	0.714	0.687	3.8	92	0.00	6.15
77		trans-1,3-dichloropropene	0.328	0.364	-11.0	98	0.00	6.44
78		ethyl methacrylate	0.273	0.300	-9.9	101	0.00	6.47
79		1,1,2-trichloroethane	0.176	0.183	-4.0	100	0.00	6.60
80		2-hexanone	0.067	0.079	-17.9	111	0.00	6.80
81		tetrachloroethene	0.339	0.355	-4.7	95	0.00	6.62
82		1,3-dichloropropane	0.354	0.370	-4.5	98	0.00	6.75
83		butyl acetate	0.126	0.146	-15.9	107	0.00	6.89
84		dibromochloromethane	0.207	0.260	-25.6#	109	0.00	6.92
85		1,2-dibromoethane	0.255	0.286	-12.2	103	0.00	7.01
86		n-butyl ether	1.161	1.061	8.6	87	0.00	7.47
87		chlorobenzene	0.786	0.775	1.4	95	0.00	7.42
88		1,1,1,2-tetrachloroethane	0.259	0.281	-8.5	96	0.00	7.50
89		ethylbenzene	1.381	1.307	5.4	91	0.00	7.49
90		m,p-xylene	0.544	0.516	5.1	91	0.00	7.60
91		o-xylene	1.092	1.030	5.7	91	0.00	7.93
92		styrene	0.875	0.860	1.7	92	0.00	7.96
93		bromoform	50.000	60.103	-20.2#	126	0.00	8.13

Continuing Calibration Summary

Job Number: JC84365 **Sample:** V3C6771-CC6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C150326.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

			AvgRF	CCRF	% Dev			
94		butyl acrylate	0.379	0.421	-11.1	101	0.00	7.92
95		isopropylbenzene	1.392	1.323	5.0	89	0.00	8.23
96		cis-1,4-dichloro-2-butene	0.077	0.088	-14.3	106	0.00	8.36
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	9.32
98	S	4-bromofluorobenzene (s)	0.822	0.789	4.0	99	0.00	8.39
99		bromobenzene	0.663	0.656	1.1	98	0.00	8.51
100		1,1,2,2-tetrachloroethane	0.451	0.488	-8.2	106	0.00	8.55

		True	Calc.	% Drift			
101	trans-1,4-dichloro-2-bute	50.000	55.732	-11.5	110	0.00	8.60

		AvgRF	CCRF	% Dev			
102	1,2,3-trichloropropane	0.143	0.160	-11.9	106	0.00	8.58
103	n-propylbenzene	3.041	2.746	9.7	89	0.00	8.56
104	2-chlorotoluene	0.622	0.592	4.8	92	0.00	8.65
105	4-chlorotoluene	0.620	0.602	2.9	93	0.00	8.75
106	1,3,5-trimethylbenzene	2.212	2.011	9.1	88	0.00	8.71
107	tert-butylbenzene	1.969	1.795	8.8	88	0.00	8.97
108	1,2,4-trimethylbenzene	2.252	2.023	10.2	88	0.00	9.02
109	sec-butylbenzene	2.861	2.621	8.4	88	0.00	9.14
110	1,3-dichlorobenzene	1.302	1.249	4.1	94	0.00	9.26
111	p-isopropyltoluene	2.518	2.351	6.6	89	0.00	9.26
112	1,4-dichlorobenzene	1.331	1.257	5.6	95	0.00	9.34
113	1,2-dichlorobenzene	1.220	1.177	3.5	96	0.00	9.63
114	n-butylbenzene	1.244	1.171	5.9	89	0.00	9.59

		True	Calc.	% Drift			
115	1,2-dibromo-3-chloropropa	50.000	60.426	-20.9#	122	0.00	10.27

		AvgRF	CCRF	% Dev			
116	1,3,5-Trichlorobenzene	1.184	1.220	-3.0	100	0.00	10.38
117	1,2,4-trichlorobenzene	1.019	1.085	-6.5	104	0.00	10.89
118	hexachlorobutadiene	0.635	0.663	-4.4	97	0.00	10.97
119	naphthalene	1.785	2.014	-12.8	109	0.00	11.08
120	1,2,3-trichlorobenzene	0.945	1.022	-8.1	104	0.00	11.27

		True	Calc.	% Drift			
121	hexachloroethane	50.000	51.537	-3.1	108	0.00	9.80

		AvgRF	CCRF	% Dev			
122	Benzyl chloride	0.788	1.047	-32.9#	119	0.00	9.46

		True	Calc.	% Drift			
123	2-ethylhexyl acrylate	10.000	9.755	2.4	96	0.00	11.02

		AvgRF	CCRF	% Dev			
124	2-methylnaphthalene	1.069	1.398	-30.8#	123	0.00	11.94

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3C149632.D M3C6743.M Tue Mar 19 03:35:52 2019

6.8.4

6

Continuing Calibration Summary

Job Number: JC84365 **Sample:** V3C6771-ECC6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C150352.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ma...19\v3c6771\3c150352.d Vial: 27
Acq On : 18 Mar 2019 7:17 pm Operator: Prashans
Sample : ECC6743-50 Inst : MS3C
Misc : MS33162,V3C6771,5.0,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M3C6743.M (RTE Integrator)
Title : Method SW846 8260C, Rxi624 20m x 0.18mm x 1.0um
Last Update : Mon Sep 13 11:48:20 2010
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	89	0.00	2.58
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.102	1.167	-5.9	89	0.00	2.64
4		1,4-dioxane	0.134	0.170	-26.9	106	0.00	5.29
5	I	pentafluorobenzene	1.000	1.000	0.0	94	0.00	4.03
6		chlorodifluoromethane	0.303	0.357	-17.8	102	0.00	1.10
7		dichlorodifluoromethane	0.432	0.481	-11.3	95	0.00	1.08
8		chloromethane	0.357	0.403	-12.9	98	0.00	1.22
9		1,3-butadiene	0.232	0.293	-26.3	109	0.00	1.32
10		vinyl chloride	0.359	0.410	-14.2	96	0.00	1.30
11		bromomethane	0.215	0.237	-10.2	95	0.00	1.54
12		chloroethane	0.213	0.251	-17.8	99	0.00	1.62
13		vinyl Bromide	0.308	0.268	13.0	73	0.00	1.75
14		trichlorofluoromethane	0.531	0.577	-8.7	92	0.00	1.77
15		ethyl ether	0.151	0.177	-17.2	101	0.00	1.99
16		2-chloropropane	0.121	0.132	-9.1	91	0.00	2.07
17		acrolein	0.031	0.039	-25.8	101	0.00	2.14
18		freon 113	0.254	0.330	-29.9	108	0.00	2.13
19		1,1-dichloroethene	0.283	0.329	-16.3	99	0.00	2.16
20		acetone	0.016	0.019	-18.7	102	0.00	2.25
21		acetonitrile	0.024	0.027	-12.5	100	0.00	2.51
22		iodomethane	0.232	0.289	-24.6	83	0.00	2.29
23		carbon disulfide	0.793	0.886	-11.7	101	0.00	2.31
24		methylene chloride	0.309	0.332	-7.4	98	0.00	2.56
25		methyl acetate	0.149	0.165	-10.7	97	0.00	2.47
26		methyl tert butyl ether	0.754	0.817	-8.4	94	0.00	2.71
27		trans-1,2-dichloroethene	0.322	0.363	-12.7	98	0.00	2.73
28		hexane	0.510	0.629	-23.3	108	0.00	2.88
29		di-isopropyl ether	0.916	0.997	-8.8	93	0.00	3.08
30		ethyl tert-butyl ether	0.905	0.977	-8.0	92	0.00	3.36
31		2-butanone	0.025	0.030	-20.0	102	0.00	3.60
32		1,1-dichloroethane	0.523	0.592	-13.2	95	0.00	3.09
33		chloroprene	0.465	0.530	-14.0	96	0.00	3.13
34		acrylonitrile	0.064	0.075	-17.2	102	0.00	2.80
35		vinyl acetate	0.057	0.071	-24.6	105	0.00	3.12
		----------	True	Calc.	% Drift	----------		
36		ethyl acetate	50.000	57.428	-14.9	97	0.00	3.61
		----------	AvgRF	CCRF	% Dev	----------		
37		2,2-dichloropropane	0.482	0.510	-5.8	90	0.00	3.54

Continuing Calibration Summary

Job Number: JC84365 **Sample:** V3C6771-ECC6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C150352.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

			True	Calc.	% Drift			
38		cis-1,2-dichloroethene	0.348	0.396	-13.8	97	0.00	3.57
39		propionitrile	0.028	0.033	-17.9	104	0.00	3.71
40		bromochloromethane	0.195	0.223	-14.4	100	0.00	3.78
41		tetrahydrofuran	0.024	0.030	-25.0	107	0.00	3.78
42		chloroform	0.566	0.602	-6.4	94	0.00	3.84
43		tert-Butyl Formate	0.179	0.140	21.8	64	0.00	3.86
44		isobutyl alcohol	0.044	0.046	-4.5	92	0.00	4.26
45	S	dibromofluoromethane (s)	0.361	0.371	-2.8	95	0.00	3.99
46		methacrylonitrile	0.084	0.107	-27.4	107	0.00	3.81
47		1,1,1-trichloroethane	0.511	0.560	-9.6	93	0.00	3.96
48		cyclohexane	0.523	0.591	-13.0	97	0.00	3.94
49		1,1-dichloropropene	0.168	0.186	-10.7	94	0.00	4.10
50		tert-amyl alcohol	0.022	0.019	13.6	78	0.00	4.33
51		carbon tetrachloride	0.404	0.467	-15.6	95	0.00	4.07
52	I	1,4-difluorobenzene	1.000	1.000	0.0	93	0.00	4.69
53	S	1,2-dichloroethane-d4 (s)	0.272	0.269	1.1	93	0.00	4.31
54		2,2,4-trimethylpentane	0.927	1.039	-12.1	97	0.00	4.26
55		tert-amyl methyl ether	0.207	0.227	-9.7	95	0.00	4.36
56		n-butyl alcohol	0.005	0.005	0.0	98	0.00	4.90
57		benzene	0.920	1.018	-10.7	97	0.00	4.28
58		heptane	0.197	0.223	-13.2	98	0.00	4.45
59		isopropyl acetate	0.212	0.227	-7.1	95	0.00	4.36
60		1,2-dichloroethane	0.292	0.301	-3.1	95	0.00	4.38
61		trichloroethene	0.250	0.278	-11.2	96	0.00	4.90
62		ethyl acrylate	0.204	0.213	-4.4	92	0.00	5.04
63		2-nitropropane	0.062	0.066	-6.5	92	0.00	5.76
64		2-chloroethyl vinyl ether	0.121	0.140	-15.7	102	0.00	5.76
65		methyl methacrylate	0.052	0.060	-15.4	97	0.00	5.27
66		1,2-dichloropropane	0.219	0.241	-10.0	97	0.00	5.17
67		methylcyclohexane	0.466	0.510	-9.4	99	0.00	5.01
68		dibromomethane	0.120	0.137	-14.2	100	0.00	5.29
69		bromodichloromethane	0.278	0.328	-18.0	99	0.00	5.45
70		epichlorohydrin	0.015	0.018	-20.0	106	0.00	5.84
71		cis-1,3-dichloropropene	0.348	0.401	-15.2	98	0.00	5.89
72		4-methyl-2-pentanone	0.029	0.035	-20.7	100	0.00	6.03
73		3-methyl-1-butanol		----------NA----------				
74	I	chlorobenzene-d5	1.000	1.000	0.0	97	0.00	7.40
75	S	toluene-d8 (s)	1.238	1.225	1.1	96	0.00	6.08
76		toluene	0.714	0.753	-5.5	97	0.00	6.15
77		trans-1,3-dichloropropene	0.328	0.375	-14.3	97	0.00	6.44
78		ethyl methacrylate	0.273	0.301	-10.3	98	0.00	6.47
79		1,1,2-trichloroethane	0.176	0.189	-7.4	100	0.00	6.60
80		2-hexanone	0.067	0.076	-13.4	103	0.00	6.80
81		tetrachloroethene	0.339	0.384	-13.3	100	0.00	6.62
82		1,3-dichloropropane	0.354	0.384	-8.5	99	0.00	6.75
83		butyl acetate	0.126	0.139	-10.3	98	0.00	6.89
84		dibromochloromethane	0.207	0.263	-27.1	106	0.00	6.92
85		1,2-dibromoethane	0.255	0.286	-12.2	100	0.00	7.01
86		n-butyl ether	1.161	1.160	0.1	92	0.00	7.47
87		chlorobenzene	0.786	0.825	-5.0	98	0.00	7.42
88		1,1,1,2-tetrachloroethane	0.259	0.293	-13.1	97	0.00	7.50
89		ethylbenzene	1.381	1.421	-2.9	96	0.00	7.49
90		m,p-xylene	0.544	0.568	-4.4	97	0.00	7.60
91		o-xylene	1.092	1.131	-3.6	96	0.00	7.93
92		styrene	0.875	0.937	-7.1	97	0.00	7.96
93		bromoform	50.000	58.008	-16.0	118	0.00	8.13

Continuing Calibration Summary

Job Number: JC84365 **Sample:** V3C6771-ECC6743
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 3C150352.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

			AvgRF	CCRF	% Dev			
94		butyl acrylate	0.379	0.418	-10.3	97	0.00	7.92
95		isopropylbenzene	1.392	1.453	-4.4	95	0.00	8.23
96		cis-1,4-dichloro-2-butene	0.077	0.086	-11.7	101	0.00	8.36
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	9.32
98	S	4-bromofluorobenzene (s)	0.822	0.800	2.7	97	0.00	8.39
99		bromobenzene	0.663	0.691	-4.2	100	0.00	8.51
100		1,1,2,2-tetrachloroethane	0.451	0.491	-8.9	104	0.00	8.55

		True	Calc.	% Drift			
101	trans-1,4-dichloro-2-bute	50.000	52.384	-4.8	100	0.00	8.60

		AvgRF	CCRF	% Dev			
102	1,2,3-trichloropropane	0.143	0.155	-8.4	100	0.00	8.58
103	n-propylbenzene	3.041	3.037	0.1	95	0.00	8.56
104	2-chlorotoluene	0.622	0.646	-3.9	97	0.00	8.65
105	4-chlorotoluene	0.620	0.651	-5.0	98	0.00	8.75
106	1,3,5-trimethylbenzene	2.212	2.192	0.9	93	0.00	8.72
107	tert-butylbenzene	1.969	1.967	0.1	93	0.00	8.97
108	1,2,4-trimethylbenzene	2.252	2.203	2.2	93	0.00	9.02
109	sec-butylbenzene	2.861	2.905	-1.5	94	0.00	9.14
110	1,3-dichlorobenzene	1.302	1.322	-1.5	97	0.00	9.26
111	p-isopropyltoluene	2.518	2.566	-1.9	94	0.00	9.26
112	1,4-dichlorobenzene	1.331	1.319	0.9	97	0.00	9.34
113	1,2-dichlorobenzene	1.220	1.245	-2.0	98	0.00	9.63
114	n-butylbenzene	1.244	1.280	-2.9	94	0.00	9.59

		True	Calc.	% Drift			
115	1,2-dibromo-3-chloropropa	50.000	57.773	-15.5	113	0.00	10.27

		AvgRF	CCRF	% Dev			
116	1,3,5-Trichlorobenzene	1.184	1.273	-7.5	101	0.00	10.39
117	1,2,4-trichlorobenzene	1.019	1.089	-6.9	101	0.00	10.88
118	hexachlorobutadiene	0.635	0.702	-10.6	99	0.00	10.97
119	naphthalene	1.785	1.972	-10.5	103	0.00	11.07
120	1,2,3-trichlorobenzene	0.945	1.015	-7.4	100	0.00	11.27

		True	Calc.	% Drift			
121	hexachloroethane	50.000	52.943	-5.9	108	0.00	9.80

		AvgRF	CCRF	% Dev			
122	Benzyl chloride	0.788	0.945	-19.9	104	0.00	9.46

		True	Calc.	% Drift			
123	2-ethylhexyl acrylate	10.000	10.399	-4.0	100	0.00	11.02

		AvgRF	CCRF	% Dev			
124	2-methylnaphthalene	1.069	1.380	-29.1	118	0.00	11.94

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3C149632.D M3C6743.M Tue Mar 19 04:18:40 2019

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample: JC84365-1 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-001

Wet Weight (Total)	31.94	g
Tare Weight	22.84	g
Dry Weight (Total)	31.38	g
Solids, Percent	93.8	%

Sample: JC84365-2 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-002

Wet Weight (Total)	29.66	g
Tare Weight	20.65	g
Dry Weight (Total)	28.98	g
Solids, Percent	92.5	%

Sample: JC84365-3 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-003

Wet Weight (Total)	32.17	g
Tare Weight	22.55	g
Dry Weight (Total)	31.29	g
Solids, Percent	90.9	%

Sample: JC84365-4 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-004

Wet Weight (Total)	32.63	g
Tare Weight	23.16	g
Dry Weight (Total)	31.56	g
Solids, Percent	88.7	%

Sample: JC84365-5 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-005

Wet Weight (Total)	31.91	g
Tare Weight	23.01	g
Dry Weight (Total)	30.94	g
Solids, Percent	89.1	%

Sample: JC84365-6 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-006

Wet Weight (Total)	25.5	g
Tare Weight	17.21	g
Dry Weight (Total)	24.9	g
Solids, Percent	92.8	%

Percent Solids Raw Data Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample: JC84365-7 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-007

Wet Weight (Total)	25.83	g
Tare Weight	16.94	g
Dry Weight (Total)	25.27	g
Solids, Percent	93.7	%

Sample: JC84365-8 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-008

Wet Weight (Total)	33.66	g
Tare Weight	24.12	g
Dry Weight (Total)	33.03	g
Solids, Percent	93.4	%

Sample: JC84365-9 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-009

Wet Weight (Total)	34.41	g
Tare Weight	25.61	g
Dry Weight (Total)	33.84	g
Solids, Percent	93.5	%

Sample: JC84365-10 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-010

Wet Weight (Total)	26.55	g
Tare Weight	18.43	g
Dry Weight (Total)	26.15	g
Solids, Percent	95.1	%

Sample: JC84365-11 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-011

Wet Weight (Total)	29.09	g
Tare Weight	20.11	g
Dry Weight (Total)	28.7	g
Solids, Percent	95.7	%

Sample: JC84365-12 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-012

Wet Weight (Total)	28.65	g
Tare Weight	19.72	g
Dry Weight (Total)	27.96	g
Solids, Percent	92.3	%

Percent Solids Raw Data Summary

Job Number: JC84365
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample: JC84365-13 **Analyzed:** 19-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-013

Wet Weight (Total)	26	g
Tare Weight	16.02	g
Dry Weight (Total)	24.86	g
Solids, Percent	88.6	%

Sample Summary

NOREAS, Inc.

Job No: JC84365

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: Fill Material Samples

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC84365-1	03/13/19	10:40	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-001
JC84365-2	03/13/19	10:45	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-002
JC84365-3	03/13/19	10:48	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-003
JC84365-4	03/13/19	10:48	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-004
JC84365-5	03/13/19	10:52	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-005
JC84365-6	03/13/19	11:00	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-006
JC84365-7	03/13/19	11:05	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-007
JC84365-8	03/13/19	11:08	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-008
JC84365-9	03/13/19	11:17	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-009
JC84365-10	03/13/19	11:22	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-010
JC84365-11	03/13/19	11:26	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-011
JC84365-12	03/13/19	11:30	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-012
JC84365-13	03/13/19	11:41	NK	03/14/19	SO	Soil	NWIRP-S1-WC-CF-013

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-001
Lab Sample ID: JC84365-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 93.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150331.D	1	03/18/19 11:11	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.7 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	39.0	9.4	7.0	4.7	ug/kg	
71-43-2	Benzene	0.37 U	0.47	0.37	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	7.0 U	9.4	7.0	3.5	ug/kg	
104-51-8	n-Butylbenzene	0.47 U	1.9	0.47	0.38	ug/kg	
135-98-8	sec-Butylbenzene	0.47 U	1.9	0.47	0.34	ug/kg	
98-06-6	tert-Butylbenzene	0.47 U	1.9	0.47	0.33	ug/kg	
56-23-5	Carbon tetrachloride	0.94 U	1.9	0.94	0.51	ug/kg	
108-90-7	Chlorobenzene	0.94 U	1.9	0.94	0.33	ug/kg	
67-66-3	Chloroform	0.47 U	1.9	0.47	0.35	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.70 U	0.94	0.70	0.29	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.47 U	0.94	0.47	0.34	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.47 U	0.94	0.47	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	0.47 U	0.94	0.47	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	0.47 U	0.94	0.47	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	0.70 U	0.94	0.70	0.61	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.91 U	0.94	0.91	0.89	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.70 U	0.94	0.70	0.62	ug/kg	
123-91-1	1,4-Dioxane	94 U	120	94	34	ug/kg	
100-41-4	Ethylbenzene	0.70 U	0.94	0.70	0.52	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.47 U	0.94	0.47	0.33	ug/kg	
75-09-2	Methylene chloride	2.8 U	4.7	2.8	2.3	ug/kg	
103-65-1	n-Propylbenzene	0.47 U	1.9	0.47	0.29	ug/kg	
127-18-4	Tetrachloroethene	0.94 U	1.9	0.94	0.43	ug/kg	
108-88-3	Toluene	0.70 U	0.94	0.70	0.35	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.94 U	1.9	0.94	0.40	ug/kg	
79-01-6	Trichloroethene	0.75 U	0.94	0.75	0.71	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.94 U	1.9	0.94	0.59	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.94 U	1.9	0.94	0.33	ug/kg	
75-01-4	Vinyl chloride	0.94 U	1.9	0.94	0.44	ug/kg	
	m,p-Xylene	0.70 U	0.94	0.70	0.70	ug/kg	
95-47-6	o-Xylene	0.70 U	0.94	0.70	0.55	ug/kg	
1330-20-7	Xylene (total)	0.70 U	0.94	0.70	0.55	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-001		
Lab Sample ID:	JC84365-1	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.8
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		75-127%
17060-07-0	1,2-Dichloroethane-D4	103%		75-130%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	96%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-002
Lab Sample ID: JC84365-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 92.5
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150332.D	1	03/18/19 11:34	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	4.3 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	142	13	9.4	6.3	ug/kg	
71-43-2	Benzene	0.50 U	0.63	0.50	0.47	ug/kg	
78-93-3	2-Butanone (MEK)	9.4 U	13	9.4	4.7	ug/kg	
104-51-8	n-Butylbenzene	0.63 U	2.5	0.63	0.51	ug/kg	
135-98-8	sec-Butylbenzene	0.63 U	2.5	0.63	0.46	ug/kg	
98-06-6	tert-Butylbenzene	0.63 U	2.5	0.63	0.44	ug/kg	
56-23-5	Carbon tetrachloride	1.3 U	2.5	1.3	0.69	ug/kg	
108-90-7	Chlorobenzene	1.3 U	2.5	1.3	0.45	ug/kg	
67-66-3	Chloroform	0.63 U	2.5	0.63	0.47	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.94 U	1.3	0.94	0.38	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.63 U	1.3	0.63	0.45	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.63 U	1.3	0.63	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	0.63 U	1.3	0.63	0.48	ug/kg	
107-06-2	1,2-Dichloroethane	0.63 U	1.3	0.63	0.59	ug/kg	
75-35-4	1,1-Dichloroethene	0.94 U	1.3	0.94	0.82	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.2 U	1.3	1.2	1.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.94 U	1.3	0.94	0.84	ug/kg	
123-91-1	1,4-Dioxane	130 U	160	130	46	ug/kg	
100-41-4	Ethylbenzene	0.94 U	1.3	0.94	0.69	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.63 U	1.3	0.63	0.44	ug/kg	
75-09-2	Methylene chloride	3.8 U	6.3	3.8	3.1	ug/kg	
103-65-1	n-Propylbenzene	0.63 U	2.5	0.63	0.39	ug/kg	
127-18-4	Tetrachloroethene	1.3 U	2.5	1.3	0.58	ug/kg	
108-88-3	Toluene	0.62	1.3	0.94	0.47	ug/kg	J
71-55-6	1,1,1-Trichloroethane	1.3 U	2.5	1.3	0.54	ug/kg	
79-01-6	Trichloroethene	1.0 U	1.3	1.0	0.96	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.3 U	2.5	1.3	0.80	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.3 U	2.5	1.3	0.45	ug/kg	
75-01-4	Vinyl chloride	1.3 U	2.5	1.3	0.59	ug/kg	
	m,p-Xylene	0.94 U	1.3	0.94	0.94	ug/kg	
95-47-6	o-Xylene	0.94 U	1.3	0.94	0.73	ug/kg	
1330-20-7	Xylene (total)	0.94 U	1.3	0.94	0.73	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-002		
Lab Sample ID:	JC84365-2	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.5
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-003
Lab Sample ID: JC84365-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 90.9
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150333.D	1	03/18/19 11:58	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.8 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	43.2	9.5	7.1	4.7	ug/kg	
71-43-2	Benzene	0.38 U	0.47	0.38	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	7.1 U	9.5	7.1	3.5	ug/kg	
104-51-8	n-Butylbenzene	0.47 U	1.9	0.47	0.39	ug/kg	
135-98-8	sec-Butylbenzene	0.47 U	1.9	0.47	0.35	ug/kg	
98-06-6	tert-Butylbenzene	0.47 U	1.9	0.47	0.33	ug/kg	
56-23-5	Carbon tetrachloride	0.95 U	1.9	0.95	0.52	ug/kg	
108-90-7	Chlorobenzene	0.95 U	1.9	0.95	0.34	ug/kg	
67-66-3	Chloroform	0.47 U	1.9	0.47	0.35	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.71 U	0.95	0.71	0.29	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.47 U	0.95	0.47	0.34	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.47 U	0.95	0.47	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	0.47 U	0.95	0.47	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	0.47 U	0.95	0.47	0.45	ug/kg	
75-35-4	1,1-Dichloroethene	0.71 U	0.95	0.71	0.62	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.92 U	0.95	0.92	0.91	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.71 U	0.95	0.71	0.63	ug/kg	
123-91-1	1,4-Dioxane	95 U	120	95	35	ug/kg	
100-41-4	Ethylbenzene	0.71 U	0.95	0.71	0.52	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.47 U	0.95	0.47	0.33	ug/kg	
75-09-2	Methylene chloride	2.8 U	4.7	2.8	2.4	ug/kg	
103-65-1	n-Propylbenzene	0.47 U	1.9	0.47	0.30	ug/kg	
127-18-4	Tetrachloroethene	0.95 U	1.9	0.95	0.44	ug/kg	
108-88-3	Toluene	0.43	0.95	0.71	0.36	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.95 U	1.9	0.95	0.40	ug/kg	
79-01-6	Trichloroethene	0.76 U	0.95	0.76	0.72	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.95 U	1.9	0.95	0.60	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.95 U	1.9	0.95	0.34	ug/kg	
75-01-4	Vinyl chloride	0.95 U	1.9	0.95	0.44	ug/kg	
	m,p-Xylene	0.71 U	0.95	0.71	0.71	ug/kg	
95-47-6	o-Xylene	0.71 U	0.95	0.71	0.55	ug/kg	
1330-20-7	Xylene (total)	0.71 U	0.95	0.71	0.55	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-003		
Lab Sample ID:	JC84365-3	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	90.9
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		75-127%
17060-07-0	1,2-Dichloroethane-D4	104%		75-130%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	96%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-004
Lab Sample ID: JC84365-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 88.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150334.D	1	03/18/19 12:21	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	6.5 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	18.2	8.7	6.5	4.3	ug/kg	
71-43-2	Benzene	0.35 U	0.43	0.35	0.33	ug/kg	
78-93-3	2-Butanone (MEK)	6.5 U	8.7	6.5	3.2	ug/kg	
104-51-8	n-Butylbenzene	0.43 U	1.7	0.43	0.35	ug/kg	
135-98-8	sec-Butylbenzene	0.43 U	1.7	0.43	0.32	ug/kg	
98-06-6	tert-Butylbenzene	0.43 U	1.7	0.43	0.30	ug/kg	
56-23-5	Carbon tetrachloride	0.87 U	1.7	0.87	0.48	ug/kg	
108-90-7	Chlorobenzene	0.87 U	1.7	0.87	0.31	ug/kg	
67-66-3	Chloroform	0.43 U	1.7	0.43	0.32	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.65 U	0.87	0.65	0.26	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.43 U	0.87	0.43	0.31	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.43 U	0.87	0.43	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	0.43 U	0.87	0.43	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	0.43 U	0.87	0.43	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	0.65 U	0.87	0.65	0.57	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.85 U	0.87	0.85	0.83	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.65 U	0.87	0.65	0.58	ug/kg	
123-91-1	1,4-Dioxane	87 U	110	87	32	ug/kg	
100-41-4	Ethylbenzene	0.65 U	0.87	0.65	0.48	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.43 U	0.87	0.43	0.31	ug/kg	
75-09-2	Methylene chloride	2.6 U	4.3	2.6	2.2	ug/kg	
103-65-1	n-Propylbenzene	0.43 U	1.7	0.43	0.27	ug/kg	
127-18-4	Tetrachloroethene	0.87 U	1.7	0.87	0.40	ug/kg	
108-88-3	Toluene	0.65 U	0.87	0.65	0.33	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.87 U	1.7	0.87	0.37	ug/kg	
79-01-6	Trichloroethene	0.69 U	0.87	0.69	0.66	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.87 U	1.7	0.87	0.55	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.87 U	1.7	0.87	0.31	ug/kg	
75-01-4	Vinyl chloride	0.87 U	1.7	0.87	0.41	ug/kg	
	m,p-Xylene	0.65 U	0.87	0.65	0.65	ug/kg	
95-47-6	o-Xylene	0.65 U	0.87	0.65	0.51	ug/kg	
1330-20-7	Xylene (total)	0.65 U	0.87	0.65	0.51	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-004		
Lab Sample ID:	JC84365-4	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	88.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-005
Lab Sample ID: JC84365-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 89.1
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150335.D	1	03/18/19 12:44	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	6.0 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	23.6	9.4	7.0	4.7	ug/kg	
71-43-2	Benzene	0.37 U	0.47	0.37	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	7.0 U	9.4	7.0	3.5	ug/kg	
104-51-8	n-Butylbenzene	0.47 U	1.9	0.47	0.38	ug/kg	
135-98-8	sec-Butylbenzene	0.47 U	1.9	0.47	0.34	ug/kg	
98-06-6	tert-Butylbenzene	0.47 U	1.9	0.47	0.33	ug/kg	
56-23-5	Carbon tetrachloride	0.94 U	1.9	0.94	0.51	ug/kg	
108-90-7	Chlorobenzene	0.94 U	1.9	0.94	0.33	ug/kg	
67-66-3	Chloroform	0.47 U	1.9	0.47	0.35	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.70 U	0.94	0.70	0.29	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.47 U	0.94	0.47	0.34	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.47 U	0.94	0.47	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	0.47 U	0.94	0.47	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	0.47 U	0.94	0.47	0.44	ug/kg	
75-35-4	1,1-Dichloroethene	0.70 U	0.94	0.70	0.61	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.91 U	0.94	0.91	0.90	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.70 U	0.94	0.70	0.62	ug/kg	
123-91-1	1,4-Dioxane	94 U	120	94	34	ug/kg	
100-41-4	Ethylbenzene	0.70 U	0.94	0.70	0.52	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.47 U	0.94	0.47	0.33	ug/kg	
75-09-2	Methylene chloride	2.8 U	4.7	2.8	2.3	ug/kg	
103-65-1	n-Propylbenzene	0.47 U	1.9	0.47	0.29	ug/kg	
127-18-4	Tetrachloroethene	0.94 U	1.9	0.94	0.43	ug/kg	
108-88-3	Toluene	0.70 U	0.94	0.70	0.35	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.94 U	1.9	0.94	0.40	ug/kg	
79-01-6	Trichloroethene	0.75 U	0.94	0.75	0.71	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.94 U	1.9	0.94	0.59	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.94 U	1.9	0.94	0.33	ug/kg	
75-01-4	Vinyl chloride	0.94 U	1.9	0.94	0.44	ug/kg	
	m,p-Xylene	0.70 U	0.94	0.70	0.70	ug/kg	
95-47-6	o-Xylene	0.70 U	0.94	0.70	0.55	ug/kg	
1330-20-7	Xylene (total)	0.70 U	0.94	0.70	0.55	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-005		
Lab Sample ID:	JC84365-5	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	89.1
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	98%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-006
Lab Sample ID: JC84365-6 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 92.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150336.D	1	03/18/19 13:07	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.5 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	61.0	9.8	7.3	4.9	ug/kg	
71-43-2	Benzene	0.39 U	0.49	0.39	0.37	ug/kg	
78-93-3	2-Butanone (MEK)	7.3 U	9.8	7.3	3.7	ug/kg	
104-51-8	n-Butylbenzene	0.49 U	2.0	0.49	0.40	ug/kg	
135-98-8	sec-Butylbenzene	0.49 U	2.0	0.49	0.36	ug/kg	
98-06-6	tert-Butylbenzene	0.49 U	2.0	0.49	0.34	ug/kg	
56-23-5	Carbon tetrachloride	0.98 U	2.0	0.98	0.54	ug/kg	
108-90-7	Chlorobenzene	0.98 U	2.0	0.98	0.35	ug/kg	
67-66-3	Chloroform	0.49 U	2.0	0.49	0.36	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.73 U	0.98	0.73	0.30	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.49 U	0.98	0.49	0.35	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.49 U	0.98	0.49	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	0.49 U	0.98	0.49	0.38	ug/kg	
107-06-2	1,2-Dichloroethane	0.49 U	0.98	0.49	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	0.73 U	0.98	0.73	0.64	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.96 U	0.98	0.96	0.94	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.73 U	0.98	0.73	0.65	ug/kg	
123-91-1	1,4-Dioxane	98 U	120	98	36	ug/kg	
100-41-4	Ethylbenzene	0.73 U	0.98	0.73	0.54	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.49 U	0.98	0.49	0.34	ug/kg	
75-09-2	Methylene chloride	2.9 U	4.9	2.9	2.4	ug/kg	
103-65-1	n-Propylbenzene	0.49 U	2.0	0.49	0.31	ug/kg	
127-18-4	Tetrachloroethene	0.98 U	2.0	0.98	0.45	ug/kg	
108-88-3	Toluene	0.39	0.98	0.73	0.37	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.98 U	2.0	0.98	0.42	ug/kg	
79-01-6	Trichloroethene	0.78 U	0.98	0.78	0.75	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.98 U	2.0	0.98	0.62	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.98 U	2.0	0.98	0.35	ug/kg	
75-01-4	Vinyl chloride	0.98 U	2.0	0.98	0.46	ug/kg	
	m,p-Xylene	0.73 U	0.98	0.73	0.73	ug/kg	
95-47-6	o-Xylene	0.73 U	0.98	0.73	0.57	ug/kg	
1330-20-7	Xylene (total)	0.73 U	0.98	0.73	0.57	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-006		
Lab Sample ID:	JC84365-6	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.8
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	95%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-007
Lab Sample ID: JC84365-7 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 93.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150337.D	1	03/18/19 13:30	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	3.4 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	39.4	16	12	7.8	ug/kg	
71-43-2	Benzene	0.63 U	0.78	0.63	0.59	ug/kg	
78-93-3	2-Butanone (MEK)	12 U	16	12	5.9	ug/kg	
104-51-8	n-Butylbenzene	0.78 U	3.1	0.78	0.64	ug/kg	
135-98-8	sec-Butylbenzene	0.78 U	3.1	0.78	0.57	ug/kg	
98-06-6	tert-Butylbenzene	0.78 U	3.1	0.78	0.55	ug/kg	
56-23-5	Carbon tetrachloride	1.6 U	3.1	1.6	0.86	ug/kg	
108-90-7	Chlorobenzene	1.6 U	3.1	1.6	0.56	ug/kg	
67-66-3	Chloroform	0.78 U	3.1	0.78	0.58	ug/kg	
95-50-1	1,2-Dichlorobenzene	1.2 U	1.6	1.2	0.48	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.78 U	1.6	0.78	0.56	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.78 U	1.6	0.78	0.54	ug/kg	
75-34-3	1,1-Dichloroethane	0.78 U	1.6	0.78	0.60	ug/kg	
107-06-2	1,2-Dichloroethane	0.78 U	1.6	0.78	0.74	ug/kg	
75-35-4	1,1-Dichloroethene	1.2 U	1.6	1.2	1.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.5 U	1.6	1.5	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	1.2 U	1.6	1.2	1.0	ug/kg	
123-91-1	1,4-Dioxane	160 U	200	160	57	ug/kg	
100-41-4	Ethylbenzene	1.2 U	1.6	1.2	0.87	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.78 U	1.6	0.78	0.55	ug/kg	
75-09-2	Methylene chloride	4.7 U	7.8	4.7	3.9	ug/kg	
103-65-1	n-Propylbenzene	0.78 U	3.1	0.78	0.49	ug/kg	
127-18-4	Tetrachloroethene	1.6 U	3.1	1.6	0.73	ug/kg	
108-88-3	Toluene	1.2 U	1.6	1.2	0.59	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.6 U	3.1	1.6	0.67	ug/kg	
79-01-6	Trichloroethene	1.3 U	1.6	1.3	1.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.6 U	3.1	1.6	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.6 U	3.1	1.6	0.56	ug/kg	
75-01-4	Vinyl chloride	1.6 U	3.1	1.6	0.74	ug/kg	
	m,p-Xylene	1.2 U	1.6	1.2	1.2	ug/kg	
95-47-6	o-Xylene	1.2 U	1.6	1.2	0.91	ug/kg	
1330-20-7	Xylene (total)	1.2 U	1.6	1.2	0.91	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-007		
Lab Sample ID:	JC84365-7	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	98%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-008
Lab Sample ID: JC84365-8 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 93.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150338.D	1	03/18/19 13:53	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.5 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	84.3	9.7	7.3	4.9	ug/kg	
71-43-2	Benzene	0.39 U	0.49	0.39	0.37	ug/kg	
78-93-3	2-Butanone (MEK)	7.3 U	9.7	7.3	3.6	ug/kg	
104-51-8	n-Butylbenzene	0.49 U	1.9	0.49	0.40	ug/kg	
135-98-8	sec-Butylbenzene	0.49 U	1.9	0.49	0.36	ug/kg	
98-06-6	tert-Butylbenzene	0.49 U	1.9	0.49	0.34	ug/kg	
56-23-5	Carbon tetrachloride	0.97 U	1.9	0.97	0.54	ug/kg	
108-90-7	Chlorobenzene	0.97 U	1.9	0.97	0.34	ug/kg	
67-66-3	Chloroform	0.49 U	1.9	0.49	0.36	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.73 U	0.97	0.73	0.30	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.49 U	0.97	0.49	0.35	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.49 U	0.97	0.49	0.33	ug/kg	
75-34-3	1,1-Dichloroethane	0.49 U	0.97	0.49	0.37	ug/kg	
107-06-2	1,2-Dichloroethane	0.49 U	0.97	0.49	0.46	ug/kg	
75-35-4	1,1-Dichloroethene	0.73 U	0.97	0.73	0.64	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.95 U	0.97	0.95	0.93	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.73 U	0.97	0.73	0.65	ug/kg	
123-91-1	1,4-Dioxane	97 U	120	97	36	ug/kg	
100-41-4	Ethylbenzene	0.73 U	0.97	0.73	0.54	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.49 U	0.97	0.49	0.34	ug/kg	
75-09-2	Methylene chloride	2.9 U	4.9	2.9	2.4	ug/kg	
103-65-1	n-Propylbenzene	0.49 U	1.9	0.49	0.30	ug/kg	
127-18-4	Tetrachloroethene	0.97 U	1.9	0.97	0.45	ug/kg	
108-88-3	Toluene	0.68	0.97	0.73	0.37	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.97 U	1.9	0.97	0.41	ug/kg	
79-01-6	Trichloroethene	0.78 U	0.97	0.78	0.74	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.97 U	1.9	0.97	0.62	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.97 U	1.9	0.97	0.35	ug/kg	
75-01-4	Vinyl chloride	0.97 U	1.9	0.97	0.46	ug/kg	
	m,p-Xylene	0.73 U	0.97	0.73	0.73	ug/kg	
95-47-6	o-Xylene	0.73 U	0.97	0.73	0.57	ug/kg	
1330-20-7	Xylene (total)	0.73 U	0.97	0.73	0.57	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-008		
Lab Sample ID:	JC84365-8	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.4
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-009
Lab Sample ID: JC84365-9 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 93.5
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150339.D	1	03/18/19 14:16	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	4.6 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	86.6	12	8.7	5.8	ug/kg	
71-43-2	Benzene	0.47 U	0.58	0.47	0.44	ug/kg	
78-93-3	2-Butanone (MEK)	8.7 U	12	8.7	4.3	ug/kg	
104-51-8	n-Butylbenzene	0.58 U	2.3	0.58	0.47	ug/kg	
135-98-8	sec-Butylbenzene	0.58 U	2.3	0.58	0.42	ug/kg	
98-06-6	tert-Butylbenzene	0.58 U	2.3	0.58	0.41	ug/kg	
56-23-5	Carbon tetrachloride	1.2 U	2.3	1.2	0.64	ug/kg	
108-90-7	Chlorobenzene	1.2 U	2.3	1.2	0.41	ug/kg	
67-66-3	Chloroform	0.58 U	2.3	0.58	0.43	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.87 U	1.2	0.87	0.35	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.58 U	1.2	0.58	0.42	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.58 U	1.2	0.58	0.40	ug/kg	
75-34-3	1,1-Dichloroethane	0.58 U	1.2	0.58	0.45	ug/kg	
107-06-2	1,2-Dichloroethane	0.58 U	1.2	0.58	0.55	ug/kg	
75-35-4	1,1-Dichloroethene	0.87 U	1.2	0.87	0.76	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.1 U	1.2	1.1	1.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.87 U	1.2	0.87	0.78	ug/kg	
123-91-1	1,4-Dioxane	120 U	150	120	42	ug/kg	
100-41-4	Ethylbenzene	0.87 U	1.2	0.87	0.64	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.58 U	1.2	0.58	0.41	ug/kg	
75-09-2	Methylene chloride	3.5 U	5.8	3.5	2.9	ug/kg	
103-65-1	n-Propylbenzene	0.58 U	2.3	0.58	0.36	ug/kg	
127-18-4	Tetrachloroethene	1.2 U	2.3	1.2	0.54	ug/kg	
108-88-3	Toluene	0.87 U	1.2	0.87	0.44	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.2 U	2.3	1.2	0.50	ug/kg	
79-01-6	Trichloroethene	0.93 U	1.2	0.93	0.89	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.2 U	2.3	1.2	0.74	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.2 U	2.3	1.2	0.42	ug/kg	
75-01-4	Vinyl chloride	1.2 U	2.3	1.2	0.55	ug/kg	
	m,p-Xylene	0.87 U	1.2	0.87	0.87	ug/kg	
95-47-6	o-Xylene	0.87 U	1.2	0.87	0.68	ug/kg	
1330-20-7	Xylene (total)	0.87 U	1.2	0.87	0.68	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-009		
Lab Sample ID:	JC84365-9	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	93.5
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	96%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-010
Lab Sample ID: JC84365-10 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 95.1
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150343.D	1	03/18/19 15:49	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.7 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	8.5	9.2	6.9	4.6	ug/kg	J
71-43-2	Benzene	0.37 U	0.46	0.37	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	6.9 U	9.2	6.9	3.4	ug/kg	
104-51-8	n-Butylbenzene	0.46 U	1.8	0.46	0.38	ug/kg	
135-98-8	sec-Butylbenzene	0.46 U	1.8	0.46	0.34	ug/kg	
98-06-6	tert-Butylbenzene	0.46 U	1.8	0.46	0.32	ug/kg	
56-23-5	Carbon tetrachloride	0.92 U	1.8	0.92	0.51	ug/kg	
108-90-7	Chlorobenzene	0.92 U	1.8	0.92	0.33	ug/kg	
67-66-3	Chloroform	0.46 U	1.8	0.46	0.34	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.69 U	0.92	0.69	0.28	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.46 U	0.92	0.46	0.33	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.46 U	0.92	0.46	0.32	ug/kg	
75-34-3	1,1-Dichloroethane	0.46 U	0.92	0.46	0.36	ug/kg	
107-06-2	1,2-Dichloroethane	0.46 U	0.92	0.46	0.43	ug/kg	
75-35-4	1,1-Dichloroethene	0.69 U	0.92	0.69	0.61	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.90 U	0.92	0.90	0.88	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.69 U	0.92	0.69	0.62	ug/kg	
123-91-1	1,4-Dioxane	92 U	120	92	34	ug/kg	
100-41-4	Ethylbenzene	0.69 U	0.92	0.69	0.51	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.46 U	0.92	0.46	0.32	ug/kg	
75-09-2	Methylene chloride	2.8 U	4.6	2.8	2.3	ug/kg	
103-65-1	n-Propylbenzene	0.46 U	1.8	0.46	0.29	ug/kg	
127-18-4	Tetrachloroethene	0.92 U	1.8	0.92	0.43	ug/kg	
108-88-3	Toluene	0.69 U	0.92	0.69	0.35	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.92 U	1.8	0.92	0.39	ug/kg	
79-01-6	Trichloroethene	0.74 U	0.92	0.74	0.70	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.92 U	1.8	0.92	0.59	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.92 U	1.8	0.92	0.33	ug/kg	
75-01-4	Vinyl chloride	0.92 U	1.8	0.92	0.43	ug/kg	
	m,p-Xylene	0.69 U	0.92	0.69	0.69	ug/kg	
95-47-6	o-Xylene	0.69 U	0.92	0.69	0.54	ug/kg	
1330-20-7	Xylene (total)	0.69 U	0.92	0.69	0.54	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-010		
Lab Sample ID:	JC84365-10	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	95.1
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		75-127%
17060-07-0	1,2-Dichloroethane-D4	102%		75-130%
2037-26-5	Toluene-D8	95%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-011
Lab Sample ID: JC84365-11 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 95.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150344.D	1	03/18/19 16:12	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.1 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	23.3	10	7.7	5.1	ug/kg	
71-43-2	Benzene	0.41 U	0.51	0.41	0.39	ug/kg	
78-93-3	2-Butanone (MEK)	7.7 U	10	7.7	3.8	ug/kg	
104-51-8	n-Butylbenzene	0.51 U	2.0	0.51	0.42	ug/kg	
135-98-8	sec-Butylbenzene	0.51 U	2.0	0.51	0.37	ug/kg	
98-06-6	tert-Butylbenzene	0.51 U	2.0	0.51	0.36	ug/kg	
56-23-5	Carbon tetrachloride	1.0 U	2.0	1.0	0.56	ug/kg	
108-90-7	Chlorobenzene	1.0 U	2.0	1.0	0.36	ug/kg	
67-66-3	Chloroform	0.51 U	2.0	0.51	0.38	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.77 U	1.0	0.77	0.31	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.51 U	1.0	0.51	0.37	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.51 U	1.0	0.51	0.35	ug/kg	
75-34-3	1,1-Dichloroethane	0.51 U	1.0	0.51	0.39	ug/kg	
107-06-2	1,2-Dichloroethane	0.51 U	1.0	0.51	0.48	ug/kg	
75-35-4	1,1-Dichloroethene	0.77 U	1.0	0.77	0.67	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.0 U	1.0	1.0	0.98	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.77 U	1.0	0.77	0.68	ug/kg	
123-91-1	1,4-Dioxane	100 U	130	100	37	ug/kg	
100-41-4	Ethylbenzene	0.77 U	1.0	0.77	0.57	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.51 U	1.0	0.51	0.36	ug/kg	
75-09-2	Methylene chloride	3.1 U	5.1	3.1	2.6	ug/kg	
103-65-1	n-Propylbenzene	0.51 U	2.0	0.51	0.32	ug/kg	
127-18-4	Tetrachloroethene	1.0 U	2.0	1.0	0.47	ug/kg	
108-88-3	Toluene	0.77 U	1.0	0.77	0.39	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.0 U	2.0	1.0	0.44	ug/kg	
79-01-6	Trichloroethene	0.82 U	1.0	0.82	0.78	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.0 U	2.0	1.0	0.65	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.0 U	2.0	1.0	0.37	ug/kg	
75-01-4	Vinyl chloride	1.0 U	2.0	1.0	0.48	ug/kg	
	m,p-Xylene	0.77 U	1.0	0.77	0.76	ug/kg	
95-47-6	o-Xylene	0.77 U	1.0	0.77	0.60	ug/kg	
1330-20-7	Xylene (total)	0.77 U	1.0	0.77	0.60	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-011		
Lab Sample ID:	JC84365-11	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	95.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		75-127%
17060-07-0	1,2-Dichloroethane-D4	100%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-012
Lab Sample ID: JC84365-12 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 92.3
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150345.D	1	03/18/19 16:35	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	5.2 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	67.7	10	7.8	5.2	ug/kg	
71-43-2	Benzene	0.42 U	0.52	0.42	0.39	ug/kg	
78-93-3	2-Butanone (MEK)	7.8 U	10	7.8	3.9	ug/kg	
104-51-8	n-Butylbenzene	0.52 U	2.1	0.52	0.42	ug/kg	
135-98-8	sec-Butylbenzene	0.52 U	2.1	0.52	0.38	ug/kg	
98-06-6	tert-Butylbenzene	0.52 U	2.1	0.52	0.37	ug/kg	
56-23-5	Carbon tetrachloride	1.0 U	2.1	1.0	0.57	ug/kg	
108-90-7	Chlorobenzene	1.0 U	2.1	1.0	0.37	ug/kg	
67-66-3	Chloroform	0.52 U	2.1	0.52	0.39	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.78 U	1.0	0.78	0.32	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.52 U	1.0	0.52	0.37	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.52 U	1.0	0.52	0.36	ug/kg	
75-34-3	1,1-Dichloroethane	0.52 U	1.0	0.52	0.40	ug/kg	
107-06-2	1,2-Dichloroethane	0.52 U	1.0	0.52	0.49	ug/kg	
75-35-4	1,1-Dichloroethene	0.78 U	1.0	0.78	0.68	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.0 U	1.0	1.0	1.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.78 U	1.0	0.78	0.69	ug/kg	
123-91-1	1,4-Dioxane	100 U	130	100	38	ug/kg	
100-41-4	Ethylbenzene	0.78 U	1.0	0.78	0.58	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.52 U	1.0	0.52	0.37	ug/kg	
75-09-2	Methylene chloride	3.1 U	5.2	3.1	2.6	ug/kg	
103-65-1	n-Propylbenzene	0.52 U	2.1	0.52	0.33	ug/kg	
127-18-4	Tetrachloroethene	1.0 U	2.1	1.0	0.48	ug/kg	
108-88-3	Toluene	0.57	1.0	0.78	0.39	ug/kg	J
71-55-6	1,1,1-Trichloroethane	1.0 U	2.1	1.0	0.44	ug/kg	
79-01-6	Trichloroethene	0.83 U	1.0	0.83	0.79	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.0 U	2.1	1.0	0.66	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.0 U	2.1	1.0	0.37	ug/kg	
75-01-4	Vinyl chloride	1.0 U	2.1	1.0	0.49	ug/kg	
	m,p-Xylene	0.78 U	1.0	0.78	0.78	ug/kg	
95-47-6	o-Xylene	0.78 U	1.0	0.78	0.61	ug/kg	
1330-20-7	Xylene (total)	0.78 U	1.0	0.78	0.61	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-012		
Lab Sample ID:	JC84365-12	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	92.3
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		75-127%
17060-07-0	1,2-Dichloroethane-D4	101%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	97%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-013
Lab Sample ID: JC84365-13 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8260C **Percent Solids:** 88.6
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C150346.D	1	03/18/19 16:58	PS	n/a	n/a	V3C6771
Run #2							

	Initial Weight
Run #1	6.5 g
Run #2	

VOA Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	24.4	8.7	6.5	4.3	ug/kg	
71-43-2	Benzene	0.35 U	0.43	0.35	0.33	ug/kg	
78-93-3	2-Butanone (MEK)	6.5 U	8.7	6.5	3.2	ug/kg	
104-51-8	n-Butylbenzene	0.43 U	1.7	0.43	0.35	ug/kg	
135-98-8	sec-Butylbenzene	0.43 U	1.7	0.43	0.32	ug/kg	
98-06-6	tert-Butylbenzene	0.43 U	1.7	0.43	0.30	ug/kg	
56-23-5	Carbon tetrachloride	0.87 U	1.7	0.87	0.48	ug/kg	
108-90-7	Chlorobenzene	0.87 U	1.7	0.87	0.31	ug/kg	
67-66-3	Chloroform	0.43 U	1.7	0.43	0.32	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.65 U	0.87	0.65	0.26	ug/kg	
541-73-1	1,3-Dichlorobenzene	0.43 U	0.87	0.43	0.31	ug/kg	
106-46-7	1,4-Dichlorobenzene	0.43 U	0.87	0.43	0.30	ug/kg	
75-34-3	1,1-Dichloroethane	0.43 U	0.87	0.43	0.33	ug/kg	
107-06-2	1,2-Dichloroethane	0.43 U	0.87	0.43	0.41	ug/kg	
75-35-4	1,1-Dichloroethene	0.65 U	0.87	0.65	0.57	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.85 U	0.87	0.85	0.83	ug/kg	
156-60-5	trans-1,2-Dichloroethene	0.65 U	0.87	0.65	0.58	ug/kg	
123-91-1	1,4-Dioxane	87 U	110	87	32	ug/kg	
100-41-4	Ethylbenzene	0.65 U	0.87	0.65	0.48	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	0.43 U	0.87	0.43	0.31	ug/kg	
75-09-2	Methylene chloride	2.6 U	4.3	2.6	2.2	ug/kg	
103-65-1	n-Propylbenzene	0.43 U	1.7	0.43	0.27	ug/kg	
127-18-4	Tetrachloroethene	0.87 U	1.7	0.87	0.40	ug/kg	
108-88-3	Toluene	0.36	0.87	0.65	0.33	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.87 U	1.7	0.87	0.37	ug/kg	
79-01-6	Trichloroethene	0.69 U	0.87	0.69	0.66	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	0.87 U	1.7	0.87	0.55	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	0.87 U	1.7	0.87	0.31	ug/kg	
75-01-4	Vinyl chloride	0.87 U	1.7	0.87	0.41	ug/kg	
	m,p-Xylene	0.65 U	0.87	0.65	0.65	ug/kg	
95-47-6	o-Xylene	0.65 U	0.87	0.65	0.51	ug/kg	
1330-20-7	Xylene (total)	0.65 U	0.87	0.65	0.51	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-013		
Lab Sample ID:	JC84365-13	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	SW846 8260C	**Percent Solids:**	88.6
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

VOA Soil Cleanup Objectives Priority List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		75-127%
17060-07-0	1,2-Dichloroethane-D4	100%		75-130%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	96%		79-127%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SO SLL

JC84365

CHAIN-OF-CUSTODY RECORD

COC Number: 501164-20190313
Subcontract Services Agreement # TBD

NOREAS APTIM

APTIM - 150 Boush Street, Suite 701, Norfolk, VA 23510 (757) 640-6200

SGS Accutest -New Jersey	2235 US-130, Dayton, NJ 08810 Phone: (732) 329-0200	
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York	***Fill Material Samples***	
F6147 / 501164	Natasha Kelley Sullivan	(410)529-7598
NAVY	Monica L. Smeal E.I.T.	

Analysis: Volatiles SW-846 5035A/8260B

	No.	Sample ID	Date	Time			Matrix	Containers	Volatiles SW-846 5035A/8260B
1	1	NWIRP-S1-WC-CF-001	03/13/19	1040		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 60 ml glass jar, none	X
2	2	NWIRP-S1-WC-CF-002	03/13/19	1045		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
3	3	NWIRP-S1-WC-CF-003	03/13/19	1048		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
4	4	NWIRP-S1-WC-CF-004	03/13/19	1048		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
5	5	NWIRP-S1-WC-CF-005	03/13/19	1052		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
6	6	NWIRP-S1-WC-CF-006	03/13/19	1100		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
7	7	NWIRP-S1-WC-CF-007	03/13/19	1105		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
8	8	NWIRP-S1-WC-CF-008	03/13/19	1108		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
9	9	NWIRP-S1-WC-CF-009	03/13/19	1117		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
10	10	NWIRP-S1-WC-CF-010	03/13/19	1122		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X

P92
14D4
4021

***** See attached list for SPECIFIC COMPOUNDS***
(please run most appopriate method to meet the action level requirements .

INITIAL ASESSMENT 3A0
LABEL VERIFICATION

Turnaround Time Required		Sampled By	Comments	Laboratory Report No.
☐ 14 Day TAT		*McCutcheon, Sean, APTIM*		

	Transfers Relinquished By	Date	Time	Transfers Accepted By	Date	Time	
1	*Sampler's Signature*	*Date*	*Time*	*Laboratory Sample Custody Si*	*Date*	*Time*	**Report Format:** ***Full Report***
2	[signature]	3/13/19	1600	FEDEX			**Deliverables:** **EDD Excel+NIRIS**
3	FEDEX	3/14/19	0948	[signature]			**Fax results to Natasha Sullivan (410) 529-7599**
4							

FEDEX 7860 1642 4080

2.8°C -ip IR278

1/2

JC84365: Chain of Custody
Page 1 of 3

JC84365

CHAIN-OF-CUSTODY RECORD

COC Number: 501164-20190313
Subcontract Services Agreement # TBD

NOREAS APTIM

APTIM - 150 Boush Street, Suite 701, Norfolk, VA 23510 (757) 640-6200

SGS Accutest -New Jersey | 2235 US-130, Dayton, NJ 08810 Phone: (732) 329-0200

Site 1 – Former Drum Marshalling Area
Naval Weapons Industrial Reserve Plant
Bethpage, New York

Fill Material Samples

F6147	501164	Natasha Kelley Sullivan	(410)529-7598
NAVY		Monica L. Smeal E.I.T.	

Analysis Desired: Volatiles SW-846 5035A/8260B

	Item	Sample ID	Date	Time	Wat	Soil	Sample Description	Containers	Volatiles SW-846 5035A/8260B
11	11	NWIRP-S1-WC-CF-011	03/13/19	1126		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 60 ml glass jar, none	X
12	12	NWIRP-S1-WC-CF-012	03/13/19	1130		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X
13	13	NWIRP-S1-WC-CF-013	03/13/19	1141		X	Soil - Common Backfill	3 X Terra Core Kit – (2- H20/1-MeOH) 1 x 2 oz glass jar, none	X

**** See attached list for SPECIFIC COMPOUNDS**
(please run most appopriate method to meet the action level requirements .

Turnaround Time Required	Sampled By	Comments	Laboratory Report No.
☐ 14 Day TAT	McCutcheon, Sean, APTIM		

Transfer Number	Transfers Relinquished By	Date	Time	Transfers Accepted By	Date	Time	
1	Sampler's Signature	Date	Time	Laboratory Sample Custody Si	Date	Time	Report Format: Full Report
2	[signature]	3/13/19	1600	[signature]			Deliverables: EDD Excel+NIRIS
3		3/14/19	9:45	[signature]			Fax results to Natasha Sullivan (410) 529-7599
4							

2/2

JC84365: Chain of Custody
Page 2 of 3

SGS Sample Receipt Summary

Job Number: JC84365 **Client:** NOREAS-CB&I JV (NCBI) **Project:** BACKFILL - BETHPAGE, NY

Date / Time Received: 3/14/2019 9:45:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.8);

Cooler Temps (Corrected) °C: Cooler 1: (1.8);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

LabLink Analytical Data Report
Site 1 - Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84381-1	Aldrin	309-00-2	SW846 8081B	0.60	U	ug/kg	0.73	0.60	1	19	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	alpha-BHC	319-84-6	SW846 8081B	0.60	U	ug/kg	0.73	0.60	1	97	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	2,4,5-TP (Silvex)	93-72-1	SW846 8151A	3.3	U	ug/kg	3.7	3.3	1	58,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	beta-BHC	319-85-7	SW846 8081B	0.66	U	ug/kg	0.73	0.66	1	72	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	delta-BHC	319-86-8	SW846 8081B	0.70	U	ug/kg	0.73	0.70	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	gamma-BHC (Lindane)	58-89-9	SW846 8081B	0.54	U	ug/kg	0.73	0.54	1	280	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	alpha-Chlordane	5103-71-9	SW846 8081B	**7.5**		**ug/kg**	**0.73**	**0.59**	1	910	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Dieldrin	60-57-1	SW846 8081B	**1.6**		**ug/kg**	**0.73**	**0.55**	1	39	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	4,4'-DDD	72-54-8	SW846 8081B	0.67	U	ug/kg	0.73	0.67	1	2,600	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	4,4'-DDE	72-55-9	SW846 8081B	**2.2**		**ug/kg**	**0.73**	**0.64**	1	1,800	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	4,4'-DDT	50-29-3	SW846 8081B	**2.4**		**ug/kg**	**0.73**	**0.65**	1	1,700	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Endrin	72-20-8	SW846 8081B	0.57	U	ug/kg	0.73	0.57	1	2,200	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Endosulfan sulfate	1031-07-8	SW846 8081B	0.57	U	ug/kg	0.73	0.57	1	4,800	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Endosulfan-I	959-98-8	SW846 8081B	0.55	U	ug/kg	0.73	0.55	1	4,800	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Endosulfan-II	33213-65-9	SW846 8081B	0.55	U	ug/kg	0.73	0.55	1	4,800	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Heptachlor	76-44-8	SW846 8081B	**0.92**		**ug/kg**	**0.73**	**0.63**	1	420	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Aroclor 1016	12674-11-2	SW846 8082A	18	U	ug/kg	37	18	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Aroclor 1221	11104-28-2	SW846 8082A	18	U	ug/kg	37	18	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Aroclor 1232	11141-16-5	SW846 8082A	18	U	ug/kg	37	18	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Aroclor 1242	53469-21-9	SW846 8082A	18	U	ug/kg	37	18	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Aroclor 1248	12672-29-6	SW846 8082A	29	U	ug/kg	37	29	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Aroclor 1254	11097-69-1	SW846 8082A	18	U	ug/kg	37	18	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Aroclor 1260	11096-82-5	SW846 8082A	18	U	ug/kg	37	18	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Cyanide	57-12-5	SW846 9012B/LACHAT	**0.27**		**mg/kg**	**0.23**	**0.17**	1	27	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Solids, Percent		SM2540 G 18TH ED MOD	**90.2**		**%**			1		NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Redox Potential		ASTM D1498-76M	**381**		**mv**			1		NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	pH		SW846 9045D	**8.12**		**units**			1		NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Arsenic	7440-38-2	SW846 6010D	**4.3**		**mg/kg**	**2.1**	**0.53**	1	16	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Barium	7440-39-3	SW846 6010D	**23.4**		**mg/kg**	**21**	**11**	1	350	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Beryllium	7440-41-7	SW846 6010D	**0.41**		**mg/kg**	**0.21**	**0.11**	1	14	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Cadmium	7440-43-9	SW846 6010D	0.21	U	mg/kg	0.53	0.21	1	2.5	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Chromium, Total	7440-47-3	SW846 6010D	**14.1**		**mg/kg**	1.1	0.53	1	58	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Chromium, Trivalent		SW846 6010D	**12.3**		**mg/kg**	**1.5**	**0.92**	1	36	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Chromium, Hexavalent	18540-29-9	SW846 3060A	**1.8**		**mg/kg**	**0.44**	**0.39**	1	22	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Copper	7440-50-8	SW846 6010D	**10.2**		**mg/kg**	**2.7**	**1.1**	1	270	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Lead	7439-92-1	SW846 6010D	**12.9**		**mg/kg**	**2.1**	**0.53**	1	400	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Manganese	7439-96-5	SW846 6010D	**115**		**mg/kg**	**1.6**	**1.1**	1	2,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Mercury	7439-97-6	SW846 7471B	**0.032**	**J**	**mg/kg**	**0.035**	**0.026**	1	0.81	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Nickel	7440-02-0	SW846 6010D	**7.6**		**mg/kg**	**4.3**	**0.43**	1	140	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Selenium	7782-49-2	SW846 6010D	0.85	U	mg/kg	2.1	0.85	1	36	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Silver	7440-22-4	SW846 6010D	**0.49**	**J**	**mg/kg**	**0.53**	**0.43**	1	36	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Zinc	7440-66-6	SW846 6010D	**21.7**		**mg/kg**	**5.3**	**4.3**	1	2200	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	2-Methylphenol	95-48-7	SW846 8270D	37	U	ug/kg	73	37	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	3&4-Methylphenol		SW846 8270D	37	U	ug/kg	73	37	1	34,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Pentachlorophenol	87-86-5	SW846 8270D	91	U	ug/kg	150	91	1	2,400	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Phenol	108-95-2	SW846 8270D	37	U	ug/kg	73	37	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Acenaphthene	83-32-9	SW846 8270D	**19.1**	**J**	**ug/kg**	**37**	**18**	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Acenaphthylene	208-96-8	SW846 8270D	27	U	ug/kg	37	27	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Anthracene	120-12-7	SW846 8270D	**41.2**		**ug/kg**	**37**	**27**	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Benzo(a)anthracene	56-55-3	SW846 8270D	**141**		**ug/kg**	**37**	**18**	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Benzo(a)pyrene	50-32-8	SW846 8270D	**136**		**ug/kg**	**37**	**18**	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Benzo(b)fluoranthene	205-99-2	SW846 8270D	**179**		**ug/kg**	**37**	**18**	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Benzo(g,h,i)perylene	191-24-2	SW846 8270D	**93.6**		**ug/kg**	**37**	**27**	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Benzo(k)fluoranthene	207-08-9	SW846 8270D	**60.7**		**ug/kg**	**37**	**18**	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Chrysene	218-01-9	SW846 8270D	**150**		**ug/kg**	**37**	**18**	1	1,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Dibenzo(a,h)anthracene	53-70-3	SW846 8270D	**25.5**	**J**	**ug/kg**	**37**	**18**	1	330	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Dibenzofuran	132-64-9	SW846 8270D	18	U	ug/kg	73	18	1	14,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Fluoranthene	206-44-0	SW846 8270D	**293**		**ug/kg**	**37**	**18**	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Fluorene	86-73-7	SW846 8270D	**18.8**	**J**	**ug/kg**	**37**	**37**	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Hexachlorobenzene	118-74-1	SW846 8270D	18	U	ug/kg	73	18	1	330	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Indeno(1,2,3-cd)pyrene	193-39-5	SW846 8270D	**77.5**		**ug/kg**	**37**	**18**	1	500	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Naphthalene	91-20-3	SW846 8270D	18	U	ug/kg	37	18	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Phenanthrene	85-01-8	SW846 8270D	**178**		**ug/kg**	**37**	**18**	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-1	Pyrene	129-00-0	SW846 8270D	**305**		**ug/kg**	**37**	**18**	1	100,000	NWIRP-S1-WC-CF-014	3/13/2019	10:45
JC84381-2	Aldrin	309-00-2	SW846 8081B	**1.4**		**ug/kg**	**0.71**	**0.59**	1	19	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	alpha-BHC	319-84-6	SW846 8081B	0.58	U	ug/kg	0.71	0.58	1	97	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	2,4,5-TP (Silvex)	93-72-1	SW846 8151A	3.2	U	ug/kg	3.5	3.2	1	58,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	beta-BHC	319-85-7	SW846 8081B	0.64	U	ug/kg	0.71	0.64	1	72	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	delta-BHC	319-86-8	SW846 8081B	0.68	U	ug/kg	0.71	0.68	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	gamma-BHC (Lindane)	58-89-9	SW846 8081B	0.53	U	ug/kg	0.71	0.53	1	280	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	alpha-Chlordane	5103-71-9	SW846 8081B	**6.9**		**ug/kg**	**0.71**	**0.57**	1	910	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Dieldrin	60-57-1	SW846 8081B	**1.7**		**ug/kg**	**0.71**	**0.53**	1	39	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	4,4'-DDD	72-54-8	SW846 8081B	0.65	U	ug/kg	0.71	0.65	1	2,600	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	4,4'-DDE	72-55-9	SW846 8081B	**2.1**		**ug/kg**	**0.71**	**0.62**	1	1,800	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	4,4'-DDT	50-29-3	SW846 8081B	**2.5**		**ug/kg**	**0.71**	**0.63**	1	1,700	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Endrin	72-20-8	SW846 8081B	0.55	U	ug/kg	0.71	0.55	1	2,200	NWIRP-S1-WC-CF-015	3/13/2019	10:59

LabLink Analytical Data Report
Site 1 - Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84381-2	Endosulfan sulfate	1031-07-8	SW846 8081B	0.56	U	ug/kg	0.71	0.56	1	4,800	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Endosulfan-I	959-98-8	SW846 8081B	0.53	U	ug/kg	0.71	0.53	1	4,800	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Endosulfan-II	33213-65-9	SW846 8081B	0.53	U	ug/kg	0.71	0.53	1	4,800	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Heptachlor	76-44-8	SW846 8081B	**1.0**		**ug/kg**	**0.71**	**0.61**	1	420	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Aroclor 1016	12674-11-2	SW846 8082A	18	U	ug/kg	36	18	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Aroclor 1221	11104-28-2	SW846 8082A	18	U	ug/kg	36	18	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Aroclor 1232	11141-16-5	SW846 8082A	18	U	ug/kg	36	18	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Aroclor 1242	53469-21-9	SW846 8082A	18	U	ug/kg	36	18	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Aroclor 1248	12672-29-6	SW846 8082A	28	U	ug/kg	36	28	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Aroclor 1254	11097-69-1	SW846 8082A	18	U	ug/kg	36	18	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Aroclor 1260	11096-82-5	SW846 8082A	18	U	ug/kg	36	18	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Cyanide	57-12-5	SW846 9012B/LACHAT	**0.17**	**J**	**mg/kg**	**0.26**	**0.19**	1	27	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Solids, Percent		SM2540 G 18TH ED MOD	**89.4**		**%**			1		NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Redox Potential		ASTM D1498-76M	**379**		**mv**			1		NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	pH		SW846 9045D	**8.15**		**units**			1		NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Arsenic	7440-38-2	SW846 6010D	**4.2**		**mg/kg**	**2.2**	**0.54**	1	16	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Barium	7440-39-3	SW846 6010D	**25.5**		**mg/kg**	**22**	**11**	1	350	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Beryllium	7440-41-7	SW846 6010D	**0.36**		**mg/kg**	**0.22**	**0.11**	1	14	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Cadmium	7440-43-9	SW846 6010D	0.22	U	mg/kg	0.54	0.22	1	2.5	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Chromium	7440-47-3	SW846 6010D	**12.5**		**mg/kg**	**1.1**	**0.54**	1	58	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Chromium, Trivalent		SW846 6010D	**10.0**		**mg/kg**	**1.6**	**0.93**	1	36	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Chromium, Hexavalent	18540-29-9	SW846 3060A	**2.5**		**mg/kg**	**0.45**	**0.39**	1	22	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Copper	7440-50-8	SW846 6010D	**8.7**		**mg/kg**	**2.7**	**1.1**	1	270	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Lead	7439-92-1	SW846 6010D	**16.6**		**mg/kg**	**2.2**	**0.54**	1	400	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Manganese	7439-96-5	SW846 6010D	**108**		**mg/kg**	**1.6**	**1.1**	1	2,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Mercury	7439-97-6	SW846 7471B	**0.034**		**mg/kg**	**0.033**	**0.025**	1	0.81	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Nickel	7440-02-0	SW846 6010D	**7.5**		**mg/kg**	**4.3**	**0.43**	1	140	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Selenium	7782-49-2	SW846 6010D	0.87	U	mg/kg	2.2	0.87	1	36	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Silver	7440-22-4	SW846 6010D	**0.20**	**J**	**mg/kg**	**0.54**	**0.43**	1	36	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Zinc	7440-66-6	SW846 6010D	**21.6**		**mg/kg**	**5.4**	**4.3**	1	2200	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	2-Methylphenol	95-48-7	SW846 8270D	36	U	ug/kg	73	36	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	3&4-Methylphenol		SW846 8270D	36	U	ug/kg	73	36	1	34,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Pentachlorophenol	87-86-5	SW846 8270D	91	U	ug/kg	150	91	1	2,400	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Phenol	108-95-2	SW846 8270D	36	U	ug/kg	73	36	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Acenaphthene	83-32-9	SW846 8270D	**18.3**	**J**	**ug/kg**	**36**	**18**	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Acenaphthylene	208-96-8	SW846 8270D	27	U	ug/kg	36	27	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Anthracene	120-12-7	SW846 8270D	**48.4**		**ug/kg**	**36**	**27**	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Benzo(a)anthracene	56-55-3	SW846 8270D	**146**		**ug/kg**	**36**	**18**	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Benzo(a)pyrene	50-32-8	SW846 8270D	**144**		**ug/kg**	**36**	**18**	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Benzo(b)fluoranthene	205-99-2	SW846 8270D	**176**		**ug/kg**	**36**	**18**	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Benzo(g,h,i)perylene	191-24-2	SW846 8270D	**110**		**ug/kg**	**36**	**27**	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Benzo(k)fluoranthene	207-08-9	SW846 8270D	**71.7**		**ug/kg**	**36**	**18**	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Chrysene	218-01-9	SW846 8270D	**153**		**ug/kg**	**36**	**18**	1	1,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Dibenzo(a,h)anthracene	53-70-3	SW846 8270D	**31.1**	**J**	**ug/kg**	**36**	**18**	1	330	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Dibenzofuran	132-64-9	SW846 8270D	18	U	ug/kg	73	18	1	14,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Fluoranthene	206-44-0	SW846 8270D	**269**		**ug/kg**	**36**	**18**	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Fluorene	86-73-7	SW846 8270D	**19.4**	**J**	**ug/kg**	**36**	**36**	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Hexachlorobenzene	118-74-1	SW846 8270D	18	U	ug/kg	73	18	1	330	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Indeno(1,2,3-cd)pyrene	193-39-5	SW846 8270D	**80**		**ug/kg**	**36**	**18**	1	500	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Naphthalene	91-20-3	SW846 8270D	18	U	ug/kg	36	18	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Phenanthrene	85-01-8	SW846 8270D	**168**		**ug/kg**	**36**	**18**	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-2	Pyrene	129-00-0	SW846 8270D	**303**		**ug/kg**	**36**	**18**	1	100,000	NWIRP-S1-WC-CF-015	3/13/2019	10:59
JC84381-3	Aldrin	309-00-2	SW846 8081B	**1.9**		**ug/kg**	**0.7**	**0.58**	1	19	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	alpha-BHC	319-84-6	SW846 8081B	0.57	U	ug/kg	0.7	0.57	1	97	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	2,4,5-TP (Silvex)	93-72-1	SW846 8151A	3.1	U	ug/kg	3.5	3.1	1	58,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	beta-BHC	319-85-7	SW846 8081B	0.63	U	ug/kg	0.7	0.63	1	72	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	delta-BHC	319-86-8	SW846 8081B	0.67	U	ug/kg	0.7	0.67	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	gamma-BHC (Lindane)	58-89-9	SW846 8081B	**0.74**		**ug/kg**	**0.7**	**0.52**	1	280	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	alpha-Chlordane	5103-71-9	SW846 8081B	**8.8**		**ug/kg**	**0.7**	**0.56**	1	910	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Dieldrin	60-57-1	SW846 8081B	**2.8**		**ug/kg**	**0.7**	**0.52**	1	39	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	4,4'-DDD	72-54-8	SW846 8081B	**0.7**		**ug/kg**	**0.7**	**0.64**	1	2,600	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	4,4'-DDE	72-55-9	SW846 8081B	**2.8**		**ug/kg**	**0.7**	**0.61**	1	1,800	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	4,4'-DDT	50-29-3	SW846 8081B	**3.2**		**ug/kg**	**0.7**	**0.62**	1	1,700	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Endrin	72-20-8	SW846 8081B	0.54	U	ug/kg	0.7	0.54	1	2,200	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Endosulfan sulfate	1031-07-8	SW846 8081B	0.55	U	ug/kg	0.7	0.55	1	4,800	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Endosulfan-I	959-98-8	SW846 8081B	0.52	U	ug/kg	0.7	0.52	1	4,800	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Endosulfan-II	33213-65-9	SW846 8081B	0.52	U	ug/kg	0.7	0.52	1	4,800	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Heptachlor	76-44-8	SW846 8081B	**1.5**		**ug/kg**	**0.7**	**0.6**	1	420	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Aroclor 1016	12674-11-2	SW846 8082A	17	U	ug/kg	35	17	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Aroclor 1221	11104-28-2	SW846 8082A	17	U	ug/kg	35	17	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Aroclor 1232	11141-16-5	SW846 8082A	17	U	ug/kg	35	17	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Aroclor 1242	53469-21-9	SW846 8082A	17	U	ug/kg	35	17	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Aroclor 1248	12672-29-6	SW846 8082A	28	U	ug/kg	35	28	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Aroclor 1254	11097-69-1	SW846 8082A	17	U	ug/kg	35	17	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Aroclor 1260	11096-82-5	SW846 8082A	17	U	ug/kg	35	17	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05

LabLink Analytical Data Report
Site 1 - Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84381-3	Cyanide	57-12-5	SW846 9012B/LACHAT	**0.14**	**J**	**mg/kg**	**0.23**	**0.18**	1	27	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Solids, Percent		SM2540 G 18TH ED MOD	**91.7**		**%**			1		NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Redox Potential		ASTM D1498-76M	**373**		**mv**			1		NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	pH		SW846 9045D	**8.66**		**units**			1		NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Arsenic	7440-38-2	SW846 6010D	**3.8**		**mg/kg**	**2.1**	**0.52**	1	16	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Barium	7440-39-3	SW846 6010D	**21.9**		**mg/kg**	**21**	**10**	1	350	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Beryllium	7440-41-7	SW846 6010D	**0.34**		**mg/kg**	**0.21**	**0.1**	1	14	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Cadmium	7440-43-9	SW846 6010D	0.21	U	mg/kg	0.52	0.21	1	2.5	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Chromium	7440-47-3	SW846 6010D	**11.7**		**mg/kg**	**1**	**0.52**	1	58	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Chromium, Trivalent		SW846 6010D	**10.3**		**mg/kg**	**1.4**	**0.90**	1	36	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Chromium, Hexavalent	18540-29-9	SW846 3060A	**1.4**		**mg/kg**	**0.44**	**0.38**	1	22	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Copper	7440-50-8	SW846 6010D	**10.8**		**mg/kg**	**2.6**	**1**	1	270	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Lead	7439-92-1	SW846 6010D	**15.4**		**mg/kg**	**2.1**	**0.52**	1	400	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Manganese	7439-96-5	SW846 6010D	**116**		**mg/kg**	**1.6**	**1**	1	2,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Mercury	7439-97-6	SW846 7471B	**0.036**		**mg/kg**	**0.033**	**0.024**	1	0.81	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Nickel	7440-02-0	SW846 6010D	**8.1**		**mg/kg**	**4.2**	**0.42**	1	140	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Selenium	7782-49-2	SW846 6010D	0.83	U	mg/kg	2.1	0.83	1	36	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Silver	7440-22-4	SW846 6010D	**0.30**	**J**	**mg/kg**	**0.52**	**0.42**	1	36	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Zinc	7440-66-6	SW846 6010D	**58.5**		**mg/kg**	**5.2**	**4.2**	1	2200	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	2-Methylphenol	95-48-7	SW846 8270D	35	U	ug/kg	70	35	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	3&4-Methylphenol		SW846 8270D	35	U	ug/kg	70	35	1	34,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Pentachlorophenol	87-86-5	SW846 8270D	87	U	ug/kg	140	87	1	2,400	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Phenol	108-95-2	SW846 8270D	35	U	ug/kg	70	35	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Acenaphthene	83-32-9	SW846 8270D	**24.9**	**J**	**ug/kg**	**35**	**17**	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Acenaphthylene	208-96-8	SW846 8270D	26	U	ug/kg	35	26	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Anthracene	120-12-7	SW846 8270D	**62.9**		**ug/kg**	**35**	**26**	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Benzo(a)anthracene	56-55-3	SW846 8270D	**174**		**ug/kg**	**35**	**17**	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Benzo(a)pyrene	50-32-8	SW846 8270D	**160**		**ug/kg**	**35**	**17**	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Benzo(b)fluoranthene	205-99-2	SW846 8270D	**203**		**ug/kg**	**35**	**17**	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Benzo(g,h,i)perylene	191-24-2	SW846 8270D	**118**		**ug/kg**	**35**	**26**	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Benzo(k)fluoranthene	207-08-9	SW846 8270D	**71**		**ug/kg**	**35**	**17**	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Chrysene	218-01-9	SW846 8270D	**171**		**ug/kg**	**35**	**17**	1	1,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Dibenzo(a,h)anthracene	53-70-3	SW846 8270D	**23**	**J**	**ug/kg**	**35**	**17**	1	330	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Dibenzofuran	132-64-9	SW846 8270D	17	U	ug/kg	70	17	1	14,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Fluoranthene	206-44-0	SW846 8270D	**336**		**ug/kg**	**35**	**17**	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Fluorene	86-73-7	SW846 8270D	**25.1**	**J**	**ug/kg**	**35**	**35**	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Hexachlorobenzene	118-74-1	SW846 8270D	17	U	ug/kg	70	17	1	330	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Indeno(1,2,3-cd)pyrene	193-39-5	SW846 8270D	**93**		**ug/kg**	**35**	**17**	1	500	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Naphthalene	91-20-3	SW846 8270D	17	U	ug/kg	35	17	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Phenanthrene	85-01-8	SW846 8270D	**220**		**ug/kg**	**35**	**17**	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-3	Pyrene	129-00-0	SW846 8270D	**373**		**ug/kg**	**35**	**17**	1	100,000	NWIRP-S1-WC-CF-016	3/13/2019	11:05
JC84381-4	Aldrin	309-00-2	SW846 8081B	**1.2**		**ug/kg**	**0.69**	**0.56**	1	19	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	alpha-BHC	319-84-6	SW846 8081B	0.56	U	ug/kg	0.69	0.56	1	97	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	2,4,5-TP (Silvex)	93-72-1	SW846 8151A	2.9	U	ug/kg	3.2	2.9	1	58,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	beta-BHC	319-85-7	SW846 8081B	0.62	U	ug/kg	0.69	0.62	1	72	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	delta-BHC	319-86-8	SW846 8081B	0.66	U	ug/kg	0.69	0.66	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	gamma-BHC (Lindane)	58-89-9	SW846 8081B	0.50	U	ug/kg	0.69	0.50	1	280	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	alpha-Chlordane	5103-71-9	SW846 8081B	**6.3**		**ug/kg**	**0.69**	**0.55**	1	910	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Dieldrin	60-57-1	SW846 8081B	**1.5**		**ug/kg**	**0.69**	**0.51**	1	39	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	4,4'-DDD	72-54-8	SW846 8081B	**0.77**		**ug/kg**	**0.69**	**0.63**	1	2,600	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	4,4'-DDE	72-55-9	SW846 8081B	**1.6**		**ug/kg**	**0.69**	**0.6**	1	1,800	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	4,4'-DDT	50-29-3	SW846 8081B	**2**		**ug/kg**	**0.69**	**0.61**	1	1,700	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Endrin	72-20-8	SW846 8081B	0.53	U	ug/kg	0.69	0.53	1	2,200	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Endosulfan sulfate	1031-07-8	SW846 8081B	0.54	U	ug/kg	0.69	0.54	1	4,800	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Endosulfan-I	959-98-8	SW846 8081B	0.51	U	ug/kg	0.69	0.51	1	4,800	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Endosulfan-II	33213-65-9	SW846 8081B	0.51	U	ug/kg	0.69	0.51	1	4,800	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Heptachlor	76-44-8	SW846 8081B	**0.83**		**ug/kg**	**0.69**	**0.59**	1	420	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Aroclor 1016	12674-11-2	SW846 8082A	17	U	ug/kg	34	17	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Aroclor 1221	11104-28-2	SW846 8082A	17	U	ug/kg	34	17	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Aroclor 1232	11141-16-5	SW846 8082A	17	U	ug/kg	34	17	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Aroclor 1242	53469-21-9	SW846 8082A	17	U	ug/kg	34	17	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Aroclor 1248	12672-29-6	SW846 8082A	27	U	ug/kg	34	27	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Aroclor 1254	11097-69-1	SW846 8082A	17	U	ug/kg	34	17	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Aroclor 1260	11096-82-5	SW846 8082A	17	U	ug/kg	34	17	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Cyanide	57-12-5	SW846 9012B/LACHAT	**0.21**	**J**	**mg/kg**	**0.3**	**0.22**	1	27	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Solids, Percent		SM2540 G 18TH ED MOD	**91.8**		**%**			1		NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Redox Potential		ASTM D1498-76M	**367**		**mv**			1		NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	pH		SW846 9045D	**8.82**		**units**			1		NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Arsenic	7440-38-2	SW846 6010D	**3.5**		**mg/kg**	**2.2**	**0.54**	1	16	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Barium	7440-39-3	SW846 6010D	**23**		**mg/kg**	**22**	**11**	1	350	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Beryllium	7440-41-7	SW846 6010D	**0.31**		**mg/kg**	**0.22**	**0.11**	1	14	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Cadmium	7440-43-9	SW846 6010D	0.22	U	mg/kg	0.54	0.22	1	2.5	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Chromium	7440-47-3	SW846 6010D	**11.3**		**mg/kg**	**1.1**	**0.54**	1	58	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Chromium, Trivalent		SW846 6010D	**9.6**		**mg/kg**	**1.5**	**0.92**	1	36	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Chromium, Hexavalent	18540-29-9	SW846 3060A	**1.7**		**mg/kg**	**0.44**	**0.38**	1	22	NWIRP-S1-WC-CF-017	3/13/2019	11:10

LabLink Analytical Data Report
Site 1 - Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84381-4	Copper	7440-50-8	SW846 6010D	**10.9**		**mg/kg**	**2.7**	**1.1**	1	270	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Lead	7439-92-1	SW846 6010D	**15.1**		**mg/kg**	**2.2**	**0.54**	1	400	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Manganese	7439-96-5	SW846 6010D	**106**		**mg/kg**	**1.6**	**1.1**	1	2,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Mercury	7439-97-6	SW846 7471B	**0.041**		**mg/kg**	**0.031**	**0.023**	1	0.81	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Nickel	7440-02-0	SW846 6010D	**6.8**		**mg/kg**	**4.3**	**0.43**	1	140	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Selenium	7782-49-2	SW846 6010D	0.86	U	mg/kg	2.2	0.86	1	36	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Silver	7440-22-4	SW846 6010D	**0.25**	**J**	**mg/kg**	**0.54**	**0.43**	1	36	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Zinc	7440-66-6	SW846 6010D	**21.1**		**mg/kg**	**5.4**	**4.3**	1	2200	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	2-Methylphenol	95-48-7	SW846 8270D	34	U	ug/kg	69	34	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	3&4-Methylphenol		SW846 8270D	34	U	ug/kg	69	34	1	34,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Pentachlorophenol	87-86-5	SW846 8270D	86	U	ug/kg	140	86	1	2,400	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Phenol	108-95-2	SW846 8270D	34	U	ug/kg	69	34	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Acenaphthene	83-32-9	SW846 8270D	**18**	**J**	**ug/kg**	**34**	**17**	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Acenaphthylene	208-96-8	SW846 8270D	26	U	ug/kg	34	26	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Anthracene	120-12-7	SW846 8270D	**39.8**		**ug/kg**	**34**	**26**	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Benzo(a)anthracene	56-55-3	SW846 8270D	**131**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Benzo(a)pyrene	50-32-8	SW846 8270D	**123**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Benzo(b)fluoranthene	205-99-2	SW846 8270D	**150**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Benzo(g,h,i)perylene	191-24-2	SW846 8270D	**91.8**		**ug/kg**	**34**	**26**	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Benzo(k)fluoranthene	207-08-9	SW846 8270D	**58.1**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Chrysene	218-01-9	SW846 8270D	**134**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Dibenzo(a,h)anthracene	53-70-3	SW846 8270D	**18.4**	**J**	**ug/kg**	**34**	**17**	1	330	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Dibenzofuran	132-64-9	SW846 8270D	17	U	ug/kg	69	17	1	14,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Fluoranthene	206-44-0	SW846 8270D	**244**		**ug/kg**	**34**	**17**	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Fluorene	86-73-7	SW846 8270D	**16.5**	**J**	**ug/kg**	**34**	**34**	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Hexachlorobenzene	118-74-1	SW846 8270D	17	U	ug/kg	69	17	1	330	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Indeno(1,2,3-cd)pyrene	193-39-5	SW846 8270D	**64.7**		**ug/kg**	**34**	**17**	1	500	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Naphthalene	91-20-3	SW846 8270D	17	U	ug/kg	34	17	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Phenanthrene	85-01-8	SW846 8270D	**148**		**ug/kg**	**34**	**17**	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-4	Pyrene	129-00-0	SW846 8270D	**280**		**ug/kg**	**34**	**17**	1	100,000	NWIRP-S1-WC-CF-017	3/13/2019	11:10
JC84381-5	Aldrin (b)	309-00-2	SW846 8081B	**0.78**		**ug/kg**	**0.67**	**0.55**	1	19	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	alpha-BHC	319-84-6	SW846 8081B	0.54	U	ug/kg	0.67	0.54	1	97	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	2,4,5-TP (Silvex)	93-72-1	SW846 8151A	3.1	U	ug/kg	3.5	3.1	1	58,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	beta-BHC	319-85-7	SW846 8081B	0.60	U	ug/kg	0.67	0.60	1	72	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	delta-BHC	319-86-8	SW846 8081B	0.64	U	ug/kg	0.67	0.64	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	gamma-BHC (Lindane)	58-89-9	SW846 8081B	0.49	U	ug/kg	0.67	0.49	1	280	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	alpha-Chlordane	5103-71-9	SW846 8081B	**4.8**		**ug/kg**	**0.67**	**0.54**	1	910	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Dieldrin	60-57-1	SW846 8081B	**0.75**		**ug/kg**	**0.67**	**0.5**	1	39	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	4,4'-DDD	72-54-8	SW846 8081B	0.61	U	ug/kg	0.67	0.61	1	2,600	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	4,4'-DDE	72-55-9	SW846 8081B	**1.4**		**ug/kg**	**0.67**	**0.58**	1	1,800	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	4,4'-DDT	50-29-3	SW846 8081B	**1.6**		**ug/kg**	**0.67**	**0.59**	1	1,700	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Endrin	72-20-8	SW846 8081B	0.52	U	ug/kg	0.67	0.52	1	2,200	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Endosulfan sulfate	1031-07-8	SW846 8081B	0.52	U	ug/kg	0.67	0.52	1	4,800	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Endosulfan-I	959-98-8	SW846 8081B	0.50	U	ug/kg	0.67	0.50	1	4,800	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Endosulfan-II	33213-65-9	SW846 8081B	0.50	U	ug/kg	0.67	0.50	1	4,800	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Heptachlor	76-44-8	SW846 8081B	**0.66**	**J**	**ug/kg**	**0.67**	**0.57**	1	420	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Aroclor 1016	12674-11-2	SW846 8082A	17	U	ug/kg	33	17	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Aroclor 1221	11104-28-2	SW846 8082A	17	U	ug/kg	33	17	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Aroclor 1232	11141-16-5	SW846 8082A	17	U	ug/kg	33	17	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Aroclor 1242	53469-21-9	SW846 8082A	17	U	ug/kg	33	17	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Aroclor 1248	12672-29-6	SW846 8082A	27	U	ug/kg	33	27	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Aroclor 1254	11097-69-1	SW846 8082A	17	U	ug/kg	33	17	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Aroclor 1260	11096-82-5	SW846 8082A	17	U	ug/kg	33	17	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Cyanide	57-12-5	SW846 9012B/LACHAT	**0.21**	**J**	**mg/kg**	**0.26**	**0.19**	1	27	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Solids, Percent		SM2540 G 18TH ED MOD	**92.7**		**%**			1		NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Redox Potential		ASTM D1498-76M	**371**		**mv**			1		NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	pH		SW846 9045D	**7.98**		**units**			1		NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Arsenic	7440-38-2	SW846 6010D	**3.6**		**mg/kg**	**2.2**	**0.54**	1	16	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Barium	7440-39-3	SW846 6010D	**20.9**	**J**	**mg/kg**	**22**	**11**	1	350	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Beryllium	7440-41-7	SW846 6010D	**0.36**		**mg/kg**	**0.22**	**0.11**	1	14	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Cadmium	7440-43-9	SW846 6010D	0.22	U	mg/kg	0.54	0.22	1	2.5	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Chromium	7440-47-3	SW846 6010D	**11.6**		**mg/kg**	**1.1**	**0.54**	1	58	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Chromium, Trivalent		SW846 6010D	0.92	U	mg/kg	1.5	0.92	1	36	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Chromium, Hexavalent	18540-29-9	SW846 3060A	**12.9**		**mg/kg**	**0.43**	**0.38**	1	22	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Copper	7440-50-8	SW846 6010D	**8**		**mg/kg**	**2.7**	**1.1**	1	270	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Lead	7439-92-1	SW846 6010D	**12**		**mg/kg**	**2.2**	**0.54**	1	400	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Manganese	7439-96-5	SW846 6010D	**94**		**mg/kg**	**1.6**	**1.1**	1	2,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Mercury	7439-97-6	SW846 7471B	**0.026**	**J**	**mg/kg**	**0.032**	**0.024**	1	0.81	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Nickel	7440-02-0	SW846 6010D	**6.4**		**mg/kg**	**4.3**	**0.43**	1	140	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Selenium	7782-49-2	SW846 6010D	0.86	U	mg/kg	2.2	0.86	1	36	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Silver	7440-22-4	SW846 6010D	**0.41**	**J**	**mg/kg**	**0.54**	**0.43**	1	36	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Zinc	7440-66-6	SW846 6010D	**18.1**		**mg/kg**	**5.4**	**4.3**	1	2200	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	2-Methylphenol	95-48-7	SW846 8270D	34	U	ug/kg	68	34	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	3&4-Methylphenol		SW846 8270D	34	U	ug/kg	68	34	1	34,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Pentachlorophenol	87-86-5	SW846 8270D	85	U	ug/kg	140	85	1	2,400	NWIRP-S1-WC-CF-018	3/13/2019	11:20

LabLink Analytical Data Report
Site 1 - Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Fill Material Criteria[1]	Client ID	Collected	Time
JC84381-5	Phenol	108-95-2	SW846 8270D	34	U	ug/kg	68	34	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Acenaphthene	83-32-9	SW846 8270D	**15.5**	**J**	**ug/kg**	**34**	**17**	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Acenaphthylene	208-96-8	SW846 8270D	25	U	ug/kg	34	25	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Anthracene	120-12-7	SW846 8270D	**37.5**		**ug/kg**	**34**	**25**	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Benzo(a)anthracene	56-55-3	SW846 8270D	**130**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Benzo(a)pyrene	50-32-8	SW846 8270D	**126**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Benzo(b)fluoranthene	205-99-2	SW846 8270D	**163**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Benzo(g,h,i)perylene	191-24-2	SW846 8270D	**97.1**		**ug/kg**	**34**	**25**	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Benzo(k)fluoranthene	207-08-9	SW846 8270D	**57.4**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Chrysene	218-01-9	SW846 8270D	**143**		**ug/kg**	**34**	**17**	1	1,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Dibenzo(a,h)anthracene	53-70-3	SW846 8270D	**29.1**	**J**	**ug/kg**	**34**	**17**	1	330	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Dibenzofuran	132-64-9	SW846 8270D	17	U	ug/kg	68	17	1	14,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Fluoranthene	206-44-0	SW846 8270D	**236**		**ug/kg**	**34**	**17**	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Fluorene	86-73-7	SW846 8270D	34	U	ug/kg	34	34	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Hexachlorobenzene	118-74-1	SW846 8270D	17	U	ug/kg	68	17	1	330	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Indeno(1,2,3-cd)pyrene	193-39-5	SW846 8270D	**80.9**		**ug/kg**	**34**	**17**	1	500	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Naphthalene	91-20-3	SW846 8270D	17	U	ug/kg	34	17	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Phenanthrene	85-01-8	SW846 8270D	**145**		**ug/kg**	**34**	**17**	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20
JC84381-5	Pyrene	129-00-0	SW846 8270D	**269**		**ug/kg**	**34**	**17**	1	100,000	NWIRP-S1-WC-CF-018	3/13/2019	11:20

Red, Shaded, Italicized results exceeding Project Remediation Goals.
Found 0 results exceeding regulatory limits.
***** Indicates result outside regulatory limits.***

[1]Fill material criteria are based on 6 NYCCR Part 375, Table 375-6.8(b): Restricted Use Soil Cleanup Objectives, Protection of Public Health, Residential. Following the receipt of the analytical results, the project team will review the data to ensure that the analytical results meet the fill material criteria.
Draft Final Sampling and Analysis Plan/Quality Assurance Plan Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York, February 2019.

Laboratory Qualifiers:
J = Estimated value.
U = Not detected; the analyte was analyzed for, but not detected above the associated detection limit.

% = percent
Bold = detected parameter
LOD = limit of detection
LOQ = limit of quantitation
µg/kg = microgram/kilogram = ppb
mg/kg = milligrams/kilogram

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

NOREAS, Inc.

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

500689

SGS Job Number: JC84381

Sampling Date: 03/13/19

Report to:

APTIM

rmccracken@tikigaq.com

ATTN: Richard McCracken

Total number of pages in report: 259

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Brian McGuire
General Manager

Client Service contact: Kristin Degraw 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Sample Summary

NOREAS, Inc.

Job No: JC84381

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: 500689

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC84381-1	03/13/19	10:45	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-014
JC84381-2	03/13/19	10:59	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-015
JC84381-3	03/13/19	11:05	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-016
JC84381-4	03/13/19	11:10	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-017
JC84381-5	03/13/19	11:20	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-018

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	NOREAS, Inc.	**Job No**	JC84381
Site:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reser	**Report Date**	4/4/2019 9:26:35 AM

On 03/14/2019, 5 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC84381 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Please refer to certification exceptions summary for additional certification information.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Semi-volatiles By Method SW846 8270D

Matrix: SO **Batch ID:** OP19154

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84381-1MS, JC84381-1MSD were used as the QC samples indicated.

GC/LC Semi-volatiles By Method SW846 8081B

Matrix: SO **Batch ID:** OP19157

- All samples were extracted within the recommended method holding time.
- Sample(s) JC84381-2MS, JC84381-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JC84381-5 for Aldrin: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-3 for alpha-Chlordane: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-3 for gamma-BHC (Lindane): More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-4 for 4,4'-DDD: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-2 for Dieldrin: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-4 for Heptachlor: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-1 for alpha-Chlordane: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-5 for Dieldrin: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-3 for 4,4'-DDD: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-4 for alpha-Chlordane: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-2 for alpha-Chlordane: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-1 for Dieldrin: More than 40 % RPD for detected concentrations between the two GC columns.
- JC84381-2 for 4,4'-DDT: More than 40 % RPD for detected concentrations between the two GC columns.

GC/LC Semi-volatiles By Method SW846 8082A

Matrix: SO **Batch ID:** OP19156

- All samples were extracted within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84381-1MS, JC84381-1MSD were used as the QC samples indicated.

GC/LC Semi-volatiles By Method SW846 8151A

Matrix: SO **Batch ID:** OP19148

- All samples were extracted within the recommended method holding time.
- Sample(s) JC84381-1MS, JC84381-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Metals Analysis By Method SW846 6010D

Matrix: SO **Batch ID:** MP13177

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84381-5MS, JC84381-5MSD, JC84381-5SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic are outside control limits. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MP13177-SD1 for Copper: Serial dilution indicates possible matrix interference.
- MP13177-SD1 for Zinc: Serial dilution indicates possible matrix interference.

Metals Analysis By Method SW846 7471B

Matrix: SO **Batch ID:** MP13214

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84381-5MS, JC84381-5MSD were used as the QC samples for metals.

General Chemistry By Method ASTM D1498-76M

Matrix: SO **Batch ID:** GN93602

- Sample(s) JC84121-1DUP were used as the QC samples for Redox Potential Vs H2.

General Chemistry By Method SM2540 G 18TH ED MOD

Matrix: SO **Batch ID:** GN92934

- Sample(s) JC83961-23DUP were used as the QC samples for Solids, Percent.

General Chemistry By Method SW846 3060A/7196A

Matrix: SO **Batch ID:** GP20255

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84381-1MS, JC84381-1DUP were used as the QC samples for Chromium, Hexavalent.
- Matrix Spike Recovery(s) for Chromium, Hexavalent are outside control limits. Soluble XCR matrix spike recovery indicates possible matrix interference. Good post spike recovery (90_%) on this sample.
- RPD(s) for Duplicate for Chromium, Hexavalent are outside control limits. High RPD due to possible sample nonhomogeneity.

General Chemistry By Method SW846 6010/7196A M

Matrix:	SO	Batch ID:	R177281

- The data for SW846 6010/7196A M meets quality control requirements.
- JC84381-5 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Matrix:	SO	Batch ID:	R177282

- The data for SW846 6010/7196A M meets quality control requirements.
- JC84381-1 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Matrix:	SO	Batch ID:	R177283

- The data for SW846 6010/7196A M meets quality control requirements.
- JC84381-2 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Matrix:	SO	Batch ID:	R177284

- The data for SW846 6010/7196A M meets quality control requirements.
- JC84381-3 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Matrix:	SO	Batch ID:	R177285

- The data for SW846 6010/7196A M meets quality control requirements.
- JC84381-4 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

General Chemistry By Method SW846 9012B/LACHAT

Matrix:	SO	Batch ID:	GP19976

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC84381-2DUP, JC84381-2MS were used as the QC samples for Cyanide.

General Chemistry By Method SW846 9045D

Matrix:	SO	Batch ID:	GN93603

- Sample(s) JC84121-1DUP were used as the QC samples for pH.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC84381-1	**NWIRP-S1-WC-CF-014**					
Acenaphthene		19.1 J	37	18	ug/kg	SW846 8270D
Anthracene		41.2	37	27	ug/kg	SW846 8270D
Benzo(a)anthracene		141	37	18	ug/kg	SW846 8270D
Benzo(a)pyrene		136	37	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		179	37	18	ug/kg	SW846 8270D
Benzo(g,h,i)perylene		93.6	37	27	ug/kg	SW846 8270D
Benzo(k)fluoranthene		60.7	37	18	ug/kg	SW846 8270D
Chrysene		150	37	18	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene		25.5 J	37	18	ug/kg	SW846 8270D
Fluoranthene		293	37	18	ug/kg	SW846 8270D
Fluorene		18.8 J	37	37	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene		77.5	37	18	ug/kg	SW846 8270D
Phenanthrene		178	37	18	ug/kg	SW846 8270D
Pyrene		305	37	18	ug/kg	SW846 8270D
alpha-Chlordane [a]		7.5	0.73	0.59	ug/kg	SW846 8081B
Dieldrin [a]		1.6	0.73	0.55	ug/kg	SW846 8081B
4,4'-DDE		2.2	0.73	0.64	ug/kg	SW846 8081B
4,4'-DDT		2.4	0.73	0.65	ug/kg	SW846 8081B
Heptachlor		0.92	0.73	0.63	ug/kg	SW846 8081B
Arsenic		4.3	2.1	0.53	mg/kg	SW846 6010D
Barium		23.4	21	11	mg/kg	SW846 6010D
Beryllium		0.41	0.21	0.11	mg/kg	SW846 6010D
Chromium		14.1	1.1	0.53	mg/kg	SW846 6010D
Copper		10.2	2.7	1.1	mg/kg	SW846 6010D
Lead		12.9	2.1	0.53	mg/kg	SW846 6010D
Manganese		115	1.6	1.1	mg/kg	SW846 6010D
Mercury		0.032 J	0.035	0.026	mg/kg	SW846 7471B
Nickel		7.6	4.3	0.43	mg/kg	SW846 6010D
Silver		0.49 J	0.53	0.43	mg/kg	SW846 6010D
Zinc		21.7	5.3	4.3	mg/kg	SW846 6010D
Chromium, Hexavalent		1.8	0.44	0.39	mg/kg	SW846 3060A/7196A
Chromium, Trivalent [b]		12.3	1.5	0.92	mg/kg	SW846 6010/7196A M
Cyanide		0.27	0.23	0.17	mg/kg	SW846 9012B/LACHAT
Redox Potential Vs H2		381		[c]	mv	ASTM D1498-76M
pH		8.12		[c]	su	SW846 9045D
JC84381-2	**NWIRP-S1-WC-CF-015**					
Acenaphthene		18.3 J	36	18	ug/kg	SW846 8270D
Anthracene		48.4	36	27	ug/kg	SW846 8270D
Benzo(a)anthracene		146	36	18	ug/kg	SW846 8270D
Benzo(a)pyrene		144	36	18	ug/kg	SW846 8270D
Benzo(b)fluoranthene		176	36	18	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

Lab Sample ID Client Sample ID Analyte	Result/ Qual	LOQ	LOD	Units	Method
Benzo(g,h,i)perylene	110	36	27	ug/kg	SW846 8270D
Benzo(k)fluoranthene	71.7	36	18	ug/kg	SW846 8270D
Chrysene	153	36	18	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	31.1 J	36	18	ug/kg	SW846 8270D
Fluoranthene	269	36	18	ug/kg	SW846 8270D
Fluorene	19.4 J	36	36	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	80.0	36	18	ug/kg	SW846 8270D
Phenanthrene	168	36	18	ug/kg	SW846 8270D
Pyrene	303	36	18	ug/kg	SW846 8270D
Aldrin	1.4	0.71	0.59	ug/kg	SW846 8081B
alpha-Chlordane [a]	6.9	0.71	0.57	ug/kg	SW846 8081B
Dieldrin [a]	1.7	0.71	0.53	ug/kg	SW846 8081B
4,4'-DDE	2.1	0.71	0.62	ug/kg	SW846 8081B
4,4'-DDT [a]	2.5	0.71	0.63	ug/kg	SW846 8081B
Heptachlor	1.0	0.71	0.61	ug/kg	SW846 8081B
Arsenic	4.2	2.2	0.54	mg/kg	SW846 6010D
Barium	25.5	22	11	mg/kg	SW846 6010D
Beryllium	0.36	0.22	0.11	mg/kg	SW846 6010D
Chromium	12.5	1.1	0.54	mg/kg	SW846 6010D
Copper	8.7	2.7	1.1	mg/kg	SW846 6010D
Lead	16.6	2.2	0.54	mg/kg	SW846 6010D
Manganese	108	1.6	1.1	mg/kg	SW846 6010D
Mercury	0.034	0.033	0.025	mg/kg	SW846 7471B
Nickel	7.5	4.3	0.43	mg/kg	SW846 6010D
Silver	0.20 J	0.54	0.43	mg/kg	SW846 6010D
Zinc	21.6	5.4	4.3	mg/kg	SW846 6010D
Chromium, Hexavalent	2.5	0.45	0.39	mg/kg	SW846 3060A/7196A
Chromium, Trivalent [b]	10.0	1.6	0.93	mg/kg	SW846 6010/7196A M
Cyanide	0.17 J	0.26	0.19	mg/kg	SW846 9012B/LACHAT
Redox Potential Vs H2	379		[c]	mv	ASTM D1498-76M
pH	8.15		[c]	su	SW846 9045D
JC84381-3 NWIRP-S1-WC-CF-016					
Acenaphthene	24.9 J	35	17	ug/kg	SW846 8270D
Anthracene	62.9	35	26	ug/kg	SW846 8270D
Benzo(a)anthracene	174	35	17	ug/kg	SW846 8270D
Benzo(a)pyrene	160	35	17	ug/kg	SW846 8270D
Benzo(b)fluoranthene	203	35	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	118	35	26	ug/kg	SW846 8270D
Benzo(k)fluoranthene	71.0	35	17	ug/kg	SW846 8270D
Chrysene	171	35	17	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	23.0 J	35	17	ug/kg	SW846 8270D
Fluoranthene	336	35	17	ug/kg	SW846 8270D
Fluorene	25.1 J	35	35	ug/kg	SW846 8270D

Summary of Hits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

Lab Sample ID Client Sample ID Analyte	Result/ Qual	LOQ	LOD	Units	Method
Indeno(1,2,3-cd)pyrene	93.0	35	17	ug/kg	SW846 8270D
Phenanthrene	220	35	17	ug/kg	SW846 8270D
Pyrene	373	35	17	ug/kg	SW846 8270D
Aldrin	1.9	0.70	0.58	ug/kg	SW846 8081B
gamma-BHC (Lindane) [a]	0.74	0.70	0.52	ug/kg	SW846 8081B
alpha-Chlordane [a]	8.8	0.70	0.56	ug/kg	SW846 8081B
Dieldrin	2.8	0.70	0.52	ug/kg	SW846 8081B
4,4'-DDD [a]	0.70	0.70	0.64	ug/kg	SW846 8081B
4,4'-DDE	2.8	0.70	0.61	ug/kg	SW846 8081B
4,4'-DDT	3.2	0.70	0.62	ug/kg	SW846 8081B
Heptachlor	1.5	0.70	0.60	ug/kg	SW846 8081B
Arsenic	3.8	2.1	0.52	mg/kg	SW846 6010D
Barium	21.9	21	10	mg/kg	SW846 6010D
Beryllium	0.34	0.21	0.10	mg/kg	SW846 6010D
Chromium	11.7	1.0	0.52	mg/kg	SW846 6010D
Copper	10.8	2.6	1.0	mg/kg	SW846 6010D
Lead	15.4	2.1	0.52	mg/kg	SW846 6010D
Manganese	116	1.6	1.0	mg/kg	SW846 6010D
Mercury	0.036	0.033	0.024	mg/kg	SW846 7471B
Nickel	8.1	4.2	0.42	mg/kg	SW846 6010D
Silver	0.30 J	0.52	0.42	mg/kg	SW846 6010D
Zinc	58.5	5.2	4.2	mg/kg	SW846 6010D
Chromium, Hexavalent	1.4	0.44	0.38	mg/kg	SW846 3060A/7196A
Chromium, Trivalent [b]	10.3	1.4	0.90	mg/kg	SW846 6010/7196A M
Cyanide	0.14 J	0.23	0.18	mg/kg	SW846 9012B/LACHAT
Redox Potential Vs H2	373		[c]	mv	ASTM D1498-76M
pH	8.66		[c]	su	SW846 9045D
JC84381-4 NWIRP-S1-WC-CF-017					
Acenaphthene	18.0 J	34	17	ug/kg	SW846 8270D
Anthracene	39.8	34	26	ug/kg	SW846 8270D
Benzo(a)anthracene	131	34	17	ug/kg	SW846 8270D
Benzo(a)pyrene	123	34	17	ug/kg	SW846 8270D
Benzo(b)fluoranthene	150	34	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	91.8	34	26	ug/kg	SW846 8270D
Benzo(k)fluoranthene	58.1	34	17	ug/kg	SW846 8270D
Chrysene	134	34	17	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	18.4 J	34	17	ug/kg	SW846 8270D
Fluoranthene	244	34	17	ug/kg	SW846 8270D
Fluorene	16.5 J	34	34	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	64.7	34	17	ug/kg	SW846 8270D
Phenanthrene	148	34	17	ug/kg	SW846 8270D
Pyrene	280	34	17	ug/kg	SW846 8270D
Aldrin	1.2	0.69	0.56	ug/kg	SW846 8081B

Summary of Hits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	LOQ	LOD	Units	Method
alpha-Chlordane [a]	6.3	0.69	0.55	ug/kg	SW846 8081B
Dieldrin	1.5	0.69	0.51	ug/kg	SW846 8081B
4,4'-DDD [a]	0.77	0.69	0.63	ug/kg	SW846 8081B
4,4'-DDE	1.6	0.69	0.60	ug/kg	SW846 8081B
4,4'-DDT	2.0	0.69	0.61	ug/kg	SW846 8081B
Heptachlor [a]	0.83	0.69	0.59	ug/kg	SW846 8081B
Arsenic	3.5	2.2	0.54	mg/kg	SW846 6010D
Barium	23.0	22	11	mg/kg	SW846 6010D
Beryllium	0.31	0.22	0.11	mg/kg	SW846 6010D
Chromium	11.3	1.1	0.54	mg/kg	SW846 6010D
Copper	10.9	2.7	1.1	mg/kg	SW846 6010D
Lead	15.1	2.2	0.54	mg/kg	SW846 6010D
Manganese	106	1.6	1.1	mg/kg	SW846 6010D
Mercury	0.041	0.031	0.023	mg/kg	SW846 7471B
Nickel	6.8	4.3	0.43	mg/kg	SW846 6010D
Silver	0.25 J	0.54	0.43	mg/kg	SW846 6010D
Zinc	21.1	5.4	4.3	mg/kg	SW846 6010D
Chromium, Hexavalent	1.7	0.44	0.38	mg/kg	SW846 3060A/7196A
Chromium, Trivalent [b]	9.6	1.5	0.92	mg/kg	SW846 6010/7196A M
Cyanide	0.21 J	0.30	0.22	mg/kg	SW846 9012B/LACHAT
Redox Potential Vs H2	367		[c]	mv	ASTM D1498-76M
pH	8.82		[c]	su	SW846 9045D
JC84381-5 NWIRP-S1-WC-CF-018					
Acenaphthene	15.5 J	34	17	ug/kg	SW846 8270D
Anthracene	37.5	34	25	ug/kg	SW846 8270D
Benzo(a)anthracene	130	34	17	ug/kg	SW846 8270D
Benzo(a)pyrene	126	34	17	ug/kg	SW846 8270D
Benzo(b)fluoranthene	163	34	17	ug/kg	SW846 8270D
Benzo(g,h,i)perylene	97.1	34	25	ug/kg	SW846 8270D
Benzo(k)fluoranthene	57.4	34	17	ug/kg	SW846 8270D
Chrysene	143	34	17	ug/kg	SW846 8270D
Dibenzo(a,h)anthracene	29.1 J	34	17	ug/kg	SW846 8270D
Fluoranthene	236	34	17	ug/kg	SW846 8270D
Indeno(1,2,3-cd)pyrene	80.9	34	17	ug/kg	SW846 8270D
Phenanthrene	145	34	17	ug/kg	SW846 8270D
Pyrene	269	34	17	ug/kg	SW846 8270D
Aldrin [a]	0.78	0.67	0.55	ug/kg	SW846 8081B
alpha-Chlordane	4.8	0.67	0.54	ug/kg	SW846 8081B
Dieldrin [a]	0.75	0.67	0.50	ug/kg	SW846 8081B
4,4'-DDE	1.4	0.67	0.58	ug/kg	SW846 8081B
4,4'-DDT	1.6	0.67	0.59	ug/kg	SW846 8081B
Heptachlor	0.66 J	0.67	0.57	ug/kg	SW846 8081B
Arsenic	3.6	2.2	0.54	mg/kg	SW846 6010D

Summary of Hits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

Lab Sample ID / Client Sample ID / Analyte	Result/ Qual	LOQ	LOD	Units	Method
Barium	20.9 J	22	11	mg/kg	SW846 6010D
Beryllium	0.36	0.22	0.11	mg/kg	SW846 6010D
Chromium	11.6	1.1	0.54	mg/kg	SW846 6010D
Copper	8.0	2.7	1.1	mg/kg	SW846 6010D
Lead	12.0	2.2	0.54	mg/kg	SW846 6010D
Manganese	94.0	1.6	1.1	mg/kg	SW846 6010D
Mercury	0.026 J	0.032	0.024	mg/kg	SW846 7471B
Nickel	6.4	4.3	0.43	mg/kg	SW846 6010D
Silver	0.41 J	0.54	0.43	mg/kg	SW846 6010D
Zinc	18.1	5.4	4.3	mg/kg	SW846 6010D
Chromium, Hexavalent	12.9	0.43	0.38	mg/kg	SW846 3060A/7196A
Cyanide	0.21 J	0.26	0.19	mg/kg	SW846 9012B/LACHAT
Redox Potential Vs H2	371		[c]	mv	ASTM D1498-76M
pH	7.98		[c]	su	SW846 9045D

(a) More than 40 % RPD for detected concentrations between the two GC columns.
(b) Calculated as: (Chromium) - (Chromium, Hexavalent)
(c) Value reported is laboratory DL (MDL).

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136252.D	1	03/19/19 02:32	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	37 U	73	37	23	ug/kg	
	3&4-Methylphenol	37 U	73	37	30	ug/kg	
87-86-5	Pentachlorophenol	91 U	150	91	34	ug/kg	
108-95-2	Phenol	37 U	73	37	19	ug/kg	
83-32-9	Acenaphthene	19.1	37	18	13	ug/kg	J
208-96-8	Acenaphthylene	27 U	37	27	19	ug/kg	
120-12-7	Anthracene	41.2	37	27	22	ug/kg	
56-55-3	Benzo(a)anthracene	141	37	18	10	ug/kg	
50-32-8	Benzo(a)pyrene	136	37	18	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	179	37	18	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	93.6	37	27	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	60.7	37	18	17	ug/kg	
218-01-9	Chrysene	150	37	18	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	25.5	37	18	16	ug/kg	J
132-64-9	Dibenzofuran	18 U	73	18	15	ug/kg	
206-44-0	Fluoranthene	293	37	18	16	ug/kg	
86-73-7	Fluorene	18.8	37	37	17	ug/kg	J
118-74-1	Hexachlorobenzene	18 U	73	18	9.3	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	77.5	37	18	17	ug/kg	
91-20-3	Naphthalene	18 U	37	18	10	ug/kg	
85-01-8	Phenanthrene	178	37	18	12	ug/kg	
129-00-0	Pyrene	305	37	18	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		23-115%
4165-62-2	Phenol-d5	59%		27-114%
118-79-6	2,4,6-Tribromophenol	53%		19-152%
4165-60-0	Nitrobenzene-d5	57%		26-134%
321-60-8	2-Fluorobiphenyl	56%		39-124%
1718-51-0	Terphenyl-d14	80%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138922.D	1	03/18/19 12:06	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	3.3 U	3.7	3.3	3.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	67%		10-159%
19719-28-9	2,4-DCAA	69%		10-159%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63678.D	1	03/18/19 11:32	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	0.60 U	0.73	0.60	0.60	ug/kg	
319-84-6	alpha-BHC	0.60 U	0.73	0.60	0.60	ug/kg	
319-85-7	beta-BHC	0.66 U	0.73	0.66	0.66	ug/kg	
319-86-8	delta-BHC	0.70 U	0.73	0.70	0.70	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.54 U	0.73	0.54	0.54	ug/kg	
5103-71-9	alpha-Chlordane [a]	7.5	0.73	0.59	0.59	ug/kg	
60-57-1	Dieldrin [a]	1.6	0.73	0.55	0.50	ug/kg	
72-54-8	4,4'-DDD	0.67 U	0.73	0.67	0.67	ug/kg	
72-55-9	4,4'-DDE	2.2	0.73	0.64	0.64	ug/kg	
50-29-3	4,4'-DDT	2.4	0.73	0.65	0.65	ug/kg	
72-20-8	Endrin	0.57 U	0.73	0.57	0.57	ug/kg	
1031-07-8	Endosulfan sulfate	0.57 U	0.73	0.57	0.57	ug/kg	
959-98-8	Endosulfan-I	0.55 U	0.73	0.55	0.42	ug/kg	
33213-65-9	Endosulfan-II	0.55 U	0.73	0.55	0.46	ug/kg	
76-44-8	Heptachlor	0.92	0.73	0.63	0.63	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		25-135%
877-09-8	Tetrachloro-m-xylene	80%		25-135%
2051-24-3	Decachlorobiphenyl	68%		10-156%
2051-24-3	Decachlorobiphenyl	79%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86866.D	1	03/18/19 11:51	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	18 U	37	18	15	ug/kg	
11104-28-2	Aroclor 1221	18 U	37	18	15	ug/kg	
11141-16-5	Aroclor 1232	18 U	37	18	9.8	ug/kg	
53469-21-9	Aroclor 1242	18 U	37	18	5.8	ug/kg	
12672-29-6	Aroclor 1248	29 U	37	29	22	ug/kg	
11097-69-1	Aroclor 1254	18 U	37	18	9.0	ug/kg	
11096-82-5	Aroclor 1260	18 U	37	18	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		31-146%
877-09-8	Tetrachloro-m-xylene	76%		31-146%
2051-24-3	Decachlorobiphenyl	63%		17-164%
2051-24-3	Decachlorobiphenyl	60%		17-164%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.3	2.1	0.53	0.30	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	23.4	21	11	2.0	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.41	0.21	0.11	0.085	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.21 U	0.53	0.21	0.075	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	14.1	1.1	0.53	0.39	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	10.2	2.7	1.1	0.90	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	12.9	2.1	0.53	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	115	1.6	1.1	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.032 J	0.035	0.026	0.015	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	7.6	4.3	0.43	0.37	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.85 U	2.1	0.85	0.69	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.49 J	0.53	0.43	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	21.7	5.3	4.3	2.5	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-014		
Lab Sample ID:	JC84381-1	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
		Percent Solids:	90.2
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.8	0.44	0.39	0.35	mg/kg	1	04/03/19 18:46	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	12.3	1.5	0.92	0.74	mg/kg	1	04/03/19 18:46	JOO	SW846 6010/7196A M
Cyanide	0.27	0.23	0.17	0.11	mg/kg	1	03/19/19 15:07	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	381				mv	1	04/02/19 20:33	EB	ASTM D1498-76M
Solids, Percent	90.2				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	8.12				su	1	04/02/19 20:42	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136255.D	1	03/19/19 03:56	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	36 U	73	36	23	ug/kg	
	3&4-Methylphenol	36 U	73	36	30	ug/kg	
87-86-5	Pentachlorophenol	91 U	150	91	34	ug/kg	
108-95-2	Phenol	36 U	73	36	19	ug/kg	
83-32-9	Acenaphthene	18.3	36	18	13	ug/kg	J
208-96-8	Acenaphthylene	27 U	36	27	18	ug/kg	
120-12-7	Anthracene	48.4	36	27	22	ug/kg	
56-55-3	Benzo(a)anthracene	146	36	18	10	ug/kg	
50-32-8	Benzo(a)pyrene	144	36	18	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	176	36	18	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	110	36	27	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	71.7	36	18	17	ug/kg	
218-01-9	Chrysene	153	36	18	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	31.1	36	18	16	ug/kg	J
132-64-9	Dibenzofuran	18 U	73	18	15	ug/kg	
206-44-0	Fluoranthene	269	36	18	16	ug/kg	
86-73-7	Fluorene	19.4	36	36	17	ug/kg	J
118-74-1	Hexachlorobenzene	18 U	73	18	9.2	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	80.0	36	18	17	ug/kg	
91-20-3	Naphthalene	18 U	36	18	10	ug/kg	
85-01-8	Phenanthrene	168	36	18	12	ug/kg	
129-00-0	Pyrene	303	36	18	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		23-115%
4165-62-2	Phenol-d5	60%		27-114%
118-79-6	2,4,6-Tribromophenol	57%		19-152%
4165-60-0	Nitrobenzene-d5	57%		26-134%
321-60-8	2-Fluorobiphenyl	59%		39-124%
1718-51-0	Terphenyl-d14	80%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138928.D	1	03/18/19 14:56	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	3.2 U	3.5	3.2	3.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	71%		10-159%
19719-28-9	2,4-DCAA	80%		10-159%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63679.D	1	03/18/19 11:49	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	1.4	0.71	0.59	0.59	ug/kg	
319-84-6	alpha-BHC	0.58 U	0.71	0.58	0.58	ug/kg	
319-85-7	beta-BHC	0.64 U	0.71	0.64	0.64	ug/kg	
319-86-8	delta-BHC	0.68 U	0.71	0.68	0.68	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.53 U	0.71	0.53	0.53	ug/kg	
5103-71-9	alpha-Chlordane [a]	6.9	0.71	0.57	0.57	ug/kg	
60-57-1	Dieldrin [a]	1.7	0.71	0.53	0.49	ug/kg	
72-54-8	4,4'-DDD	0.65 U	0.71	0.65	0.65	ug/kg	
72-55-9	4,4'-DDE	2.1	0.71	0.62	0.62	ug/kg	
50-29-3	4,4'-DDT [a]	2.5	0.71	0.63	0.63	ug/kg	
72-20-8	Endrin	0.55 U	0.71	0.55	0.55	ug/kg	
1031-07-8	Endosulfan sulfate	0.56 U	0.71	0.56	0.56	ug/kg	
959-98-8	Endosulfan-I	0.53 U	0.71	0.53	0.41	ug/kg	
33213-65-9	Endosulfan-II	0.53 U	0.71	0.53	0.44	ug/kg	
76-44-8	Heptachlor	1.0	0.71	0.61	0.61	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		25-135%
877-09-8	Tetrachloro-m-xylene	72%		25-135%
2051-24-3	Decachlorobiphenyl	63%		10-156%
2051-24-3	Decachlorobiphenyl	70%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86869.D	1	03/18/19 13:31	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	18 U	36	18	14	ug/kg	
11104-28-2	Aroclor 1221	18 U	36	18	15	ug/kg	
11141-16-5	Aroclor 1232	18 U	36	18	9.5	ug/kg	
53469-21-9	Aroclor 1242	18 U	36	18	5.7	ug/kg	
12672-29-6	Aroclor 1248	28 U	36	28	21	ug/kg	
11097-69-1	Aroclor 1254	18 U	36	18	8.8	ug/kg	
11096-82-5	Aroclor 1260	18 U	36	18	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		31-146%
877-09-8	Tetrachloro-m-xylene	76%		31-146%
2051-24-3	Decachlorobiphenyl	63%		17-164%
2051-24-3	Decachlorobiphenyl	57%		17-164%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.2	2.2	0.54	0.30	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	25.5	22	11	2.1	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.36	0.22	0.11	0.087	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.22 U	0.54	0.22	0.076	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	12.5	1.1	0.54	0.40	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	8.7	2.7	1.1	0.91	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	16.6	2.2	0.54	0.45	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	108	1.6	1.1	0.45	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.034	0.033	0.025	0.015	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	7.5	4.3	0.43	0.38	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.87 U	2.2	0.87	0.71	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.20 J	0.54	0.43	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	21.6	5.4	4.3	2.5	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-015		
Lab Sample ID:	JC84381-2	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
		Percent Solids:	89.4
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	2.5	0.45	0.39	0.35	mg/kg	1	04/03/19 18:50	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	10.0	1.6	0.93	0.75	mg/kg	1	04/03/19 18:50	JOO	SW846 6010/7196A M
Cyanide	0.17 J	0.26	0.19	0.13	mg/kg	1	03/19/19 15:09	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	379				mv	1	04/02/19 20:35	EB	ASTM D1498-76M
Solids, Percent	89.4				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	8.15				su	1	04/02/19 20:44	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136256.D	1	03/19/19 04:24	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	31.3 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	35 U	70	35	22	ug/kg	
	3&4-Methylphenol	35 U	70	35	29	ug/kg	
87-86-5	Pentachlorophenol	87 U	140	87	33	ug/kg	
108-95-2	Phenol	35 U	70	35	18	ug/kg	
83-32-9	Acenaphthene	24.9	35	17	12	ug/kg	J
208-96-8	Acenaphthylene	26 U	35	26	18	ug/kg	
120-12-7	Anthracene	62.9	35	26	21	ug/kg	
56-55-3	Benzo(a)anthracene	174	35	17	9.9	ug/kg	
50-32-8	Benzo(a)pyrene	160	35	17	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	203	35	17	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	118	35	26	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	71.0	35	17	16	ug/kg	
218-01-9	Chrysene	171	35	17	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	23.0	35	17	15	ug/kg	J
132-64-9	Dibenzofuran	17 U	70	17	14	ug/kg	
206-44-0	Fluoranthene	336	35	17	16	ug/kg	
86-73-7	Fluorene	25.1	35	35	16	ug/kg	J
118-74-1	Hexachlorobenzene	17 U	70	17	8.8	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	93.0	35	17	16	ug/kg	
91-20-3	Naphthalene	17 U	35	17	9.8	ug/kg	
85-01-8	Phenanthrene	220	35	17	12	ug/kg	
129-00-0	Pyrene	373	35	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		23-115%
4165-62-2	Phenol-d5	64%		27-114%
118-79-6	2,4,6-Tribromophenol	58%		19-152%
4165-60-0	Nitrobenzene-d5	62%		26-134%
321-60-8	2-Fluorobiphenyl	63%		39-124%
1718-51-0	Terphenyl-d14	85%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138929.D	1	03/18/19 15:24	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	3.1 U	3.5	3.1	3.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	55%		10-159%
19719-28-9	2,4-DCAA	56%		10-159%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63682.D	1	03/18/19 12:42	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	1.9	0.70	0.58	0.58	ug/kg	
319-84-6	alpha-BHC	0.57 U	0.70	0.57	0.57	ug/kg	
319-85-7	beta-BHC	0.63 U	0.70	0.63	0.63	ug/kg	
319-86-8	delta-BHC	0.67 U	0.70	0.67	0.67	ug/kg	
58-89-9	gamma-BHC (Lindane) [a]	0.74	0.70	0.52	0.52	ug/kg	
5103-71-9	alpha-Chlordane [a]	8.8	0.70	0.56	0.56	ug/kg	
60-57-1	Dieldrin	2.8	0.70	0.52	0.48	ug/kg	
72-54-8	4,4'-DDD [a]	0.70	0.70	0.64	0.64	ug/kg	
72-55-9	4,4'-DDE	2.8	0.70	0.61	0.61	ug/kg	
50-29-3	4,4'-DDT	3.2	0.70	0.62	0.62	ug/kg	
72-20-8	Endrin	0.54 U	0.70	0.54	0.54	ug/kg	
1031-07-8	Endosulfan sulfate	0.55 U	0.70	0.55	0.55	ug/kg	
959-98-8	Endosulfan-I	0.52 U	0.70	0.52	0.40	ug/kg	
33213-65-9	Endosulfan-II	0.52 U	0.70	0.52	0.44	ug/kg	
76-44-8	Heptachlor	1.5	0.70	0.60	0.60	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		25-135%
877-09-8	Tetrachloro-m-xylene	83%		25-135%
2051-24-3	Decachlorobiphenyl	64%		10-156%
2051-24-3	Decachlorobiphenyl	72%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86870.D	1	03/18/19 14:05	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	17 U	35	17	14	ug/kg	
11104-28-2	Aroclor 1221	17 U	35	17	14	ug/kg	
11141-16-5	Aroclor 1232	17 U	35	17	9.4	ug/kg	
53469-21-9	Aroclor 1242	17 U	35	17	5.6	ug/kg	
12672-29-6	Aroclor 1248	28 U	35	28	20	ug/kg	
11097-69-1	Aroclor 1254	17 U	35	17	8.6	ug/kg	
11096-82-5	Aroclor 1260	17 U	35	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		31-146%
877-09-8	Tetrachloro-m-xylene	78%		31-146%
2051-24-3	Decachlorobiphenyl	64%		17-164%
2051-24-3	Decachlorobiphenyl	58%		17-164%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.8	2.1	0.52	0.29	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	21.9	21	10	2.0	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.34	0.21	0.10	0.083	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.21 U	0.52	0.21	0.073	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	11.7	1.0	0.52	0.38	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	10.8	2.6	1.0	0.87	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	15.4	2.1	0.52	0.43	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	116	1.6	1.0	0.43	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.036	0.033	0.024	0.014	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	8.1	4.2	0.42	0.36	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.83 U	2.1	0.83	0.68	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.30 J	0.52	0.42	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	58.5	5.2	4.2	2.4	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-016		
Lab Sample ID:	JC84381-3	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
		Percent Solids:	91.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.4	0.44	0.38	0.35	mg/kg	1	04/03/19 18:50	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	10.3	1.4	0.90	0.73	mg/kg	1	04/03/19 18:50	JOO	SW846 6010/7196A M
Cyanide	0.14 J	0.23	0.18	0.12	mg/kg	1	03/19/19 15:10	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	373				mv	1	04/02/19 20:36	EB	ASTM D1498-76M
Solids, Percent	91.7				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	8.66				su	1	04/02/19 20:47	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136257.D	1	03/19/19 04:51	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	31.8 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	34 U	69	34	22	ug/kg	
	3&4-Methylphenol	34 U	69	34	28	ug/kg	
87-86-5	Pentachlorophenol	86 U	140	86	32	ug/kg	
108-95-2	Phenol	34 U	69	34	18	ug/kg	
83-32-9	Acenaphthene	18.0	34	17	12	ug/kg	J
208-96-8	Acenaphthylene	26 U	34	26	17	ug/kg	
120-12-7	Anthracene	39.8	34	26	21	ug/kg	
56-55-3	Benzo(a)anthracene	131	34	17	9.7	ug/kg	
50-32-8	Benzo(a)pyrene	123	34	17	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	150	34	17	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	91.8	34	26	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	58.1	34	17	16	ug/kg	
218-01-9	Chrysene	134	34	17	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	18.4	34	17	15	ug/kg	J
132-64-9	Dibenzofuran	17 U	69	17	14	ug/kg	
206-44-0	Fluoranthene	244	34	17	15	ug/kg	
86-73-7	Fluorene	16.5	34	34	16	ug/kg	J
118-74-1	Hexachlorobenzene	17 U	69	17	8.7	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	64.7	34	17	16	ug/kg	
91-20-3	Naphthalene	17 U	34	17	9.7	ug/kg	
85-01-8	Phenanthrene	148	34	17	12	ug/kg	
129-00-0	Pyrene	280	34	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		23-115%
4165-62-2	Phenol-d5	69%		27-114%
118-79-6	2,4,6-Tribromophenol	61%		19-152%
4165-60-0	Nitrobenzene-d5	67%		26-134%
321-60-8	2-Fluorobiphenyl	70%		39-124%
1718-51-0	Terphenyl-d14	89%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138930.D	1	03/18/19 15:53	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	16.8 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	2.9 U	3.2	2.9	2.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	69%		10-159%
19719-28-9	2,4-DCAA	74%		10-159%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63683.D	1	03/18/19 12:59	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	1.2	0.69	0.56	0.56	ug/kg	
319-84-6	alpha-BHC	0.56 U	0.69	0.56	0.56	ug/kg	
319-85-7	beta-BHC	0.62 U	0.69	0.62	0.62	ug/kg	
319-86-8	delta-BHC	0.66 U	0.69	0.66	0.66	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.50 U	0.69	0.50	0.50	ug/kg	
5103-71-9	alpha-Chlordane [a]	6.3	0.69	0.55	0.55	ug/kg	
60-57-1	Dieldrin	1.5	0.69	0.51	0.47	ug/kg	
72-54-8	4,4'-DDD [a]	0.77	0.69	0.63	0.63	ug/kg	
72-55-9	4,4'-DDE	1.6	0.69	0.60	0.60	ug/kg	
50-29-3	4,4'-DDT	2.0	0.69	0.61	0.61	ug/kg	
72-20-8	Endrin	0.53 U	0.69	0.53	0.53	ug/kg	
1031-07-8	Endosulfan sulfate	0.54 U	0.69	0.54	0.54	ug/kg	
959-98-8	Endosulfan-I	0.51 U	0.69	0.51	0.39	ug/kg	
33213-65-9	Endosulfan-II	0.51 U	0.69	0.51	0.43	ug/kg	
76-44-8	Heptachlor [a]	0.83	0.69	0.59	0.59	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		25-135%
877-09-8	Tetrachloro-m-xylene	72%		25-135%
2051-24-3	Decachlorobiphenyl	56%		10-156%
2051-24-3	Decachlorobiphenyl	63%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86871.D	1	03/18/19 14:39	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	17 U	34	17	14	ug/kg	
11104-28-2	Aroclor 1221	17 U	34	17	14	ug/kg	
11141-16-5	Aroclor 1232	17 U	34	17	9.2	ug/kg	
53469-21-9	Aroclor 1242	17 U	34	17	5.5	ug/kg	
12672-29-6	Aroclor 1248	27 U	34	27	20	ug/kg	
11097-69-1	Aroclor 1254	17 U	34	17	8.4	ug/kg	
11096-82-5	Aroclor 1260	17 U	34	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		31-146%
877-09-8	Tetrachloro-m-xylene	71%		31-146%
2051-24-3	Decachlorobiphenyl	60%		17-164%
2051-24-3	Decachlorobiphenyl	54%		17-164%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.5	2.2	0.54	0.30	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	23.0	22	11	2.1	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.31	0.22	0.11	0.086	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.22 U	0.54	0.22	0.075	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	11.3	1.1	0.54	0.40	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	10.9	2.7	1.1	0.91	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	15.1	2.2	0.54	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	106	1.6	1.1	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.041	0.031	0.023	0.014	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	6.8	4.3	0.43	0.38	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.86 U	2.2	0.86	0.70	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.25 J	0.54	0.43	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	21.1	5.4	4.3	2.5	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.7	0.44	0.38	0.35	mg/kg	1	04/03/19 18:50	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	9.6	1.5	0.92	0.75	mg/kg	1	04/03/19 18:50	JOO	SW846 6010/7196A M
Cyanide	0.21 J	0.30	0.22	0.15	mg/kg	1	03/19/19 15:11	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	367				mv	1	04/02/19 20:37	EB	ASTM D1498-76M
Solids, Percent	91.8				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	8.82				su	1	04/02/19 20:49	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136258.D	1	03/19/19 05:19	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	31.8 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	34 U	68	34	22	ug/kg	
	3&4-Methylphenol	34 U	68	34	28	ug/kg	
87-86-5	Pentachlorophenol	85 U	140	85	32	ug/kg	
108-95-2	Phenol	34 U	68	34	18	ug/kg	
83-32-9	Acenaphthene	15.5	34	17	12	ug/kg	J
208-96-8	Acenaphthylene	25 U	34	25	17	ug/kg	
120-12-7	Anthracene	37.5	34	25	21	ug/kg	
56-55-3	Benzo(a)anthracene	130	34	17	9.6	ug/kg	
50-32-8	Benzo(a)pyrene	126	34	17	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	163	34	17	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	97.1	34	25	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	57.4	34	17	16	ug/kg	
218-01-9	Chrysene	143	34	17	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	29.1	34	17	15	ug/kg	J
132-64-9	Dibenzofuran	17 U	68	17	14	ug/kg	
206-44-0	Fluoranthene	236	34	17	15	ug/kg	
86-73-7	Fluorene	34 U	34	34	16	ug/kg	
118-74-1	Hexachlorobenzene	17 U	68	17	8.6	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	80.9	34	17	16	ug/kg	
91-20-3	Naphthalene	17 U	34	17	9.6	ug/kg	
85-01-8	Phenanthrene	145	34	17	11	ug/kg	
129-00-0	Pyrene	269	34	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	63%		23-115%
4165-62-2	Phenol-d5	66%		27-114%
118-79-6	2,4,6-Tribromophenol	61%		19-152%
4165-60-0	Nitrobenzene-d5	63%		26-134%
321-60-8	2-Fluorobiphenyl	65%		39-124%
1718-51-0	Terphenyl-d14	84%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138931.D	1	03/18/19 16:21	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	3.1 U	3.5	3.1	3.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	59%		10-159%
19719-28-9	2,4-DCAA	61%		10-159%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63684.D	1	03/18/19 13:17	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	16.2 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin [a]	0.78	0.67	0.55	0.55	ug/kg	
319-84-6	alpha-BHC	0.54 U	0.67	0.54	0.54	ug/kg	
319-85-7	beta-BHC	0.60 U	0.67	0.60	0.60	ug/kg	
319-86-8	delta-BHC	0.64 U	0.67	0.64	0.64	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.49 U	0.67	0.49	0.49	ug/kg	
5103-71-9	alpha-Chlordane	4.8	0.67	0.54	0.54	ug/kg	
60-57-1	Dieldrin [a]	0.75	0.67	0.50	0.46	ug/kg	
72-54-8	4,4'-DDD	0.61 U	0.67	0.61	0.61	ug/kg	
72-55-9	4,4'-DDE	1.4	0.67	0.58	0.58	ug/kg	
50-29-3	4,4'-DDT	1.6	0.67	0.59	0.59	ug/kg	
72-20-8	Endrin	0.52 U	0.67	0.52	0.52	ug/kg	
1031-07-8	Endosulfan sulfate	0.52 U	0.67	0.52	0.52	ug/kg	
959-98-8	Endosulfan-I	0.50 U	0.67	0.50	0.38	ug/kg	
33213-65-9	Endosulfan-II	0.50 U	0.67	0.50	0.42	ug/kg	
76-44-8	Heptachlor	0.66	0.67	0.57	0.57	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		25-135%
877-09-8	Tetrachloro-m-xylene	71%		25-135%
2051-24-3	Decachlorobiphenyl	60%		10-156%
2051-24-3	Decachlorobiphenyl	60%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86872.D	1	03/18/19 15:12	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	16.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	17 U	33	17	13	ug/kg	
11104-28-2	Aroclor 1221	17 U	33	17	14	ug/kg	
11141-16-5	Aroclor 1232	17 U	33	17	8.9	ug/kg	
53469-21-9	Aroclor 1242	17 U	33	17	5.3	ug/kg	
12672-29-6	Aroclor 1248	27 U	33	27	20	ug/kg	
11097-69-1	Aroclor 1254	17 U	33	17	8.2	ug/kg	
11096-82-5	Aroclor 1260	17 U	33	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	70%		31-146%
877-09-8	Tetrachloro-m-xylene	69%		31-146%
2051-24-3	Decachlorobiphenyl	55%		17-164%
2051-24-3	Decachlorobiphenyl	50%		17-164%

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.6	2.2	0.54	0.30	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	20.9 J	22	11	2.1	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.36	0.22	0.11	0.086	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.22 U	0.54	0.22	0.076	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	11.6	1.1	0.54	0.40	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	8.0	2.7	1.1	0.91	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	12.0	2.2	0.54	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	94.0	1.6	1.1	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.026 J	0.032	0.024	0.014	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	6.4	4.3	0.43	0.38	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.86 U	2.2	0.86	0.70	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.41 J	0.54	0.43	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	18.1	5.4	4.3	2.5	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	12.9	0.43	0.38	0.34	mg/kg	1	04/03/19 18:50	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	0.92 U	1.5	0.92	0.74	mg/kg	1	04/03/19 18:50	JOO	SW846 6010/7196A M
Cyanide	0.21 J	0.26	0.19	0.13	mg/kg	1	03/19/19 15:13	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	371				mv	1	04/02/19 20:38	EB	ASTM D1498-76M
Solids, Percent	92.7				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	7.98				su	1	04/02/19 20:51	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

Parameter Certification Exceptions

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

The following parameters included in this report are exceptions to NELAC certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Chromium, Trivalent		**SW846 6010/7196A M**	SO	SGS is not certified for this parameter.[a]
Redox Potential Vs H2		**ASTM D1498-76M**	SO	SGS is not certified for this parameter.[a]

(a) Lab cert for analyte not supported by NJDEP, OQA. Only methods/analytes required for reporting by the State of NJ can be certified in NJ. Use of this analyte for compliance must be verified through the appropriate regulatory office.

Certification exceptions shown are based on the New Jersey DEP certifications. Applicability in other states may vary. Please contact your laboratory representative if additional information is required for a specific regulatory program.

50

JC84381

CHAIN-OF-CUSTODY RECORD

COC Number: 501164-20190313
Subcontract Services Agreement : TBD

NOREAS Environmental Science Engineering & Construction

APTIM

APTIM - 150 Boush Street, Suite 701, Norfolk, VA 23510 (757) 640-6200

Lab Name:	Lab Receiving Address:
SGS Accutest -New Jersey	2235 US-130, Dayton, NJ 08810 Phone: (732) 329-0200
Project Name:	Sample Location:
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York	*Fill Material Samples*

LO	Project Number	APTIM Contact	APTIM Contact Number
F6147	501164	Natasha Kelley Sullivan	(410)529-7598

Client Dept.	Deputy Project Manager
NAVY	Monica L. Smeal E.I.T.

Item No.	Sample Number	Date	Time	Matrix: Water	Matrix: Soil	Sample Description	Number of Containers	SVOC SW-846 8270D	Total PCBs SW-846 8082A	Pesticides SW-846 8081B	Herbicides 8151A	Metals - ICP SW846 6010C/7471A	Cyanide SW-846 9012B	Cr6 and Cr3	Analysis Desired
1	NWIRP-S1-WC-CF-014	03/13/19	1045		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X	
2	NWIRP-S1-WC-CF-015	03/13/19	1059		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X	
3	NWIRP-S1-WC-CF-016	03/13/19	1105		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X	
4	NWIRP-S1-WC-CF-017	03/13/19	1110		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X	
5	NWIRP-S1-WC-CF-018	03/13/19	1120		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X	

1 2 3 4 5

B25

INITIAL ASESSMENT 2B

LABEL VERIFICATION

**** See attached list for SPECIFIC COMPOUNDS AND REQUIRED METALS**
(please run most appopriate method to meet the action level requirements .

Turnaround Time Required:	Sampled By:	COMMENTS:	Laboratory Report No.:
❑ 14 Day TAT	*McCutcheon, Sean, APTIM*		

Transfers Number	Transfers Relinquished By	Date	Time	Transfers Accepted By	Date	Time
1	*Sampler's Signature*	*Date*	*Time*	*Laboratory Sample Custody Si*	*Date*	*Time*
2		3/13/19	1600			
3		3/14/19	0945			
4						

Report Format: *Full Report*
Deliverables: EDD Excel+NIRIS
Fax results to Natasha Sullivan (410) 529-7599

FedEx 7860 1642 4080 Custody seal 170288 intact 3.2°C IP ice

JC84381: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC84381 **Client:** NOREAS-CB&I JV (NCBI) **Project:** BACKFILL - BETHPAGE, NY

Date / Time Received: 3/14/2019 9:45:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC84381: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

NOREAS, Inc.

Job No: JC84381

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: 500689

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC84381-1	Collected: 13-MAR-19 10:45 By: NS		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-014						
JC84381-1	SM2540 G 18TH ED MOD	07-MAR-19 12:35	BG			SOL104
JC84381-1	SW846 8081B	18-MAR-19 11:32	MH	18-MAR-19	SA	P8081SCO
JC84381-1	SW846 8082A	18-MAR-19 11:51	TR	18-MAR-19	SA	P8082PCB
JC84381-1	SW846 8151A	18-MAR-19 12:06	VDT	16-MAR-19	SH	H8151245TP
JC84381-1	SW846 8270D	19-MAR-19 02:32	CS	15-MAR-19	LJ	AB8270SCO
JC84381-1	SW846 7471B	19-MAR-19 13:46	LL	19-MAR-19	EAL	HG
JC84381-1	SW846 6010D	19-MAR-19 14:35	ND	18-MAR-19	TG	AG,AS,BA,BE,CD,CR,CU,MN,NI,PB,SE,ZN
JC84381-1	SW846 9012B/LACHAT	19-MAR-19 15:07	KI	18-MAR-19	BM	CN
JC84381-1	ASTM D1498-76M	02-APR-19 20:33	EB			EH
JC84381-1	SW846 9045D	02-APR-19 20:42	EB			PH
JC84381-1	SW846 6010/7196A M	03-APR-19 18:46	JOO			CR3
JC84381-1	SW846 3060A/7196A	03-APR-19 18:46	JOO	29-MAR-19	CD	XCRA
JC84381-2	Collected: 13-MAR-19 10:59 By: NS		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-015						
JC84381-2	SM2540 G 18TH ED MOD	07-MAR-19 12:35	BG			SOL104
JC84381-2	SW846 8081B	18-MAR-19 11:49	MH	18-MAR-19	SA	P8081SCO
JC84381-2	SW846 8082A	18-MAR-19 13:31	TR	18-MAR-19	SA	P8082PCB
JC84381-2	SW846 8151A	18-MAR-19 14:56	VDT	16-MAR-19	SH	H8151245TP
JC84381-2	SW846 8270D	19-MAR-19 03:56	CS	15-MAR-19	LJ	AB8270SCO
JC84381-2	SW846 7471B	19-MAR-19 13:47	LL	19-MAR-19	EAL	HG
JC84381-2	SW846 6010D	19-MAR-19 14:40	ND	18-MAR-19	TG	AG,AS,BA,BE,CD,CR,CU,MN,NI,PB,SE,ZN
JC84381-2	SW846 9012B/LACHAT	19-MAR-19 15:09	KI	18-MAR-19	BM	CN
JC84381-2	ASTM D1498-76M	02-APR-19 20:35	EB			EH
JC84381-2	SW846 9045D	02-APR-19 20:44	EB			PH
JC84381-2	SW846 6010/7196A M	03-APR-19 18:50	JOO			CR3
JC84381-2	SW846 3060A/7196A	03-APR-19 18:50	JOO	29-MAR-19	CD	XCRA
JC84381-3	Collected: 13-MAR-19 11:05 By: NS		Received: 14-MAR-19 By: DG			
NWIRP-S1-WC-CF-016						
JC84381-3	SM2540 G 18TH ED MOD	07-MAR-19 12:35	BG			SOL104
JC84381-3	SW846 8081B	18-MAR-19 12:42	MH	18-MAR-19	SA	P8081SCO
JC84381-3	SW846 8082A	18-MAR-19 14:05	TR	18-MAR-19	SA	P8082PCB

Internal Sample Tracking Chronicle

NOREAS, Inc.

Job No: JC84381

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: 500689

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC84381-3	SW846 8151A	18-MAR-19 15:24	VDT	16-MAR-19	SH	H8151245TP
JC84381-3	SW846 8270D	19-MAR-19 04:24	CS	15-MAR-19	LJ	AB8270SCO
JC84381-3	SW846 7471B	19-MAR-19 13:49	LL	19-MAR-19	EAL	HG
JC84381-3	SW846 6010D	19-MAR-19 14:55	ND	18-MAR-19	TG	AG,AS,BA,BE,CD,CR,CU,MN,NI,PB,SE,ZN
JC84381-3	SW846 9012B/LACHAT	19-MAR-19 15:10	KI	18-MAR-19	BM	CN
JC84381-3	ASTM D1498-76M	02-APR-19 20:36	EB			EH
JC84381-3	SW846 9045D	02-APR-19 20:47	EB			PH
JC84381-3	SW846 6010/7196A M	03-APR-19 18:50	JOO			CR3
JC84381-3	SW846 3060A/7196A	03-APR-19 18:50	JOO	29-MAR-19	CD	XCRA
JC84381-4	Collected: 13-MAR-19 11:10 By: NS			Received: 14-MAR-19 By: DG		
NWIRP-S1-WC-CF-017						
JC84381-4	SM2540 G 18TH ED MOD	17-MAR-19 12:35	BG			SOL104
JC84381-4	SW846 8081B	18-MAR-19 12:59	MH	18-MAR-19	SA	P8081SCO
JC84381-4	SW846 8082A	18-MAR-19 14:39	TR	18-MAR-19	SA	P8082PCB
JC84381-4	SW846 8151A	18-MAR-19 15:53	VDT	16-MAR-19	SH	H8151245TP
JC84381-4	SW846 8270D	19-MAR-19 04:51	CS	15-MAR-19	LJ	AB8270SCO
JC84381-4	SW846 7471B	19-MAR-19 13:50	LL	19-MAR-19	EAL	HG
JC84381-4	SW846 6010D	19-MAR-19 15:00	ND	18-MAR-19	TG	AG,AS,BA,BE,CD,CR,CU,MN,NI,PB,SE,ZN
JC84381-4	SW846 9012B/LACHAT	19-MAR-19 15:11	KI	18-MAR-19	BM	CN
JC84381-4	ASTM D1498-76M	02-APR-19 20:37	EB			EH
JC84381-4	SW846 9045D	02-APR-19 20:49	EB			PH
JC84381-4	SW846 6010/7196A M	03-APR-19 18:50	JOO			CR3
JC84381-4	SW846 3060A/7196A	03-APR-19 18:50	JOO	29-MAR-19	CD	XCRA
JC84381-5	Collected: 13-MAR-19 11:20 By: NS			Received: 14-MAR-19 By: DG		
NWIRP-S1-WC-CF-018						
JC84381-5	SM2540 G 18TH ED MOD	17-MAR-19 12:35	BG			SOL104
JC84381-5	SW846 8081B	18-MAR-19 13:17	MH	18-MAR-19	SA	P8081SCO
JC84381-5	SW846 8082A	18-MAR-19 15:12	TR	18-MAR-19	SA	P8082PCB
JC84381-5	SW846 8151A	18-MAR-19 16:21	VDT	16-MAR-19	SH	H8151245TP
JC84381-5	SW846 8270D	19-MAR-19 05:19	CS	15-MAR-19	LJ	AB8270SCO
JC84381-5	SW846 7471B	19-MAR-19 13:44	LL	19-MAR-19	EAL	HG
JC84381-5	SW846 6010D	19-MAR-19 14:20	ND	18-MAR-19	TG	AG,AS,BA,BE,CD,CR,CU,MN,NI,PB,SE,ZN
JC84381-5	SW846 9012B/LACHAT	19-MAR-19 15:13	KI	18-MAR-19	BM	CN

Internal Sample Tracking Chronicle

NOREAS, Inc.

Job No: JC84381

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: 500689

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC84381-5	ASTM D1498-76M	02-APR-19 20:38	EB			EH
JC84381-5	SW846 9045D	02-APR-19 20:51	EB			PH
JC84381-5	SW846 6010/7196A M	03-APR-19 18:50	JOO			CR3
JC84381-5	SW846 3060A/7196A	03-APR-19 18:50	JOO	29-MAR-19	CD	XCRA

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-1.1	Secured Storage	Sahara Feliciano	03/15/19 15:27	Retrieve from Storage
JC84381-1.1	Sahara Feliciano	Secured Staging Area	03/15/19 15:27	Return to Storage
JC84381-1.1	Secured Staging Area	Luis Jimenez	03/15/19 15:40	Retrieve from Storage
JC84381-1.1	Luis Jimenez	Secured Storage	03/15/19 18:42	Return to Storage
JC84381-1.1	Secured Storage	Sahara Feliciano	03/15/19 20:12	Retrieve from Storage
JC84381-1.1	Sahara Feliciano	Secured Staging Area	03/15/19 20:12	Return to Storage
JC84381-1.1	Secured Staging Area	Natasha Torres	03/16/19 02:06	Retrieve from Storage
JC84381-1.1	Natasha Torres	Secured Storage	03/16/19 09:29	Return to Storage
JC84381-1.1	Secured Storage	Sahara Feliciano	03/16/19 12:05	Retrieve from Storage
JC84381-1.1	Sahara Feliciano	Secured Staging Area	03/16/19 12:05	Return to Storage
JC84381-1.1	Secured Staging Area	Sauvelson Auguste	03/17/19 04:18	Retrieve from Storage
JC84381-1.1	Sauvelson Auguste	Secured Storage	03/17/19 08:05	Return to Storage
JC84381-1.1	Secured Storage	Todd Shoemaker	03/18/19 08:17	Retrieve from Storage
JC84381-1.1	Todd Shoemaker	Secured Staging Area	03/18/19 08:17	Return to Storage
JC84381-1.1	Secured Staging Area	Taylor Gorman	03/18/19 08:33	Retrieve from Storage
JC84381-1.1	Taylor Gorman	Secured Storage	03/18/19 10:43	Return to Storage
JC84381-1.1	Secured Storage	Bhooma Patel	03/18/19 10:49	Retrieve from Storage
JC84381-1.1	Bhooma Patel	Secured Storage	03/18/19 11:14	Return to Storage
JC84381-1.1	Secured Storage	Lindsey Lee	03/19/19 07:24	Retrieve from Storage
JC84381-1.1	Lindsey Lee	Secured Storage	03/19/19 13:44	Return to Storage
JC84381-1.1	Secured Storage	Matthew Robbins	03/28/19 17:20	Retrieve from Storage
JC84381-1.1	Matthew Robbins	Secured Staging Area	03/28/19 17:20	Return to Storage
JC84381-1.1	Secured Staging Area	Courtney Dringus	03/29/19 07:53	Retrieve from Storage
JC84381-1.1	Courtney Dringus	Secured Storage	03/29/19 11:40	Return to Storage
JC84381-1.1.1	Luis Jimenez	Organics Prep	03/15/19 15:45	Extract from JC84381-1.1
JC84381-1.1.1	Organics Prep	Luis Jimenez	03/15/19 22:21	Extract from JC84381-1.1
JC84381-1.1.1	Luis Jimenez	Extract Storage	03/15/19 22:21	Return to Storage
JC84381-1.1.1	Extract Storage	Christine Change	03/18/19 15:44	Retrieve from Storage
JC84381-1.1.1	Christine Change	GCMSZ	03/18/19 15:44	Load on Instrument
JC84381-1.1.1	GCMSZ	Angela Rastelli	03/20/19 11:54	Unload from Instrument
JC84381-1.1.1	Angela Rastelli	Extract Freezer	03/20/19 11:54	Return to Storage
JC84381-1.1.2	Natasha Torres	Organics Prep	03/16/19 02:07	Extract from JC84381-1.1
JC84381-1.1.2	Organics Prep	Sarah Halim	03/16/19 12:05	Extract from JC84381-1.1
JC84381-1.1.2	Sarah Halim	Extract Storage	03/16/19 12:05	Return to Storage
JC84381-1.1.2	Extract Storage	Vincent Drago	03/18/19 11:07	Retrieve from Storage
JC84381-1.1.2	Vincent Drago	GCOA	03/18/19 11:07	Load on Instrument
JC84381-1.1.2	GCOA	Vincent Drago	03/22/19 09:21	Unload from Instrument
JC84381-1.1.2	Vincent Drago	Extract Freezer	03/22/19 09:21	Return to Storage
JC84381-1.1.3	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-1.1
JC84381-1.1.3	Organics Prep	Sauvelson Auguste	03/18/19 09:30	Extract from JC84381-1.1
JC84381-1.1.3	Sauvelson Auguste	Extract Storage	03/18/19 09:30	Return to Storage

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-1.1.3	Extract Storage	Tianwei Ruan	03/18/19 10:20	Retrieve from Storage
JC84381-1.1.3	Tianwei Ruan	GC5G	03/18/19 10:20	Load on Instrument
JC84381-1.1.3	GC5G	Rebecca Krug	03/24/19 15:19	Unload from Instrument
JC84381-1.1.3	Rebecca Krug	Extract Freezer	03/24/19 15:19	Return to Storage
JC84381-1.1.4	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-1.1
JC84381-1.1.4	Organics Prep	Sauvelson Auguste	03/18/19 08:48	Extract from JC84381-1.1
JC84381-1.1.4	Sauvelson Auguste	Extract Storage	03/18/19 08:48	Return to Storage
JC84381-1.1.4	Extract Storage	Mailisi Heshuote	03/18/19 10:43	Retrieve from Storage
JC84381-1.1.4	Mailisi Heshuote	GC6G	03/18/19 10:43	Load on Instrument
JC84381-1.1.5	Bhooma Patel	Metals Digestion	03/18/19 10:49	Digestate from JC84381-1.1
JC84381-1.1.5	Metals Digestion	Bhooma Patel	03/18/19 10:50	Digestate from JC84381-1.1
JC84381-1.1.5	Bhooma Patel	Metals Digestate Storage	03/18/19 10:50	Return to Storage
JC84381-1.2	Secured Storage	Benjamin Gaines	03/17/19 08:49	Retrieve from Storage
JC84381-1.2	Benjamin Gaines	Secured Staging Area	03/17/19 08:49	Return to Storage
JC84381-1.2	Secured Staging Area	Benjamin Gaines	03/17/19 08:50	Retrieve from Storage
JC84381-1.2	Benjamin Gaines	Secured Storage	03/17/19 12:32	Return to Storage
JC84381-1.2	Secured Storage	Sahara Feliciano	03/17/19 12:39	Retrieve from Storage
JC84381-1.2	Sahara Feliciano	Secured Staging Area	03/17/19 12:39	Return to Storage
JC84381-1.2	Secured Staging Area	Beatrice Marcelino	03/18/19 11:11	Retrieve from Storage
JC84381-1.2	Beatrice Marcelino	Secured Storage	03/18/19 16:56	Return to Storage
JC84381-1.2	Secured Storage	Todd Shoemaker	03/19/19 11:08	Retrieve from Storage
JC84381-1.2	Todd Shoemaker	Secured Staging Area	03/19/19 11:09	Return to Storage
JC84381-1.2	Secured Staging Area	Chatiyah Canaday	03/19/19 14:47	Retrieve from Storage
JC84381-1.2	Chatiyah Canaday	Elaine Banting	03/19/19 16:50	Custody Transfer
JC84381-1.2	Elaine Banting	Secured Storage	03/19/19 23:26	Return to Storage
JC84381-1.2	Secured Storage	Todd Shoemaker	03/22/19 10:34	Retrieve from Storage
JC84381-1.2	Todd Shoemaker	Secured Staging Area	03/22/19 10:34	Return to Storage
JC84381-1.2	Secured Staging Area	Jayna Patel	03/22/19 12:29	Retrieve from Storage
JC84381-1.2	Jayna Patel	Secured Storage	03/22/19 15:46	Return to Storage
JC84381-1.2	Secured Storage	Todd Shoemaker	03/26/19 14:33	Retrieve from Storage
JC84381-1.2	Todd Shoemaker	Secured Staging Area	03/26/19 14:33	Return to Storage
JC84381-1.2	Secured Staging Area	Elaine Banting	03/26/19 21:02	Retrieve from Storage
JC84381-1.2	Elaine Banting	Secured Storage	03/27/19 01:01	Return to Storage
JC84381-1.2	Secured Storage	Sahara Feliciano	03/27/19 22:00	Retrieve from Storage
JC84381-1.2	Sahara Feliciano	Secured Staging Area	03/27/19 22:00	Return to Storage
JC84381-1.2	Secured Staging Area	Dave Hunkele	03/29/19 05:14	Retrieve from Storage
JC84381-1.2	Dave Hunkele	Secured Storage	03/29/19 05:14	Return to Storage
JC84381-2.1	Secured Storage	Benjamin Gaines	03/17/19 08:49	Retrieve from Storage
JC84381-2.1	Benjamin Gaines	Secured Staging Area	03/17/19 08:49	Return to Storage
JC84381-2.1	Secured Staging Area	Benjamin Gaines	03/17/19 08:50	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-2.1	Benjamin Gaines	Secured Storage	03/17/19 12:32	Return to Storage
JC84381-2.1	Secured Storage	Sahara Feliciano	03/17/19 12:39	Retrieve from Storage
JC84381-2.1	Sahara Feliciano	Secured Staging Area	03/17/19 12:39	Return to Storage
JC84381-2.1	Secured Staging Area	Beatrice Marcelino	03/18/19 11:11	Retrieve from Storage
JC84381-2.1	Beatrice Marcelino	Secured Storage	03/18/19 16:56	Return to Storage
JC84381-2.1	Secured Storage	Todd Shoemaker	03/19/19 11:08	Retrieve from Storage
JC84381-2.1	Todd Shoemaker	Secured Staging Area	03/19/19 11:09	Return to Storage
JC84381-2.1	Secured Staging Area	Chatiyah Canaday	03/19/19 14:47	Retrieve from Storage
JC84381-2.1	Chatiyah Canaday	Elaine Banting	03/19/19 16:50	Custody Transfer
JC84381-2.1	Elaine Banting	Secured Storage	03/19/19 23:26	Return to Storage
JC84381-2.1	Secured Storage	Todd Shoemaker	03/22/19 10:34	Retrieve from Storage
JC84381-2.1	Todd Shoemaker	Secured Staging Area	03/22/19 10:34	Return to Storage
JC84381-2.1	Secured Staging Area	Jayna Patel	03/22/19 12:29	Retrieve from Storage
JC84381-2.1	Jayna Patel	Secured Storage	03/22/19 15:46	Return to Storage
JC84381-2.1	Secured Storage	Todd Shoemaker	03/26/19 14:33	Retrieve from Storage
JC84381-2.1	Todd Shoemaker	Secured Staging Area	03/26/19 14:33	Return to Storage
JC84381-2.1	Secured Staging Area	Elaine Banting	03/26/19 21:02	Retrieve from Storage
JC84381-2.1	Elaine Banting	Secured Storage	03/27/19 01:01	Return to Storage
JC84381-2.1	Secured Storage	Sahara Feliciano	03/27/19 22:00	Retrieve from Storage
JC84381-2.1	Sahara Feliciano	Secured Staging Area	03/27/19 22:00	Return to Storage
JC84381-2.1	Secured Storage	Matthew Robbins	03/28/19 17:20	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC84381-2.1	Matthew Robbins	Secured Staging Area	03/28/19 17:20	Return to Storage
JC84381-2.1	Secured Staging Area	Courtney Dringus	03/29/19 07:53	Retrieve from Storage
JC84381-2.1	Courtney Dringus	Secured Storage	03/29/19 11:40	Return to Storage
JC84381-2.2	Secured Storage	Sahara Feliciano	03/15/19 15:27	Retrieve from Storage
JC84381-2.2	Sahara Feliciano	Secured Staging Area	03/15/19 15:27	Return to Storage
JC84381-2.2	Secured Staging Area	Luis Jimenez	03/15/19 15:40	Retrieve from Storage
JC84381-2.2	Luis Jimenez	Secured Storage	03/15/19 18:42	Return to Storage
JC84381-2.2	Secured Storage	Sahara Feliciano	03/15/19 20:12	Retrieve from Storage
JC84381-2.2	Sahara Feliciano	Secured Staging Area	03/15/19 20:12	Return to Storage
JC84381-2.2	Secured Staging Area	Natasha Torres	03/16/19 02:06	Retrieve from Storage
JC84381-2.2	Natasha Torres	Secured Storage	03/16/19 09:29	Return to Storage
JC84381-2.2	Secured Storage	Sahara Feliciano	03/16/19 12:05	Retrieve from Storage
JC84381-2.2	Sahara Feliciano	Secured Staging Area	03/16/19 12:05	Return to Storage
JC84381-2.2	Secured Staging Area	Sauvelson Auguste	03/17/19 04:18	Retrieve from Storage
JC84381-2.2	Sauvelson Auguste	Secured Storage	03/17/19 08:05	Return to Storage
JC84381-2.2	Secured Storage	Todd Shoemaker	03/18/19 08:17	Retrieve from Storage
JC84381-2.2	Todd Shoemaker	Secured Staging Area	03/18/19 08:17	Return to Storage
JC84381-2.2	Secured Staging Area	Taylor Gorman	03/18/19 08:33	Retrieve from Storage
JC84381-2.2	Taylor Gorman	Secured Storage	03/18/19 10:43	Return to Storage
JC84381-2.2	Secured Storage	Bhooma Patel	03/18/19 10:49	Retrieve from Storage
JC84381-2.2	Bhooma Patel	Secured Storage	03/18/19 11:14	Return to Storage

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-2.2	Secured Storage	Lindsey Lee	03/19/19 07:24	Retrieve from Storage
JC84381-2.2	Lindsey Lee	Secured Storage	03/19/19 13:44	Return to Storage
JC84381-2.2.1	Luis Jimenez	Organics Prep	03/15/19 15:45	Extract from JC84381-2.2
JC84381-2.2.1	Organics Prep	Luis Jimenez	03/15/19 22:21	Extract from JC84381-2.2
JC84381-2.2.1	Luis Jimenez	Extract Storage	03/15/19 22:21	Return to Storage
JC84381-2.2.1	Extract Storage	Christine Change	03/18/19 15:44	Retrieve from Storage
JC84381-2.2.1	Christine Change	GCMSZ	03/18/19 15:44	Load on Instrument
JC84381-2.2.1	GCMSZ	Angela Rastelli	03/20/19 11:54	Unload from Instrument
JC84381-2.2.1	Angela Rastelli	Extract Freezer	03/20/19 11:54	Return to Storage
JC84381-2.2.2	Natasha Torres	Organics Prep	03/16/19 02:07	Extract from JC84381-2.2
JC84381-2.2.2	Organics Prep	Sarah Halim	03/16/19 12:05	Extract from JC84381-2.2
JC84381-2.2.2	Sarah Halim	Extract Storage	03/16/19 12:05	Return to Storage
JC84381-2.2.2	Extract Storage	Vincent Drago	03/18/19 11:07	Retrieve from Storage
JC84381-2.2.2	Vincent Drago	GCOA	03/18/19 11:07	Load on Instrument
JC84381-2.2.2	GCOA	Vincent Drago	03/22/19 09:21	Unload from Instrument
JC84381-2.2.2	Vincent Drago	Extract Freezer	03/22/19 09:21	Return to Storage
JC84381-2.2.3	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-2.2
JC84381-2.2.3	Organics Prep	Sauvelson Auguste	03/18/19 09:30	Extract from JC84381-2.2
JC84381-2.2.3	Sauvelson Auguste	Extract Storage	03/18/19 09:30	Return to Storage
JC84381-2.2.3	Extract Storage	Tianwei Ruan	03/18/19 10:20	Retrieve from Storage
JC84381-2.2.3	Tianwei Ruan	GC5G	03/18/19 10:20	Load on Instrument
JC84381-2.2.3	GC5G	Rebecca Krug	03/24/19 15:19	Unload from Instrument
JC84381-2.2.3	Rebecca Krug	Extract Freezer	03/24/19 15:19	Return to Storage
JC84381-2.2.4	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-2.2
JC84381-2.2.4	Organics Prep	Sauvelson Auguste	03/18/19 08:48	Extract from JC84381-2.2
JC84381-2.2.4	Sauvelson Auguste	Extract Storage	03/18/19 08:48	Return to Storage
JC84381-2.2.4	Extract Storage	Mailisi Heshuote	03/18/19 10:43	Retrieve from Storage
JC84381-2.2.4	Mailisi Heshuote	GC6G	03/18/19 10:43	Load on Instrument
JC84381-2.2.5	Bhooma Patel	Metals Digestion	03/18/19 10:49	Digestate from JC84381-2.2
JC84381-2.2.5	Metals Digestion	Bhooma Patel	03/18/19 10:50	Digestate from JC84381-2.2
JC84381-2.2.5	Bhooma Patel	Metals Digestate Storage	03/18/19 10:50	Return to Storage
JC84381-3.1	Secured Storage	Benjamin Gaines	03/17/19 08:49	Retrieve from Storage
JC84381-3.1	Benjamin Gaines	Secured Staging Area	03/17/19 08:49	Return to Storage
JC84381-3.1	Secured Staging Area	Benjamin Gaines	03/17/19 08:50	Retrieve from Storage
JC84381-3.1	Benjamin Gaines	Secured Storage	03/17/19 12:32	Return to Storage
JC84381-3.1	Secured Storage	Sahara Feliciano	03/17/19 12:39	Retrieve from Storage
JC84381-3.1	Sahara Feliciano	Secured Staging Area	03/17/19 12:39	Return to Storage
JC84381-3.1	Secured Staging Area	Beatrice Marcelino	03/18/19 11:11	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-3.1	Beatrice Marcelino	Secured Storage	03/18/19 16:56	Return to Storage
JC84381-3.1	Secured Storage	Todd Shoemaker	03/19/19 11:08	Retrieve from Storage
JC84381-3.1	Todd Shoemaker	Secured Staging Area	03/19/19 11:09	Return to Storage
JC84381-3.1	Secured Staging Area	Chatiyah Canaday	03/19/19 14:47	Retrieve from Storage
JC84381-3.1	Chatiyah Canaday	Elaine Banting	03/19/19 16:50	Custody Transfer
JC84381-3.1	Elaine Banting	Secured Storage	03/19/19 23:26	Return to Storage
JC84381-3.1	Secured Storage	Todd Shoemaker	03/22/19 10:34	Retrieve from Storage
JC84381-3.1	Todd Shoemaker	Secured Staging Area	03/22/19 10:34	Return to Storage
JC84381-3.1	Secured Staging Area	Jayna Patel	03/22/19 12:29	Retrieve from Storage
JC84381-3.1	Jayna Patel	Secured Storage	03/22/19 15:46	Return to Storage
JC84381-3.1	Secured Storage	Todd Shoemaker	03/26/19 14:33	Retrieve from Storage
JC84381-3.1	Todd Shoemaker	Secured Staging Area	03/26/19 14:33	Return to Storage
JC84381-3.1	Secured Staging Area	Elaine Banting	03/26/19 21:02	Retrieve from Storage
JC84381-3.1	Elaine Banting	Secured Storage	03/27/19 01:01	Return to Storage
JC84381-3.1	Secured Storage	Sahara Feliciano	03/27/19 22:00	Retrieve from Storage
JC84381-3.1	Sahara Feliciano	Secured Staging Area	03/27/19 22:00	Return to Storage
JC84381-3.1	Secured Storage	Matthew Robbins	03/28/19 17:20	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC84381-3.1	Matthew Robbins	Secured Staging Area	03/28/19 17:20	Return to Storage
JC84381-3.1	Secured Staging Area	Courtney Dringus	03/29/19 07:53	Retrieve from Storage
JC84381-3.1	Courtney Dringus	Secured Storage	03/29/19 11:40	Return to Storage
JC84381-3.2	Secured Storage	Sahara Feliciano	03/15/19 15:27	Retrieve from Storage
JC84381-3.2	Sahara Feliciano	Secured Staging Area	03/15/19 15:27	Return to Storage
JC84381-3.2	Secured Staging Area	Luis Jimenez	03/15/19 15:40	Retrieve from Storage
JC84381-3.2	Luis Jimenez	Secured Storage	03/15/19 18:42	Return to Storage
JC84381-3.2	Secured Storage	Sahara Feliciano	03/15/19 20:12	Retrieve from Storage
JC84381-3.2	Sahara Feliciano	Secured Staging Area	03/15/19 20:12	Return to Storage
JC84381-3.2	Secured Staging Area	Natasha Torres	03/16/19 02:06	Retrieve from Storage
JC84381-3.2	Natasha Torres	Secured Storage	03/16/19 09:29	Return to Storage
JC84381-3.2	Secured Storage	Sahara Feliciano	03/16/19 12:05	Retrieve from Storage
JC84381-3.2	Sahara Feliciano	Secured Staging Area	03/16/19 12:05	Return to Storage
JC84381-3.2	Secured Staging Area	Sauvelson Auguste	03/17/19 04:18	Retrieve from Storage
JC84381-3.2	Sauvelson Auguste	Secured Storage	03/17/19 08:05	Return to Storage
JC84381-3.2	Secured Storage	Todd Shoemaker	03/18/19 08:17	Retrieve from Storage
JC84381-3.2	Todd Shoemaker	Secured Staging Area	03/18/19 08:17	Return to Storage
JC84381-3.2	Secured Staging Area	Taylor Gorman	03/18/19 08:33	Retrieve from Storage
JC84381-3.2	Taylor Gorman	Secured Storage	03/18/19 10:43	Return to Storage
JC84381-3.2	Secured Storage	Bhooma Patel	03/18/19 10:49	Retrieve from Storage
JC84381-3.2	Bhooma Patel	Secured Storage	03/18/19 11:14	Return to Storage
JC84381-3.2	Secured Storage	Lindsey Lee	03/19/19 07:24	Retrieve from Storage
JC84381-3.2	Lindsey Lee	Secured Storage	03/19/19 13:44	Return to Storage
JC84381-3.2.1	Luis Jimenez	Organics Prep	03/15/19 15:45	Extract from JC84381-3.2

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-3.2.1	Organics Prep	Luis Jimenez	03/15/19 22:21	Extract from JC84381-3.2
JC84381-3.2.1	Luis Jimenez	Extract Storage	03/15/19 22:21	Return to Storage
JC84381-3.2.1	Extract Storage	Christine Change	03/18/19 15:44	Retrieve from Storage
JC84381-3.2.1	Christine Change	GCMSZ	03/18/19 15:44	Load on Instrument
JC84381-3.2.1	GCMSZ	Angela Rastelli	03/20/19 11:54	Unload from Instrument
JC84381-3.2.1	Angela Rastelli	Extract Freezer	03/20/19 11:54	Return to Storage
JC84381-3.2.2	Natasha Torres	Organics Prep	03/16/19 02:07	Extract from JC84381-3.2
JC84381-3.2.2	Organics Prep	Sarah Halim	03/16/19 12:05	Extract from JC84381-3.2
JC84381-3.2.2	Sarah Halim	Extract Storage	03/16/19 12:05	Return to Storage
JC84381-3.2.2	Extract Storage	Vincent Drago	03/18/19 11:07	Retrieve from Storage
JC84381-3.2.2	Vincent Drago	GCOA	03/18/19 11:07	Load on Instrument
JC84381-3.2.2	GCOA	Vincent Drago	03/22/19 09:21	Unload from Instrument
JC84381-3.2.2	Vincent Drago	Extract Freezer	03/22/19 09:21	Return to Storage
JC84381-3.2.3	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-3.2
JC84381-3.2.3	Organics Prep	Sauvelson Auguste	03/18/19 09:30	Extract from JC84381-3.2
JC84381-3.2.3	Sauvelson Auguste	Extract Storage	03/18/19 09:30	Return to Storage
JC84381-3.2.3	Extract Storage	Tianwei Ruan	03/18/19 10:20	Retrieve from Storage
JC84381-3.2.3	Tianwei Ruan	GC5G	03/18/19 10:20	Load on Instrument
JC84381-3.2.3	GC5G	Rebecca Krug	03/24/19 15:19	Unload from Instrument
JC84381-3.2.3	Rebecca Krug	Extract Freezer	03/24/19 15:19	Return to Storage
JC84381-3.2.4	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-3.2
JC84381-3.2.4	Organics Prep	Sauvelson Auguste	03/18/19 08:48	Extract from JC84381-3.2
JC84381-3.2.4	Sauvelson Auguste	Extract Storage	03/18/19 08:48	Return to Storage
JC84381-3.2.4	Extract Storage	Mailisi Heshuote	03/18/19 10:43	Retrieve from Storage
JC84381-3.2.4	Mailisi Heshuote	GC6G	03/18/19 10:43	Load on Instrument
JC84381-3.2.5	Bhooma Patel	Metals Digestion	03/18/19 10:49	Digestate from JC84381-3.2
JC84381-3.2.5	Metals Digestion	Bhooma Patel	03/18/19 10:50	Digestate from JC84381-3.2
JC84381-3.2.5	Bhooma Patel	Metals Digestate Storage	03/18/19 10:50	Return to Storage
JC84381-4.1	Secured Storage	Benjamin Gaines	03/17/19 08:49	Retrieve from Storage
JC84381-4.1	Benjamin Gaines	Secured Staging Area	03/17/19 08:49	Return to Storage
JC84381-4.1	Secured Staging Area	Benjamin Gaines	03/17/19 08:50	Retrieve from Storage
JC84381-4.1	Benjamin Gaines	Secured Storage	03/17/19 12:32	Return to Storage
JC84381-4.1	Secured Storage	Sahara Feliciano	03/17/19 12:39	Retrieve from Storage
JC84381-4.1	Sahara Feliciano	Secured Staging Area	03/17/19 12:39	Return to Storage
JC84381-4.1	Secured Staging Area	Beatrice Marcelino	03/18/19 11:11	Retrieve from Storage
JC84381-4.1	Beatrice Marcelino	Secured Storage	03/18/19 16:56	Return to Storage
JC84381-4.1	Secured Storage	Todd Shoemaker	03/19/19 11:08	Retrieve from Storage
JC84381-4.1	Todd Shoemaker	Secured Staging Area	03/19/19 11:09	Return to Storage
JC84381-4.1	Secured Staging Area	Chatiyah Canaday	03/19/19 14:47	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-4.1	Chatiyah Canaday	Elaine Banting	03/19/19 16:50	Custody Transfer
JC84381-4.1	Elaine Banting	Secured Storage	03/19/19 23:26	Return to Storage
JC84381-4.1	Secured Storage	Todd Shoemaker	03/22/19 10:34	Retrieve from Storage
JC84381-4.1	Todd Shoemaker	Secured Staging Area	03/22/19 10:34	Return to Storage
JC84381-4.1	Secured Staging Area	Jayna Patel	03/22/19 12:29	Retrieve from Storage
JC84381-4.1	Jayna Patel	Secured Storage	03/22/19 15:46	Return to Storage
JC84381-4.1	Secured Storage	Todd Shoemaker	03/26/19 14:33	Retrieve from Storage
JC84381-4.1	Todd Shoemaker	Secured Staging Area	03/26/19 14:33	Return to Storage
JC84381-4.1	Secured Staging Area	Elaine Banting	03/26/19 21:02	Retrieve from Storage
JC84381-4.1	Elaine Banting	Secured Storage	03/27/19 01:01	Return to Storage
JC84381-4.1	Secured Storage	Sahara Feliciano	03/27/19 22:00	Retrieve from Storage
JC84381-4.1	Sahara Feliciano	Secured Staging Area	03/27/19 22:00	Return to Storage
JC84381-4.1	Secured Storage	Matthew Robbins	03/28/19 17:20	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC84381-4.1	Matthew Robbins	Secured Staging Area	03/28/19 17:20	Return to Storage
JC84381-4.1	Secured Staging Area	Courtney Dringus	03/29/19 07:53	Retrieve from Storage
JC84381-4.1	Courtney Dringus	Secured Storage	03/29/19 11:40	Return to Storage
JC84381-4.2	Secured Storage	Sahara Feliciano	03/15/19 15:27	Retrieve from Storage
JC84381-4.2	Sahara Feliciano	Secured Staging Area	03/15/19 15:27	Return to Storage
JC84381-4.2	Secured Staging Area	Luis Jimenez	03/15/19 15:40	Retrieve from Storage
JC84381-4.2	Luis Jimenez	Secured Storage	03/15/19 18:42	Return to Storage
JC84381-4.2	Secured Storage	Sahara Feliciano	03/15/19 20:12	Retrieve from Storage
JC84381-4.2	Sahara Feliciano	Secured Staging Area	03/15/19 20:12	Return to Storage
JC84381-4.2	Secured Staging Area	Natasha Torres	03/16/19 02:06	Retrieve from Storage
JC84381-4.2	Natasha Torres	Secured Storage	03/16/19 09:29	Return to Storage
JC84381-4.2	Secured Storage	Sahara Feliciano	03/16/19 12:05	Retrieve from Storage
JC84381-4.2	Sahara Feliciano	Secured Staging Area	03/16/19 12:05	Return to Storage
JC84381-4.2	Secured Staging Area	Sauvelson Auguste	03/17/19 04:18	Retrieve from Storage
JC84381-4.2	Sauvelson Auguste	Secured Storage	03/17/19 08:05	Return to Storage
JC84381-4.2	Secured Storage	Todd Shoemaker	03/18/19 08:17	Retrieve from Storage
JC84381-4.2	Todd Shoemaker	Secured Staging Area	03/18/19 08:17	Return to Storage
JC84381-4.2	Secured Staging Area	Taylor Gorman	03/18/19 08:33	Retrieve from Storage
JC84381-4.2	Taylor Gorman	Secured Storage	03/18/19 10:43	Return to Storage
JC84381-4.2	Secured Storage	Bhooma Patel	03/18/19 10:49	Retrieve from Storage
JC84381-4.2	Bhooma Patel	Secured Storage	03/18/19 11:14	Return to Storage
JC84381-4.2	Secured Storage	Lindsey Lee	03/19/19 07:24	Retrieve from Storage
JC84381-4.2	Lindsey Lee	Secured Storage	03/19/19 13:44	Return to Storage
JC84381-4.2.1	Luis Jimenez	Organics Prep	03/15/19 15:45	Extract from JC84381-4.2
JC84381-4.2.1	Organics Prep	Luis Jimenez	03/15/19 22:21	Extract from JC84381-4.2
JC84381-4.2.1	Luis Jimenez	Extract Storage	03/15/19 22:21	Return to Storage
JC84381-4.2.1	Extract Storage	Christine Change	03/18/19 15:44	Retrieve from Storage
JC84381-4.2.1	Christine Change	GCMSZ	03/18/19 15:44	Load on Instrument

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-4.2.1	GCMSZ	Angela Rastelli	03/20/19 11:54	Unload from Instrument
JC84381-4.2.1	Angela Rastelli	Extract Freezer	03/20/19 11:54	Return to Storage
JC84381-4.2.2	Natasha Torres	Organics Prep	03/16/19 02:07	Extract from JC84381-4.2
JC84381-4.2.2	Organics Prep	Sarah Halim	03/16/19 12:05	Extract from JC84381-4.2
JC84381-4.2.2	Sarah Halim	Extract Storage	03/16/19 12:05	Return to Storage
JC84381-4.2.2	Extract Storage	Vincent Drago	03/18/19 11:07	Retrieve from Storage
JC84381-4.2.2	Vincent Drago	GCOA	03/18/19 11:07	Load on Instrument
JC84381-4.2.2	GCOA	Vincent Drago	03/22/19 09:21	Unload from Instrument
JC84381-4.2.2	Vincent Drago	Extract Freezer	03/22/19 09:21	Return to Storage
JC84381-4.2.3	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-4.2
JC84381-4.2.3	Organics Prep	Sauvelson Auguste	03/18/19 09:30	Extract from JC84381-4.2
JC84381-4.2.3	Sauvelson Auguste	Extract Storage	03/18/19 09:30	Return to Storage
JC84381-4.2.3	Extract Storage	Tianwei Ruan	03/18/19 10:20	Retrieve from Storage
JC84381-4.2.3	Tianwei Ruan	GC5G	03/18/19 10:20	Load on Instrument
JC84381-4.2.3	GC5G	Rebecca Krug	03/24/19 15:19	Unload from Instrument
JC84381-4.2.3	Rebecca Krug	Extract Freezer	03/24/19 15:19	Return to Storage
JC84381-4.2.4	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-4.2
JC84381-4.2.4	Organics Prep	Sauvelson Auguste	03/18/19 08:48	Extract from JC84381-4.2
JC84381-4.2.4	Sauvelson Auguste	Extract Storage	03/18/19 08:48	Return to Storage
JC84381-4.2.4	Extract Storage	Mailisi Heshuote	03/18/19 10:43	Retrieve from Storage
JC84381-4.2.4	Mailisi Heshuote	GC6G	03/18/19 10:43	Load on Instrument
JC84381-4.2.5	Bhooma Patel	Metals Digestion	03/18/19 10:49	Digestate from JC84381-4.2
JC84381-4.2.5	Metals Digestion	Bhooma Patel	03/18/19 10:50	Digestate from JC84381-4.2
JC84381-4.2.5	Bhooma Patel	Metals Digestate Storage	03/18/19 10:50	Return to Storage
JC84381-5.1	Secured Storage	Benjamin Gaines	03/17/19 08:49	Retrieve from Storage
JC84381-5.1	Benjamin Gaines	Secured Staging Area	03/17/19 08:49	Return to Storage
JC84381-5.1	Secured Staging Area	Benjamin Gaines	03/17/19 08:50	Retrieve from Storage
JC84381-5.1	Benjamin Gaines	Secured Storage	03/17/19 12:32	Return to Storage
JC84381-5.1	Secured Storage	Sahara Feliciano	03/17/19 12:39	Retrieve from Storage
JC84381-5.1	Sahara Feliciano	Secured Staging Area	03/17/19 12:39	Return to Storage
JC84381-5.1	Secured Staging Area	Beatrice Marcelino	03/18/19 11:11	Retrieve from Storage
JC84381-5.1	Beatrice Marcelino	Secured Storage	03/18/19 16:56	Return to Storage
JC84381-5.1	Secured Storage	Todd Shoemaker	03/19/19 11:08	Retrieve from Storage
JC84381-5.1	Todd Shoemaker	Secured Staging Area	03/19/19 11:09	Return to Storage
JC84381-5.1	Secured Staging Area	Chatiyah Canaday	03/19/19 14:47	Retrieve from Storage
JC84381-5.1	Chatiyah Canaday	Elaine Banting	03/19/19 16:50	Custody Transfer
JC84381-5.1	Elaine Banting	Secured Storage	03/19/19 23:26	Return to Storage
JC84381-5.1	Secured Storage	Todd Shoemaker	03/22/19 10:34	Retrieve from Storage
JC84381-5.1	Todd Shoemaker	Secured Staging Area	03/22/19 10:34	Return to Storage

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-5.1	Secured Staging Area	Jayna Patel	03/22/19 12:29	Retrieve from Storage
JC84381-5.1	Jayna Patel	Secured Storage	03/22/19 15:46	Return to Storage
JC84381-5.1	Secured Storage	Todd Shoemaker	03/26/19 14:33	Retrieve from Storage
JC84381-5.1	Todd Shoemaker	Secured Staging Area	03/26/19 14:33	Return to Storage
JC84381-5.1	Secured Staging Area	Elaine Banting	03/26/19 21:02	Retrieve from Storage
JC84381-5.1	Elaine Banting	Secured Storage	03/27/19 01:01	Return to Storage
JC84381-5.1	Secured Storage	Sahara Feliciano	03/27/19 22:00	Retrieve from Storage
JC84381-5.1	Sahara Feliciano	Secured Staging Area	03/27/19 22:00	Return to Storage
JC84381-5.1	Secured Storage	Matthew Robbins	03/28/19 17:20	Retrieve from Storage
Bottle was returned to secure storage, but inadvertently not scanned.				
JC84381-5.1	Matthew Robbins	Secured Staging Area	03/28/19 17:20	Return to Storage
JC84381-5.1	Secured Staging Area	Courtney Dringus	03/29/19 07:53	Retrieve from Storage
JC84381-5.1	Courtney Dringus	Secured Storage	03/29/19 11:40	Return to Storage
JC84381-5.2	Secured Storage	Sahara Feliciano	03/15/19 15:27	Retrieve from Storage
JC84381-5.2	Sahara Feliciano	Secured Staging Area	03/15/19 15:27	Return to Storage
JC84381-5.2	Secured Staging Area	Luis Jimenez	03/15/19 15:40	Retrieve from Storage
JC84381-5.2	Luis Jimenez	Secured Storage	03/15/19 18:42	Return to Storage
JC84381-5.2	Secured Storage	Sahara Feliciano	03/15/19 20:12	Retrieve from Storage
JC84381-5.2	Sahara Feliciano	Secured Staging Area	03/15/19 20:12	Return to Storage
JC84381-5.2	Secured Staging Area	Natasha Torres	03/16/19 02:06	Retrieve from Storage
JC84381-5.2	Natasha Torres	Secured Storage	03/16/19 09:29	Return to Storage
JC84381-5.2	Secured Storage	Sahara Feliciano	03/16/19 12:05	Retrieve from Storage
JC84381-5.2	Sahara Feliciano	Secured Staging Area	03/16/19 12:05	Return to Storage
JC84381-5.2	Secured Staging Area	Sauvelson Auguste	03/17/19 04:18	Retrieve from Storage
JC84381-5.2	Sauvelson Auguste	Secured Storage	03/17/19 08:05	Return to Storage
JC84381-5.2	Secured Storage	Todd Shoemaker	03/18/19 08:17	Retrieve from Storage
JC84381-5.2	Todd Shoemaker	Secured Staging Area	03/18/19 08:17	Return to Storage
JC84381-5.2	Secured Staging Area	Taylor Gorman	03/18/19 08:33	Retrieve from Storage
JC84381-5.2	Taylor Gorman	Secured Storage	03/18/19 10:43	Return to Storage
JC84381-5.2	Secured Storage	Bhooma Patel	03/18/19 10:49	Retrieve from Storage
JC84381-5.2	Bhooma Patel	Secured Storage	03/18/19 11:14	Return to Storage
JC84381-5.2	Secured Storage	Lindsey Lee	03/19/19 07:24	Retrieve from Storage
JC84381-5.2	Lindsey Lee	Secured Storage	03/19/19 13:44	Return to Storage
JC84381-5.2.1	Luis Jimenez	Organics Prep	03/15/19 15:45	Extract from JC84381-5.2
JC84381-5.2.1	Organics Prep	Luis Jimenez	03/15/19 22:21	Extract from JC84381-5.2
JC84381-5.2.1	Luis Jimenez	Extract Storage	03/15/19 22:21	Return to Storage
JC84381-5.2.1	Extract Storage	Christine Change	03/18/19 15:44	Retrieve from Storage
JC84381-5.2.1	Christine Change	GCMSZ	03/18/19 15:44	Load on Instrument
JC84381-5.2.1	GCMSZ	Angela Rastelli	03/20/19 11:54	Unload from Instrument
JC84381-5.2.1	Angela Rastelli	Extract Freezer	03/20/19 11:54	Return to Storage
JC84381-5.2.2	Natasha Torres	Organics Prep	03/16/19 02:07	Extract from JC84381-5.2

SGS Internal Chain of Custody

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Received: 03/14/19

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC84381-5.2.2	Organics Prep	Sarah Halim	03/16/19 12:05	Extract from JC84381-5.2
JC84381-5.2.2	Sarah Halim	Extract Storage	03/16/19 12:05	Return to Storage
JC84381-5.2.2	Extract Storage	Vincent Drago	03/18/19 11:07	Retrieve from Storage
JC84381-5.2.2	Vincent Drago	GCOA	03/18/19 11:07	Load on Instrument
JC84381-5.2.2	GCOA	Vincent Drago	03/22/19 09:21	Unload from Instrument
JC84381-5.2.2	Vincent Drago	Extract Freezer	03/22/19 09:21	Return to Storage
JC84381-5.2.3	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-5.2
JC84381-5.2.3	Organics Prep	Sauvelson Auguste	03/18/19 09:30	Extract from JC84381-5.2
JC84381-5.2.3	Sauvelson Auguste	Extract Storage	03/18/19 09:30	Return to Storage
JC84381-5.2.3	Extract Storage	Tianwei Ruan	03/18/19 10:20	Retrieve from Storage
JC84381-5.2.3	Tianwei Ruan	GC5G	03/18/19 10:20	Load on Instrument
JC84381-5.2.3	GC5G	Rebecca Krug	03/24/19 15:19	Unload from Instrument
JC84381-5.2.3	Rebecca Krug	Extract Freezer	03/24/19 15:19	Return to Storage
JC84381-5.2.4	Sauvelson Auguste	Organics Prep	03/17/19 04:19	Extract from JC84381-5.2
JC84381-5.2.4	Organics Prep	Sauvelson Auguste	03/18/19 08:48	Extract from JC84381-5.2
JC84381-5.2.4	Sauvelson Auguste	Extract Storage	03/18/19 08:48	Return to Storage
JC84381-5.2.4	Extract Storage	Mailisi Heshuote	03/18/19 10:43	Retrieve from Storage
JC84381-5.2.4	Mailisi Heshuote	GC6G	03/18/19 10:43	Load on Instrument
JC84381-5.2.5	Bhooma Patel	Metals Digestion	03/18/19 10:49	Digestate from JC84381-5.2
JC84381-5.2.5	Metals Digestion	Bhooma Patel	03/18/19 10:50	Digestate from JC84381-5.2
JC84381-5.2.5	Bhooma Patel	Metals Digestate Storage	03/18/19 10:50	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP19154	SW846 8270D						
OP19154-BS1	95-48-7	2-Methylphenol	BSP	REC	89	%	32-122
OP19154-BS1		3&4-Methylphenol	BSP	REC	94	%	34-119
OP19154-BS1	87-86-5	Pentachlorophenol	BSP	REC	96	%	25-133
OP19154-BS1	108-95-2	Phenol	BSP	REC	88	%	34-121
OP19154-BS1	83-32-9	Acenaphthene	BSP	REC	86	%	40-123
OP19154-BS1	208-96-8	Acenaphthylene	BSP	REC	86	%	32-132
OP19154-BS1	120-12-7	Anthracene	BSP	REC	92	%	47-123
OP19154-BS1	56-55-3	Benzo(a)anthracene	BSP	REC	95	%	49-126
OP19154-BS1	50-32-8	Benzo(a)pyrene	BSP	REC	100	%	45-129
OP19154-BS1	205-99-2	Benzo(b)fluoranthene	BSP	REC	104	%	45-132
OP19154-BS1	191-24-2	Benzo(g,h,i)perylene	BSP	REC	89	%	43-134
OP19154-BS1	207-08-9	Benzo(k)fluoranthene	BSP	REC	98	%	47-132
OP19154-BS1	218-01-9	Chrysene	BSP	REC	95	%	50-124
OP19154-BS1	53-70-3	Dibenzo(a,h)anthracene	BSP	REC	85	%	45-134
OP19154-BS1	132-64-9	Dibenzofuran	BSP	REC	86	%	44-120
OP19154-BS1	206-44-0	Fluoranthene	BSP	REC	103	%	50-127
OP19154-BS1	86-73-7	Fluorene	BSP	REC	91	%	43-125
OP19154-BS1	118-74-1	Hexachlorobenzene	BSP	REC	83	%	45-122
OP19154-BS1	193-39-5	Indeno(1,2,3-cd)pyrene	BSP	REC	76	%	45-133
OP19154-BS1	91-20-3	Naphthalene	BSP	REC	75	%	35-123
OP19154-BS1	85-01-8	Phenanthrene	BSP	REC	92	%	50-121
OP19154-BS1	129-00-0	Pyrene	BSP	REC	99	%	47-127
OP19154-BS1	367-12-4	2-Fluorophenol	BSP	SURR	87	%	35-115
OP19154-BS1	4165-62-2	Phenol-d5	BSP	SURR	91	%	33-122
OP19154-BS1	118-79-6	2,4,6-Tribromophenol	BSP	SURR	86	%	39-132
OP19154-BS1	4165-60-0	Nitrobenzene-d5	BSP	SURR	76	%	37-122
OP19154-BS1	321-60-8	2-Fluorobiphenyl	BSP	SURR	78	%	44-115
OP19154-BS1	1718-51-0	Terphenyl-d14	BSP	SURR	98	%	54-127
OP19154-MS	95-48-7	2-Methylphenol	MS	REC	68	%	32-122
OP19154-MS		3&4-Methylphenol	MS	REC	73	%	34-119
OP19154-MS	87-86-5	Pentachlorophenol	MS	REC	45	%	25-133
OP19154-MS	108-95-2	Phenol	MS	REC	67	%	34-121
OP19154-MS	83-32-9	Acenaphthene	MS	REC	68	%	40-123
OP19154-MS	208-96-8	Acenaphthylene	MS	REC	69	%	32-132
OP19154-MS	120-12-7	Anthracene	MS	REC	71	%	47-123
OP19154-MS	56-55-3	Benzo(a)anthracene	MS	REC	73	%	49-126
OP19154-MS	50-32-8	Benzo(a)pyrene	MS	REC	75	%	45-129
OP19154-MS	205-99-2	Benzo(b)fluoranthene	MS	REC	71	%	45-132
OP19154-MS	191-24-2	Benzo(g,h,i)perylene	MS	REC	76	%	43-134
OP19154-MS	207-08-9	Benzo(k)fluoranthene	MS	REC	70	%	47-132
OP19154-MS	218-01-9	Chrysene	MS	REC	74	%	50-124
OP19154-MS	53-70-3	Dibenzo(a,h)anthracene	MS	REC	72	%	45-134

* Sample used for QC is not from job JC84381

QC Evaluation: DOD QSM5 Limits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP19154-MS	132-64-9	Dibenzofuran	MS	REC	70	%	44-120
OP19154-MS	206-44-0	Fluoranthene	MS	REC	67	%	50-127
OP19154-MS	86-73-7	Fluorene	MS	REC	67	%	43-125
OP19154-MS	118-74-1	Hexachlorobenzene	MS	REC	65	%	45-122
OP19154-MS	193-39-5	Indeno(1,2,3-cd)pyrene	MS	REC	65	%	45-133
OP19154-MS	91-20-3	Naphthalene	MS	REC	62	%	35-123
OP19154-MS	85-01-8	Phenanthrene	MS	REC	70	%	50-121
OP19154-MS	129-00-0	Pyrene	MS	REC	87	%	47-127
OP19154-MS	367-12-4	2-Fluorophenol	MS	SURR	66	%	35-115
OP19154-MS	4165-62-2	Phenol-d5	MS	SURR	69	%	33-122
OP19154-MS	118-79-6	2,4,6-Tribromophenol	MS	SURR	65	%	39-132
OP19154-MS	4165-60-0	Nitrobenzene-d5	MS	SURR	64	%	37-122
OP19154-MS	321-60-8	2-Fluorobiphenyl	MS	SURR	65	%	44-115
OP19154-MS	1718-51-0	Terphenyl-d14	MS	SURR	86	%	54-127
OP19154-MSD	95-48-7	2-Methylphenol	MSD	REC	74	%	32-122
OP19154-MSD	95-48-7	2-Methylphenol	MSD	RPD	6	%	20
OP19154-MSD		3&4-Methylphenol	MSD	REC	78	%	34-119
OP19154-MSD		3&4-Methylphenol	MSD	RPD	4	%	20
OP19154-MSD	87-86-5	Pentachlorophenol	MSD	REC	58	%	25-133
OP19154-MSD	87-86-5	Pentachlorophenol	MSD	RPD	23 [a]	%	20
OP19154-MSD	108-95-2	Phenol	MSD	REC	72	%	34-121
OP19154-MSD	108-95-2	Phenol	MSD	RPD	6	%	20
OP19154-MSD	83-32-9	Acenaphthene	MSD	REC	78	%	40-123
OP19154-MSD	83-32-9	Acenaphthene	MSD	RPD	13	%	20
OP19154-MSD	208-96-8	Acenaphthylene	MSD	REC	77	%	32-132
OP19154-MSD	208-96-8	Acenaphthylene	MSD	RPD	10	%	20
OP19154-MSD	120-12-7	Anthracene	MSD	REC	85	%	47-123
OP19154-MSD	120-12-7	Anthracene	MSD	RPD	16	%	20
OP19154-MSD	56-55-3	Benzo(a)anthracene	MSD	REC	89	%	49-126
OP19154-MSD	56-55-3	Benzo(a)anthracene	MSD	RPD	16	%	20
OP19154-MSD	50-32-8	Benzo(a)pyrene	MSD	REC	89	%	45-129
OP19154-MSD	50-32-8	Benzo(a)pyrene	MSD	RPD	13	%	20
OP19154-MSD	205-99-2	Benzo(b)fluoranthene	MSD	REC	87	%	45-132
OP19154-MSD	205-99-2	Benzo(b)fluoranthene	MSD	RPD	17	%	20
OP19154-MSD	191-24-2	Benzo(g,h,i)perylene	MSD	REC	88	%	43-134
OP19154-MSD	191-24-2	Benzo(g,h,i)perylene	MSD	RPD	12	%	20
OP19154-MSD	207-08-9	Benzo(k)fluoranthene	MSD	REC	81	%	47-132
OP19154-MSD	207-08-9	Benzo(k)fluoranthene	MSD	RPD	13	%	20
OP19154-MSD	218-01-9	Chrysene	MSD	REC	87	%	50-124
OP19154-MSD	218-01-9	Chrysene	MSD	RPD	12	%	20
OP19154-MSD	53-70-3	Dibenzo(a,h)anthracene	MSD	REC	80	%	45-134
OP19154-MSD	53-70-3	Dibenzo(a,h)anthracene	MSD	RPD	9	%	20
OP19154-MSD	132-64-9	Dibenzofuran	MSD	REC	77	%	44-120
OP19154-MSD	132-64-9	Dibenzofuran	MSD	RPD	7	%	20
OP19154-MSD	206-44-0	Fluoranthene	MSD	REC	85	%	50-127

* Sample used for QC is not from job JC84381

QC Evaluation: DOD QSM5 Limits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP19154-MSD	206-44-0	Fluoranthene	MSD	RPD	18	%	20
OP19154-MSD	86-73-7	Fluorene	MSD	REC	81	%	43-125
OP19154-MSD	86-73-7	Fluorene	MSD	RPD	17	%	20
OP19154-MSD	118-74-1	Hexachlorobenzene	MSD	REC	73	%	45-122
OP19154-MSD	118-74-1	Hexachlorobenzene	MSD	RPD	10	%	20
OP19154-MSD	193-39-5	Indeno(1,2,3-cd)pyrene	MSD	REC	74	%	45-133
OP19154-MSD	193-39-5	Indeno(1,2,3-cd)pyrene	MSD	RPD	10	%	20
OP19154-MSD	91-20-3	Naphthalene	MSD	REC	67	%	35-123
OP19154-MSD	91-20-3	Naphthalene	MSD	RPD	6	%	20
OP19154-MSD	85-01-8	Phenanthrene	MSD	REC	91	%	50-121
OP19154-MSD	85-01-8	Phenanthrene	MSD	RPD	21 [a]	%	20
OP19154-MSD	129-00-0	Pyrene	MSD	REC	110	%	47-127
OP19154-MSD	129-00-0	Pyrene	MSD	RPD	18	%	20
OP19154-MSD	367-12-4	2-Fluorophenol	MSD	SURR	71	%	35-115
OP19154-MSD	4165-62-2	Phenol-d5	MSD	SURR	75	%	33-122
OP19154-MSD	118-79-6	2,4,6-Tribromophenol	MSD	SURR	72	%	39-132
OP19154-MSD	4165-60-0	Nitrobenzene-d5	MSD	SURR	67	%	37-122
OP19154-MSD	321-60-8	2-Fluorobiphenyl	MSD	SURR	71	%	44-115
OP19154-MSD	1718-51-0	Terphenyl-d14	MSD	SURR	95	%	54-127
OP19154-MB1	367-12-4	2-Fluorophenol	MB	SURR	78	%	35-115
OP19154-MB1	4165-62-2	Phenol-d5	MB	SURR	82	%	33-122
OP19154-MB1	118-79-6	2,4,6-Tribromophenol	MB	SURR	71	%	39-132
OP19154-MB1	4165-60-0	Nitrobenzene-d5	MB	SURR	75	%	37-122
OP19154-MB1	321-60-8	2-Fluorobiphenyl	MB	SURR	69	%	44-115
OP19154-MB1	1718-51-0	Terphenyl-d14	MB	SURR	86	%	54-127
JC84381-1	367-12-4	2-Fluorophenol	SAMP	SURR	56	%	35-115
JC84381-1	4165-62-2	Phenol-d5	SAMP	SURR	59	%	33-122
JC84381-1	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	53	%	39-132
JC84381-1	4165-60-0	Nitrobenzene-d5	SAMP	SURR	57	%	37-122
JC84381-1	321-60-8	2-Fluorobiphenyl	SAMP	SURR	56	%	44-115
JC84381-1	1718-51-0	Terphenyl-d14	SAMP	SURR	80	%	54-127
JC84381-2	367-12-4	2-Fluorophenol	SAMP	SURR	56	%	35-115
JC84381-2	4165-62-2	Phenol-d5	SAMP	SURR	60	%	33-122
JC84381-2	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	57	%	39-132
JC84381-2	4165-60-0	Nitrobenzene-d5	SAMP	SURR	57	%	37-122
JC84381-2	321-60-8	2-Fluorobiphenyl	SAMP	SURR	59	%	44-115
JC84381-2	1718-51-0	Terphenyl-d14	SAMP	SURR	80	%	54-127
JC84381-3	367-12-4	2-Fluorophenol	SAMP	SURR	62	%	35-115
JC84381-3	4165-62-2	Phenol-d5	SAMP	SURR	64	%	33-122
JC84381-3	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	58	%	39-132
JC84381-3	4165-60-0	Nitrobenzene-d5	SAMP	SURR	62	%	37-122
JC84381-3	321-60-8	2-Fluorobiphenyl	SAMP	SURR	63	%	44-115
JC84381-3	1718-51-0	Terphenyl-d14	SAMP	SURR	85	%	54-127
JC84381-4	367-12-4	2-Fluorophenol	SAMP	SURR	66	%	35-115
JC84381-4	4165-62-2	Phenol-d5	SAMP	SURR	69	%	33-122

* Sample used for QC is not from job JC84381

QC Evaluation: DOD QSM5 Limits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC84381-4	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	61	%	39-132
JC84381-4	4165-60-0	Nitrobenzene-d5	SAMP	SURR	67	%	37-122
JC84381-4	321-60-8	2-Fluorobiphenyl	SAMP	SURR	70	%	44-115
JC84381-4	1718-51-0	Terphenyl-d14	SAMP	SURR	89	%	54-127
JC84381-5	367-12-4	2-Fluorophenol	SAMP	SURR	63	%	35-115
JC84381-5	4165-62-2	Phenol-d5	SAMP	SURR	66	%	33-122
JC84381-5	118-79-6	2,4,6-Tribromophenol	SAMP	SURR	61	%	39-132
JC84381-5	4165-60-0	Nitrobenzene-d5	SAMP	SURR	63	%	37-122
JC84381-5	321-60-8	2-Fluorobiphenyl	SAMP	SURR	65	%	44-115
JC84381-5	1718-51-0	Terphenyl-d14	SAMP	SURR	84	%	54-127
OP19148	SW846 8151A						
OP19148-BS1	93-72-1	2,4,5-TP (Silvex)	BSP	REC	100	%	43-129
OP19148-BS1	19719-28-9	2,4-DCAA (sig#1)	BSP	SURR	101	%	27-122
OP19148-BS1	19719-28-9	2,4-DCAA (sig#2)	BSP	SURR	96	%	27-122
OP19148-MS	93-72-1	2,4,5-TP (Silvex)	MS	REC	63	%	43-129
OP19148-MS	19719-28-9	2,4-DCAA (sig#1)	MS	SURR	50	%	27-122
OP19148-MS	19719-28-9	2,4-DCAA (sig#2)	MS	SURR	52	%	27-122
OP19148-MSD	93-72-1	2,4,5-TP (Silvex)	MSD	REC	63	%	43-129
OP19148-MSD	93-72-1	2,4,5-TP (Silvex)	MSD	RPD	2	%	30
OP19148-MSD	19719-28-9	2,4-DCAA (sig#1)	MSD	SURR	49	%	27-122
OP19148-MSD	19719-28-9	2,4-DCAA (sig#2)	MSD	SURR	52	%	27-122
OP19148-MB1	19719-28-9	2,4-DCAA (sig#1)	MB	SURR	93	%	27-122
OP19148-MB1	19719-28-9	2,4-DCAA (sig#2)	MB	SURR	94	%	27-122
JC84381-1	19719-28-9	2,4-DCAA (sig#1)	SAMP	SURR	69	%	27-122
JC84381-1	19719-28-9	2,4-DCAA (sig#2)	SAMP	SURR	67	%	27-122
JC84381-2	19719-28-9	2,4-DCAA (sig#1)	SAMP	SURR	80	%	27-122
JC84381-2	19719-28-9	2,4-DCAA (sig#2)	SAMP	SURR	71	%	27-122
JC84381-3	19719-28-9	2,4-DCAA (sig#1)	SAMP	SURR	56	%	27-122
JC84381-3	19719-28-9	2,4-DCAA (sig#2)	SAMP	SURR	55	%	27-122
JC84381-4	19719-28-9	2,4-DCAA (sig#1)	SAMP	SURR	74	%	27-122
JC84381-4	19719-28-9	2,4-DCAA (sig#2)	SAMP	SURR	69	%	27-122
JC84381-5	19719-28-9	2,4-DCAA (sig#1)	SAMP	SURR	61	%	27-122
JC84381-5	19719-28-9	2,4-DCAA (sig#2)	SAMP	SURR	59	%	27-122
OP19156	SW846 8082A						
OP19156-BS1	12674-11-2	Aroclor 1016	BSP	REC	100	%	47-134
OP19156-BS1	11096-82-5	Aroclor 1260	BSP	REC	95	%	53-140
OP19156-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	89	%	44-130
OP19156-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	86	%	44-130
OP19156-MS	12674-11-2	Aroclor 1016	MS	REC	95	%	47-134
OP19156-MS	11096-82-5	Aroclor 1260	MS	REC	91	%	53-140
OP19156-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	74	%	44-130

* Sample used for QC is not from job JC84381

QC Evaluation: DOD QSM5 Limits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP19156-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	72	%	44-130
OP19156-MSD	12674-11-2	Aroclor 1016	MSD	REC	105	%	47-134
OP19156-MSD	12674-11-2	Aroclor 1016	MSD	RPD	11	%	30
OP19156-MSD	11097-69-1	Aroclor 1254	MSD	RPD	0	%	30
OP19156-MSD	11096-82-5	Aroclor 1260	MSD	REC	104	%	53-140
OP19156-MSD	11096-82-5	Aroclor 1260	MSD	RPD	14	%	30
OP19156-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	80	%	44-130
OP19156-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	78	%	44-130
OP19156-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	88	%	44-130
OP19156-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	84	%	44-130
JC84381-1	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	78	%	44-130
JC84381-1	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	76	%	44-130
JC84381-2	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	78	%	44-130
JC84381-2	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	76	%	44-130
JC84381-3	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	79	%	44-130
JC84381-3	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	78	%	44-130
JC84381-4	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	73	%	44-130
JC84381-4	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	71	%	44-130
JC84381-5	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	70	%	44-130
JC84381-5	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	69	%	44-130
OP19157	SW846 8081B						
OP19157-BS1	309-00-2	Aldrin	BSP	REC	88	%	45-136
OP19157-BS1	319-84-6	alpha-BHC	BSP	REC	89	%	45-137
OP19157-BS1	319-85-7	beta-BHC	BSP	REC	88	%	50-136
OP19157-BS1	319-86-8	delta-BHC	BSP	REC	86	%	47-139
OP19157-BS1	58-89-9	gamma-BHC (Lindane)	BSP	REC	89	%	49-135
OP19157-BS1	5103-71-9	alpha-Chlordane	BSP	REC	94	%	54-133
OP19157-BS1	60-57-1	Dieldrin	BSP	REC	92	%	56-136
OP19157-BS1	72-54-8	4,4'-DDD	BSP	REC	89	%	56-139
OP19157-BS1	72-55-9	4,4'-DDE	BSP	REC	91	%	56-134
OP19157-BS1	50-29-3	4,4'-DDT	BSP	REC	95	%	50-141
OP19157-BS1	72-20-8	Endrin	BSP	REC	95	%	57-140
OP19157-BS1	1031-07-8	Endosulfan sulfate	BSP	REC	89	%	55-136
OP19157-BS1	959-98-8	Endosulfan-I	BSP	REC	87	%	53-132
OP19157-BS1	33213-65-9	Endosulfan-II	BSP	REC	82	%	53-134
OP19157-BS1	76-44-8	Heptachlor	BSP	REC	88	%	47-136
OP19157-BS1	877-09-8	Tetrachloro-m-xylene (sig#1)	BSP	SURR	87	%	42-129
OP19157-BS1	877-09-8	Tetrachloro-m-xylene (sig#2)	BSP	SURR	90	%	42-129
OP19157-MS	309-00-2	Aldrin	MS	REC	65	%	45-136
OP19157-MS	319-84-6	alpha-BHC	MS	REC	65	%	45-137
OP19157-MS	319-85-7	beta-BHC	MS	REC	60	%	50-136
OP19157-MS	319-86-8	delta-BHC	MS	REC	65	%	47-139
OP19157-MS	58-89-9	gamma-BHC (Lindane)	MS	REC	70	%	49-135

* Sample used for QC is not from job JC84381

QC Evaluation: DOD QSM5 Limits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP19157-MS	5103-71-9	alpha-Chlordane	MS	REC	68	%	54-133
OP19157-MS	60-57-1	Dieldrin	MS	REC	70	%	56-136
OP19157-MS	72-54-8	4,4'-DDD	MS	REC	68	%	56-139
OP19157-MS	72-55-9	4,4'-DDE	MS	REC	70	%	56-134
OP19157-MS	50-29-3	4,4'-DDT	MS	REC	75	%	50-141
OP19157-MS	72-20-8	Endrin	MS	REC	73	%	57-140
OP19157-MS	1031-07-8	Endosulfan sulfate	MS	REC	59	%	55-136
OP19157-MS	959-98-8	Endosulfan-I	MS	REC	67	%	53-132
OP19157-MS	33213-65-9	Endosulfan-II	MS	REC	58	%	53-134
OP19157-MS	76-44-8	Heptachlor	MS	REC	74	%	47-136
OP19157-MS	877-09-8	Tetrachloro-m-xylene (sig#1)	MS	SURR	59	%	42-129
OP19157-MS	877-09-8	Tetrachloro-m-xylene (sig#2)	MS	SURR	69	%	42-129
OP19157-MSD	309-00-2	Aldrin	MSD	REC	93	%	45-136
OP19157-MSD	309-00-2	Aldrin	MSD	RPD	28	%	30
OP19157-MSD	319-84-6	alpha-BHC	MSD	REC	97	%	45-137
OP19157-MSD	319-84-6	alpha-BHC	MSD	RPD	35 [b]	%	30
OP19157-MSD	319-85-7	beta-BHC	MSD	REC	83	%	50-136
OP19157-MSD	319-85-7	beta-BHC	MSD	RPD	29	%	30
OP19157-MSD	319-86-8	delta-BHC	MSD	REC	88	%	47-139
OP19157-MSD	319-86-8	delta-BHC	MSD	RPD	25	%	30
OP19157-MSD	58-89-9	gamma-BHC (Lindane)	MSD	REC	97	%	49-135
OP19157-MSD	58-89-9	gamma-BHC (Lindane)	MSD	RPD	28	%	30
OP19157-MSD	5103-71-9	alpha-Chlordane	MSD	REC	86	%	54-133
OP19157-MSD	5103-71-9	alpha-Chlordane	MSD	RPD	13	%	30
OP19157-MSD	60-57-1	Dieldrin	MSD	REC	97	%	56-136
OP19157-MSD	60-57-1	Dieldrin	MSD	RPD	25	%	30
OP19157-MSD	72-54-8	4,4'-DDD	MSD	REC	94	%	56-139
OP19157-MSD	72-54-8	4,4'-DDD	MSD	RPD	27	%	30
OP19157-MSD	72-55-9	4,4'-DDE	MSD	REC	86	%	56-134
OP19157-MSD	72-55-9	4,4'-DDE	MSD	RPD	15	%	30
OP19157-MSD	50-29-3	4,4'-DDT	MSD	REC	98	%	50-141
OP19157-MSD	50-29-3	4,4'-DDT	MSD	RPD	20	%	30
OP19157-MSD	72-20-8	Endrin	MSD	REC	103	%	57-140
OP19157-MSD	72-20-8	Endrin	MSD	RPD	29	%	30
OP19157-MSD	1031-07-8	Endosulfan sulfate	MSD	REC	82	%	55-136
OP19157-MSD	1031-07-8	Endosulfan sulfate	MSD	RPD	27	%	30
OP19157-MSD	959-98-8	Endosulfan-I	MSD	REC	91	%	53-132
OP19157-MSD	959-98-8	Endosulfan-I	MSD	RPD	26	%	30
OP19157-MSD	33213-65-9	Endosulfan-II	MSD	REC	81	%	53-134
OP19157-MSD	33213-65-9	Endosulfan-II	MSD	RPD	29	%	30
OP19157-MSD	76-44-8	Heptachlor	MSD	REC	96	%	47-136
OP19157-MSD	76-44-8	Heptachlor	MSD	RPD	20	%	30
OP19157-MSD	877-09-8	Tetrachloro-m-xylene (sig#1)	MSD	SURR	93	%	42-129
OP19157-MSD	877-09-8	Tetrachloro-m-xylene (sig#2)	MSD	SURR	87	%	42-129
OP19157-MB1	877-09-8	Tetrachloro-m-xylene (sig#1)	MB	SURR	81	%	42-129

* Sample used for QC is not from job JC84381

QC Evaluation: DOD QSM5 Limits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP19157-MB1	877-09-8	Tetrachloro-m-xylene (sig#2)	MB	SURR	83	%	42-129
JC84381-1	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	67	%	42-129
JC84381-1	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	80	%	42-129
JC84381-2	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	72	%	42-129
JC84381-2	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	72	%	42-129
JC84381-3	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	78	%	42-129
JC84381-3	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	83	%	42-129
JC84381-4	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	67	%	42-129
JC84381-4	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	72	%	42-129
JC84381-5	877-09-8	Tetrachloro-m-xylene (sig#1)	SAMP	SURR	67	%	42-129
JC84381-5	877-09-8	Tetrachloro-m-xylene (sig#2)	SAMP	SURR	71	%	42-129
MP13177	SW846 6010D						
MP13177-B1	7440-38-2	Arsenic	BSP	REC	95.8	%	82-111
MP13177-B1	7440-39-3	Barium	BSP	REC	97.9	%	83-113
MP13177-B1	7440-41-7	Beryllium	BSP	REC	100.4	%	83-113
MP13177-B1	7440-43-9	Cadmium	BSP	REC	97.3	%	82-113
MP13177-B1	7440-47-3	Chromium	BSP	REC	96.8	%	85-113
MP13177-B1	7440-50-8	Copper	BSP	REC	97.3	%	81-117
MP13177-B1	7439-92-1	Lead	BSP	REC	99.4	%	81-112
MP13177-B1	7439-96-5	Manganese	BSP	REC	98.4	%	84-114
MP13177-B1	7440-02-0	Nickel	BSP	REC	99.4	%	83-113
MP13177-B1	7782-49-2	Selenium	BSP	REC	95.3	%	78-111
MP13177-B1	7440-22-4	Silver	BSP	REC	99.7	%	82-112
MP13177-B1	7440-66-6	Zinc	BSP	REC	97.9	%	82-113
MP13177-S1	7440-38-2	Arsenic	MS	REC	90.3	%	82-111
MP13177-S1	7440-39-3	Barium	MS	REC	96.9	%	83-113
MP13177-S1	7440-41-7	Beryllium	MS	REC	95.8	%	83-113
MP13177-S1	7440-43-9	Cadmium	MS	REC	92.6	%	82-113
MP13177-S1	7440-47-3	Chromium	MS	REC	93.2	%	85-113
MP13177-S1	7440-50-8	Copper	MS	REC	94	%	81-117
MP13177-S1	7439-92-1	Lead	MS	REC	95	%	81-112
MP13177-S1	7439-96-5	Manganese	MS	REC	98.8	%	84-114
MP13177-S1	7440-02-0	Nickel	MS	REC	95.3	%	83-113
MP13177-S1	7782-49-2	Selenium	MS	REC	89.7	%	78-111
MP13177-S1	7440-22-4	Silver	MS	REC	97.5	%	82-112
MP13177-S1	7440-66-6	Zinc	MS	REC	92	%	82-113
MP13177-S2	7440-38-2	Arsenic	MSD	REC	91.9	%	82-111
MP13177-S2	7440-38-2	Arsenic	MSD	RPD	4.6	%	20
MP13177-S2	7440-39-3	Barium	MSD	REC	97.4	%	83-113
MP13177-S2	7440-39-3	Barium	MSD	RPD	3.1	%	20
MP13177-S2	7440-41-7	Beryllium	MSD	REC	95.8	%	83-113
MP13177-S2	7440-41-7	Beryllium	MSD	RPD	3	%	20
MP13177-S2	7440-43-9	Cadmium	MSD	REC	94.1	%	82-113

* Sample used for QC is not from job JC84381

QC Evaluation: DOD QSM5 Limits

Job Number: JC84381
Account: NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
MP13177-S2	7440-43-9	Cadmium	MSD	RPD	4.6	%	20
MP13177-S2	7440-47-3	Chromium	MSD	REC	93.3	%	85-113
MP13177-S2	7440-47-3	Chromium	MSD	RPD	2.9	%	20
MP13177-S2	7440-50-8	Copper	MSD	REC	94.6	%	81-117
MP13177-S2	7440-50-8	Copper	MSD	RPD	3.4	%	20
MP13177-S2	7439-92-1	Lead	MSD	REC	96.4	%	81-112
MP13177-S2	7439-92-1	Lead	MSD	RPD	4.2	%	20
MP13177-S2	7439-96-5	Manganese	MSD	REC	97.8	%	84-114
MP13177-S2	7439-96-5	Manganese	MSD	RPD	1.3	%	20
MP13177-S2	7440-02-0	Nickel	MSD	REC	97.2	%	83-113
MP13177-S2	7440-02-0	Nickel	MSD	RPD	4.8	%	20
MP13177-S2	7782-49-2	Selenium	MSD	REC	91.3	%	78-111
MP13177-S2	7782-49-2	Selenium	MSD	RPD	4.7	%	20
MP13177-S2	7440-22-4	Silver	MSD	REC	97.7	%	82-112
MP13177-S2	7440-22-4	Silver	MSD	RPD	3.1	%	20
MP13177-S2	7440-66-6	Zinc	MSD	REC	97.3	%	82-113
MP13177-S2	7440-66-6	Zinc	MSD	RPD	7.8	%	20
MP13214	SW846 7471B						
MP13214-B1	7439-97-6	Mercury	BSP	REC	102	%	80-124
MP13214-S1	7439-97-6	Mercury	MS	REC	99	%	80-124
MP13214-S2	7439-97-6	Mercury	MSD	REC	99.9	%	80-124
MP13214-S2	7439-97-6	Mercury	MSD	RPD	2.9	%	20
GP19976	SW846 9012B/LACHAT						
GP19976-B1	57-12-5	Cyanide	BSP	REC	102.5	%	76-120
GP19976-S1	57-12-5	Cyanide	MS	REC	93.2	%	76-120
GP19976-D1	57-12-5	Cyanide	DUP	RPD	5.7	%	20
GP20255	SW846 3060A/7196A						
GP20255-B1	18540-29-9	Chromium, Hexavalent	BSP	REC	93.5	%	84-110
GP20255-B2	18540-29-9	Chromium, Hexavalent	BSP	REC	94.3	%	84-110
GP20255-S1	18540-29-9	Chromium, Hexavalent	MS	REC	73.4 [c]	%	84-110
GP20255-S2	18540-29-9	Chromium, Hexavalent	MS	REC	85.9 [d]	%	84-110
GP20255-D1	18540-29-9	Chromium, Hexavalent	DUP	RPD	28.6 [e]	%	20

(a) Analytical precision exceeds in-house control limits.
(b) Outside program specific requirements.
(c) Soluble XCR matrix spike recovery indicates possible matrix interference. Good post spike recovery (90_%) on this sample.
(d) Good recovery on insoluble XCR matrix spike. See additional comments on soluble matrix spike recovery.
(e) High RPD due to possible sample nonhomogeneity.

* Sample used for QC is not from job JC84381

MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-MB1	Z136250.D	1	03/19/19	CS	03/15/19	OP19154	EZ6720

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	67	21	ug/kg	
	3&4-Methylphenol	ND	67	27	ug/kg	
87-86-5	Pentachlorophenol	ND	130	31	ug/kg	
108-95-2	Phenol	ND	67	17	ug/kg	
83-32-9	Acenaphthene	ND	33	11	ug/kg	
208-96-8	Acenaphthylene	ND	33	17	ug/kg	
120-12-7	Anthracene	ND	33	20	ug/kg	
56-55-3	Benzo(a)anthracene	ND	33	9.4	ug/kg	
50-32-8	Benzo(a)pyrene	ND	33	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	33	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	33	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	33	16	ug/kg	
218-01-9	Chrysene	ND	33	10	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	33	15	ug/kg	
132-64-9	Dibenzofuran	ND	67	14	ug/kg	
206-44-0	Fluoranthene	ND	33	15	ug/kg	
86-73-7	Fluorene	ND	33	15	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	8.4	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	33	16	ug/kg	
91-20-3	Naphthalene	ND	33	9.4	ug/kg	
85-01-8	Phenanthrene	ND	33	11	ug/kg	
129-00-0	Pyrene	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	78%	23-115%
4165-62-2	Phenol-d5	82%	27-114%
118-79-6	2,4,6-Tribromophenol	71%	19-152%
4165-60-0	Nitrobenzene-d5	75%	26-134%
321-60-8	2-Fluorobiphenyl	69%	39-124%
1718-51-0	Terphenyl-d14	86%	36-134%

Blank Spike Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-BS1	Z136251.D	1	03/19/19	CS	03/15/19	OP19154	EZ6720

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-48-7	2-Methylphenol	1670	1490	89	40-126
	3&4-Methylphenol	1670	1560	94	40-127
87-86-5	Pentachlorophenol	1670	1600	96	15-149
108-95-2	Phenol	1670	1460	88	50-109
83-32-9	Acenaphthene	1670	1440	86	53-119
208-96-8	Acenaphthylene	1670	1430	86	41-125
120-12-7	Anthracene	1670	1540	92	51-120
56-55-3	Benzo(a)anthracene	1670	1590	95	54-118
50-32-8	Benzo(a)pyrene	1670	1670	100	55-121
205-99-2	Benzo(b)fluoranthene	1670	1730	104	57-116
191-24-2	Benzo(g,h,i)perylene	1670	1490	89	40-124
207-08-9	Benzo(k)fluoranthene	1670	1630	98	59-116
218-01-9	Chrysene	1670	1580	95	51-115
53-70-3	Dibenzo(a,h)anthracene	1670	1420	85	48-121
132-64-9	Dibenzofuran	1670	1440	86	51-119
206-44-0	Fluoranthene	1670	1720	103	58-117
86-73-7	Fluorene	1670	1520	91	56-114
118-74-1	Hexachlorobenzene	1670	1380	83	50-128
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1270	76	49-124
91-20-3	Naphthalene	1670	1250	75	44-116
85-01-8	Phenanthrene	1670	1530	92	53-119
129-00-0	Pyrene	1670	1650	99	54-124

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	87%	23-115%
4165-62-2	Phenol-d5	91%	27-114%
118-79-6	2,4,6-Tribromophenol	86%	19-152%
4165-60-0	Nitrobenzene-d5	76%	26-134%
321-60-8	2-Fluorobiphenyl	78%	39-124%
1718-51-0	Terphenyl-d14	98%	36-134%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-MS	Z136253.D	1	03/19/19	CS	03/15/19	OP19154	EZ6720
OP19154-MSD	Z136254.D	1	03/19/19	CS	03/15/19	OP19154	EZ6720
JC84381-1	Z136252.D	1	03/19/19	CS	03/15/19	OP19154	EZ6720

The QC reported here applies to the following samples: **Method:** SW846 8270D

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	JC84381-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	73 U		1850	1260	68	1810	1340	74	6	10-138/33
	3&4-Methylphenol	73 U		1850	1350	73	1810	1410	78	4	10-143/33
87-86-5	Pentachlorophenol	150 U		1850	832	45	1810	1050	58	23 [a]	10-148/39
108-95-2	Phenol	73 U		1850	1230	67	1810	1300	72	6	24-114/32
83-32-9	Acenaphthene	19.1	J	1850	1270	68	1810	1440	78	13	21-136/34
208-96-8	Acenaphthylene	37 U		1850	1270	69	1810	1400	77	10	10-143/36
120-12-7	Anthracene	41.2		1850	1360	71	1810	1590	85	16	10-147/39
56-55-3	Benzo(a)anthracene	141		1850	1490	73	1810	1750	89	16	10-151/41
50-32-8	Benzo(a)pyrene	136		1850	1530	75	1810	1740	89	13	10-149/40
205-99-2	Benzo(b)fluoranthene	179		1850	1490	71	1810	1760	87	17	10-147/42
191-24-2	Benzo(g,h,i)perylene	93.6		1850	1500	76	1810	1690	88	12	10-150/41
207-08-9	Benzo(k)fluoranthene	60.7		1850	1350	70	1810	1530	81	13	12-142/41
218-01-9	Chrysene	150		1850	1520	74	1810	1720	87	12	10-151/41
53-70-3	Dibenzo(a,h)anthracene	25.5	J	1850	1350	72	1810	1470	80	9	10-152/38
132-64-9	Dibenzofuran	73 U		1850	1290	70	1810	1390	77	7	17-141/36
206-44-0	Fluoranthene	293		1850	1540	67	1810	1840	85	18	10-151/44
86-73-7	Fluorene	18.8	J	1850	1260	67	1810	1490	81	17	19-133/36
118-74-1	Hexachlorobenzene	73 U		1850	1200	65	1810	1330	73	10	18-142/37
193-39-5	Indeno(1,2,3-cd)pyrene	77.5		1850	1280	65	1810	1410	74	10	10-148/41
91-20-3	Naphthalene	37 U		1850	1140	62	1810	1210	67	6	10-136/36
85-01-8	Phenanthrene	178		1850	1470	70	1810	1820	91	21 [a]	11-145/45
129-00-0	Pyrene	305		1850	1920	87	1810	2290	110	18	11-155/44

CAS No.	Surrogate Recoveries	MS	MSD	JC84381-1	Limits
367-12-4	2-Fluorophenol	66%	71%	56%	23-115%
4165-62-2	Phenol-d5	69%	75%	59%	27-114%
118-79-6	2,4,6-Tribromophenol	65%	72%	53%	19-152%
4165-60-0	Nitrobenzene-d5	64%	67%	57%	26-134%
321-60-8	2-Fluorobiphenyl	65%	71%	56%	39-124%
1718-51-0	Terphenyl-d14	86%	95%	80%	36-134%

(a) Analytical precision exceeds in-house control limits.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample:	EZ6690-DFTPP	**Injection Date:**	02/16/19
Lab File ID:	Z135701.D	**Injection Time:**	03:28
Instrument ID:	GCMSZ		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	35765	44.4		Pass
68	Less than 2.0% of mass 69	252	0.31	(0.62) [a]	Pass
69	Mass 69 relative abundance	40463	50.2		Pass
70	Less than 2.0% of mass 69	376	0.47	(0.93) [a]	Pass
127	40.0 - 60.0% of mass 198	45941	57.0		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	80547	100.0		Pass
199	5.0 - 9.0% of mass 198	5483	6.81		Pass
275	10.0 - 30.0% of mass 198	18463	22.9		Pass
365	1.0 - 100.0% of mass 198	2153	2.67		Pass
441	Present, but less than mass 443	5709	7.09	(79.9) [b]	Pass
442	40.0 - 100.0% of mass 198	38235	47.5		Pass
443	17.0 - 23.0% of mass 442	7143	8.87	(18.7) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6690-IC6690	Z135702.D	02/16/19	04:16	00:48	Initial cal 100
EZ6690-IC6690	Z135703.D	02/16/19	04:44	01:16	Initial cal 80
EZ6690-ICC6690	Z135704.D	02/16/19	05:12	01:44	Initial cal 50
EZ6690-IC6690	Z135705.D	02/16/19	05:41	02:13	Initial cal 25
EZ6690-IC6690	Z135706.D	02/16/19	06:09	02:41	Initial cal 10
EZ6690-IC6690	Z135707.D	02/16/19	06:37	03:09	Initial cal 5
EZ6690-IC6690	Z135708.D	02/16/19	07:05	03:37	Initial cal 2
EZ6690-IC6690	Z135709.D	02/16/19	07:33	04:05	Initial cal 1
EZ6690-ICV6690	Z135710.D	02/16/19	08:01	04:33	Initial cal verification 50
EZ6690-ICV6690	Z135712.D	02/16/19	08:57	05:29	Initial cal verification 50
EZ6690-ICV6690	Z135713.D	02/16/19	09:25	05:57	Initial cal verification 50
EZ6690-ICV6690	Z135714.D	02/16/19	09:53	06:25	Initial cal verification 50
EZ6690-ICV6690	Z135715.D	02/16/19	10:21	06:53	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample:	EZ6691-DFTPP	**Injection Date:**	02/16/19
Lab File ID:	Z135716.D	**Injection Time:**	10:44
Instrument ID:	GCMSZ		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	29338	33.0		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	34894	39.2		Pass
70	Less than 2.0% of mass 69	107	0.12	(0.31) [a]	Pass
127	40.0 - 60.0% of mass 198	44970	50.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	88949	100.0		Pass
199	5.0 - 9.0% of mass 198	5929	6.67		Pass
275	10.0 - 30.0% of mass 198	23061	25.9		Pass
365	1.0 - 100.0% of mass 198	2842	3.20		Pass
441	Present, but less than mass 443	8333	9.37	(79.0) [b]	Pass
442	40.0 - 100.0% of mass 198	56136	63.1		Pass
443	17.0 - 23.0% of mass 442	10552	11.9	(18.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6691-IC6691	Z135717.D	02/16/19	10:59	00:15	Initial cal 100
EZ6691-IC6691	Z135718.D	02/16/19	11:27	00:43	Initial cal 80
EZ6691-ICC6691	Z135719.D	02/16/19	11:55	01:11	Initial cal 50
EZ6691-IC6691	Z135720.D	02/16/19	12:23	01:39	Initial cal 25
EZ6691-IC6691	Z135721.D	02/16/19	12:51	02:07	Initial cal 10
EZ6691-IC6691	Z135722.D	02/16/19	13:19	02:35	Initial cal 5
EZ6691-IC6691	Z135723.D	02/16/19	13:47	03:03	Initial cal 2
EZ6691-IC6691	Z135724.D	02/16/19	14:14	03:30	Initial cal 1
EZ6691-ICV6691	Z135725.D	02/16/19	14:42	03:58	Initial cal verification 50
EZ6691-ICV6691	Z135726.D	02/16/19	15:10	04:26	Initial cal verification 50

Instrument Performance Check (DFTPP)

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample: EZ6694-DFTPP
Lab File ID: Z135761.D
Instrument ID: GCMSZ
Injection Date: 02/18/19
Injection Time: 09:00

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	22218	33.3		Pass
68	Less than 2.0% of mass 69	0	0.00	(0.00) [a]	Pass
69	Mass 69 relative abundance	26948	40.3		Pass
70	Less than 2.0% of mass 69	101	0.15	(0.37) [a]	Pass
127	40.0 - 60.0% of mass 198	33779	50.6		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	66819	100.0		Pass
199	5.0 - 9.0% of mass 198	4381	6.56		Pass
275	10.0 - 30.0% of mass 198	16761	25.1		Pass
365	1.0 - 100.0% of mass 198	1976	2.96		Pass
441	Present, but less than mass 443	5927	8.87	(73.4) [b]	Pass
442	40.0 - 100.0% of mass 198	42056	62.9		Pass
443	17.0 - 23.0% of mass 442	8071	12.1	(19.2) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6694-ICV6690	Z135763.D	02/18/19	09:43	00:43	Initial cal verification 50
EZ6694-CC6690	Z135766.D	02/18/19	11:19	02:19	Continuing cal 25
EZ6694-CC6691	Z135767.D	02/18/19	11:47	02:47	Continuing cal 25
OP18452-MB1	Z135768.D	02/18/19	12:16	03:16	Method Blank
OP18452-BS1	Z135769.D	02/18/19	12:44	03:44	Blank Spike
OP18452-BSD	Z135770.D	02/18/19	13:12	04:12	Blank Spike Duplicate
ZZZZZZ	Z135771.D	02/18/19	13:41	04:41	(unrelated sample)
ZZZZZZ	Z135772.D	02/18/19	14:09	05:09	(unrelated sample)
ZZZZZZ	Z135773.D	02/18/19	14:37	05:37	(unrelated sample)
ZZZZZZ	Z135774.D	02/18/19	15:06	06:06	(unrelated sample)
ZZZZZZ	Z135775.D	02/18/19	15:35	06:35	(unrelated sample)
ZZZZZZ	Z135776.D	02/18/19	16:03	07:03	(unrelated sample)
EZ6694-ECC6690	Z135777.D	02/18/19	16:31	07:31	Ending cal 25
EZ6694-ECC6691	Z135778.D	02/18/19	16:59	07:59	Ending cal 25

Instrument Performance Check (DFTPP)

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample: EZ6720-DFTPP
Lab File ID: Z136247.D
Instrument ID: GCMSZ
Injection Date: 03/19/19
Injection Time: 00:12

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	32039	34.0		Pass
68	Less than 2.0% of mass 69	434	0.46	(1.19) [a]	Pass
69	Mass 69 relative abundance	36491	38.7		Pass
70	Less than 2.0% of mass 69	132	0.14	(0.36) [a]	Pass
127	40.0 - 60.0% of mass 198	46314	49.2		Pass
197	Less than 1.0% of mass 198	0	0.00		Pass
198	Base peak, 100% relative abundance	94173	100.0		Pass
199	5.0 - 9.0% of mass 198	6445	6.84		Pass
275	10.0 - 30.0% of mass 198	19545	20.8		Pass
365	1.0 - 100.0% of mass 198	1989	2.11		Pass
441	Present, but less than mass 443	6990	7.42	(84.4) [b]	Pass
442	40.0 - 100.0% of mass 198	46528	49.4		Pass
443	17.0 - 23.0% of mass 442	8280	8.79	(17.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
EZ6720-CC6690	Z136248.D	03/19/19	00:31	00:19	Continuing cal 50
EZ6720-CC6691	Z136249.D	03/19/19	00:59	00:47	Continuing cal 50
OP19154-MB1	Z136250.D	03/19/19	01:36	01:24	Method Blank
OP19154-BS1	Z136251.D	03/19/19	02:04	01:52	Blank Spike
JC84381-1	Z136252.D	03/19/19	02:32	02:20	NWIRP-S1-WC-CF-014
OP19154-MS	Z136253.D	03/19/19	03:00	02:48	Matrix Spike
OP19154-MSD	Z136254.D	03/19/19	03:28	03:16	Matrix Spike Duplicate
JC84381-2	Z136255.D	03/19/19	03:56	03:44	NWIRP-S1-WC-CF-015
JC84381-3	Z136256.D	03/19/19	04:24	04:12	NWIRP-S1-WC-CF-016
JC84381-4	Z136257.D	03/19/19	04:51	04:39	NWIRP-S1-WC-CF-017
JC84381-5	Z136258.D	03/19/19	05:19	05:07	NWIRP-S1-WC-CF-018
EZ6720-ECC6690	Z136259.D	03/19/19	05:47	05:35	Ending cal 50
EZ6720-ECC6691	Z136260.D	03/19/19	06:15	06:03	Ending cal 50

Internal Standard Area Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	EZ6720-CC6690	**Injection Date:**	03/19/19
Lab File ID:	Z136248.D	**Injection Time:**	00:31
Instrument ID:	GCMSZ	**Method:**	SW846 8270D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	115437	4.84	480885	5.75	262115	7.14	456301	8.76	379583	12.56	338960	14.63
Upper Limit [a]	230874	5.34	961770	6.25	524230	7.64	912602	9.26	759166	13.06	677920	15.13
Lower Limit [b]	57719	4.34	240443	5.25	131058	6.64	228151	8.26	189792	12.06	169480	14.13

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP19154-MB1	91955	4.84	386906	5.75	222585	7.14	392944	8.75	330818	12.55	343856	14.63
OP19154-BS1	94068	4.84	426454	5.75	211313	7.14	368549	8.75	311487	12.55	295045	14.63
JC84381-1	109322	4.84	447190	5.75	240045	7.14	394542	8.75	261858	12.55	247127	14.62
OP19154-MS	115718	4.84	488394	5.75	234844	7.14	345710	8.75	212249	12.55	230365	14.63
OP19154-MSD	107945	4.84	468785	5.75	221621	7.14	347964	8.76	211577	12.56	227096	14.63
JC84381-2	113378	4.84	454569	5.75	229448	7.14	347256	8.75	207741	12.55	222518	14.64
JC84381-3	109420	4.84	435174	5.75	221822	7.14	333598	8.76	201545	12.56	214036	14.64
JC84381-4	118448	4.84	477575	5.75	243002	7.14	368330	8.76	220198	12.56	235274	14.64
JC84381-5	118025	4.84	472570	5.75	243636	7.15	361604	8.76	223855	12.56	245184	14.64
EZ6720-ECC6690	132690	4.84	532461	5.76	275753	7.15	425229	8.76	270634	12.57	283559	14.64
EZ6720-ECC6691	120849	4.84	469994	5.75	231270	7.15	349294	8.76	246196	12.56	260548	14.64

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Method: SW846 8270D **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
JC84381-1	Z136252.D	56	59	53	57	56	80
JC84381-2	Z136255.D	56	60	57	57	59	80
JC84381-3	Z136256.D	62	64	58	62	63	85
JC84381-4	Z136257.D	66	69	61	67	70	89
JC84381-5	Z136258.D	63	66	61	63	65	84
OP19154-BS1	Z136251.D	87	91	86	76	78	98
OP19154-MB1	Z136250.D	78	82	71	75	69	86
OP19154-MS	Z136253.D	66	69	65	64	65	86
OP19154-MSD	Z136254.D	71	75	72	67	71	95

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	23-115%
S2 = Phenol-d5	27-114%
S3 = 2,4,6-Tribromophenol	19-152%
S4 = Nitrobenzene-d5	26-134%
S5 = 2-Fluorobiphenyl	39-124%
S6 = Terphenyl-d14	36-134%

Initial Calibration Summary

Job Number: JC84381 **Sample:** EZ6690-ICC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135704.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Response Factor Report GCMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 08:40:44 2019
Response via : Initial Calibration

Calibration Files
100 =z135702.D 80 =z135703.D 50 =z135704.D 25 =z135705.D
10 =z135706.D 5 =z135707.D 2 =z135708.D 1 =z135709.D

Compound	100	80	50	25	10	5	2	1	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	ISTD									
2) 1,4-Dioxane	0.632	0.651	0.655	0.650	0.550	0.597	0.582	0.526	0.605	8.23
3) Pyridine	1.726	1.796	1.794	1.773	1.527	1.597	1.518	1.333	1.633	10.25
4) N-Nitrosodim	0.992	1.027	1.031	1.024	0.877	0.917	0.896	0.797	0.945	9.15
5) 2-Fluorophen	1.418	1.431	1.432	1.419	1.236	1.296	1.189	1.221	1.330	7.92
6) Indene	2.053	2.197	2.316	2.372	2.226	2.306	2.270	2.235	2.247	4.29
7) Cumene	3.291	3.447	3.508	3.588	3.215	3.471	3.387	3.425	3.417	3.48
8) Phenol-d5	1.714	1.737	1.775	1.781	1.623	1.677	1.624	1.603	1.692	4.17
9) Phenol	1.974	2.025	2.079	2.097	1.935	1.844	1.782	1.686	1.928	7.59
10) Aniline	2.229	2.267	2.329	2.388	2.238	2.219	2.275	2.125	2.259	3.46
11) bis(2-Chloro	1.358	1.380	1.417	1.444	1.345	1.382	1.326	1.358	1.376	2.83
12) 2-Chlorophen	1.424	1.460	1.477	1.478	1.323	1.369	1.298	1.313	1.393	5.46
13) Decane	1.267	1.355	1.399	1.430	1.316	1.403	1.367	1.379	1.364	3.83
14) 1,3-Dichloro	1.527	1.587	1.631	1.662	1.508	1.585	1.550	1.583	1.579	3.24
15) 1,4-Dichloro	1.529	1.606	1.655	1.675	1.535	1.647	1.578	1.633	1.607	3.43
16) Benzyl alcoh	0.904	0.910	0.910	0.929	0.860	0.850	0.806	0.747	0.865	7.20
17) 1,2-Dichloro	1.456	1.511	1.565	1.590	1.451	1.527	1.496	1.500	1.512	3.20
18) Acetophenone	1.747	1.850	1.968	2.078	2.005	2.038	1.969	2.039	1.962	5.64
19) 2-Methylphen	1.277	1.326	1.366	1.399	1.308	1.324	1.212	1.245	1.307	4.70
20) 2,2'-oxybis(	0.392	0.405	0.412	0.428	0.407	0.407	0.370	0.392	0.402	4.29
21) 3&4-Methylph	1.186	1.271	1.363	1.418	1.350	1.340	1.256	1.213	1.300	6.18
22) n-Nitroso-di	0.937	0.975	1.037	1.093	1.063	1.057	1.021	0.997	1.023	5.00
23) Hexachloroet	0.475	0.487	0.502	0.500	0.456	0.477	0.449	0.421	0.471	5.87
24) I Naphthalene-d8	ISTD									
25) Nitrobenzene	0.354	0.364	0.366	0.401	0.331	0.334	0.318	0.310	0.347	8.56
26) Nitrobenzene	0.366	0.374	0.384	0.388	0.353	0.357	0.335	0.318	0.359	6.68
27) Quinoline	0.643	0.685	0.703	0.722	0.678	0.678	0.662	0.616	0.673	4.92
28) Isophorone	0.634	0.654	0.668	0.684	0.634	0.647	0.617	0.587	0.641	4.70
29) 2-Nitropheno	0.184	0.188	0.190	0.185	0.162	0.155	0.134		0.171	12.41
30) 2,4-Dimethyl	0.343	0.356	0.363	0.368	0.338	0.335	0.317	0.306	0.341	6.29
31) Benzoic Acid	0.240	0.254	0.244	0.226	0.166				0.226	15.55
32) bis(2-Chloro	0.385	0.400	0.411	0.416	0.395	0.399	0.406	0.374	0.398	3.46
33) 2,4-Dichloro	0.267	0.278	0.284	0.288	0.260	0.261	0.244	0.229	0.264	7.68
34) 2,6-Dichloro	0.259	0.275	0.279	0.284	0.257	0.259	0.245	0.235	0.262	6.48
35) 1,3,5-Trichl	0.285	0.302	0.312	0.317	0.285	0.303	0.312	0.286	0.300	4.47
36) 1,2,4-Trichl	0.281	0.292	0.298	0.306	0.278	0.290	0.288	0.285	0.290	3.10
37) 1,2,3-Trichl	0.280	0.294	0.300	0.300	0.277	0.286	0.290	0.283	0.289	2.99
38) Naphthalene	0.916	0.973	1.018	1.040	0.976	1.024	1.019	1.010	0.997	4.03
39) 4-Chloroanil	0.404	0.433	0.448	0.459	0.430	0.431	0.423	0.408	0.430	4.27
40) 2,3-Dichloro	0.299	0.326	0.341	0.352	0.339	0.336	0.333	0.319	0.331	4.99
41) Caprolactam	0.143	0.160	0.162	0.165	0.150	0.142	0.126	0.122	0.146	10.97
42) Hexachlorobu	0.148	0.156	0.158	0.161	0.147	0.150	0.155	0.144	0.152	3.92
43) 4-Chloro-3-m	0.285	0.309	0.314	0.316	0.293	0.291	0.266	0.231	0.288	9.83
44) 2-Methylnaph	0.499	0.538	0.557	0.573	0.541	0.549	0.539	0.539	0.542	3.90
45) 1-Methylnaph	0.549	0.592	0.619	0.635	0.604	0.610	0.615	0.602	0.603	4.22

Initial Calibration Summary

Job Number: JC84381 **Sample:** EZ6690-ICC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135704.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

```
46) Dimethylnaph 0.538 0.587 0.606 0.627 0.591 0.595 0.584 0.587 0.589   4.24

47) I   Acenaphthene-d10      ----------------ISTD--------------------
48) Hexachlorocy 0.331 0.339 0.338 0.333 0.282 0.269 0.240       0.305  13.32
49) 2,4,6-Trichl 0.334 0.348 0.359 0.362 0.318 0.317 0.287 0.286 0.326   9.08
50) 2,4,5-Trichl 0.368 0.395 0.400 0.388 0.346 0.343 0.310 0.278 0.353  12.24
51) 2-Fluorobiph 1.300 1.361 1.374 1.414 1.309 1.360 1.366 1.349 1.354   2.67
52) 2-Chloronaph 1.120 1.181 1.202 1.199 1.120 1.147 1.137 1.106 1.151   3.28
53) Biphenyl     1.437 1.531 1.564 1.611 1.490 1.551 1.554 1.510 1.531   3.46
54) 2-Nitroanili 0.344 0.362 0.359 0.350 0.299 0.274             0.331  10.96
55) Dimethylphth 1.217 1.314 1.334 1.356 1.282 1.273 1.266 1.257 1.287   3.49
56) Acenaphthyle 1.752 1.889 1.923 1.955 1.807 1.855 1.767 1.763 1.839   4.25
57) 2,6-Dinitrot 0.273 0.288 0.288 0.277 0.237 0.208 0.154 0.131 0.232  26.70
         ----- Quadratic regression -----              Coefficient =  0.9993
              Response Ratio = -0.01159 + 0.31430 *A + -0.01337 *A^2

58) 3-Nitroanili 0.335 0.365 0.362 0.358 0.311 0.283             0.336   9.85
59) Acenaphthene 1.120 1.196 1.238 1.274 1.177 1.235 1.224 1.194 1.207   3.87
60) 2,4-Dinitrop 0.141 0.150 0.136 0.114 0.068 0.047 0.023       0.097  52.14
         ----- Quadratic regression -----              Coefficient =  0.9966
              Response Ratio = -0.02832 + 0.14794 *A + 0.00039 *A^2

61) 4-Nitropheno 0.164 0.177 0.176 0.170 0.142 0.130             0.160  12.27
62) Dibenzofuran 1.495 1.624 1.655 1.687 1.582 1.639 1.616 1.591 1.611   3.58
63) 2,4-Dinitrot 0.368 0.401 0.391 0.378 0.318 0.267 0.193 0.142 0.307  31.77
         ----- Quadratic regression -----              Coefficient =  0.9981
              Response Ratio = -0.01933 + 0.44328 *A + -0.02416 *A^2

64) 2,3,4,6-Tetr 0.290 0.314 0.314 0.310 0.264 0.247 0.214       0.279  13.90
65) Diethylphtha 1.230 1.338 1.362 1.368 1.303 1.284 1.217 1.179 1.285   5.50
66) Fluorene     1.166 1.276 1.313 1.350 1.278 1.313 1.290 1.244 1.279   4.33
67) 4-Chlorophen 0.538 0.582 0.599 0.613 0.566 0.583 0.581 0.564 0.578   3.94
68) 4-Nitroanili 0.351 0.389 0.386 0.377 0.322 0.301             0.354  10.26

69) I   Phenanthrene-d10      ----------------ISTD--------------------
70) 4,6-Dinitro- 0.125 0.128 0.119 0.100 0.065 0.046 0.026       0.087  47.51
         ----- Quadratic regression -----              Coefficient =  0.9984
              Response Ratio = -0.01067 + 0.12443 *A + 0.00260 *A^2

71) n-Nitrosodip 0.533 0.560 0.572 0.583 0.532 0.545 0.529 0.513 0.546   4.35
72) 1,2-Diphenyl 0.806 0.825 0.849 0.865 0.795 0.796 0.784 0.721 0.805   5.50
73) 2,4,6-Tribro 0.101 0.106 0.104 0.100 0.083 0.079             0.096  11.97
74) 4-Bromopheny 0.200 0.206 0.210 0.211 0.191 0.194 0.195 0.173 0.198   6.26
75) Hexachlorobe 0.209 0.217 0.222 0.221 0.202 0.208 0.215 0.189 0.210   5.28
76) Pentachlorop 0.140 0.148 0.147 0.140 0.111 0.102 0.076       0.124  22.28
         ----- Quadratic regression -----              Coefficient =  0.9990
              Response Ratio = -0.01777 + 0.16506 *A + -0.00399 *A^2

77) Phenanthrene 1.006 1.062 1.107 1.133 1.037 1.091 1.099 1.053 1.074   3.86
78) Anthracene   1.041 1.109 1.133 1.164 1.084 1.093 1.045 1.001 1.084   4.90
79) Carbazole    0.977 1.069 1.101 1.130 1.026 1.045 0.994 0.936 1.035   6.29
80) Di-n-butylph 1.246 1.340 1.365 1.388 1.253 1.189 1.065 0.994 1.230  11.54
81) Fluoranthene 0.990 1.106 1.138 1.170 1.061 1.063 1.007 0.965 1.063   6.83
82) Octadecane   0.486 0.509 0.523 0.530 0.489 0.478 0.445 0.411 0.484   8.26

83) I   Chrysene-d12          ----------------ISTD--------------------
84) Pyrene       1.409 1.340 1.389 1.402 1.331 1.355 1.330 1.247 1.351   3.88
85) Terphenyl-d1 0.941 0.893 0.918 0.913 0.867 0.886 0.861 0.775 0.882   5.74
86) Butylbenzylp 0.712 0.690 0.700 0.683 0.608 0.570 0.462       0.632  14.45
87) Benzo[a]anth 1.148 1.213 1.249 1.269 1.179 1.221 1.185 1.172 1.204   3.40
```

Initial Calibration Summary

Job Number: JC84381 **Sample:** EZ6690-ICC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135704.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

```
 88) 3,3'-Dichlor 0.442 0.489 0.504 0.497 0.426 0.427 0.369       0.450  10.90
 89) Chrysene     1.123 1.200 1.235 1.237 1.158 1.211 1.176 1.097 1.180   4.34
 90) bis(2-Ethylh 0.980 0.973 1.008 0.987 0.855 0.786 0.626       0.888  15.95
          ----- Quadratic regression -----                Coefficient =  0.9998
               Response Ratio = -0.03075 + 1.04705 *A + -0.02335 *A^2


 91) I   Perylene-d12          ----------------ISTD---------------------
 92) Di-n-octylph 1.502 1.452 1.496 1.484 1.308 1.093 0.786       1.303  20.85
          ----- Quadratic regression -----                Coefficient =  0.9995
               Response Ratio = -0.03802 + 1.50399 *A + -0.00015 *A^2

 93) Benzo[b]fluo 1.128 1.177 1.161 1.199 1.125 1.118 1.017 0.962 1.111   7.32
 94) Benzo[k]fluo 1.025 1.092 1.153 1.178 1.074 1.145 1.070 1.017 1.094   5.45
 95) Benzo[a]pyre 1.001 1.057 1.067 1.082 0.959 0.971 0.883 0.785 0.976  10.40
 96) Indeno[1,2,3 1.234 1.247 1.269 1.278 1.040 1.116 0.964 0.831 1.123  14.68
 97) Dibenz(a,h)a 0.933 0.953 0.959 0.952 0.768 0.793 0.669       0.861  13.57
 98) Dibenz[a,h]a 1.082 1.096 1.106 1.111 0.907 0.967 0.844 0.719 0.979  14.90
 99) 7,12-Dimethy 0.516 0.535 0.552 0.559 0.516 0.508 0.450 0.413 0.506   9.96
100) Benzo[g,h,i] 1.001 0.997 1.008 1.023 0.821 0.876 0.807 0.680 0.902  13.91

 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MZ6690.M          Sun Feb 17 09:00:18 2019
```

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6690-ICV6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135710.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ez6690\z135710.D Vial: 10
Acq On : 16 Feb 2019 8:01 am Operator: chriss2
Sample : icv6690-50 Inst : GCMSZ
Misc : op18221,ez6690,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 09:45:32 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	141	0.00	4.84
4	t	N-Nitrosodimethylamine	0.945	0.807	14.6	111	0.01	2.72
11	t	bis(2-Chloroethyl)ether	1.376	1.373	0.2	137	0.00	4.64
14	t	1,3-Dichlorobenzene	1.579	1.560	1.2	135	0.00	4.80
15	t	1,4-Dichlorobenzene	1.607	1.577	1.9	135	0.00	4.86
17	t	1,2-Dichlorobenzene	1.512	1.496	1.1	135	0.00	4.97
20	t	2,2'-oxybis(1-Chloropropa	0.402	0.453	-12.7	155	0.00	5.03
22	t	n-Nitroso-di-n-propylamin	1.023	1.029	-0.6	140	0.00	5.12
23	t	Hexachloroethane	0.471	0.485	-3.0	136	0.00	5.21
24	I	Naphthalene-d8	1.000	1.000	0.0	141	0.00	5.76
26	t	Nitrobenzene	0.359	0.345	3.9	127	0.00	5.25
28	t	Isophorone	0.641	0.628	2.0	133	0.00	5.42
32	t	bis(2-Chloroethoxy)methan	0.398	0.376	5.5	129	0.00	5.57
36	t	1,2,4-Trichlorobenzene	0.290	0.295	-1.7	140	0.00	5.72
38	t	Naphthalene	0.997	0.990	0.7	137	0.00	5.78
42	t	Hexachlorobutadiene	0.152	0.160	-5.3	142	0.00	5.86
47	I	Acenaphthene-d10	1.000	1.000	0.0	138	0.00	7.15
48	t	Hexachlorocyclopentadiene	0.305	0.274	10.2	109	0.00	6.40
52	t	2-Chloronaphthalene	1.151	1.134	1.5	130	0.00	6.66
55	t	Dimethylphthalate	1.287	1.287	0.0	133	0.00	6.89
56	t	Acenaphthylene	1.839	1.835	0.2	132	0.00	7.02
		----------	True	Calc.	% Drift	----------		
57	t	2,6-Dinitrotoluene	50.000	42.238	15.5	117	0.00	6.94
		----------	AvgRF	CCRF	% Dev	----------		
59	t	Acenaphthene	1.207	1.211	-0.3	135	0.00	7.18
		----------	True	Calc.	% Drift	----------		
63	t	2,4-Dinitrotoluene	50.000	37.683	24.6	107	0.00	7.31
		----------	AvgRF	CCRF	% Dev	----------		
65	t	Diethylphthalate	1.285	1.275	0.8	129	0.00	7.55
66	t	Fluorene	1.279	1.260	1.5	133	0.00	7.69
67	t	4-Chlorophenyl-phenylethe	0.578	0.568	1.7	131	0.00	7.68
69	I	Phenanthrene-d10	1.000	1.000	0.0	137	0.00	8.76
71	t	n-Nitrosodiphenylamine	0.546	0.527	3.5	126	0.00	7.80
72	t	1,2-Diphenylhydrazine	0.805	0.795	1.2	128	0.00	7.85

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6690-ICV6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135710.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

74	t	4-Bromophenyl-phenylether	0.198	0.201	-1.5	131	0.00	8.22
75	t	Hexachlorobenzene	0.210	0.212	-1.0	131	0.00	8.31
77	t	Phenanthrene	1.074	1.065	0.8	132	0.00	8.79
78	t	Anthracene	1.084	1.059	2.3	128	0.00	8.86
80	t	Di-n-butylphthalate	1.230	1.263	-2.7	127	0.00	9.56
81	t	Fluoranthene	1.063	1.067	-0.4	128	0.00	10.41
83	I	Chrysene-d12	1.000	1.000	0.0	138	0.00	12.58
84	t	Pyrene	1.351	1.254	7.2	124	0.00	10.73
86	t	Butylbenzylphthalate	0.632	0.618	2.2	121	0.00	11.77
87	t	Benzo[a]anthracene	1.204	1.083	10.0	119	0.00	12.56
89	t	Chrysene	1.180	1.078	8.6	120	0.00	12.61
		----------	True	Calc.	% Drift	----------		
90	t	bis(2-Ethylhexyl)phthalat	50.000	43.709	12.6	118	0.00	12.71
		----------	AvgRF	CCRF	% Dev	----------		
91	I	Perylene-d12	1.000	1.000	0.0	122	0.00	14.65
		----------	True	Calc.	% Drift	----------		
92	t	Di-n-octylphthalate	50.000	46.924	6.2	113	0.00	13.68
		----------	AvgRF	CCRF	% Dev	----------		
93	t	Benzo[b]fluoranthene	1.111	1.065	4.1	112	0.00	14.14
94	t	Benzo[k]fluoranthene	1.094	1.088	0.5	115	0.00	14.17
95	t	Benzo[a]pyrene	0.976	1.008	-3.3	116	0.00	14.57
96	t	Indeno[1,2,3-cd]pyrene	1.123	1.247	-11.0	120	0.00	16.03
98	t	Dibenz[a,h]anthracene	0.979	1.084	-10.7	120	0.00	16.06
100	t	Benzo[g,h,i]perylene	0.902	1.071	-18.7	130	0.00	16.41

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z135730a.D MZ6690.M Mon Feb 18 11:03:00 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6690-ICV6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135712.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ez6690\z135712.D Vial: 12
Acq On : 16 Feb 2019 8:57 am Operator: chriss2
Sample : icv6690-50 Inst : GCMSZ
Misc : op18221,ez6690,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 08:40:44 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	4.84
3	t	Pyridine	1.633	1.659	-1.6	91	0.08	2.83
10	t	Aniline	2.259	2.340	-3.6	99	0.00	4.60
16	t	Benzyl alcohol	0.865	1.024	-18.4	111	0.00	4.94
24	I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.75
39	t	4-Chloroaniline	0.430	0.441	-2.6	99	0.00	5.80
44	t	2-Methylnaphthalene	0.542	0.575	-6.1	104	0.00	6.27
47	I	Acenaphthene-d10	1.000	1.000	0.0	103	0.00	7.15
54	t	2-Nitroaniline	0.331	0.323	2.4	93	0.00	6.74
58	t	3-Nitroaniline	0.336	0.345	-2.7	98	0.00	7.09
62	t	Dibenzofuran	1.611	1.702	-5.6	106	0.00	7.34
68	t	4-Nitroaniline	0.354	0.332	6.2	89	0.00	7.69
69	I	Phenanthrene-d10	1.000	1.000	0.0	106	0.00	8.76
79	t	Carbazole	1.035	1.100	-6.3	106	0.00	9.06

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z135704.D MZ6690.M Sun Feb 17 09:00:37 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6690-ICV6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135713.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ez6690\z135713.D Vial: 13
Acq On : 16 Feb 2019 9:25 am Operator: chriss2
Sample : icv6690-50 Inst : GCMSZ
Misc : op18221,ez6690,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 08:40:44 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	167	0.00	4.84
9	t	Phenol	1.928	1.737	9.9	139	0.00	4.58
12	t	2-Chlorophenol	1.393	1.395	-0.1	157	0.00	4.69
19	t	2-Methylphenol	1.307	1.270	2.8	155	0.00	5.02
21	t	3&4-Methylphenol	1.300	1.345	-3.5	164	0.00	5.12
24	I	Naphthalene-d8	1.000	1.000	0.0	163	0.00	5.76
29	t	2-Nitrophenol	0.171	0.177	-3.5	152	0.00	5.48
30	t	2,4-Dimethylphenol	0.341	0.334	2.1	150	0.00	5.50
31		Benzoic Acid	0.226	0.229	-1.3	153	0.01	5.60
33	t	2,4-Dichlorophenol	0.264	0.270	-2.3	155	0.00	5.65
34		2,6-Dichlorophenol	0.262	0.271	-3.4	159	0.00	5.81
43	t	4-Chloro-3-methylphenol	0.288	0.288	0.0	150	0.00	6.14
47	I	Acenaphthene-d10	1.000	1.000	0.0	153	0.00	7.15
49	t	2,4,6-Trichlorophenol	0.326	0.376	-15.3	161	0.00	6.49
50	t	2,4,5-Trichlorophenol	0.353	0.403	-14.2	154	0.00	6.52
		----------	True	Calc.	% Drift	----------		
60	t	2,4-Dinitrophenol	50.000	50.483	-1.0	164	0.00	7.19
		----------	AvgRF	CCRF	% Dev	----------		
61	t	4-Nitrophenol	0.160	0.173	-8.1	151	0.00	7.24
64		2,3,4,6-Tetrachlorophenol	0.279	0.300	-7.5	146	0.00	7.46
69	I	Phenanthrene-d10	1.000	1.000	0.0	161	0.00	8.76
		----------	True	Calc.	% Drift	----------		
70	t	4,6-Dinitro-2-methylpheno	50.000	46.065	7.9	147	0.00	7.73
		----------	True	Calc.	% Drift	----------		
76	t	Pentachlorophenol	50.000	52.530	-5.1	170	0.00	8.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z135704.D MZ6690.M Sun Feb 17 09:00:39 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6690-ICV6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135714.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ez6690\z135714.D Vial: 14
Acq On : 16 Feb 2019 9:53 am Operator: chriss2
Sample : icv6690-50 Inst : GCMSZ
Misc : op18221,ez6690,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 08:40:44 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	4.84
5	S	2-Fluorophenol	1.330	1.442	-8.4	104	0.00	3.87
8	S	Phenol-d5	1.692	1.748	-3.3	102	0.00	4.57
24	I	Naphthalene-d8	1.000	1.000	0.0	105	0.00	5.75
25	S	Nitrobenzene-d5	0.347	0.364	-4.9	104	0.00	5.24
47	I	Acenaphthene-d10	1.000	1.000	0.0	102	0.00	7.15
51	S	2-Fluorobiphenyl	1.354	1.375	-1.6	102	0.00	6.56
69	I	Phenanthrene-d10	1.000	1.000	0.0	101	0.00	8.76
73	S	2,4,6-Tribromophenol	0.096	0.091	5.2	88	0.00	7.94
83	I	Chrysene-d12	1.000	1.000	0.0	101	0.00	12.57
85	S	Terphenyl-d14	0.882	0.960	-8.8	106	0.00	10.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z135704.D MZ6690.M Sun Feb 17 09:00:41 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6690-ICV6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135715.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ez6690\z135715.D Vial: 15
Acq On : 16 Feb 2019 10:21 am Operator: chriss2
Sample : icv6690-50 Inst : GCMSZ
Misc : op18221,ez6690,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 08:40:44 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
83 I	Chrysene-d12	1.000	1.000	0.0	115	0.00	12.57
88 t	3,3'-Dichlorobenzidine	0.450	0.456	-1.3	104	0.00	12.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z135704.D MZ6690.M Sun Feb 17 09:00:43 2019

Initial Calibration Summary

Job Number: JC84381 **Sample:** EZ6691-ICC6691
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135719.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Response Factor Report GCMSZ

Method : C:\MSDCHEM\1\METHODS\MZ6691.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 09:23:12 2019
Response via : Initial Calibration

Calibration Files
100 =z135717.D 80 =z135718.D 50 =z135719.D 25 =z135720.D
10 =z135721.D 5 =z135722.D 2 =z135723.D 1 =z135724.D

Compound	100	80	50	25	10	5	2	1	Avg	%RSD
101) 1,4-Dichlorobenzene-d	ISTD									
102) Benzaldehyde	1.128	1.137	1.195	1.204	1.231	1.236	1.229	1.164	1.190	3.60
103) Phenanthrene-d10a	ISTD									
104) 1-chloroocta	0.290	0.301	0.309	0.309	0.294	0.269	0.213		0.284	12.02
105) o-terphenyl	0.512	0.533	0.549	0.552	0.571	0.544	0.523	0.535	0.540	3.40
106) Atrazine	0.097	0.102	0.101	0.097	0.092	0.083	0.064		0.091	14.95
109) Acenaphthene-d10a	ISTD									
110) 1,2,4,5-Tetr	0.485	0.492	0.519	0.526	0.535	0.532	0.531	0.558	0.522	4.50
111) I Naphthalene-d8a	ISTD									
112) Hydroquinone	0.357	0.367	0.372	0.345	0.316	0.296	0.213		0.324	17.34
113) Phenanthrene-d10b	ISTD									
114) Pentachloron	0.036	0.038	0.036	0.033	0.028	0.021			0.032#	19.76

(#) = Out of Range ### Number of calibration levels exceeded format ###

MZ6690.M Sun Feb 17 09:26:31 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6691-ICV6691
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135725.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ez6690\z135725.D Vial: 24
Acq On : 16 Feb 2019 2:42 pm Operator: chriss2
Sample : icv6691-50 Inst : GCMSZ
Misc : op18221,ez6691,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 09:23:12 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101	1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	146	0.00	4.84
102	Benzaldehyde	1.190	1.204	-1.2	147	0.00	4.51
103	Phenanthrene-d10a	1.000	1.000	0.0	141	0.00	8.76
106	Atrazine	0.091	0.103	-13.2	143	0.00	8.41
109	Acenaphthene-d10a	1.000	1.000	0.0	131	0.00	7.15
110	1,2,4,5-Tetrachlorobenzen	0.522	0.545	-4.4	138	0.00	6.41
111 I	Naphthalene-d8a	1.000	1.000	0.0	143	0.00	5.75
113	Phenanthrene-d10b	1.000	1.000	0.0	141	0.00	8.76
114	Pentachloronitrobenzene	0.032	0.036#	-12.5	142	0.00	8.55

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z135719a.D MZ6690.M Sun Feb 17 09:26:44 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6691-ICV6691
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135726.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ez6690\z135726.D Vial: 25
Acq On : 16 Feb 2019 3:10 pm Operator: chriss2
Sample : icv6691-50 Inst : GCMSZ
Misc : op18221,ez6691,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 09:23:12 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
111 I	Naphthalene-d8a	1.000	1.000	0.0	97	0.00	5.75
112	Hydroquinone	0.324	0.355	-9.6	92	0.00	6.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z135719a.D MZ6690.M Sun Feb 17 09:26:46 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** EZ6694-ICV6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z135763.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\ez6694\z135763.D Vial: 3
Acq On : 18 Feb 2019 9:43 am Operator: angelar
Sample : icv6690-50 Inst : GCMSZ
Misc : op18221,ez6694,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Sun Feb 17 09:45:32 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	84	0.00	4.84
2		1,4-Dioxane	0.605	0.508	16.0	65	0.00	2.44
6	t	Indene	2.247	2.424	-7.9	88	0.00	5.02
7	t	Cumene	3.417	3.106	9.1	74	-0.01	4.25
13	t	Decane	1.364	0.990	27.4	59	0.00	4.72
18	t	Acetophenone	1.962	1.966	-0.2	84	-0.01	5.12
24	I	Naphthalene-d8	1.000	1.000	0.0	95	-0.01	5.75
27	t	Quinoline	0.673	0.620	7.9	84	-0.02	6.00
40	t	2,3-Dichloroaniline	0.331	0.302	8.8	84	-0.01	6.48
41	t	Caprolactam	0.146	0.118	19.2	69	-0.03	6.03
45	t	1-Methylnaphthalene	0.603	0.528	12.4	81	-0.01	6.34
46	t	Dimethylnaphthalene	0.589	0.557	5.4	87	-0.01	6.76
47	I	Acenaphthene-d10	1.000	1.000	0.0	83	-0.01	7.14
53	t	Biphenyl	1.531	1.636	-6.9	87	-0.01	6.63
69	I	Phenanthrene-d10	1.000	1.000	0.0	100	-0.02	8.75
82	t	Octadecane	0.484	0.393	18.8	75	-0.02	8.63
91	I	Perylene-d12	1.000	1.000	0.0	86	-0.03	14.62
99	t	7,12-Dimethylbenz(a)anthr	0.506	0.489	3.4	77	-0.03	14.11

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z135730a.D MZ6690.M Mon Feb 18 10:53:54 2019

Continuing Calibration Summary

Job Number: JC84381 **Sample:** EZ6720-CC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z136248.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ez6720\z136248.d Vial: 2
Acq On : 19 Mar 2019 12:31 am Operator: chriss2
Sample : cc6690-50 Inst : GCMSZ
Misc : op18221,ez6720,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Tue Mar 19 11:16:49 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	4.84
2		1,4-Dioxane	0.605	0.526	13.1	84	0.00	2.44
3	t	Pyridine	1.633	1.531	6.2	90	0.00	2.75
4	t	N-Nitrosodimethylamine	0.945	0.891	5.7	91	0.00	2.72
5	S	2-Fluorophenol	1.330	1.325	0.4	97	0.00	3.86
6	t	Indene	2.247	2.172	3.3	99	0.00	5.03
7	t	Cumene	3.417	3.121	8.7	94	0.00	4.25
8	S	Phenol-d5	1.692	1.782	-5.3	106	0.01	4.57
9	t	Phenol	1.928	2.028	-5.2	103	0.00	4.58
10	t	Aniline	2.259	1.955	13.5	88	0.00	4.59
11	t	bis(2-Chloroethyl)ether	1.376	1.444	-4.9	107	0.00	4.64
12	t	2-Chlorophenol	1.393	1.497	-7.5	107	0.00	4.69
13	t	Decane	1.364	1.672	-22.6#	126	0.00	4.72
14	t	1,3-Dichlorobenzene	1.579	1.525	3.4	98	0.00	4.80
15	t	1,4-Dichlorobenzene	1.607	1.562	2.8	99	0.00	4.85
16	t	Benzyl alcohol	0.865	0.924	-6.8	107	0.00	4.94
17	t	1,2-Dichlorobenzene	1.512	1.472	2.6	99	0.00	4.96
18	t	Acetophenone	1.962	1.924	1.9	103	0.00	5.13
19	t	2-Methylphenol	1.307	1.341	-2.6	103	0.00	5.02
20	t	2,2'-oxybis(1-Chloropropa	0.402	0.415	-3.2	106	0.00	5.03
21	t	3&4-Methylphenol	1.300	1.379	-6.1	106	0.00	5.12
22	t	n-Nitroso-di-n-propylamin	1.023	1.059	-3.5	107	0.00	5.13
23	t	Hexachloroethane	0.471	0.455	3.4	95	0.00	5.21
24	I	Naphthalene-d8	1.000	1.000	0.0	107	0.00	5.75
25	S	Nitrobenzene-d5	0.347	0.357	-2.9	104	0.00	5.24
26	t	Nitrobenzene	0.359	0.368	-2.5	103	0.00	5.25
27	t	Quinoline	0.673	0.721	-7.1	110	0.00	6.02
28	t	Isophorone	0.641	0.675	-5.3	108	0.00	5.42
29	t	2-Nitrophenol	0.171	0.196	-14.6	110	0.00	5.48
30	t	2,4-Dimethylphenol	0.341	0.328	3.8	97	0.01	5.51
31		Benzoic Acid	0.226	0.302	-33.6#	132	0.02	5.60
32	t	bis(2-Chloroethoxy)methan	0.398	0.427	-7.3	111	0.00	5.57
33	t	2,4-Dichlorophenol	0.264	0.292	-10.6	110	0.00	5.65
34		2,6-Dichlorophenol	0.262	0.282	-7.6	108	0.00	5.81
35	t	1,3,5-Trichlorobenzene	0.300	0.295	1.7	101	0.00	5.49
36	t	1,2,4-Trichlorobenzene	0.290	0.285	1.7	102	0.00	5.71
37	t	1,2,3-Trichlorobenzene	0.289	0.280	3.1	100	0.00	5.87
38	t	Naphthalene	0.997	0.992	0.5	104	0.00	5.77
39	t	4-Chloroaniline	0.430	0.430	0.0	103	0.00	5.80
40	t	2,3-Dichloroaniline	0.331	0.349	-5.4	110	0.00	6.49
41	t	Caprolactam	0.146	0.197	-34.9#	130	0.02	6.07

Continuing Calibration Summary

Job Number: JC84381 **Sample:** EZ6720-CC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z136248.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42	t	Hexachlorobutadiene	0.152	0.133	12.5	90	0.00	5.86
43	t	4-Chloro-3-methylphenol	0.288	0.308	-6.9	105	0.00	6.15
44	t	2-Methylnaphthalene	0.542	0.562	-3.7	108	0.00	6.27
45	t	1-Methylnaphthalene	0.603	0.635	-5.3	110	0.00	6.35
46	t	Dimethylnaphthalene	0.589	0.603	-2.4	106	0.00	6.77
47	I	Acenaphthene-d10	1.000	1.000	0.0	110	0.00	7.14
48	t	Hexachlorocyclopentadiene	0.305	0.264	13.4	86	0.00	6.40
49	t	2,4,6-Trichlorophenol	0.326	0.353	-8.3	108	0.00	6.49
50	t	2,4,5-Trichlorophenol	0.353	0.386	-9.3	106	0.00	6.52
51	S	2-Fluorobiphenyl	1.354	1.317	2.7	106	0.00	6.55
52	t	2-Chloronaphthalene	1.151	1.153	-0.2	106	0.00	6.66
53	t	Biphenyl	1.531	1.542	-0.7	109	0.00	6.64
54	t	2-Nitroaniline	0.331	0.456	-37.8#	140	0.00	6.74
55	t	Dimethylphthalate	1.287	1.275	0.9	105	0.00	6.88
56	t	Acenaphthylene	1.839	1.857	-1.0	106	0.00	7.01
			True	Calc.	% Drift			
57	t	2,6-Dinitrotoluene	50.000	51.483	-3.0	114	0.00	6.94
			AvgRF	CCRF	% Dev			
58	t	3-Nitroaniline	0.336	0.370	-10.1	112	0.00	7.09
59	t	Acenaphthene	1.207	1.250	-3.6	111	0.00	7.18
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	106.863	-6.9	120	0.00	7.19
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.160	0.163	-1.9	102	0.01	7.24
62	t	Dibenzofuran	1.611	1.537	4.6	102	0.00	7.34
			True	Calc.	% Drift			
63	t	2,4-Dinitrotoluene	50.000	50.751	-1.5	114	0.00	7.31
			AvgRF	CCRF	% Dev			
64		2,3,4,6-Tetrachlorophenol	0.279	0.294	-5.4	103	0.00	7.46
65	t	Diethylphthalate	1.285	1.352	-5.2	109	0.00	7.55
66	t	Fluorene	1.279	1.315	-2.8	110	0.00	7.68
67	t	4-Chlorophenyl-phenylethe	0.578	0.527	8.8	97	0.00	7.67
68	t	4-Nitroaniline	0.354	0.370	-4.5	106	0.00	7.70
69	I	Phenanthrene-d10	1.000	1.000	0.0	112	0.00	8.76
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	52.227	-4.5	118	0.00	7.73
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.546	0.549	-0.5	108	0.00	7.79
72	t	1,2-Diphenylhydrazine	0.805	0.824	-2.4	109	0.00	7.84
73	S	2,4,6-Tribromophenol	0.096	0.086	10.4	93	0.00	7.94
74	t	4-Bromophenyl-phenylether	0.198	0.181	8.6	97	0.00	8.21
75	t	Hexachlorobenzene	0.210	0.192	8.6	98	0.00	8.30
			True	Calc.	% Drift			
76	t	Pentachlorophenol	100.000	90.639	9.4	103	0.00	8.53
			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.074	1.086	-1.1	110	0.00	8.78
78	t	Anthracene	1.084	1.105	-1.9	110	0.00	8.85
79	t	Carbazole	1.035	1.093	-5.6	112	0.00	9.05

Continuing Calibration Summary

Job Number: JC84381 **Sample:** EZ6720-CC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z136248.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

80	t	Di-n-butylphthalate	1.230	1.462	-18.9	120	0.00	9.54
81	t	Fluoranthene	1.063	1.173	-10.3	116	0.00	10.40
82	t	Octadecane	0.484	0.600	-24.0#	129	-0.01	8.63
83	I	Chrysene-d12	1.000	1.000	0.0	108	0.01	12.56
84	t	Pyrene	1.351	1.491	-10.4	116	0.00	10.72
85	S	Terphenyl-d14	0.882	0.926	-5.0	109	0.00	10.98
86	t	Butylbenzylphthalate	0.632	0.795	-25.8#	122	0.00	11.76
87	t	Benzo[a]anthracene	1.204	1.244	-3.3	107	0.00	12.54
88	t	3,3'-Dichlorobenzidine	0.450	0.430	4.4	92	0.00	12.53
89	t	Chrysene	1.180	1.212	-2.7	106	0.00	12.60
		----------	True	Calc.	% Drift	----------		
90	t	bis(2-Ethylhexyl)phthalat	50.000	55.599	-11.2	118	-0.01	12.69
		----------	AvgRF	CCRF	% Dev	----------		
91	I	Perylene-d12	1.000	1.000	0.0	85	0.00	14.63
		----------	True	Calc.	% Drift	----------		
92	t	Di-n-octylphthalate	50.000	75.230	-50.5#	126	0.00	13.66
		----------	AvgRF	CCRF	% Dev	----------		
93	t	Benzo[b]fluoranthene	1.111	1.273	-14.6	93	0.00	14.12
94	t	Benzo[k]fluoranthene	1.094	1.216	-11.2	89	0.00	14.16
95	t	Benzo[a]pyrene	0.976	1.077	-10.3	86	0.00	14.55
96	t	Indeno[1,2,3-cd]pyrene	1.123	1.002	10.8	67	0.00	16.01
97	t	Dibenz(a,h)acridine	0.861	0.866	-0.6	77	0.00	15.70
98	t	Dibenz[a,h]anthracene	0.979	0.985	-0.6	75	0.00	16.03
99	t	7,12-Dimethylbenz(a)anthr	0.506	0.582	-15.0	89	0.00	14.12
100	t	Benzo[g,h,i]perylene	0.902	0.901	0.1	76	0.00	16.38

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z136249.d MZ6690.M Tue Mar 19 11:24:04 2019

Continuing Calibration Summary

Job Number: JC84381 **Sample:** EZ6720-CC6691
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z136249.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ez6720\z136249.d Vial: 3
Acq On : 19 Mar 2019 12:59 am Operator: chriss2
Sample : cc6691-50 Inst : GCMSZ
Misc : op18221,ez6720,1000,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Tue Mar 19 10:55:51 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	77	0.00	4.84
102		Benzaldehyde	1.190	1.207	-1.4	78	0.00	4.51
103		Phenanthrene-d10a	1.000	1.000	0.0	97	0.00	8.75
104	s	1-chlorooctadecane	0.284	0.448	-57.7#	141	-0.02	10.28
105	s	o-terphenyl	0.540	0.532	1.5	94	-0.01	9.25
106		Atrazine	0.091	0.111	-22.0#	106	0.00	8.40
109		Acenaphthene-d10a	1.000	1.000	0.0	92	0.00	7.14
110		1,2,4,5-Tetrachlorobenzen	0.522	0.472	9.6	84	0.00	6.40
111	I	Naphthalene-d8a	1.000	1.000	0.0	83	0.00	5.75
112		Hydroquinone	0.324	0.445	-37.3#	99	0.00	6.03
113		Phenanthrene-d10b	1.000	1.000	0.0	97	0.00	8.75
114		Pentachloronitrobenzene	0.032	0.038#	-18.7	105	0.00	8.54

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z136248.d MZ6690.M Tue Mar 19 11:06:35 2019

Continuing Calibration Summary

Job Number: JC84381 **Sample:** EZ6720-ECC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z136259.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ez6720\z136259.d Vial: 2
Acq On : 19 Mar 2019 5:47 am Operator: chriss2
Sample : ecc6690-50 Inst : GCMSZ
Misc : op19154,ez6720,30.0,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Tue Mar 19 11:49:16 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	121	0.00	4.84
2		1,4-Dioxane	0.605	0.540	10.7	100	0.00	2.45
3	t	Pyridine	1.633	1.543	5.5	104	0.00	2.76
4	t	N-Nitrosodimethylamine	0.945	0.914	3.3	107	0.00	2.72
5	S	2-Fluorophenol	1.330	1.312	1.4	111	0.00	3.87
6	t	Indene	2.247	2.128	5.3	111	0.00	5.03
7	t	Cumene	3.417	3.142	8.0	108	0.00	4.26
8	S	Phenol-d5	1.692	1.703	-0.7	116	0.00	4.58
9	t	Phenol	1.928	1.961	-1.7	114	0.00	4.59
10	t	Aniline	2.259	1.930	14.6	100	0.00	4.60
11	t	bis(2-Chloroethyl)ether	1.376	1.391	-1.1	119	0.00	4.64
12	t	2-Chlorophenol	1.393	1.457	-4.6	119	0.00	4.69
13	t	Decane	1.364	1.675	-22.8	145	0.00	4.72
14	t	1,3-Dichlorobenzene	1.579	1.540	2.5	114	0.00	4.80
15	t	1,4-Dichlorobenzene	1.607	1.555	3.2	114	0.00	4.86
16	t	Benzyl alcohol	0.865	0.883	-2.1	117	0.00	4.94
17	t	1,2-Dichlorobenzene	1.512	1.487	1.7	115	0.00	4.97
18	t	Acetophenone	1.962	1.811	7.7	111	0.00	5.13
19	t	2-Methylphenol	1.307	1.271	2.8	112	0.00	5.02
20	t	2,2'-oxybis(1-Chloropropa	0.402	0.401	0.2	118	0.00	5.03
21	t	3&4-Methylphenol	1.300	1.306	-0.5	116	0.00	5.13
22	t	n-Nitroso-di-n-propylamin	1.023	1.000	2.2	117	0.00	5.13
23	t	Hexachloroethane	0.471	0.385	18.3	93	0.00	5.21
24	I	Naphthalene-d8	1.000	1.000	0.0	118	0.00	5.76
25	S	Nitrobenzene-d5	0.347	0.361	-4.0	117	0.00	5.24
26	t	Nitrobenzene	0.359	0.370	-3.1	114	0.00	5.26
27	t	Quinoline	0.673	0.693	-3.0	117	0.00	6.02
28	t	Isophorone	0.641	0.655	-2.2	116	0.00	5.43
29	t	2-Nitrophenol	0.171	0.182	-6.4	113	0.00	5.49
30	t	2,4-Dimethylphenol	0.341	0.326	4.4	107	0.00	5.51
31		Benzoic Acid	0.226	0.267	-18.1	129	0.00	5.61
32	t	bis(2-Chloroethoxy)methan	0.398	0.416	-4.5	120	0.00	5.57
33	t	2,4-Dichlorophenol	0.264	0.288	-9.1	120	0.00	5.66
34		2,6-Dichlorophenol	0.262	0.274	-4.6	116	0.00	5.82
35	t	1,3,5-Trichlorobenzene	0.300	0.294	2.0	112	0.00	5.50
36	t	1,2,4-Trichlorobenzene	0.290	0.288	0.7	115	0.00	5.72
37	t	1,2,3-Trichlorobenzene	0.289	0.283	2.1	112	0.00	5.88
38	t	Naphthalene	0.997	1.002	-0.5	117	0.00	5.78
39	t	4-Chloroaniline	0.430	0.423	1.6	112	0.00	5.81
40	t	2,3-Dichloroaniline	0.331	0.332	-0.3	115	0.00	6.49
41	t	Caprolactam	0.146	0.186	-27.4	136	0.00	6.08

Continuing Calibration Summary

Job Number: JC84381 **Sample:** EZ6720-ECC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z136259.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42	t	Hexachlorobutadiene	0.152	0.131	13.8	98	0.00	5.86
43	t	4-Chloro-3-methylphenol	0.288	0.295	-2.4	112	0.00	6.16
44	t	2-Methylnaphthalene	0.542	0.555	-2.4	118	0.00	6.28
45	t	1-Methylnaphthalene	0.603	0.607	-0.7	116	0.00	6.35
46	t	Dimethylnaphthalene	0.589	0.583	1.0	114	0.00	6.77
47	I	Acenaphthene-d10	1.000	1.000	0.0	116	0.00	7.15
48	t	Hexachlorocyclopentadiene	0.305	0.071	76.7#	24#	0.00	6.40
49	t	2,4,6-Trichlorophenol	0.326	0.341	-4.6	110	0.00	6.50
50	t	2,4,5-Trichlorophenol	0.353	0.374	-5.9	108	0.00	6.53
51	S	2-Fluorobiphenyl	1.354	1.340	1.0	113	0.00	6.56
52	t	2-Chloronaphthalene	1.151	1.157	-0.5	111	0.00	6.66
53	t	Biphenyl	1.531	1.563	-2.1	116	0.00	6.64
54	t	2-Nitroaniline	0.331	0.456	-37.8	147	0.00	6.74
55	t	Dimethylphthalate	1.287	1.250	2.9	109	0.00	6.89
56	t	Acenaphthylene	1.839	1.886	-2.6	114	0.00	7.02
			True	Calc.	% Drift			
57	t	2,6-Dinitrotoluene	50.000	48.325	3.3	112	0.00	6.95
			AvgRF	CCRF	% Dev			
58	t	3-Nitroaniline	0.336	0.365	-8.6	117	0.00	7.10
59	t	Acenaphthene	1.207	1.249	-3.5	117	0.00	7.18
			True	Calc.	% Drift			
60	t	2,4-Dinitrophenol	100.000	30.962	69.0#	30	0.00	7.20
			AvgRF	CCRF	% Dev			
61	t	4-Nitrophenol	0.160	0.154	3.8	101	0.00	7.26
62	t	Dibenzofuran	1.611	1.526	5.3	107	0.00	7.34
			True	Calc.	% Drift			
63	t	2,4-Dinitrotoluene	50.000	46.450	7.1	110	0.00	7.32
			AvgRF	CCRF	% Dev			
64		2,3,4,6-Tetrachlorophenol	0.279	0.279	0.0	103	0.00	7.46
65	t	Diethylphthalate	1.285	1.293	-0.6	110	0.00	7.55
66	t	Fluorene	1.279	1.276	0.2	113	0.00	7.69
67	t	4-Chlorophenyl-phenylethe	0.578	0.513	11.2	99	0.00	7.68
68	t	4-Nitroaniline	0.354	0.368	-4.0	111	0.00	7.70
69	I	Phenanthrene-d10	1.000	1.000	0.0	105	0.00	8.76
			True	Calc.	% Drift			
70	t	4,6-Dinitro-2-methylpheno	50.000	18.557	62.9#	33	0.00	7.74
			AvgRF	CCRF	% Dev			
71	t	n-Nitrosodiphenylamine	0.546	0.596	-9.2	109	0.00	7.80
72	t	1,2-Diphenylhydrazine	0.805	0.917	-13.9	113	0.00	7.85
73	S	2,4,6-Tribromophenol	0.096	0.086	10.4	86	0.00	7.94
74	t	4-Bromophenyl-phenylether	0.198	0.191	3.5	95	0.00	8.22
75	t	Hexachlorobenzene	0.210	0.194	7.6	92	0.00	8.31
			True	Calc.	% Drift			
76	t	Pentachlorophenol	100.000	83.160	16.8	88	0.00	8.54
			AvgRF	CCRF	% Dev			
77	t	Phenanthrene	1.074	1.073	0.1	102	0.00	8.79
78	t	Anthracene	1.084	1.094	-0.9	101	0.00	8.86
79	t	Carbazole	1.035	1.078	-4.2	103	0.00	9.06

Continuing Calibration Summary

Job Number: JC84381 **Sample:** EZ6720-ECC6690
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z136259.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

80	t	Di-n-butylphthalate	1.230	1.446	-17.6	111	0.00	9.55
81	t	Fluoranthene	1.063	1.009	5.1	93	0.00	10.41
82	t	Octadecane	0.484	0.664	-37.2	133	0.00	8.63
83	I	Chrysene-d12	1.000	1.000	0.0	77	0.00	12.57
84	t	Pyrene	1.351	1.658	-22.7	92	0.00	10.73
85	S	Terphenyl-d14	0.882	0.972	-10.2	81	0.00	10.99
86	t	Butylbenzylphthalate	0.632	0.876	-38.6	96	0.00	11.76
87	t	Benzo[a]anthracene	1.204	1.254	-4.2	77	0.00	12.55
88	t	3,3'-Dichlorobenzidine	0.450	0.478	-6.2	73	0.00	12.54
89	t	Chrysene	1.180	1.223	-3.6	76	0.00	12.61
		----------	True	Calc.	% Drift	----------		
90	t	bis(2-Ethylhexyl)phthalat	50.000	58.079	-16.2	88	0.00	12.69
		----------	AvgRF	CCRF	% Dev	----------		
91	I	Perylene-d12	1.000	1.000	0.0	71	0.00	14.64
		----------	True	Calc.	% Drift	----------		
92	t	Di-n-octylphthalate	50.000	63.748	-27.5	89	0.00	13.66
		----------	AvgRF	CCRF	% Dev	----------		
93	t	Benzo[b]fluoranthene	1.111	1.190	-7.1	73	0.00	14.13
94	t	Benzo[k]fluoranthene	1.094	1.112	-1.6	68	0.00	14.17
95	t	Benzo[a]pyrene	0.976	1.057	-8.3	70	0.00	14.57
96	t	Indeno[1,2,3-cd]pyrene	1.123	1.030	8.3	58	0.00	16.03
97	t	Dibenz(a,h)acridine	0.861	0.904	-5.0	67	0.00	15.72
98	t	Dibenz[a,h]anthracene	0.979	1.003	-2.5	64	0.00	16.05
99	t	7,12-Dimethylbenz(a)anthr	0.506	0.523	-3.4	67	0.00	14.13
100	t	Benzo[g,h,i]perylene	0.902	0.956	-6.0	67	0.00	16.40

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z136259.d MZ6690.M Tue Mar 19 11:56:01 2019

Continuing Calibration Summary

Job Number: JC84381 **Sample:** EZ6720-ECC6691
Account: NOREASCA NOREAS, Inc. **Lab FileID:** Z136260.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\da...meel\ez6720\z136260.d Vial: 3
Acq On : 19 Mar 2019 6:15 am Operator: chriss2
Sample : ecc6691-50 Inst : GCMSZ
Misc : op19154,ez6720,30.0,,,1,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\MZ6690.M (RTE Integrator)
Title : Semi Volatile GC/MS, ZB-5MS 15m x .25mm x .25um
Last Update : Tue Mar 19 11:49:16 2019
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
101		1,4-Dichlorobenzene-d4a	1.000	1.000	0.0	113	0.00	4.84
102		Benzaldehyde	1.190	1.155	2.9	109	0.00	4.52
103		Phenanthrene-d10a	1.000	1.000	0.0	86	0.00	8.76
104	s	1-chlorooctadecane	0.284	0.404	-42.3	112	-0.04	10.29
105	s	o-terphenyl	0.540	0.498	7.8	78	0.00	9.26
106		Atrazine	0.091	0.108	-18.7	91	0.10	8.41
109		Acenaphthene-d10a	1.000	1.000	0.0	99	0.00	7.15
110		1,2,4,5-Tetrachlorobenzen	0.522	0.516	1.1	99	0.00	6.41
111	I	Naphthalene-d8a	1.000	1.000	0.0	107	0.00	5.75
112		Hydroquinone	0.324	0.370	-14.2	107	0.15	6.03
113		Phenanthrene-d10b	1.000	1.000	0.0	86	0.00	8.76
114		Pentachloronitrobenzene	0.032	0.019#	40.6	46#	0.01	8.55

(#) = Out of Range SPCC's out = 0 CCC's out = 0
z136259.d MZ6690.M Tue Mar 19 11:56:05 2019

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- DDT/Endrin Breakdown Checks
- GC Identification Summaries (Hits)
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19148-MB1	OA138920.D	1	03/18/19	VDT	03/16/19	OP19148	GOA4782

The QC reported here applies to the following samples: **Method:** SW846 8151A

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	Result	RL	MDL	Units	Q
93-72-1	2,4,5-TP (Silvex)	ND	3.3	2.9	ug/kg	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	94%	10-159%
19719-28-9	2,4-DCAA	93%	10-159%

Method Blank Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19157-MB1	6G63676.D	1	03/18/19	MH	03/18/19	OP19157	G6G1954

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.67	0.55	ug/kg	
319-84-6	alpha-BHC	ND	0.67	0.54	ug/kg	
319-85-7	beta-BHC	ND	0.67	0.60	ug/kg	
319-86-8	delta-BHC	ND	0.67	0.64	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.67	0.49	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.67	0.54	ug/kg	
60-57-1	Dieldrin	ND	0.67	0.46	ug/kg	
72-54-8	4,4'-DDD	ND	0.67	0.61	ug/kg	
72-55-9	4,4'-DDE	ND	0.67	0.58	ug/kg	
50-29-3	4,4'-DDT	ND	0.67	0.59	ug/kg	
72-20-8	Endrin	ND	0.67	0.52	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.67	0.52	ug/kg	
959-98-8	Endosulfan-I	ND	0.67	0.38	ug/kg	
33213-65-9	Endosulfan-II	ND	0.67	0.42	ug/kg	
76-44-8	Heptachlor	ND	0.67	0.57	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	81%	25-135%
877-09-8	Tetrachloro-m-xylene	83%	25-135%
2051-24-3	Decachlorobiphenyl	83%	10-156%
2051-24-3	Decachlorobiphenyl	83%	10-156%

Method Blank Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19156-MB1	5G86864.D	1	03/18/19	TR	03/18/19	OP19156	G5G2082

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	13	ug/kg	
11104-28-2	Aroclor 1221	ND	33	14	ug/kg	
11141-16-5	Aroclor 1232	ND	33	8.9	ug/kg	
53469-21-9	Aroclor 1242	ND	33	5.3	ug/kg	
12672-29-6	Aroclor 1248	ND	33	20	ug/kg	
11097-69-1	Aroclor 1254	ND	33	8.2	ug/kg	
11096-82-5	Aroclor 1260	ND	33	11	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	88%	31-146%
877-09-8	Tetrachloro-m-xylene	84%	31-146%
2051-24-3	Decachlorobiphenyl	77%	17-164%
2051-24-3	Decachlorobiphenyl	71%	17-164%

Blank Spike Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19148-BS1	OA138921.D	1	03/18/19	VDT	03/16/19	OP19148	GOA4782

The QC reported here applies to the following samples: **Method:** SW846 8151A

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
93-72-1	2,4,5-TP (Silvex)	26.7	26.6	100	49-139

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	96%	10-159%
19719-28-9	2,4-DCAA	101%	10-159%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19157-BS1	6G63677.D	1	03/18/19	MH	03/18/19	OP19157	G6G1954

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
309-00-2	Aldrin	16.7	14.7	88	46-120
319-84-6	alpha-BHC	16.7	14.8	89	45-116
319-85-7	beta-BHC	16.7	14.6	88	42-121
319-86-8	delta-BHC	16.7	14.4	86	42-121
58-89-9	gamma-BHC (Lindane)	16.7	14.8	89	46-118
5103-71-9	alpha-Chlordane	16.7	15.6	94	49-119
60-57-1	Dieldrin	16.7	15.4	92	48-126
72-54-8	4,4'-DDD	16.7	14.9	89	47-120
72-55-9	4,4'-DDE	16.7	15.1	91	48-121
50-29-3	4,4'-DDT	16.7	15.9	95	45-135
72-20-8	Endrin	16.7	15.9	95	51-137
1031-07-8	Endosulfan sulfate	16.7	14.9	89	48-128
959-98-8	Endosulfan-I	16.7	14.5	87	47-118
33213-65-9	Endosulfan-II	16.7	13.7	82	49-121
76-44-8	Heptachlor	16.7	14.6	88	48-120

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	87%	25-135%
877-09-8	Tetrachloro-m-xylene	90%	25-135%
2051-24-3	Decachlorobiphenyl	81%	10-156%
2051-24-3	Decachlorobiphenyl	85%	10-156%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19156-BS1	5G86865.D	1	03/18/19	TR	03/18/19	OP19156	G5G2082

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	133	100	67-157
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	133	127	95	63-155

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	89%	31-146%
877-09-8	Tetrachloro-m-xylene	86%	31-146%
2051-24-3	Decachlorobiphenyl	81%	17-164%
2051-24-3	Decachlorobiphenyl	74%	17-164%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19148-MS	OA138923.D	1	03/18/19	VDT	03/16/19	OP19148	GOA4782
OP19148-MSD	OA138924.D	1	03/18/19	VDT	03/16/19	OP19148	GOA4782
JC84381-1	OA138922.D	1	03/18/19	VDT	03/16/19	OP19148	GOA4782

The QC reported here applies to the following samples: **Method:** SW846 8151A

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	JC84381-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
93-72-1	2,4,5-TP (Silvex)	3.7 U		28.8	18.0	63	28.2	17.7	63	2	10-159/51

CAS No.	Surrogate Recoveries	MS	MSD	JC84381-1	Limits
19719-28-9	2,4-DCAA	52%	52%	67%	10-159%
19719-28-9	2,4-DCAA	50%	49%	69%	10-159%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19157-MS	6G63680.D	1	03/18/19	MH	03/18/19	OP19157	G6G1954
OP19157-MSD	6G63681.D	1	03/18/19	MH	03/18/19	OP19157	G6G1954
JC84381-2	6G63679.D	1	03/18/19	MH	03/18/19	OP19157	G6G1954

The QC reported here applies to the following samples: **Method:** SW846 8081B

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	JC84381-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	1.4		18	13.2	65	17.3	17.5	93	28	23-143/44
319-84-6	alpha-BHC	0.71	U	18	11.8	65	17.3	16.8	97	35 [a]	18-152/47
319-85-7	beta-BHC	0.71	U	18	10.8	60	17.3	14.4	83	29	7-143/48
319-86-8	delta-BHC	0.71	U	18	11.8	65	17.3	15.2	88	25	13-155/49
58-89-9	gamma-BHC (Lindane)	0.71	U	18	12.7	70	17.3	16.8	97	28	23-138/49
5103-71-9	alpha-Chlordane	6.9		18	19.2	68	17.3	21.8	86	13	16-149/46
60-57-1	Dieldrin	1.7		18	14.4	70	17.3	18.5	97	25	14-154/46
72-54-8	4,4'-DDD	0.71	U	18	12.3	68	17.3	16.2	94	27	18-149/51
72-55-9	4,4'-DDE	2.1		18	14.7	70	17.3	17.0	86	15	10-154/49
50-29-3	4,4'-DDT	2.5		18	16.0	75	17.3	19.5	98	20	10-170/50
72-20-8	Endrin	0.71	U	18	13.2	73	17.3	17.7	103	29	18-173/49
1031-07-8	Endosulfan sulfate	0.71	U	18	10.7	59	17.3	14.1	82	27	19-132/50
959-98-8	Endosulfan-I	0.71	U	18	12.1	67	17.3	15.7	91	26	18-143/46
33213-65-9	Endosulfan-II	0.71	U	18	10.5	58	17.3	14.0	81	29	21-132/46
76-44-8	Heptachlor	1.0		18	14.3	74	17.3	17.5	96	20	22-146/46

CAS No.	Surrogate Recoveries	MS	MSD	JC84381-2	Limits
877-09-8	Tetrachloro-m-xylene	59%	93%	72%	25-135%
877-09-8	Tetrachloro-m-xylene	69%	87%	72%	25-135%
2051-24-3	Decachlorobiphenyl	52%	72%	63%	10-156%
2051-24-3	Decachlorobiphenyl	65%	80%	70%	10-156%

(a) Outside program specific requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19156-MS	5G86867.D	1	03/18/19	TR	03/18/19	OP19156	G5G2082
OP19156-MSD	5G86868.D	1	03/18/19	TR	03/18/19	OP19156	G5G2082
JC84381-1	5G86866.D	1	03/18/19	TR	03/18/19	OP19156	G5G2082

The QC reported here applies to the following samples: **Method:** SW846 8082A

JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

CAS No.	Compound	JC84381-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	37	U	136	129	95	137	144	105	11	36-191/60
11104-28-2	Aroclor 1221	37	U		ND			ND		nc	70-130/50
11141-16-5	Aroclor 1232	37	U		ND			ND		nc	70-130/1
53469-21-9	Aroclor 1242	37	U		ND			ND		nc	70-130/6
12672-29-6	Aroclor 1248	37	U		ND			ND		nc	70-130/33
11097-69-1	Aroclor 1254	37	U		ND			ND		nc	70-130/38
11096-82-5	Aroclor 1260	37	U	136	124	91	137	142	104	14	15-200/68

CAS No.	Surrogate Recoveries	MS	MSD	JC84381-1	Limits
877-09-8	Tetrachloro-m-xylene	74%	80%	78%	31-146%
877-09-8	Tetrachloro-m-xylene	72%	78%	76%	31-146%
2051-24-3	Decachlorobiphenyl	55%	62%	63%	17-164%
2051-24-3	Decachlorobiphenyl	54%	56%	60%	17-164%

* = Outside of Control Limits.

Internal Standard Area Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
Check Std	282537268	2.17	242415642	1.95
Upper Limit [a]	565074536	2.67	484831284	2.45
Lower Limit [b]	141268634	1.67	121207821	1.45

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT
OP19157-MB1	233762586	2.17	203396936	1.95
OP19157-BS1	247655717	2.17	225360202	1.95
JC84381-1	233564080	2.17	228048919	1.95
JC84381-2	232292586	2.17	199780334	1.95
OP19157-MS	246202377	2.17	230342729	1.95
OP19157-MSD	253090269	2.17	220405104	1.95
JC84381-3	246433607	2.17	212374619	1.95
JC84381-4	244252004	2.17	216503247	1.95
JC84381-5	246875428	2.17	215014653	1.95

IS 1 = 1-Bromo-2-nitrobenzene (Signal #2)
IS 2 = 1-Bromo-2-nitrobenzene (Signal #1)

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

DDT/Endrin Breakdown Check

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample:	G6G1951-DDT	**Injection Date:**	03/13/19
Lab File ID:	6G63602.D	**Injection Time:**	11:43
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	4065198	4359080
4,4'-DDE	5025548	4410427
4,4'-DDT	444908339	415035416
DDT Breakdown [a]	2 %	2.1 %
Endrin aldehyde	965179	429520
Endrin ketone	1756703	2806864
Endrin	265458072	244511798
Endrin Breakdown [b]	1 %	1.3 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G6G1951-IC1951	6G63604.D	03/13/19	12:18	00:36	Initial cal 1
G6G1951-IC1951	6G63605.D	03/13/19	12:36	00:53	Initial cal 2
G6G1951-IC1951	6G63606.D	03/13/19	12:54	01:11	Initial cal 5
G6G1951-IC1951	6G63607.D	03/13/19	13:12	01:29	Initial cal 10
G6G1951-ICC1951	6G63608.D	03/13/19	13:29	01:47	Initial cal 25
G6G1951-IC1951	6G63609.D	03/13/19	13:47	02:05	Initial cal 50
G6G1951-IC1951	6G63610.D	03/13/19	14:05	02:23	Initial cal 75
G6G1951-IC1951	6G63611.D	03/13/19	14:23	02:40	Initial cal 100
G6G1951-IC1951	6G63612.D	03/13/19	14:41	02:58	Initial cal 500
G6G1951-IC1951	6G63613.D	03/13/19	14:58	03:16	Initial cal 500
G6G1951-ICV1951	6G63614.D	03/13/19	15:16	03:33	Initial cal verification 25
G6G1951-ICV1951	6G63615.D	03/13/19	15:34	03:52	Initial cal verification 500
G6G1951-ICV1951	6G63616.D	03/13/19	15:52	04:10	Initial cal verification 500
G6G1951-ICV1951	6G63617.D	03/13/19	16:11	04:28	Initial cal verification 50
G6G1951-ICV1951	6G63618.D	03/13/19	16:29	04:46	Initial cal verification 50

DDT/Endrin Breakdown Check

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample:	G6G1954-DDT	**Injection Date:**	03/18/19
Lab File ID:	6G63671.D	**Injection Time:**	09:25
Instrument ID:	GC6G		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	2059597	3456538
4,4'-DDE	4491137	4776998
4,4'-DDT	420839150	382533346
DDT Breakdown [a]	1.5 %	2.1 %
Endrin aldehyde	928957	374572
Endrin ketone	1848507	1905488
Endrin	250073798	228278574
Endrin Breakdown [b]	1.1 %	1 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
G6G1954-CC1951	6G63672.D	03/18/19	09:42	00:17	Continuing cal 50
G6G1954-CC1951	6G63673.D	03/18/19	10:04	00:40	Continuing cal 500
G6G1954-CC1951	6G63674.D	03/18/19	10:22	00:57	Continuing cal 500
OP19157-MB1	6G63676.D	03/18/19	10:57	01:32	Method Blank
OP19157-BS1	6G63677.D	03/18/19	11:14	01:50	Blank Spike
JC84381-1	6G63678.D	03/18/19	11:32	02:07	NWIRP-S1-WC-CF-014
JC84381-2	6G63679.D	03/18/19	11:49	02:25	NWIRP-S1-WC-CF-015
OP19157-MS	6G63680.D	03/18/19	12:07	02:42	Matrix Spike
OP19157-MSD	6G63681.D	03/18/19	12:24	02:59	Matrix Spike Duplicate
JC84381-3	6G63682.D	03/18/19	12:42	03:17	NWIRP-S1-WC-CF-016
JC84381-4	6G63683.D	03/18/19	12:59	03:34	NWIRP-S1-WC-CF-017
JC84381-5	6G63684.D	03/18/19	13:17	03:52	NWIRP-S1-WC-CF-018
G6G1954-CC1951	6G63685.D	03/18/19	14:44	05:19	Continuing cal 25
ZZZZZZ	6G63687.D	03/18/19	15:19	05:54	(unrelated sample)
ZZZZZZ	6G63688.D	03/18/19	15:36	06:12	(unrelated sample)
G6G1954-ECC1951	6G63689.D	03/18/19	16:33	07:08	Ending cal 50

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	GOA4782-CC4767	**Injection Date:**	03/18/19
Lab File ID:	OA138918.D	**Injection Time:**	10:13
Instrument ID:	GCOA	**Method:**	SW846 8151A

Sample ID:	OP19148-BS1	**Injection Date:**	03/18/19
Lab File ID:	OA138921.D	**Injection Time:**	11:38
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4,5-TP (Silvex)	1	10.07	10.09	30.8		ug/kg	14.6
2,4,5-TP (Silvex)	2 [a]	12.11	12.12	26.6		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	GOA4782-CC4767	**Injection Date:**	03/18/19
Lab File ID:	OA138918.D	**Injection Time:**	10:13
Instrument ID:	GCOA	**Method:**	SW846 8151A

Sample ID:	OP19148-MS	**Injection Date:**	03/18/19
Lab File ID:	OA138923.D	**Injection Time:**	12:34
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4,5-TP (Silvex)	1 [a]	10.05	10.09	18.0		ug/kg	2.2
2,4,5-TP (Silvex)	2	12.10	12.12	18.4		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	GOA4782-CC4767	**Injection Date:**	03/18/19
Lab File ID:	OA138918.D	**Injection Time:**	10:13
Instrument ID:	GCOA	**Method:**	SW846 8151A

Sample ID:	OP19148-MSD	**Injection Date:**	03/18/19
Lab File ID:	OA138924.D	**Injection Time:**	13:03
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
2,4,5-TP (Silvex)	1 [a]	10.05	10.09	17.7		ug/kg	0.0
2,4,5-TP (Silvex)	2	12.10	12.12	17.7		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	JC84381-1	**Injection Date:**	03/18/19
Lab File ID:	6G63678.D	**Injection Time:**	11:32
Client ID:	NWIRP-S1-WC-CF-014		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
alpha-Chlordane	1	5.24	5.24	11.4		ug/kg	41.3
alpha-Chlordane [a]	2 [b]	6.47	6.47	7.5		ug/kg	
Dieldrin [a]	1 [b]	5.75	5.75	1.6		ug/kg	51.2
Dieldrin [a]	2	7.00	7.00	2.7		ug/kg	
4,4'-DDE	1 [b]	5.36	5.36	2.2		ug/kg	4.4
4,4'-DDE	2	6.73	6.73	2.3		ug/kg	
4,4'-DDT	1 [b]	6.62	6.63	2.4		ug/kg	37.3
4,4'-DDT	2	8.22	8.22	3.5		ug/kg	
Heptachlor	1 [b]	3.84	3.84	0.92		ug/kg	34.2
Heptachlor	2	4.67	4.67	1.3		ug/kg	

(a) More than 40 % RPD for detected concentrations between the two GC columns.
(b) Final result reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	JC84381-2	**Injection Date:**	03/18/19
Lab File ID:	6G63679.D	**Injection Time:**	11:49
Client ID:	NWIRP-S1-WC-CF-015		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.18	4.18	1.4		ug/kg	25.0
Aldrin	2	5.13	5.13	1.8		ug/kg	
alpha-Chlordane	1	5.24	5.24	12.2		ug/kg	55.5
alpha-Chlordane [b]	2 [a]	6.47	6.47	6.9		ug/kg	
Dieldrin [b]	1 [a]	5.75	5.75	1.7		ug/kg	45.5
Dieldrin [b]	2	7.00	7.00	2.7		ug/kg	
4,4'-DDE	1	5.36	5.36	2.5		ug/kg	17.4
4,4'-DDE	2 [a]	6.73	6.73	2.1		ug/kg	
4,4'-DDT [b]	1 [a]	6.62	6.63	2.5		ug/kg	50.7
4,4'-DDT [b]	2	8.22	8.22	4.2		ug/kg	
Heptachlor	1 [a]	3.84	3.84	1.0		ug/kg	26.1
Heptachlor	2	4.67	4.67	1.3		ug/kg	

(a) Final result reported from this column.
(b) More than 40 % RPD for detected concentrations between the two GC columns.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	JC84381-3	**Injection Date:**	03/18/19
Lab File ID:	6G63682.D	**Injection Time:**	12:42
Client ID:	NWIRP-S1-WC-CF-016		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.18	4.18	1.9		ug/kg	19.0
Aldrin	2	5.13	5.13	2.3		ug/kg	
gamma-BHC (Lindane)	1	3.34	3.33	1.7		ug/kg	78.7
gamma-BHC (Lindane) [b]	2 [a]	4.08	4.09	0.74		ug/kg	
alpha-Chlordane	1	5.24	5.24	15.3		ug/kg	53.9
alpha-Chlordane [b]	2 [a]	6.47	6.47	8.8		ug/kg	
Dieldrin	1 [a]	5.75	5.75	2.8		ug/kg	16.4
Dieldrin	2	7.00	7.00	3.3		ug/kg	
4,4'-DDD [b]	1 [a]	6.20	6.20	0.70		ug/kg	52.6
4,4'-DDD [b]	2	7.69	7.69	1.2		ug/kg	
4,4'-DDE	1	5.36	5.36	2.9		ug/kg	3.5
4,4'-DDE	2 [a]	6.73	6.73	2.8		ug/kg	
4,4'-DDT	1 [a]	6.62	6.63	3.2		ug/kg	33.8
4,4'-DDT	2	8.22	8.22	4.5		ug/kg	
Heptachlor	1 [a]	3.84	3.84	1.5		ug/kg	12.5
Heptachlor	2	4.67	4.67	1.7		ug/kg	

(a) Final result reported from this column.
(b) More than 40 % RPD for detected concentrations between the two GC columns.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	JC84381-4	**Injection Date:**	03/18/19
Lab File ID:	6G63683.D	**Injection Time:**	12:59
Client ID:	NWIRP-S1-WC-CF-017		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.18	4.18	1.2		ug/kg	22.2
Aldrin	2	5.13	5.13	1.5		ug/kg	
alpha-Chlordane	1	5.24	5.24	9.7		ug/kg	42.5
alpha-Chlordane [b]	2 [a]	6.47	6.47	6.3		ug/kg	
Dieldrin	1 [a]	5.75	5.75	1.5		ug/kg	37.8
Dieldrin	2	7.00	7.00	2.2		ug/kg	
4,4'-DDD [b]	1 [a]	6.20	6.20	0.77		ug/kg	58.1
4,4'-DDD [b]	2	7.69	7.69	1.4		ug/kg	
4,4'-DDE	1 [a]	5.36	5.36	1.6		ug/kg	11.8
4,4'-DDE	2	6.73	6.73	1.8		ug/kg	
4,4'-DDT	1 [a]	6.62	6.63	2.0		ug/kg	40.0
4,4'-DDT	2	8.22	8.22	3.0		ug/kg	
Heptachlor [b]	1 [a]	3.84	3.84	0.83		ug/kg	44.1
Heptachlor [b]	2	4.67	4.67	1.3		ug/kg	

(a) Final result reported from this column.
(b) More than 40 % RPD for detected concentrations between the two GC columns.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	JC84381-5	**Injection Date:**	03/18/19
Lab File ID:	6G63684.D	**Injection Time:**	13:17
Client ID:	NWIRP-S1-WC-CF-018		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin [a]	1 [b]	4.18	4.18	0.78		ug/kg	42.4
Aldrin [a]	2	5.13	5.13	1.2		ug/kg	
alpha-Chlordane	1	5.24	5.24	7.0		ug/kg	37.3
alpha-Chlordane	2 [b]	6.47	6.47	4.8		ug/kg	
Dieldrin [a]	1 [b]	5.75	5.75	0.75		ug/kg	53.7
Dieldrin [a]	2	7.00	7.00	1.3		ug/kg	
4,4'-DDE	1	5.36	5.36	1.4		ug/kg	0.0
4,4'-DDE	2 [b]	6.73	6.73	1.4		ug/kg	
4,4'-DDT	1 [b]	6.62	6.63	1.6		ug/kg	22.2
4,4'-DDT	2	8.22	8.22	2.0		ug/kg	
Heptachlor	1 [b]	3.84	3.84	0.66	J	ug/kg	28.6
Heptachlor	2	4.67	4.67	0.88		ug/kg	

(a) More than 40 % RPD for detected concentrations between the two GC columns.
(b) Final result reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP19157-BS1	**Injection Date:**	03/18/19
Lab File ID:	6G63677.D	**Injection Time:**	11:14
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.18	4.18	14.7		ug/kg	8.5
Aldrin	2	5.13	5.13	16.0		ug/kg	
alpha-BHC	1 [a]	3.03	3.03	14.8		ug/kg	8.4
alpha-BHC	2	3.66	3.66	16.1		ug/kg	
beta-BHC	1 [a]	3.41	3.41	14.6		ug/kg	14.0
beta-BHC	2	4.17	4.17	16.8		ug/kg	
delta-BHC	1 [a]	3.60	3.60	14.4		ug/kg	8.6
delta-BHC	2	4.57	4.57	15.7		ug/kg	
gamma-BHC (Lindane)	1 [a]	3.33	3.33	14.8		ug/kg	7.2
gamma-BHC (Lindane)	2	4.09	4.09	15.9		ug/kg	
alpha-Chlordane	1 [a]	5.24	5.24	15.6		ug/kg	2.5
alpha-Chlordane	2	6.47	6.47	16.0		ug/kg	
Dieldrin	1 [a]	5.75	5.75	15.4		ug/kg	5.1
Dieldrin	2	7.00	7.00	16.2		ug/kg	
4,4'-DDD	1 [a]	6.20	6.20	14.9		ug/kg	10.2
4,4'-DDD	2	7.69	7.69	16.5		ug/kg	
4,4'-DDE	1 [a]	5.36	5.36	15.1		ug/kg	5.2
4,4'-DDE	2	6.73	6.73	15.9		ug/kg	
4,4'-DDT	1 [a]	6.62	6.63	15.9		ug/kg	8.4
4,4'-DDT	2	8.22	8.22	17.3		ug/kg	
Endrin	1 [a]	6.08	6.08	15.9		ug/kg	6.1
Endrin	2	7.51	7.51	16.9		ug/kg	
Endosulfan sulfate	1 [a]	7.73	7.73	14.9		ug/kg	9.0
Endosulfan sulfate	2	8.90	8.90	16.3		ug/kg	
Endosulfan-I	1 [a]	5.42	5.42	14.5		ug/kg	8.6
Endosulfan-I	2	6.56	6.56	15.8		ug/kg	
Endosulfan-II	1 [a]	6.40	6.40	13.7		ug/kg	9.7
Endosulfan-II	2	7.86	7.86	15.1		ug/kg	
Heptachlor	1 [a]	3.84	3.84	14.6		ug/kg	7.9
Heptachlor	2	4.67	4.67	15.8		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP19157-MS	**Injection Date:**	03/18/19
Lab File ID:	6G63680.D	**Injection Time:**	12:07
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.18	4.18	13.2		ug/kg	8.7
Aldrin	2	5.13	5.13	14.4		ug/kg	
alpha-BHC	1 [a]	3.03	3.03	11.8		ug/kg	14.2
alpha-BHC	2	3.66	3.66	13.6		ug/kg	
beta-BHC	1 [a]	3.41	3.41	10.8		ug/kg	22.2
beta-BHC	2	4.17	4.17	13.5		ug/kg	
delta-BHC	1 [a]	3.60	3.60	11.8		ug/kg	3.3
delta-BHC	2	4.57	4.57	12.2		ug/kg	
gamma-BHC (Lindane)	1 [a]	3.34	3.33	12.7		ug/kg	6.8
gamma-BHC (Lindane)	2	4.09	4.09	13.6		ug/kg	
alpha-Chlordane	1	5.24	5.24	22.3		ug/kg	14.9
alpha-Chlordane	2 [a]	6.47	6.47	19.2		ug/kg	
Dieldrin	1 [a]	5.75	5.75	14.4		ug/kg	10.5
Dieldrin	2	7.00	7.00	16.0		ug/kg	
4,4'-DDD	1 [a]	6.20	6.20	12.3		ug/kg	17.8
4,4'-DDD	2	7.68	7.69	14.7		ug/kg	
4,4'-DDE	1	5.36	5.36	13.7		ug/kg	7.0
4,4'-DDE	2 [a]	6.73	6.73	14.7		ug/kg	
4,4'-DDT	1 [a]	6.62	6.63	16.0		ug/kg	10.7
4,4'-DDT	2	8.22	8.22	17.8		ug/kg	
Endrin	1 [a]	6.08	6.08	13.2		ug/kg	5.2
Endrin	2	7.51	7.51	13.9		ug/kg	
Endosulfan sulfate	1 [a]	7.73	7.73	10.7		ug/kg	34.1
Endosulfan sulfate	2	8.90	8.90	15.1		ug/kg	
Endosulfan-I	1 [a]	5.42	5.42	12.1		ug/kg	11.7
Endosulfan-I	2	6.56	6.56	13.6		ug/kg	
Endosulfan-II	1 [a]	6.40	6.40	10.5		ug/kg	21.3
Endosulfan-II	2	7.86	7.86	13.0		ug/kg	
Heptachlor	1 [a]	3.84	3.84	14.3		ug/kg	5.4
Heptachlor	2	4.67	4.67	15.1		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

Sample ID:	OP19157-MSD	**Injection Date:**	03/18/19
Lab File ID:	6G63681.D	**Injection Time:**	12:24
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aldrin	1 [a]	4.18	4.18	17.5		ug/kg	0.6
Aldrin	2	5.13	5.13	17.4		ug/kg	
alpha-BHC	1 [a]	3.04	3.03	16.8		ug/kg	0.6
alpha-BHC	2	3.66	3.66	16.7		ug/kg	
beta-BHC	1 [a]	3.41	3.41	14.4		ug/kg	11.1
beta-BHC	2	4.17	4.17	16.1		ug/kg	
delta-BHC	1 [a]	3.60	3.60	15.2		ug/kg	1.3
delta-BHC	2	4.57	4.57	15.4		ug/kg	
gamma-BHC (Lindane)	1 [a]	3.34	3.33	16.8		ug/kg	1.2
gamma-BHC (Lindane)	2	4.09	4.09	17.0		ug/kg	
alpha-Chlordane	1	5.24	5.24	26.6		ug/kg	19.8
alpha-Chlordane	2 [a]	6.47	6.47	21.8		ug/kg	
Dieldrin	1 [a]	5.75	5.75	18.5		ug/kg	4.2
Dieldrin	2	7.00	7.00	19.3		ug/kg	
4,4'-DDD	1 [a]	6.20	6.20	16.2		ug/kg	7.7
4,4'-DDD	2	7.69	7.69	17.5		ug/kg	
4,4'-DDE	1	5.36	5.36	17.0		ug/kg	0.0
4,4'-DDE	2 [a]	6.73	6.73	17.0		ug/kg	
4,4'-DDT	1 [a]	6.63	6.63	19.5		ug/kg	4.5
4,4'-DDT	2	8.22	8.22	20.4		ug/kg	
Endrin	1 [a]	6.08	6.08	17.7		ug/kg	3.3
Endrin	2	7.51	7.51	18.3		ug/kg	
Endosulfan sulfate	1 [a]	7.73	7.73	14.1		ug/kg	20.4
Endosulfan sulfate	2	8.90	8.90	17.3		ug/kg	
Endosulfan-I	1 [a]	5.43	5.42	15.7		ug/kg	3.1
Endosulfan-I	2	6.56	6.56	16.2		ug/kg	
Endosulfan-II	1 [a]	6.41	6.40	14.0		ug/kg	6.9
Endosulfan-II	2	7.86	7.86	15.0		ug/kg	
Heptachlor	1 [a]	3.84	3.84	17.5		ug/kg	0.6
Heptachlor	2	4.67	4.67	17.4		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G5G2082-CC2067	**Injection Date:**	03/18/19
Lab File ID:	5G86862.D	**Injection Time:**	09:37
Instrument ID:	GC5G	**Method:**	SW846 8082A

Sample ID:	OP19156-BS1	**Injection Date:**	03/18/19
Lab File ID:	5G86865.D	**Injection Time:**	11:18
Client ID:	Blank Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1			140		ug/kg	5.1
Aroclor 1016	2 [a]			133		ug/kg	
AR1016-A	1	4.30	4.31	135		ug/kg	
AR1016-A	2	5.57	5.57	140		ug/kg	
AR1016-B	1	5.04	5.04	148		ug/kg	
AR1016-B	2	6.61	6.61	135		ug/kg	
AR1016-C	1	6.11	6.11	134		ug/kg	
AR1016-C	2	7.88	7.88	130		ug/kg	
AR1016-D	1	6.42	6.43	142		ug/kg	
AR1016-D	2	8.26	8.26	130		ug/kg	
AR1016-E	1	7.47	7.47	143		ug/kg	
AR1016-E	2	9.66	9.66	130		ug/kg	
Aroclor 1260	1			135		ug/kg	6.1
Aroclor 1260	2 [a]			127		ug/kg	
AR1260-A	1	12.65	12.65	120		ug/kg	
AR1260-A	2	15.48	15.48	113		ug/kg	
AR1260-B	1	13.02	13.03	149		ug/kg	
AR1260-B	2	15.77	15.77	139		ug/kg	
AR1260-C	1	13.78	13.79	146		ug/kg	
AR1260-C	2	16.74	16.74	141		ug/kg	
AR1260-D	1	14.78	14.79	125		ug/kg	
AR1260-D	2	17.58	17.58	128		ug/kg	
AR1260-E	1	15.66	15.66	135		ug/kg	
AR1260-E	2	18.79	18.80	113		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G5G2082-CC2067	**Injection Date:**	03/18/19
Lab File ID:	5G86862.D	**Injection Time:**	09:37
Instrument ID:	GC5G	**Method:**	SW846 8082A

Sample ID:	OP19156-MS	**Injection Date:**	03/18/19
Lab File ID:	5G86867.D	**Injection Time:**	12:25
Client ID:	Matrix Spike		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			129		ug/kg	9.8
Aroclor 1016	2			117		ug/kg	
AR1016-A	1	4.30	4.31	152		ug/kg	
AR1016-A	2	5.57	5.57	123		ug/kg	
AR1016-B	1	5.03	5.04	160		ug/kg	
AR1016-B	2	6.61	6.61	134		ug/kg	
AR1016-C	1	6.11	6.11	114		ug/kg	
AR1016-C	2	7.88	7.88	109		ug/kg	
AR1016-D	1	6.42	6.43	125		ug/kg	
AR1016-D	2	8.26	8.26	108		ug/kg	
AR1016-E	1	7.47	7.47	96.7		ug/kg	
AR1016-E	2	9.66	9.66	112		ug/kg	
Aroclor 1260	1 [a]			124		ug/kg	13.8
Aroclor 1260	2			108		ug/kg	
AR1260-A	1	12.64	12.65	106		ug/kg	
AR1260-A	2	15.47	15.48	98.8		ug/kg	
AR1260-B	1	13.03	13.03	119		ug/kg	
AR1260-B	2	15.77	15.77	108		ug/kg	
AR1260-C	1	13.78	13.79	177		ug/kg	
AR1260-C	2	16.74	16.74	111		ug/kg	
AR1260-D	1	14.78	14.79	111		ug/kg	
AR1260-D	2	17.57	17.58	109		ug/kg	
AR1260-E	1	15.65	15.66	109		ug/kg	
AR1260-E	2	18.79	18.80	112		ug/kg	

(a) QC results reported from this column.

GC Identification Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G5G2082-CC2067	**Injection Date:**	03/18/19
Lab File ID:	5G86862.D	**Injection Time:**	09:37
Instrument ID:	GC5G	**Method:**	SW846 8082A

Sample ID:	OP19156-MSD	**Injection Date:**	03/18/19
Lab File ID:	5G86868.D	**Injection Time:**	12:58
Client ID:	Matrix Spike Duplicate		

Compound	Column	RT	StdRT	Conc	Q	Units	RPD Conc
Aroclor 1016	1 [a]			144		ug/kg	2.1
Aroclor 1016	2			141		ug/kg	
AR1016-A	1	4.30	4.31	153		ug/kg	
AR1016-A	2	5.57	5.57	137		ug/kg	
AR1016-B	1	5.03	5.04	164		ug/kg	
AR1016-B	2	6.62	6.61	143		ug/kg	
AR1016-C	1	6.11	6.11	139		ug/kg	
AR1016-C	2	7.88	7.88	126		ug/kg	
AR1016-D	1	6.42	6.43	161		ug/kg	
AR1016-D	2	8.26	8.26	141		ug/kg	
AR1016-E	1	7.47	7.47	102		ug/kg	
AR1016-E	2	9.66	9.66	157		ug/kg	
Aroclor 1260	1 [a]			142		ug/kg	8.8
Aroclor 1260	2			130		ug/kg	
AR1260-A	1	12.64	12.65	122		ug/kg	
AR1260-A	2	15.48	15.48	124		ug/kg	
AR1260-B	1	13.03	13.03	134		ug/kg	
AR1260-B	2	15.77	15.77	141		ug/kg	
AR1260-C	1	13.78	13.79	219		ug/kg	
AR1260-C	2	16.74	16.74	136		ug/kg	
AR1260-D	1	14.78	14.79	114		ug/kg	
AR1260-D	2	17.57	17.58	124		ug/kg	
AR1260-E	1	15.65	15.66	122		ug/kg	
AR1260-E	2	18.79	18.80	126		ug/kg	

(a) QC results reported from this column.

Surrogate Recovery Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Method: SW846 8151A **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
JC84381-1	OA138922.D	67	69
JC84381-2	OA138928.D	71	80
JC84381-3	OA138929.D	55	56
JC84381-4	OA138930.D	69	74
JC84381-5	OA138931.D	59	61
OP19148-BS1	OA138921.D	96	101
OP19148-MB1	OA138920.D	94	93
OP19148-MS	OA138923.D	52	50
OP19148-MSD	OA138924.D	52	49

Surrogate Compounds	Recovery Limits
S1 = 2,4-DCAA	10-159%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

Surrogate Recovery Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Method: SW846 8081B **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC84381-1	6G63678.D	67	80	68	79
JC84381-2	6G63679.D	72	72	63	70
JC84381-3	6G63682.D	78	83	64	72
JC84381-4	6G63683.D	67	72	56	63
JC84381-5	6G63684.D	67	71	60	60
OP19157-BS1	6G63677.D	87	90	81	85
OP19157-MB1	6G63676.D	81	83	83	83
OP19157-MS	6G63680.D	59	69	52	65
OP19157-MSD	6G63681.D	93	87	72	80

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	25-135%
S2 = Decachlorobiphenyl	10-156%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Surrogate Recovery Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Method: SW846 8082A **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]	S2 [a]	S2 [b]
JC84381-1	5G86866.D	78	76	63	60
JC84381-2	5G86869.D	78	76	63	57
JC84381-3	5G86870.D	79	78	64	58
JC84381-4	5G86871.D	73	71	60	54
JC84381-5	5G86872.D	70	69	55	50
OP19156-BS1	5G86865.D	89	86	81	74
OP19156-MB1	5G86864.D	88	84	77	71
OP19156-MS	5G86867.D	74	72	55	54
OP19156-MSD	5G86868.D	80	78	62	56

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	31-146%
S2 = Decachlorobiphenyl	17-164%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	GOA4782-CC4767	**Injection Date:**	03/18/19
Lab File ID:	OA138918.D	**Injection Time:**	10:13
Instrument ID:	GCOA	**Method:**	SW846 8151A

	S1 [a] RT	S1 [b] RT
Check Std	8.57	7.27

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP19148-MB1	OA138920.D	03/18/19	11:10	8.58	7.28
OP19148-BS1	OA138921.D	03/18/19	11:38	8.56	7.26
JC84381-1	OA138922.D	03/18/19	12:06	8.58	7.29
OP19148-MS	OA138923.D	03/18/19	12:34	8.57	7.26
OP19148-MSD	OA138924.D	03/18/19	13:03	8.57	7.26

Surrogate Compounds

S1 = 2,4-DCAA

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	GOA4782-CC4767	**Injection Date:**	03/18/19
Lab File ID:	OA138926.D	**Injection Time:**	13:59
Instrument ID:	GCOA	**Method:**	SW846 8151A

	S1 [a] RT	S1 [b] RT
Check Std	8.57	7.27

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
JC84381-2	OA138928.D	03/18/19	14:56	8.58	7.29
JC84381-3	OA138929.D	03/18/19	15:24	8.58	7.30
JC84381-4	OA138930.D	03/18/19	15:53	8.58	7.28
JC84381-5	OA138931.D	03/18/19	16:21	8.58	7.29

Surrogate Compounds

S1 = 2,4-DCAA

(a) Retention time from GC signal #2
(b) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G6G1954-CC1951	**Injection Date:**	03/18/19
Lab File ID:	6G63672.D	**Injection Time:**	09:42
Instrument ID:	GC6G	**Method:**	SW846 8081B

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	2.55	2.99	9.99	11.98

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP19157-MB1	6G63676.D	03/18/19	10:57	2.55	2.99	9.99	11.98
OP19157-BS1	6G63677.D	03/18/19	11:14	2.55	2.99	9.98	11.98
JC84381-1	6G63678.D	03/18/19	11:32	2.56	2.99	9.99	11.98
JC84381-2	6G63679.D	03/18/19	11:49	2.56	2.99	9.99	11.98
OP19157-MS	6G63680.D	03/18/19	12:07	2.56	2.99	9.98	11.98
OP19157-MSD	6G63681.D	03/18/19	12:24	2.56	2.99	9.99	11.98
JC84381-3	6G63682.D	03/18/19	12:42	2.56	2.99	9.98	11.98
JC84381-4	6G63683.D	03/18/19	12:59	2.55	2.99	9.99	11.98
JC84381-5	6G63684.D	03/18/19	13:17	2.56	2.99	9.99	11.98

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Check Std:	G5G2082-CC2067	**Injection Date:**	03/18/19
Lab File ID:	5G86862.D	**Injection Time:**	09:37
Instrument ID:	GC5G	**Method:**	SW846 8082A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	3.63	4.38	19.25	22.66

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP19156-MB1	5G86864.D	03/18/19	10:44	3.62	4.38	19.25	22.66
OP19156-BS1	5G86865.D	03/18/19	11:18	3.62	4.38	19.25	22.66
JC84381-1	5G86866.D	03/18/19	11:51	3.62	4.38	19.24	22.65
OP19156-MS	5G86867.D	03/18/19	12:25	3.62	4.38	19.25	22.66
OP19156-MSD	5G86868.D	03/18/19	12:58	3.62	4.38	19.24	22.66
JC84381-2	5G86869.D	03/18/19	13:31	3.62	4.38	19.24	22.65
JC84381-3	5G86870.D	03/18/19	14:05	3.62	4.38	19.24	22.66
JC84381-4	5G86871.D	03/18/19	14:39	3.62	4.38	19.24	22.66
JC84381-5	5G86872.D	03/18/19	15:12	3.62	4.38	19.24	22.66

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: JC84381 **Sample:** G5G2067-ICC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86323.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Response Factor Report GC5G

Method : C:\MSDCHEM\1\METHODS\5PCB2067.M (ChemStation Integrator)
Title :
Last Update : Wed Feb 27 08:06:42 2019
Response via : Initial Calibration

Calibration Files
250 =5G86321.d 500 =5G86322.d 1000=5G86323.d 2000=5G86324.d
3000=5G86325.d 50 =5G86320.d =

	Compound	250	500	1000	2000	3000	50	Avg	%RSD
1)S	Tetrachloro-m-xyl	3.535	3.552	3.424	3.251	3.148	3.763	3.445 E7	6.45
2)	AR1221-A			1.858				1.858 E5	0.00
3)	AR1221-B			3.377				3.377 E5	0.00
4)	AR1221-C			1.005				1.005 E6	0.00
5)	AR1221-D			1.179				1.179 E5	0.00
6)	AR1221-E			1.792				1.792 E5	0.00
7)	AR1232-A			7.849				7.849 E5	0.00
8)	AR1232-B			3.782				3.782 E5	0.00
9)	AR1232-C			1.173				1.173 E6	0.00
10)	AR1232-D			4.543				4.543 E5	0.00
11)	AR1232-E			4.386				4.386 E5	0.00
12)	AR1242-A			8.469				8.469 E5	0.00
13)	AR1242-B			1.693				1.693 E6	0.00
14)	AR1242-C			7.246				7.246 E5	0.00
15)	AR1242-D			7.717				7.717 E5	0.00
16)	AR1242-E			6.432				6.432 E5	0.00
17)	AR1248-A			4.646				4.646 E5	0.00
18)	AR1248-B			1.103				1.103 E6	0.00
19)	AR1248-C			1.232				1.232 E6	0.00
20)	AR1248-D			1.243				1.243 E6	0.00
21)	AR1248-E			7.421				7.421 E5	0.00
22)	AR1248-F			1.184				1.184 E6	0.00
23)	AR1248-G			9.000				9.000 E5	0.00
24)	AR1254-A			9.753				9.753 E5	0.00
25)	AR1254-B			1.280				1.280 E6	0.00
26)	AR1254-C			1.071				1.071 E6	0.00
27)	AR1254-D			1.824				1.824 E6	0.00
28)	AR1254-E			1.585				1.585 E6	0.00
29)	AR1254-F			1.343				1.343 E6	0.00
30)	AR1254-G			1.962				1.962 E6	0.00
31)	AR1262-A			1.497				1.497 E6	0.00
32)	AR1262-B			2.048				2.048 E6	0.00
33)	AR1262-C			1.804				1.804 E6	0.00
34)	AR1262-D			4.020				4.020 E6	0.00
35)	AR1262-E			5.001				5.001 E6	0.00
36)	AR1268-A			4.954				4.954 E6	0.00
37)	AR1268-B			4.875				4.875 E6	0.00
38)	AR1268-C			4.191				4.191 E6	0.00
39)	AR1268-D			1.777				1.777 E6	0.00
40)	AR1268-E			1.296				1.296 E7	0.00
41)	AR1016-A	6.454	6.426	5.863	5.514	5.411	5.817	5.914 E5	7.48
42)	AR1016-B	1.143	1.103	1.030	0.963	0.916	1.227	1.064 E6	10.93
43)	AR1016-C	2.397	2.395	2.296	2.012	1.956	2.733	2.298 E6	12.41
44)	AR1016-D	0.974	0.966	0.907	0.866	0.830	1.055	0.933 E6	8.75
45)	AR1016-E	1.037	1.021	0.938	0.914	0.881	1.088	0.980 E6	8.20
46)	AR1260-A	2.688	2.743	2.654	2.548	2.493	3.030	2.693 E6	7.02
47)	AR1260-B	1.364	1.371	1.330	1.264	1.234	1.544	1.351 E6	8.07

Initial Calibration Summary

Job Number: JC84381 **Sample:** G5G2067-ICC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86323.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

48)	AR1260-C	1.375	1.430	1.394	1.336	1.263	1.575	1.396	E6	7.52
49)	AR1260-D	3.264	3.361	3.327	3.235	3.196	3.570	3.326	E6	4.04
50)	AR1260-E	3.551	3.627	3.544	3.411	3.343	3.892	3.561	E6	5.39
51)S	Decachlorobipheny	3.459	3.565	3.493	3.304	3.265	4.021	3.518	E7	7.72

Signal #2

1)S	Tetrachloro-m-xyl	1.591	1.592	1.600	1.569	1.557	1.694	1.600	E7	3.03
2)	AR1221-A			9.623				9.623	E4	0.00
3)	AR1221-B			1.647				1.647	E5	0.00
4)	AR1221-C			4.110				4.110	E5	0.00
5)	AR1221-D			8.703				8.703	E4	0.00
6)	AR1221-E			4.571				4.571	E4	0.00
7)	AR1232-A			3.234				3.234	E5	0.00
8)	AR1232-B			2.618				2.618	E5	0.00
9)	AR1232-C			5.455				5.455	E5	0.00
10)	AR1232-D			2.165				2.165	E5	0.00
11)	AR1232-E			1.577				1.577	E5	0.00
12)	AR1242-A			4.011				4.011	E5	0.00
13)	AR1242-B			8.821				8.821	E5	0.00
14)	AR1242-C			3.436				3.436	E5	0.00
15)	AR1242-D			2.761				2.761	E5	0.00
16)	AR1242-E			3.462				3.462	E5	0.00
17)	AR1248-A			2.353				2.353	E5	0.00
18)	AR1248-B			6.137				6.137	E5	0.00
19)	AR1248-C			3.452				3.452	E5	0.00
20)	AR1248-D			4.624				4.624	E5	0.00
21)	AR1248-E			5.178				5.178	E5	0.00
22)	AR1248-F			6.187				6.187	E5	0.00
23)	AR1248-G			5.806				5.806	E5	0.00
24)	AR1254-A			5.546				5.546	E5	0.00
25)	AR1254-B			5.998				5.998	E5	0.00
26)	AR1254-C			4.717				4.717	E5	0.00
27)	AR1254-D			8.998				8.998	E5	0.00
28)	AR1254-E			6.578				6.578	E5	0.00
29)	AR1254-F			7.906				7.906	E5	0.00
30)	AR1254-G			9.703				9.703	E5	0.00
31)	AR1262-A			6.873				6.873	E5	0.00
32)	AR1262-B			1.052				1.052	E6	0.00
33)	AR1262-C			9.106				9.106	E5	0.00
34)	AR1262-D			2.071				2.071	E6	0.00
35)	AR1262-E			2.421				2.421	E6	0.00
36)	AR1268-A			2.628				2.628	E6	0.00
37)	AR1268-B			2.529				2.529	E6	0.00
38)	AR1268-C			2.216				2.216	E6	0.00
39)	AR1268-D			8.799				8.799	E5	0.00
40)	AR1268-E			6.899				6.899	E6	0.00
41)	AR1016-A	2.641	2.707	2.612	2.392	2.275	3.011	2.606	E5	9.87
42)	AR1016-B	5.437	5.265	4.959	4.632	4.444	6.537	5.212	E5	14.35
43)	AR1016-C	1.174	1.138	1.108	1.065	1.039	1.310	1.139	E6	8.52
44)	AR1016-D	4.639	4.486	4.333	4.101	3.982	5.138	4.446	E5	9.35
45)	AR1016-E	3.837	3.553	3.484	3.257	3.172	4.014	3.553	E5	9.17
46)	AR1260-A	1.323	1.329	1.305	1.277	1.266	1.488	1.332	E6	6.07
47)	AR1260-B	7.176	7.014	6.968	6.640	6.535	7.982	7.053	E5	7.30
48)	AR1260-C	6.913	6.810	6.837	6.540	6.450	7.607	6.859	E5	5.95
49)	AR1260-D	1.708	1.747	1.763	1.737	1.720	1.848	1.754	E6	2.85
50)	AR1260-E	1.712	1.724	1.701	1.676	1.660	1.872	1.724	E6	4.40
51)S	Decachlorobipheny	1.761	1.784	1.762	1.737	1.714	2.053	1.802	E7	6.96

(#) = Out of Range

Initial Calibration Summary

Job Number: JC84381 **Sample:** G5G2067-ICC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86323.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

5PCB2067.M Wed Feb 27 08:12:59 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86330.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\G5G2067\5G86330.d\ECD1A.ch Vial: 13
Signal #2 : C:\msdchem\1\DATA\G5G2067\5G86330.d\ECD2B.ch
Acq On : 25 Feb 2019 3:36 pm Operator: rebeccak
Sample : icv2067-1000 Inst : GC5G
Misc : op18609,G5G2067,10.2,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB2067.M (ChemStation Integrator)
Title :
Last Update : Wed Feb 27 08:06:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	34.453	31.960 E6	7.2	93	0.03	3.63- 3.70
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A	591.426	602.377 E3	-1.9	103	0.03	4.31- 4.38

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86330.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42		AR1016-B	1.064	1.048 E6	1.5	102	0.03	5.04- 5.11
43		AR1016-C	2.298	2.133 E6	7.2	93	0.03	6.11- 6.17
44		AR1016-D	933.041	903.117 E3	3.2	100	0.03	6.43- 6.49
45		AR1016-E	0.980	0.936 E6	4.5	100	0.02	7.47- 7.53
46		AR1260-A	2.693	2.375 E6	11.8	90	0.02	12.63-12.69
47		AR1260-B	1.351	1.424 E6	-5.4	107	0.02	13.02-13.08
48		AR1260-C	1.396	1.470 E6	-5.3	105	0.01	13.77-13.83
49		AR1260-D	3.326	3.550 E6	-6.7	107	0.01	14.77-14.83
50		AR1260-E	3.561	3.637 E6	-2.1	103	0.01	15.64-15.70
51	S	Decachlorobiphenyl	35.179	35.213 E6	-0.1	101	0.01	19.23-19.29

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	16.005	14.751 E6	7.8	92	0.00	4.37- 4.43
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	260.630	255.719 E3	1.9	98	0.00	5.56- 5.62
42		AR1016-B	521.244	492.044 E3	5.6	99	0.00	6.60- 6.66
43		AR1016-C	1.139	1.104 E6	3.1	100	0.00	7.86- 7.92
44		AR1016-D	444.643	422.759 E3	4.9	98	0.00	8.24- 8.30
45		AR1016-E	355.274	338.483 E3	4.7	97	0.00	9.64- 9.70
46		AR1260-A	1.332	1.186 E6	11.0	91	0.00	15.45-15.51
47		AR1260-B	705.254	737.346 E3	-4.6	106	0.00	15.75-15.81

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86330.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

48		AR1260-C	685.940	722.446	E3	-5.3	106	0.00	16.72-16.78
49		AR1260-D	1.754	1.875	E6	-6.9	106	0.00	17.56-17.62
50		AR1260-E	1.724	1.742	E6	-1.0	102	0.00	18.77-18.83
51	S	Decachlorobiphenyl	18.019	18.766	E6	-4.1	107	0.00	22.64-22.70

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G86323.d 5PCB2067.M Wed Feb 27 08:12:41 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86331.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\G5G2067\5G86331.d\ECD1A.ch Vial: 14
Signal #2 : C:\msdchem\1\DATA\G5G2067\5G86331.d\ECD2B.ch
Acq On : 25 Feb 2019 4:08 pm Operator: rebeccak
Sample : icv2067-1000 Inst : GC5G
Misc : op18609,G5G2067,10.2,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB2067.M (ChemStation Integrator)
Title :
Last Update : Wed Feb 27 08:06:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	34.453	41.437 E6	-20.3#	121	0.00	3.60- 3.67
2	AR1221-A	185.838	200.814 E3	-8.1	108	0.00	2.73- 2.93
3	AR1221-B	337.722	319.174 E3	5.5	95	0.00	3.86- 4.06
4	AR1221-C	1.005	0.966 E6	3.9	96	0.00	4.21- 4.41
5	AR1221-D	117.852	105.914 E3	10.1	90	0.00	4.95- 5.15
6	AR1221-E	179.175	155.985 E3	12.9	87	0.00	5.38- 5.58
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A	975.284	965.196 E3	1.0	99	0.00	8.41- 8.61
25	AR1254-B	1.280	1.268 E6	0.9	99	0.00	9.16- 9.36
26	AR1254-C	1.071	1.063 E6	0.7	99	0.00	9.94-10.14
27	AR1254-D	1.824	1.805 E6	1.0	99	0.00	10.30-10.50
28	AR1254-E	1.585	1.601 E6	-1.0	101	0.00	11.14-11.34
29	AR1254-F	1.343	1.336 E6	0.5	99	0.00	11.70-11.90
30	AR1254-G	1.962	1.953 E6	0.5	100	0.00	12.55-12.75
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86331.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42		AR1016-B							
43		AR1016-C							
44		AR1016-D							
45		AR1016-E							
46		AR1260-A							
47		AR1260-B							
48		AR1260-C							
49		AR1260-D							
50		AR1260-E							
51	S	Decachlorobiphenyl	35.179	41.324	E6	-17.5	118	0.00	19.22-19.28
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.005	18.837	E6	-17.7	118	0.00	4.36- 4.42
2		AR1221-A	96.226	102.989	E3	-7.0	107	0.00	3.41- 3.61
3		AR1221-B	164.727	151.596	E3	8.0	92	0.00	4.99- 5.19
4		AR1221-C	411.022	369.836	E3	10.0	90	0.00	5.48- 5.68
5		AR1221-D	87.030	81.713	E3	6.1	94	0.00	6.53- 6.73
6		AR1221-E	45.712	48.059	E3	-5.1	105	0.00	6.69- 6.89
7		AR1232-A							
8		AR1232-B							
9		AR1232-C							
10		AR1232-D							
11		AR1232-E							
12		AR1242-A							
13		AR1242-B							
14		AR1242-C							
15		AR1242-D							
16		AR1242-E							
17		AR1248-A							
18		AR1248-B							
19		AR1248-C							
20		AR1248-D							
21		AR1248-E							
22		AR1248-F							
23		AR1248-G							
24		AR1254-A	554.635	549.645	E3	0.9	99	0.00	10.86-11.06
25		AR1254-B	599.800	594.076	E3	1.0	99	0.00	11.45-11.65
26		AR1254-C	471.734	465.165	E3	1.4	99	0.00	12.54-12.74
27		AR1254-D	899.772	890.117	E3	1.1	99	0.00	12.91-13.11
28		AR1254-E	657.837	652.750	E3	0.8	99	0.00	13.64-13.84
29		AR1254-F	790.576	787.354	E3	0.4	100	0.00	14.77-14.97
30		AR1254-G	970.267	946.241	E3	2.5	98	0.00	15.38-15.58
31		AR1262-A							
32		AR1262-B							
33		AR1262-C							
34		AR1262-D							
35		AR1262-E							
36		AR1268-A							
37		AR1268-B							
38		AR1268-C							
39		AR1268-D							
40		AR1268-E							
41		AR1016-A							
42		AR1016-B							
43		AR1016-C							
44		AR1016-D							
45		AR1016-E							
46		AR1260-A							
47		AR1260-B							

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86331.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

```
48      AR1260-C                              ----------NA----------
49      AR1260-D                              ----------NA----------
50      AR1260-E                              ----------NA----------
51 S    Decachlorobiphenyl       18.019  20.755 E6 -15.2  118    0.00    22.64-22.70
---------------------------------------------------------------------------
---------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    5G86323.d  5PCB2067.M       Wed Feb 27 08:12:43 2019
```

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86332.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\G5G2067\5G86332.d\ECD1A.ch Vial: 15
Signal #2 : C:\msdchem\1\DATA\G5G2067\5G86332.d\ECD2B.ch
Acq On : 25 Feb 2019 4:41 pm Operator: rebeccak
Sample : icv2067-1000 Inst : GC5G
Misc : op18609,G5G2067,10.2,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB2067.M (ChemStation Integrator)
Title :
Last Update : Wed Feb 27 08:06:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	34.453	41.780 E6	-21.3#	122	0.00	3.60- 3.67
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A	784.941	738.263 E3	5.9	94	0.00	4.21- 4.41
8	AR1232-B	378.224	367.323 E3	2.9	97	0.00	5.38- 5.58
9	AR1232-C	1.173	1.088 E6	7.2	93	0.00	6.02- 6.22
10	AR1232-D	454.300	419.459 E3	7.7	92	0.00	6.34- 6.54
11	AR1232-E	438.612	403.701 E3	8.0	92	0.00	7.37- 7.57
12	AR1242-A		----------NA----------				
13	AR1242-B		----------NA----------				
14	AR1242-C		----------NA----------				
15	AR1242-D		----------NA----------				
16	AR1242-E		----------NA----------				
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A	1.497	1.489 E6	0.5	99	0.00	11.71-11.91
32	AR1262-B	2.048	2.038 E6	0.5	100	0.00	12.93-13.13
33	AR1262-C	1.804	1.794 E6	0.6	99	0.00	13.68-13.88
34	AR1262-D	4.020	3.997 E6	0.6	99	0.00	14.68-14.88
35	AR1262-E	5.001	4.965 E6	0.7	99	0.00	15.71-15.91
36	AR1268-A		----------NA----------				
37	AR1268-B		----------NA----------				
38	AR1268-C		----------NA----------				
39	AR1268-D		----------NA----------				
40	AR1268-E		----------NA----------				
41	AR1016-A		----------NA----------				

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86332.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				
48		AR1260-C			----------NA----------				
49		AR1260-D			----------NA----------				
50		AR1260-E			----------NA----------				
51	S	Decachlorobiphenyl	35.179	41.016 E6	-16.6	117	0.00	19.22-19.28	
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.005	19.366 E6	-21.0#	121	0.00	4.36- 4.42	
2		AR1221-A			----------NA----------				
3		AR1221-B			----------NA----------				
4		AR1221-C			----------NA----------				
5		AR1221-D			----------NA----------				
6		AR1221-E			----------NA----------				
7		AR1232-A	323.418	316.534 E3	2.1	98	0.00	5.48- 5.68	
8		AR1232-B	261.843	252.872 E3	3.4	97	0.00	6.53- 6.73	
9		AR1232-C	545.489	512.179 E3	6.1	94	0.00	7.79- 7.99	
10		AR1232-D	216.502	204.853 E3	5.4	95	0.00	8.17- 8.37	
11		AR1232-E	157.656	145.628 E3	7.6	92	0.00	9.57- 9.77	
12		AR1242-A			----------NA----------				
13		AR1242-B			----------NA----------				
14		AR1242-C			----------NA----------				
15		AR1242-D			----------NA----------				
16		AR1242-E			----------NA----------				
17		AR1248-A			----------NA----------				
18		AR1248-B			----------NA----------				
19		AR1248-C			----------NA----------				
20		AR1248-D			----------NA----------				
21		AR1248-E			----------NA----------				
22		AR1248-F			----------NA----------				
23		AR1248-G			----------NA----------				
24		AR1254-A			----------NA----------				
25		AR1254-B			----------NA----------				
26		AR1254-C			----------NA----------				
27		AR1254-D			----------NA----------				
28		AR1254-E			----------NA----------				
29		AR1254-F			----------NA----------				
30		AR1254-G			----------NA----------				
31		AR1262-A	687.279	700.568 E3	-1.9	102	0.00	14.22-14.42	
32		AR1262-B	1.052	1.054 E6	-0.2	100	0.00	15.68-15.88	
33		AR1262-C	910.609	910.094 E3	0.1	100	0.00	16.65-16.85	
34		AR1262-D	2.071	2.077 E6	-0.3	100	0.00	17.48-17.68	
35		AR1262-E	2.421	2.413 E6	0.3	100	0.00	18.68-18.88	
36		AR1268-A			----------NA----------				
37		AR1268-B			----------NA----------				
38		AR1268-C			----------NA----------				
39		AR1268-D			----------NA----------				
40		AR1268-E			----------NA----------				
41		AR1016-A			----------NA----------				
42		AR1016-B			----------NA----------				
43		AR1016-C			----------NA----------				
44		AR1016-D			----------NA----------				
45		AR1016-E			----------NA----------				
46		AR1260-A			----------NA----------				
47		AR1260-B			----------NA----------				

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86332.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

48		AR1260-C				----------NA----------			
49		AR1260-D				----------NA----------			
50		AR1260-E				----------NA----------			
51	S	Decachlorobiphenyl	18.019	21.184	E6	-17.6	120	0.00	22.64-22.70

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G86323.d 5PCB2067.M Wed Feb 27 08:12:45 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86333.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\G5G2067\5G86333.d\ECD1A.ch Vial: 16
Signal #2 : C:\msdchem\1\DATA\G5G2067\5G86333.d\ECD2B.ch
Acq On : 25 Feb 2019 5:13 pm Operator: rebeccak
Sample : icv2067-1000 Inst : GC5G
Misc : op18609,G5G2067,10.2,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB2067.M (ChemStation Integrator)
Title :
Last Update : Wed Feb 27 08:06:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1 S	Tetrachloro-m-xylene	34.453	40.959 E6	-18.9	120	0.00	3.60- 3.67
2	AR1221-A		----------NA----------				
3	AR1221-B		----------NA----------				
4	AR1221-C		----------NA----------				
5	AR1221-D		----------NA----------				
6	AR1221-E		----------NA----------				
7	AR1232-A		----------NA----------				
8	AR1232-B		----------NA----------				
9	AR1232-C		----------NA----------				
10	AR1232-D		----------NA----------				
11	AR1232-E		----------NA----------				
12	AR1242-A	846.863	881.187 E3	-4.1	104	0.00	4.95- 5.15
13	AR1242-B	1.693	1.750 E6	-3.4	103	0.00	6.02- 6.22
14	AR1242-C	724.565	765.527 E3	-5.7	106	0.00	6.34- 6.54
15	AR1242-D	771.695	806.075 E3	-4.5	104	0.00	7.38- 7.58
16	AR1242-E	643.249	693.761 E3	-7.9	108	0.00	8.61- 8.81
17	AR1248-A		----------NA----------				
18	AR1248-B		----------NA----------				
19	AR1248-C		----------NA----------				
20	AR1248-D		----------NA----------				
21	AR1248-E		----------NA----------				
22	AR1248-F		----------NA----------				
23	AR1248-G		----------NA----------				
24	AR1254-A		----------NA----------				
25	AR1254-B		----------NA----------				
26	AR1254-C		----------NA----------				
27	AR1254-D		----------NA----------				
28	AR1254-E		----------NA----------				
29	AR1254-F		----------NA----------				
30	AR1254-G		----------NA----------				
31	AR1262-A		----------NA----------				
32	AR1262-B		----------NA----------				
33	AR1262-C		----------NA----------				
34	AR1262-D		----------NA----------				
35	AR1262-E		----------NA----------				
36	AR1268-A	4.954	4.740 E6	4.3	96	0.00	15.71-15.91
37	AR1268-B	4.875	4.640 E6	4.8	95	0.00	15.83-16.03
38	AR1268-C	4.191	4.002 E6	4.5	95	0.00	16.45-16.65
39	AR1268-D	1.777	1.675 E6	5.7	94	0.00	17.60-17.80
40	AR1268-E	12.962	12.322 E6	4.9	95	0.00	18.54-18.74
41	AR1016-A		----------NA----------				

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86333.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42		AR1016-B		----------NA----------					
43		AR1016-C		----------NA----------					
44		AR1016-D		----------NA----------					
45		AR1016-E		----------NA----------					
46		AR1260-A		----------NA----------					
47		AR1260-B		----------NA----------					
48		AR1260-C		----------NA----------					
49		AR1260-D		----------NA----------					
50		AR1260-E		----------NA----------					
51	S	Decachlorobiphenyl	35.179	98.763	E6	-180.7#	283#	0.00	19.22-19.28
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.005	19.033	E6	-18.9	119	0.00	4.37- 4.43
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A	401.125	411.393	E3	-2.6	103	0.00	6.53- 6.73
13		AR1242-B	882.124	908.141	E3	-2.9	103	0.00	7.79- 7.99
14		AR1242-C	343.561	356.360	E3	-3.7	104	0.00	8.17- 8.37
15		AR1242-D	276.120	277.647	E3	-0.6	101	0.00	9.57- 9.77
16		AR1242-E	346.235	340.708	E3	1.6	98	0.00	10.87-11.07
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A	2.628	2.518	E6	4.2	96	0.00	18.67-18.87
37		AR1268-B	2.529	2.415	E6	4.5	96	0.00	18.82-19.02
38		AR1268-C	2.216	2.119	E6	4.4	96	0.00	19.66-19.86
39		AR1268-D	879.883	841.825	E3	4.3	96	0.00	20.63-20.83
40		AR1268-E	6.899	6.621	E6	4.0	96	0.00	21.71-21.91
41		AR1016-A		----------NA----------					
42		AR1016-B		----------NA----------					
43		AR1016-C		----------NA----------					
44		AR1016-D		----------NA----------					
45		AR1016-E		----------NA----------					
46		AR1260-A		----------NA----------					
47		AR1260-B		----------NA----------					

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86333.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

48		AR1260-C			----------NA----------			
49		AR1260-D			----------NA----------			
50		AR1260-E			----------NA----------			
51	S	Decachlorobiphenyl	18.019	51.683 E6	-186.8#	293#	0.00	22.64-22.70

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G86323.d 5PCB2067.M Wed Feb 27 08:12:47 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86334.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\DATA\G5G2067\5G86334.d\ECD1A.ch Vial: 17
Signal #2 : C:\msdchem\1\DATA\G5G2067\5G86334.d\ECD2B.ch
Acq On : 25 Feb 2019 5:45 pm Operator: rebeccak
Sample : icv2067-1000 Inst : GC5G
Misc : op18609,G5G2067,10.2,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\5PCB2067.M (ChemStation Integrator)
Title :
Last Update : Wed Feb 27 08:06:42 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	34.453	40.845 E6	-18.6	119	0.00	3.60- 3.67
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A	464.565	420.265 E3	9.5	90	0.00	4.95- 5.15
18		AR1248-B	1.103	1.066 E6	3.4	97	0.00	6.01- 6.21
19		AR1248-C	1.232	1.237 E6	-0.4	100	0.00	6.81- 7.01
20		AR1248-D	1.243	1.228 E6	1.2	99	0.00	7.37- 7.57
21		AR1248-E	742.053	747.650 E3	-0.8	101	0.00	7.60- 7.80
22		AR1248-F	1.184	1.222 E6	-3.2	103	0.00	8.61- 8.81
23		AR1248-G	900.032	925.918 E3	-2.9	103	0.00	9.16- 9.36
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A		----------NA----------				

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86334.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42		AR1016-B		----------NA----------					
43		AR1016-C		----------NA----------					
44		AR1016-D		----------NA----------					
45		AR1016-E		----------NA----------					
46		AR1260-A		----------NA----------					
47		AR1260-B		----------NA----------					
48		AR1260-C		----------NA----------					
49		AR1260-D		----------NA----------					
50		AR1260-E		----------NA----------					
51	S	Decachlorobiphenyl	35.179	40.842	E6	-16.1	117	0.00	19.22-19.28
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.005	19.487	E6	-21.8#	122	0.00	4.36- 4.42
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A	235.282	205.273	E3	12.8	87	0.00	6.53- 6.73
18		AR1248-B	613.680	583.150	E3	5.0	95	0.00	7.79- 7.99
19		AR1248-C	345.204	338.868	E3	1.8	98	0.00	8.77- 8.97
20		AR1248-D	462.403	458.056	E3	0.9	99	0.00	9.57- 9.77
21		AR1248-E	517.793	523.955	E3	-1.2	101	0.00	9.94-10.14
22		AR1248-F	618.685	640.329	E3	-3.5	103	0.00	10.87-11.07
23		AR1248-G	580.551	612.775	E3	-5.6	106	0.00	11.58-11.78
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A		----------NA----------					
42		AR1016-B		----------NA----------					
43		AR1016-C		----------NA----------					
44		AR1016-D		----------NA----------					
45		AR1016-E		----------NA----------					
46		AR1260-A		----------NA----------					
47		AR1260-B		----------NA----------					

Initial Calibration Verification

Job Number: JC84381 **Sample:** G5G2067-ICV2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86334.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

48		AR1260-C				----------NA----------			
49		AR1260-D				----------NA----------			
50		AR1260-E				----------NA----------			
51	S	Decachlorobiphenyl	18.019	21.488	E6	-19.3	122	0.00	22.64-22.70

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G86323.d 5PCB2067.M Wed Feb 27 08:12:49 2019

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G5G2082-CC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86862.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\G5G2082\5G86862.d\ECD1A.ch Vial: 3
Signal #2 : C:\msdchem\1\DATA\G5G2082\5G86862.d\ECD2B.ch
Acq On    : 18 Mar 2019   9:37 am                    Operator: tianweir
Sample    : cc2067-500                               Inst    : GC5G
Misc      : op17617,g5g2082,15.0,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\5PCB2067.M (ChemStation Integrator)
Title        :
Last Update  : Fri Mar 08 08:32:18 2019
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	34.453	35.727 E6	-3.7	101	0.00	3.59- 3.66
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	591.426	583.057 E3	1.4	91	0.00	4.28- 4.35

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G5G2082-CC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86862.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42		AR1016-B	1.064	1.128	E6	-6.0	102	0.00	5.00- 5.07
43		AR1016-C	2.298	2.248	E6	2.2	94	0.00	6.08- 6.14
44		AR1016-D	933.041	990.866	E3	-6.2	103	0.00	6.40- 6.46
45		AR1016-E	0.980	1.021	E6	-4.2	100	0.00	7.44- 7.50
46		AR1260-A	2.693	2.725	E6	-1.2	99	0.00	12.62-12.68
47		AR1260-B	1.351	1.391	E6	-3.0	101	0.00	13.00-13.06
48		AR1260-C	1.396	1.396	E6	0.0	98	0.00	13.76-13.82
49		AR1260-D	3.326	3.248	E6	2.3	97	0.00	14.76-14.82
50		AR1260-E	3.561	3.525	E6	1.0	97	0.00	15.63-15.69
51	S	Decachlorobiphenyl	35.179	32.359	E6	8.0	91	0.00	19.22-19.28
*****		Signal #2 *****							
1	S	Tetrachloro-m-xylene	16.005	15.382	E6	3.9	97	-0.01	4.35- 4.41
2		AR1221-A		----------NA----------					
3		AR1221-B		----------NA----------					
4		AR1221-C		----------NA----------					
5		AR1221-D		----------NA----------					
6		AR1221-E		----------NA----------					
7		AR1232-A		----------NA----------					
8		AR1232-B		----------NA----------					
9		AR1232-C		----------NA----------					
10		AR1232-D		----------NA----------					
11		AR1232-E		----------NA----------					
12		AR1242-A		----------NA----------					
13		AR1242-B		----------NA----------					
14		AR1242-C		----------NA----------					
15		AR1242-D		----------NA----------					
16		AR1242-E		----------NA----------					
17		AR1248-A		----------NA----------					
18		AR1248-B		----------NA----------					
19		AR1248-C		----------NA----------					
20		AR1248-D		----------NA----------					
21		AR1248-E		----------NA----------					
22		AR1248-F		----------NA----------					
23		AR1248-G		----------NA----------					
24		AR1254-A		----------NA----------					
25		AR1254-B		----------NA----------					
26		AR1254-C		----------NA----------					
27		AR1254-D		----------NA----------					
28		AR1254-E		----------NA----------					
29		AR1254-F		----------NA----------					
30		AR1254-G		----------NA----------					
31		AR1262-A		----------NA----------					
32		AR1262-B		----------NA----------					
33		AR1262-C		----------NA----------					
34		AR1262-D		----------NA----------					
35		AR1262-E		----------NA----------					
36		AR1268-A		----------NA----------					
37		AR1268-B		----------NA----------					
38		AR1268-C		----------NA----------					
39		AR1268-D		----------NA----------					
40		AR1268-E		----------NA----------					
41		AR1016-A	260.630	254.042	E3	2.5	94	-0.01	5.54- 5.60
42		AR1016-B	521.244	502.853	E3	3.5	96	-0.02	6.58- 6.64
43		AR1016-C	1.139	1.099	E6	3.5	97	0.00	7.85- 7.91
44		AR1016-D	444.643	434.352	E3	2.3	97	0.00	8.23- 8.29
45		AR1016-E	355.274	354.798	E3	0.1	100	0.00	9.63- 9.69
46		AR1260-A	1.332	1.246	E6	6.5	94	0.00	15.45-15.51
47		AR1260-B	705.254	656.081	E3	7.0	94	0.00	15.74-15.80

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G5G2082-CC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86862.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

48		AR1260-C	685.940	646.033	E3	5.8	95	0.00	16.71-16.77
49		AR1260-D	1.754	1.602	E6	8.7	92	0.00	17.55-17.61
50		AR1260-E	1.724	1.543	E6	10.5	90	0.00	18.77-18.83
51	S	Decachlorobiphenyl	18.019	15.054	E6	16.5	84	0.00	22.63-22.69

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G86322.d 5PCB2067.M Mon Mar 18 16:55:14 2019

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G5G2082-CC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86873.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\DATA\G5G2082\5G86873.d\ECD1A.ch Vial: 13
Signal #2 : C:\msdchem\1\DATA\G5G2082\5G86873.d\ECD2B.ch
Acq On    : 18 Mar 2019   4:20 pm                    Operator: tianweir
Sample    : cc2067-1000                              Inst    : GC5G
Misc      : op19156,g5g2082,16.2,,,10,1              Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\5PCB2067.M (ChemStation Integrator)
Title        :
Last Update  : Fri Mar 08 08:32:18 2019
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	34.453	36.795 E6	-6.8	107	-0.01	3.58- 3.65
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	591.426	576.941 E3	2.4	98	-0.01	4.26- 4.33

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G5G2082-CC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86873.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

42		AR1016-B	1.064	1.111 E6	-4.4	108	-0.01	4.99- 5.06
43		AR1016-C	2.298	2.301 E6	-0.1	100	-0.01	6.07- 6.13
44		AR1016-D	933.041	993.519 E3	-6.5	110	-0.02	6.38- 6.44
45		AR1016-E	0.980	1.025 E6	-4.6	109	-0.01	7.43- 7.49
46		AR1260-A	2.693	2.820 E6	-4.7	106	0.00	12.61-12.67
47		AR1260-B	1.351	1.412 E6	-4.5	106	0.00	12.99-13.05
48		AR1260-C	1.396	1.430 E6	-2.4	103	0.00	13.75-13.81
49		AR1260-D	3.326	3.478 E6	-4.6	105	0.00	14.74-14.80
50		AR1260-E	3.561	3.700 E6	-3.9	104	0.00	15.62-15.68
51	S	Decachlorobiphenyl	35.179	35.184 E6	-0.0	101	0.00	19.21-19.27
*****		Signal #2 *****						
1	S	Tetrachloro-m-xylene	16.005	16.062 E6	-0.4	100	0.00	4.35- 4.41
2		AR1221-A		----------NA----------				
3		AR1221-B		----------NA----------				
4		AR1221-C		----------NA----------				
5		AR1221-D		----------NA----------				
6		AR1221-E		----------NA----------				
7		AR1232-A		----------NA----------				
8		AR1232-B		----------NA----------				
9		AR1232-C		----------NA----------				
10		AR1232-D		----------NA----------				
11		AR1232-E		----------NA----------				
12		AR1242-A		----------NA----------				
13		AR1242-B		----------NA----------				
14		AR1242-C		----------NA----------				
15		AR1242-D		----------NA----------				
16		AR1242-E		----------NA----------				
17		AR1248-A		----------NA----------				
18		AR1248-B		----------NA----------				
19		AR1248-C		----------NA----------				
20		AR1248-D		----------NA----------				
21		AR1248-E		----------NA----------				
22		AR1248-F		----------NA----------				
23		AR1248-G		----------NA----------				
24		AR1254-A		----------NA----------				
25		AR1254-B		----------NA----------				
26		AR1254-C		----------NA----------				
27		AR1254-D		----------NA----------				
28		AR1254-E		----------NA----------				
29		AR1254-F		----------NA----------				
30		AR1254-G		----------NA----------				
31		AR1262-A		----------NA----------				
32		AR1262-B		----------NA----------				
33		AR1262-C		----------NA----------				
34		AR1262-D		----------NA----------				
35		AR1262-E		----------NA----------				
36		AR1268-A		----------NA----------				
37		AR1268-B		----------NA----------				
38		AR1268-C		----------NA----------				
39		AR1268-D		----------NA----------				
40		AR1268-E		----------NA----------				
41		AR1016-A	260.630	272.351 E3	-4.5	104	0.00	5.54- 5.60
42		AR1016-B	521.244	498.663 E3	4.3	101	-0.01	6.59- 6.65
43		AR1016-C	1.139	1.137 E6	0.2	103	0.00	7.86- 7.92
44		AR1016-D	444.643	437.364 E3	1.6	101	0.00	8.24- 8.30
45		AR1016-E	355.274	346.500 E3	2.5	99	0.00	9.63- 9.69
46		AR1260-A	1.332	1.309 E6	1.7	100	0.00	15.45-15.51
47		AR1260-B	705.254	675.969 E3	4.2	97	0.00	15.74-15.80

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G5G2082-CC2067
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 5G86873.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

48		AR1260-C	685.940	673.450	E3	1.8	99	0.00	16.71-16.77
49		AR1260-D	1.754	1.742	E6	0.7	99	0.00	17.55-17.61
50		AR1260-E	1.724	1.696	E6	1.6	100	0.00	18.76-18.82
51	S	Decachlorobiphenyl	18.019	17.042	E6	5.4	97	0.00	22.63-22.69

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5G86323.d 5PCB2067.M Mon Mar 18 16:54:02 2019

Initial Calibration Summary

Job Number: JC84381 **Sample:** G6G1951-ICC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63608.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Response Factor Report GC6G

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Initial Calibration

Calibration Files
5 =6g63606.d 10 =6g63607.d 25 =6g63608.d 50 =6g63609.d
100 =6g63611.d 1 =6g63604.d 75 =6g63610.d 2 =6g63605.d
= =

Compound	5	10	25	50	100	1	75	2	Avg	%RSD
1) I 1-bromo-2-nitrobenzen	ISTD									
2) Tetrachloro-m-xylene	0.641	0.639	0.662	0.668	0.702	0.639	0.697	0.679	0.666	3.79
3) hexachlorobenzene	1.510	1.484	1.503	1.550	1.599	1.537	1.590	1.509	1.535	2.73
4) alpha-BHC	1.001	1.025	1.148	1.298	1.461	1.109	1.405	1.034	1.185	15.20
5) gamma-BHC	0.963	1.000	1.095	1.217	1.353	1.131	1.308	1.039	1.138	12.56
6) Heptachlor	1.047	1.060	1.145	1.253	1.382	1.133	1.340	1.057	1.177	11.23
7) beta-BHC	0.430	0.456	0.461	0.479	0.501	0.627	0.495	0.477	0.491	12.14
8) delta-BHC	0.885	0.917	1.025	1.158	1.319	0.919	1.264	0.886	1.047	16.91
9) Aldrin	0.982	0.987	1.077	1.184	1.309	1.012	1.273	0.971	1.099	12.49
10) alachlor	0.124	0.126	0.126	0.127	0.127		0.127		0.126	0.95
11) Heptachlor Epoxide	0.975	0.949	1.006	1.083	1.177	1.573	1.149	1.122	1.129	17.50
12) gamma-Chlordane	0.883	0.927	1.009	1.099	1.219	1.026	1.181	0.921	1.033	12.02
13) alpha-Chlordane	0.881	0.909	0.987	1.071	1.180	0.782	1.145	0.857	0.976	14.73
14) Endosulfan I	0.910	0.915	0.968	1.039	1.129	0.946	1.102	0.898	0.989	9.14
15) 4,4'-DDE	0.937	0.936	1.000	1.073	1.177	0.983	1.145	0.934	1.023	9.51
16) Dieldrin	0.931	0.935	1.012	1.105	1.218	0.963	1.183	0.896	1.030	11.94
17) Endrin	0.876	0.891	0.945	1.026	1.128	0.913	1.095	0.882	0.969	10.33
18) 4,4'-DDD	0.643	0.662	0.697	0.765	0.855	0.732	0.825	0.640	0.727	11.27
19) Endosulfan II	0.926	0.900	0.930	0.979	1.055	1.201	1.032	0.996	1.002	9.65
20) 4,4'-DDT	0.706	0.704	0.761	0.833	0.933	0.735	0.897	0.723	0.786	11.43
21) Endrin Aldehyde	0.746	0.741	0.773	0.811	0.863	0.883	0.848	0.770	0.804	6.84
22) Endosulfan Sulfate	0.755	0.761	0.795	0.842	0.900	0.836	0.884	0.795	0.821	6.54
23) Methoxychlor										

Initial Calibration Summary

Job Number: JC84381 **Sample:** G6G1951-ICC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63608.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

```
          0.433 0.449 0.459 0.475 0.493 0.470 0.488 0.458          0.466    4.29
 24)  Mirex
          0.815 0.793 0.795 0.800 0.810 0.883 0.813 0.882          0.824    4.51
 25)  Endrin Ketone
          0.889 0.904 0.960 1.012 1.074 0.916 1.054 0.880          0.961    7.96
 26)  Decachlorobiphenyl
          1.203 1.167 1.180 1.202 1.240 1.475 1.232 1.244          1.243    7.88

 27) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
 28)  Toxaphene{A}
                              0.014                                0.014    0.00
 29)  Toxaphene{B}
                              0.040                                0.040    0.00
 30)  Toxaphene{C}
                              0.032                                0.032    0.00
 31)  Toxaphene{D}
                              0.025                                0.025    0.00
 32)  Toxaphene{E}
                              0.028                                0.028    0.00

 33) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
 34)  Chlordane {A}
                              0.064                                0.064    0.00
 35)  Chlordane {B}
                              0.039                                0.039    0.00
 36)  Chlordane {C}
                              0.147                                0.147    0.00
 37)  Chlordane {D}
                              0.232                                0.232    0.00
 38)  Chlordane {E}
                              0.031                                0.031    0.00

Signal #2


  1) I   1-bromo-2-nitrobenzen ----------------ISTD---------------------
  2)  Tetrachloro-m-xylene
          0.873 0.851 0.851 0.844 0.885 0.955 0.879 0.898          0.879    4.10
  3)  hexachlorobenzene
          0.970 0.933 0.909 0.889 0.911 1.042 0.912 0.985          0.944    5.45
  4)  alpha-BHC
          1.074 1.076 1.127 1.169 1.254 1.150 1.235 1.110          1.149    5.86
  5)  gamma-BHC
          1.013 1.008 1.035 1.064 1.127 1.097 1.112 1.022          1.060    4.46
  6)  Heptachlor
          1.068 1.026 1.041 1.036 1.072 1.173 1.069 1.117          1.075    4.51
  7)  beta-BHC
          0.515 0.494 0.482 0.473 0.479 0.559 0.480 0.514          0.499    5.77
  8)  delta-BHC
          0.929 0.929 0.973 1.006 1.077 0.977 1.059 0.932          0.985    5.88
  9)  Aldrin
          0.951 0.924 0.929 0.934 0.976 1.042 0.971 0.983          0.964    4.04
 10)  alachlor
          0.146 0.146 0.143 0.135 0.129       0.133                0.139    5.23
 11)  Heptachlor Epoxide
          0.920 0.898 0.889 0.878 0.900 0.994 0.900 0.961          0.918    4.32
 12)  gamma-Chlordane
          0.932 0.882 0.880 0.867 0.898 1.075 0.893 0.995          0.928    7.78
 13)  alpha-Chlordane
          0.902 0.871 0.856 0.845 0.867 0.986 0.867 0.937          0.891    5.38
```

Initial Calibration Summary

Job Number: JC84381 **Sample:** G6G1951-ICC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63608.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

```
14)  Endosulfan I
          0.842 0.810 0.805 0.795 0.817 0.896 0.818 0.874          0.832     4.30
15)  4,4'-DDE
          0.816 0.792 0.812 0.822 0.865 0.873 0.856 0.812          0.831     3.57
16)  Dieldrin
          0.882 0.857 0.858 0.862 0.906 0.994 0.901 0.877          0.892     5.08
17)  Endrin
          0.821 0.801 0.798 0.801 0.827 0.909 0.829 0.832          0.827     4.36
18)  4,4'-DDD
          0.687 0.672 0.679 0.681 0.713 0.763 0.707 0.699          0.700     4.17
19)  Endosulfan II
          0.868 0.816 0.784 0.764 0.785 1.161 0.782 0.951          0.864    15.61
20)  4,4'-DDT
          0.682 0.672 0.677 0.682 0.718 0.717 0.709 0.704          0.695     2.72
21)  Endrin Aldehyde
          0.680 0.651 0.633 0.617 0.626 0.752 0.628 0.669          0.657     6.77
22)  Endosulfan Sulfate
          0.748 0.709 0.688 0.664 0.670 0.836 0.675 0.732          0.715     8.02
23)  Methoxychlor
          0.420 0.416 0.406 0.391 0.390 0.444 0.397 0.407          0.409     4.38
24)  Mirex
          0.735 0.688 0.648 0.608 0.595 0.784 0.606 0.695          0.670    10.13
25)  Endrin Ketone
          0.813 0.796 0.784 0.772 0.789 0.879 0.789 0.811          0.804     4.11
26)  Decachlorobiphenyl
          0.728 0.698 0.657 0.622 0.610 0.861 0.619 0.767          0.695    12.58

27) I   1-bromo-2-nitrobenzen ----------------ISTD--------------------
28)  Toxaphene{A}
                              0.021                                      0.021     0.00
29)  Toxaphene{B}
                              0.024                                      0.024     0.00
30)  Toxaphene{C}
                              0.043                                      0.043     0.00
31)  Toxaphene{D}
                              0.027                                      0.027     0.00
32)  Toxaphene{E}
                              0.023                                      0.023     0.00

33) I   1-bromo-2-nitrobenzen ----------------ISTD--------------------
34)  Chlordane {A}
                              0.059                                      0.059     0.00
35)  Chlordane {B}
                              0.033                                      0.033     0.00
36)  Chlordane {C}
                              0.107                                      0.107     0.00
37)  Chlordane {D}
                              0.178                                      0.178     0.00
38)  Chlordane {E}
                              0.029                                      0.029     0.00
-------------------------------------------------------------------------------
(#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          6PST1951.M        Wed Mar 13 16:27:53 2019
```

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63614.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1951\6g63614.d\ECD1A.CH Vial: 13
Signal #2 : C:\msdchem\1\data\G6G1951\6g63614.d\ECD2B.CH
Acq On : 13-Mar-19, 15:16:31 Operator: mailisih
Sample : icv1951-25 Inst : GC6G
Misc : op18954,g6g1951,16.8,,,1,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.46- 2.46
2	SAB	Tetrachloro-m-xylene	0.666	0.643	3.5	99	0.00	2.53- 2.59
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC	1.185	1.290	-8.9	115	0.00	3.01- 3.07
5	MA	gamma-BHC	1.138	1.214	-6.7	114	0.00	3.31- 3.37
6	MA	Heptachlor	1.177	1.274	-8.2	114	0.00	3.81- 3.87
7	B	beta-BHC	0.491	0.511	-4.1	113	0.00	3.38- 3.44
8	B	delta-BHC	1.047	1.137	-8.6	114	0.00	3.57- 3.63
9	MB	Aldrin	1.099	1.209	-10.0	115	0.00	4.15- 4.21
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide	1.129	1.128	0.1	115	0.00	4.88- 4.94
12	B	gamma-Chlordane	1.033	1.148	-11.1	117	0.00	5.04- 5.10
13	B	alpha-Chlordane	0.976	1.128	-15.6	117	0.00	5.22- 5.28
14	A	Endosulfan I	0.989	1.082	-9.4	115	0.00	5.40- 5.46
15	B	4,4'-DDE	1.023	1.125	-10.0	115	0.00	5.33- 5.39
16	MA	Dieldrin	1.030	1.137	-10.4	115	0.00	5.72- 5.78
17	MA	Endrin	0.969	1.043	-7.6	113	0.00	6.05- 6.11
18	A	4,4'-DDD	0.727	0.773	-6.3	114	0.00	6.17- 6.23
19	B	Endosulfan II	1.002	1.004	-0.2	111	0.00	6.38- 6.44
20	MA	4,4'-DDT	0.786	0.848	-7.9	114	0.00	6.60- 6.66
21	B	Endrin Aldehyde	0.804	0.859	-6.8	114	0.00	7.01- 7.07
22	B	Endosulfan Sulfate	0.821	0.852	-3.8	110	0.00	7.70- 7.76
23	A	Methoxychlor	0.466	0.474	-1.7	106	0.00	7.39- 7.45
24		Mirex	0.824	0.779	5.5	100	0.00	7.55- 7.61
25	B	Endrin Ketone	0.961	1.063	-10.6	113	0.00	8.14- 8.20
26	SA	Decachlorobiphenyl	1.243	1.143	8.0	99	0.00	9.96-10.02
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.46- 2.46
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.46- 2.46
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

7.9.10

7

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63614.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.67- 2.67
2	SAB	Tetrachloro-m-xylene	0.879	0.830	5.6	101	0.00	2.96- 3.02
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC	1.149	1.258	-9.5	115	0.00	3.63- 3.69
5	MA	gamma-BHC	1.060	1.148	-8.3	115	0.00	4.06- 4.12
6	MA	Heptachlor	1.075	1.112	-3.4	110	0.00	4.64- 4.70
7	B	beta-BHC	0.499	0.530	-6.2	113	0.00	4.14- 4.20
8	B	delta-BHC	0.985	1.071	-8.7	114	0.00	4.54- 4.60
9	MB	Aldrin	0.964	1.039	-7.8	115	0.00	5.10- 5.16
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide	0.918	0.984	-7.2	114	0.00	5.93- 5.99
12	B	gamma-Chlordane	0.928	0.966	-4.1	113	0.00	6.21- 6.27
13	B	alpha-Chlordane	0.891	0.954	-7.1	115	0.00	6.44- 6.50
14	A	Endosulfan I	0.832	0.888	-6.7	114	0.00	6.54- 6.60
15	B	4,4'-DDE	0.831	0.907	-9.1	115	0.00	6.71- 6.77
16	MA	Dieldrin	0.892	0.968	-8.5	116	0.00	6.97- 7.03
17	MA	Endrin	0.827	0.881	-6.5	114	0.00	7.48- 7.54
18	A	4,4'-DDD	0.700	0.759	-8.4	115	0.00	7.66- 7.72
19	B	Endosulfan II	0.864	0.849	1.7	112	0.00	7.83- 7.89
20	MA	4,4'-DDT	0.695	0.752	-8.2	115	0.00	8.20- 8.26
21	B	Endrin Aldehyde	0.657	0.709	-7.9	116	0.00	8.41- 8.47
22	B	Endosulfan Sulfate	0.715	0.746	-4.3	112	0.00	8.88- 8.94
23	A	Methoxychlor	0.409	0.432	-5.6	110	0.00	9.44- 9.50
24		Mirex	0.670	0.646	3.6	103	0.00	9.77- 9.83
25	B	Endrin Ketone	0.804	0.873	-8.6	115	0.00	9.84- 9.90
26	SA	Decachlorobiphenyl	0.695	0.651	6.3	102	0.00	11.95-12.01
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.67- 2.67
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.67- 2.67
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63608.d 6PST1951.M Wed Mar 13 16:25:20 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63615.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1951\6g63615.d\ECD1A.CH Vial: 14
Signal #2 : C:\msdchem\1\data\G6G1951\6g63615.d\ECD2B.CH
Acq On : 13-Mar-19, 15:34:38 Operator: mailisih
Sample : icv1951-500 Inst : GC6G
Misc : op18954,g6g1951,16.8,,,1,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.46- 2.46
2	SAB	Tetrachloro-m-xylene	0.666	0.626	6.0	95	0.00	2.53- 2.59
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	1.243	1.146	7.8	97	0.00	9.96-10.02
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.46- 2.46
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.46- 2.46
34		Chlordane {A}	0.064	0.060	6.3	94	0.00	3.74- 3.94
35		Chlordane {B}	0.039	0.037	5.1	96	0.00	4.23- 4.43
36		Chlordane {C}	0.147	0.137	6.8	94	0.00	4.98- 5.18
37		Chlordane {D}	0.232	0.223	3.9	96	0.00	5.14- 5.34
38		Chlordane {E}	0.031	0.030	3.2	97	0.00	6.21- 6.41

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63615.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.67- 2.67
2	SAB	Tetrachloro-m-xylene	0.879	0.809	8.0	96	0.00	2.96- 3.02
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	0.695	0.620	10.8	100	0.00	11.95-12.01
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	1.67- 2.67
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.67- 2.67
34		Chlordane {A}	0.059	0.056	5.1	95	0.00	4.57- 4.77
35		Chlordane {B}	0.033	0.032	3.0	95	0.00	5.22- 5.42
36		Chlordane {C}	0.107	0.106	0.9	98	0.00	6.14- 6.34
37		Chlordane {D}	0.178	0.177	0.6	99	0.00	6.37- 6.57
38		Chlordane {E}	0.029	0.027	6.9	94	0.00	7.84- 8.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63609.d 6PST1951.M Wed Mar 13 16:25:58 2019

7.9.11

7

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63616.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1951\6g63616.d\ECD1A.CH Vial: 15
Signal #2 : C:\msdchem\1\data\G6G1951\6g63616.d\ECD2B.CH
Acq On : 13-Mar-19, 15:52:55 Operator: mailisih
Sample : icv1951-500 Inst : GC6G
Misc : op18954,g6g1951,16.8,,,1,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.46- 2.46
2	SAB	Tetrachloro-m-xylene	0.666	0.642	3.6	99	0.00	2.53- 2.59
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	1.243	1.164	6.4	100	0.00	9.96-10.02
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.46- 2.46
28	L8	Toxaphene{A}	0.014	0.012	14.3	83	0.00	5.67- 5.87
29	L8	Toxaphene{B}	0.040	0.037	7.5	93	0.00	6.30- 6.50
30	L8	Toxaphene{C}	0.032	0.030	6.3	94	0.00	6.48- 6.68
31	L8	Toxaphene{D}	0.025	0.022	12.0	90	0.00	6.82- 7.02
32	L8	Toxaphene{E}	0.028	0.026	7.1	96	0.00	7.48- 7.68
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.46- 2.46
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63616.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.67- 2.67
2	SAB	Tetrachloro-m-xylene	0.879	0.836	4.9	101	0.00	2.96- 3.02
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	0.695	0.608	12.5	100	0.00	11.95-12.01
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.67- 2.67
28	L8	Toxaphene{A}	0.021	0.022	-4.8	105	0.00	6.87- 7.07
29	L8	Toxaphene{B}	0.024	0.029	-20.8#	119	0.00	7.73- 7.93
30	L8	Toxaphene{C}	0.043	0.044	-2.3	103	0.00	7.89- 8.09
31	L8	Toxaphene{D}	0.027	0.028	-3.7	103	0.00	8.33- 8.53
32	L8	Toxaphene{E}	0.023	0.024	-4.3	104	0.00	9.24- 9.44
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.67- 2.67
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63609.d 6PST1951.M Wed Mar 13 16:26:01 2019

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63617.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1951\6g63617.d\ECD1A.CH Vial: 16
Signal #2 : C:\msdchem\1\data\G6G1951\6g63617.d\ECD2B.CH
Acq On : 13-Mar-19, 16:11:10 Operator: mailisih
Sample : icv1951-50 Inst : GC6G
Misc : op18954,g6g1951,16.8,,,1,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.46- 2.46
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		hexachlorobenzene	1.535	1.505	2.0	100	0.00	2.87- 2.93
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.46- 2.46
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.46- 2.46
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63617.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	0.00	1.68- 2.68
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		hexachlorobenzene	0.944	0.882	6.6	102	0.00	3.47- 3.53
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.68- 2.68
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.68- 2.68
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63609.d 6PST1951.M Wed Mar 13 16:26:56 2019

7.9.13

7

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63618.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1951\6g63618.d\ECD1A.CH Vial: 17
Signal #2 : C:\msdchem\1\data\G6G1951\6g63618.d\ECD2B.CH
Acq On : 13-Mar-19, 16:29:31 Operator: mailisih
Sample : icv1951-50 Inst : GC6G
Misc : op18954,g6g1951,16.8,,,1,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.46- 2.46
2	SAB	Tetrachloro-m-xylene		----------NA----------				
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor	0.126	0.129	-2.4	104	0.00	4.30- 4.36
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl		----------NA----------				
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.46- 2.46
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.46- 2.46
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Initial Calibration Verification

Job Number: JC84381 **Sample:** G6G1951-ICV1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63618.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.68-	2.68
2	SAB	Tetrachloro-m-xylene		----------NA----------					
3		hexachlorobenzene		----------NA----------					
4	A	alpha-BHC		----------NA----------					
5	MA	gamma-BHC		----------NA----------					
6	MA	Heptachlor		----------NA----------					
7	B	beta-BHC		----------NA----------					
8	B	delta-BHC		----------NA----------					
9	MB	Aldrin		----------NA----------					
10		alachlor	0.139	0.141	-1.4	106	0.00	4.91-	4.97
11	B	Heptachlor Epoxide		----------NA----------					
12	B	gamma-Chlordane		----------NA----------					
13	B	alpha-Chlordane		----------NA----------					
14	A	Endosulfan I		----------NA----------					
15	B	4,4'-DDE		----------NA----------					
16	MA	Dieldrin		----------NA----------					
17	MA	Endrin		----------NA----------					
18	A	4,4'-DDD		----------NA----------					
19	B	Endosulfan II		----------NA----------					
20	MA	4,4'-DDT		----------NA----------					
21	B	Endrin Aldehyde		----------NA----------					
22	B	Endosulfan Sulfate		----------NA----------					
23	A	Methoxychlor		----------NA----------					
24		Mirex		----------NA----------					
25	B	Endrin Ketone		----------NA----------					
26	SA	Decachlorobiphenyl		----------NA----------					
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.68-	2.68
28	L8	Toxaphene{A}		----------NA----------					
29	L8	Toxaphene{B}		----------NA----------					
30	L8	Toxaphene{C}		----------NA----------					
31	L8	Toxaphene{D}		----------NA----------					
32	L8	Toxaphene{E}		----------NA----------					
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.68-	2.68
34		Chlordane {A}		----------NA----------					
35		Chlordane {B}		----------NA----------					
36		Chlordane {C}		----------NA----------					
37		Chlordane {D}		----------NA----------					
38		Chlordane {E}		----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63609.d 6PST1951.M Thu Mar 14 08:28:17 2019

7.9.14

7

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G6G1954-CC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63672.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1954\6g63672.d\ECD1A.CH Vial: 4
Signal #2 : C:\msdchem\1\data\G6G1954\6g63672.d\ECD2B.CH
Acq On : 18-Mar-19, 09:42:43 Operator: mailisih
Sample : cc1951-50 Inst : GC6G
Misc : op19168,g6g1954,1010,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.45- 2.45
2	SAB	Tetrachloro-m-xylene	0.666	0.680	-2.1	106	0.00	2.52- 2.58
3		hexachlorobenzene	1.535	1.558	-1.5	105	0.00	2.86- 2.92
4	A	alpha-BHC	1.185	1.320	-11.4	106	0.00	3.00- 3.06
5	MA	gamma-BHC	1.138	1.223	-7.5	105	0.00	3.30- 3.36
6	MA	Heptachlor	1.177	1.193	-1.4	100	0.00	3.81- 3.87
7	B	beta-BHC	0.491	0.484	1.4	106	0.00	3.38- 3.44
8	B	delta-BHC	1.047	1.120	-7.0	101	0.00	3.57- 3.63
9	MB	Aldrin	1.099	1.141	-3.8	101	0.00	4.15- 4.21
10		alachlor	0.126	0.125	0.8	103	0.00	4.29- 4.36
11	B	Heptachlor Epoxide	1.129	0.972	13.9	94	0.00	4.87- 4.93
12	B	gamma-Chlordane	1.033	0.946	8.4	90	0.00	5.04- 5.10
13	B	alpha-Chlordane	0.976	0.966	1.0	94	0.00	5.21- 5.27
14	A	Endosulfan I	0.989	0.986	0.3	99	0.00	5.39- 5.45
15	B	4,4'-DDE	1.023	1.011	1.2	99	0.00	5.33- 5.39
16	MA	Dieldrin	1.030	1.065	-3.4	101	0.00	5.72- 5.78
17	MA	Endrin	0.969	1.036	-6.9	106	0.00	6.05- 6.11
18	A	4,4'-DDD	0.727	0.750	-3.2	103	0.00	6.17- 6.23
19	B	Endosulfan II	1.002	0.959	4.3	102	0.00	6.37- 6.43
20	MA	4,4'-DDT	0.786	0.841	-7.0	106	0.00	6.60- 6.66
21	B	Endrin Aldehyde	0.804	0.785	2.4	101	0.00	7.01- 7.07
22	B	Endosulfan Sulfate	0.821	0.853	-3.9	106	0.00	7.70- 7.76
23	A	Methoxychlor	0.466	0.490	-5.2	108	0.00	7.38- 7.44
24		Mirex	0.824	0.771	6.4	101	0.00	7.54- 7.60
25	B	Endrin Ketone	0.961	0.997	-3.7	103	0.00	8.14- 8.20
26	SA	Decachlorobiphenyl	1.243	1.182	4.9	103	0.00	9.96-10.02
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.45- 2.45
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	103	-0.01	1.45- 2.45
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G6G1954-CC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63672.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.67- 2.67
2	SAB	Tetrachloro-m-xylene	0.879	0.866	1.5	102	0.00	2.96- 3.02
3		hexachlorobenzene	0.944	0.898	4.9	100	0.00	3.47- 3.53
4	A	alpha-BHC	1.149	1.192	-3.7	101	0.00	3.63- 3.69
5	MA	gamma-BHC	1.060	1.073	-1.2	100	0.00	4.06- 4.12
6	MA	Heptachlor	1.075	1.022	4.9	98	0.00	4.64- 4.70
7	B	beta-BHC	0.499	0.467	6.4	98	0.00	4.14- 4.20
8	B	delta-BHC	0.985	1.013	-2.8	100	0.00	4.54- 4.60
9	MB	Aldrin	0.964	0.907	5.9	96	0.00	5.10- 5.16
10		alachlor	0.139	0.133	4.3	98	0.00	4.90- 4.96
11	B	Heptachlor Epoxide	0.918	0.843	8.2	95	0.00	5.92- 5.98
12	B	gamma-Chlordane	0.928	0.831	10.5	95	0.00	6.21- 6.27
13	B	alpha-Chlordane	0.891	0.809	9.2	95	0.00	6.44- 6.50
14	A	Endosulfan I	0.832	0.773	7.1	96	0.00	6.53- 6.59
15	B	4,4'-DDE	0.831	0.798	4.0	96	0.00	6.70- 6.76
16	MA	Dieldrin	0.892	0.847	5.0	98	0.00	6.97- 7.03
17	MA	Endrin	0.827	0.810	2.1	100	0.00	7.48- 7.54
18	A	4,4'-DDD	0.700	0.670	4.3	98	0.00	7.66- 7.72
19	B	Endosulfan II	0.864	0.753	12.8	98	0.00	7.83- 7.89
20	MA	4,4'-DDT	0.695	0.690	0.7	100	0.00	8.19- 8.25
21	B	Endrin Aldehyde	0.657	0.597	9.1	96	0.00	8.40- 8.46
22	B	Endosulfan Sulfate	0.715	0.672	6.0	100	0.00	8.87- 8.93
23	A	Methoxychlor	0.409	0.396	3.2	101	0.00	9.44- 9.50
24		Mirex	0.670	0.597	10.9	98	0.00	9.77- 9.83
25	B	Endrin Ketone	0.804	0.764	5.0	98	0.00	9.84- 9.90
26	SA	Decachlorobiphenyl	0.695	0.609	12.4	97	0.00	11.95-12.01
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	1.67- 2.67
28	L8	Toxaphene{A}	----------NA----------					
29	L8	Toxaphene{B}	----------NA----------					
30	L8	Toxaphene{C}	----------NA----------					
31	L8	Toxaphene{D}	----------NA----------					
32	L8	Toxaphene{E}	----------NA----------					
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.67- 2.67
34		Chlordane {A}	----------NA----------					
35		Chlordane {B}	----------NA----------					
36		Chlordane {C}	----------NA----------					
37		Chlordane {D}	----------NA----------					
38		Chlordane {E}	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63609.d 6PST1951.M Mon Mar 18 15:02:04 2019

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G6G1954-CC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63673.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1954\6g63673.d\ECD1A.CH Vial: 5
Signal #2 : C:\msdchem\1\data\G6G1954\6g63673.d\ECD2B.CH
Acq On : 18-Mar-19, 10:04:55 Operator: mailisih
Sample : cc1951-500 Inst : GC6G
Misc : op19168,g6g1954,1010,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	101	0.00	1.45- 2.45
2	SAB	Tetrachloro-m-xylene	0.666	0.693	-4.1	105	0.00	2.53- 2.59
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	1.243	1.221	1.8	103	0.00	9.96-10.02
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	99	0.00	1.45- 2.45
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	100	0.00	1.45- 2.45
34		Chlordane {A}	0.064	0.063	1.6	99	0.00	3.75- 3.95
35		Chlordane {B}	0.039	0.037	5.1	97	0.00	4.23- 4.43
36		Chlordane {C}	0.147	0.124	15.6	85	0.00	4.98- 5.18
37		Chlordane {D}	0.232	0.203	12.5	88	0.00	5.15- 5.35
38		Chlordane {E}	0.031	0.033	-6.5	107	0.00	6.22- 6.42

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G6G1954-CC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63673.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	94	0.00	1.67- 2.67
2	SAB	Tetrachloro-m-xylene	0.879	0.892	-1.5	100	0.00	2.96- 3.02
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	0.695	0.649	6.6	99	0.00	11.95-12.01
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	93	0.00	1.67- 2.67
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	94	-0.01	1.67- 2.67
34		Chlordane {A}	0.059	0.058	1.7	93	0.00	4.57- 4.77
35		Chlordane {B}	0.033	0.031	6.1	88	0.00	5.22- 5.42
36		Chlordane {C}	0.107	0.107	0.0	94	0.00	6.14- 6.34
37		Chlordane {D}	0.178	0.177	0.6	94	0.00	6.37- 6.57
38		Chlordane {E}	0.029	0.029	0.0	94	0.00	7.84- 8.04

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63609.d 6PST1951.M Mon Mar 18 15:02:06 2019

7.9.16

7

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G6G1954-CC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63674.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1954\6g63674.d\ECD1A.CH Vial: 6
Signal #2 : C:\msdchem\1\data\G6G1954\6g63674.d\ECD2B.CH
Acq On : 18-Mar-19, 10:22:21 Operator: mailisih
Sample : cc1951-500 Inst : GC6G
Misc : op19168,g6g1954,1010,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	105	0.00	1.45- 2.45
2	SAB	Tetrachloro-m-xylene	0.666	0.693	-4.1	109	0.00	2.52- 2.58
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	1.243	1.202	3.3	105	0.00	9.96-10.02
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	102	0.00	1.45- 2.45
28	L8	Toxaphene{A}	0.014	0.015	-7.1	108	0.00	5.66- 5.86
29	L8	Toxaphene{B}	0.040	0.040	0.0	103	0.00	6.29- 6.49
30	L8	Toxaphene{C}	0.032	0.032	0.0	102	0.00	6.47- 6.67
31	L8	Toxaphene{D}	0.025	0.025	0.0	103	0.00	6.82- 7.02
32	L8	Toxaphene{E}	0.028	0.027	3.6	101	0.00	7.47- 7.67
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	104	0.00	1.45- 2.45
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G6G1954-CC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63674.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	1.67- 2.67
2	SAB	Tetrachloro-m-xylene	0.879	0.901	-2.5	105	0.00	2.96- 3.02
3		hexachlorobenzene		----------NA----------				
4	A	alpha-BHC		----------NA----------				
5	MA	gamma-BHC		----------NA----------				
6	MA	Heptachlor		----------NA----------				
7	B	beta-BHC		----------NA----------				
8	B	delta-BHC		----------NA----------				
9	MB	Aldrin		----------NA----------				
10		alachlor		----------NA----------				
11	B	Heptachlor Epoxide		----------NA----------				
12	B	gamma-Chlordane		----------NA----------				
13	B	alpha-Chlordane		----------NA----------				
14	A	Endosulfan I		----------NA----------				
15	B	4,4'-DDE		----------NA----------				
16	MA	Dieldrin		----------NA----------				
17	MA	Endrin		----------NA----------				
18	A	4,4'-DDD		----------NA----------				
19	B	Endosulfan II		----------NA----------				
20	MA	4,4'-DDT		----------NA----------				
21	B	Endrin Aldehyde		----------NA----------				
22	B	Endosulfan Sulfate		----------NA----------				
23	A	Methoxychlor		----------NA----------				
24		Mirex		----------NA----------				
25	B	Endrin Ketone		----------NA----------				
26	SA	Decachlorobiphenyl	0.695	0.631	9.2	100	0.00	11.95-12.01
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	97	0.00	1.67- 2.67
28	L8	Toxaphene{A}	0.021	0.021	0.0	96	0.00	6.87- 7.07
29	L8	Toxaphene{B}	0.024	0.027	-12.5	108	0.00	7.73- 7.93
30	L8	Toxaphene{C}	0.043	0.043	0.0	97	0.00	7.89- 8.09
31	L8	Toxaphene{D}	0.027	0.027	0.0	95	0.00	8.33- 8.53
32	L8	Toxaphene{E}	0.023	0.023	0.0	95	0.00	9.24- 9.44
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	98	0.00	1.67- 2.67
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63609.d 6PST1951.M Mon Mar 18 15:02:08 2019

7.9.17

7

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G6G1954-CC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63685.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\G6G1954\6g63685.d\ECD1A.CH Vial: 2
Signal #2 : C:\msdchem\1\data\G6G1954\6g63685.d\ECD2B.CH
Acq On : 18-Mar-19, 14:44:32 Operator: mailisih
Sample : cc1951-25 Inst : GC6G
Misc : op19157,g6g1954,16.2,,,10,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\6PST1951.M (ChemStation Integrator)
Title : PEST/PCB
Last Update : Wed Mar 13 15:21:00 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	107	0.00	1.45- 2.45
2	SAB	Tetrachloro-m-xylene	0.666	0.702	-5.4	114	0.00	2.52- 2.58
3		hexachlorobenzene	1.535	1.590	-3.6	113	0.00	2.86- 2.92
4	A	alpha-BHC	1.185	1.213	-2.4	113	0.00	3.00- 3.06
5	MA	gamma-BHC	1.138	1.155	-1.5	113	0.00	3.30- 3.36
6	MA	Heptachlor	1.177	1.208	-2.6	113	0.00	3.81- 3.87
7	B	beta-BHC	0.491	0.493	-0.4	114	0.00	3.38- 3.44
8	B	delta-BHC	1.047	1.026	2.0	107	0.00	3.57- 3.63
9	MB	Aldrin	1.099	1.164	-5.9	116	0.00	4.15- 4.21
10		alachlor	0.126	0.133	-5.6	114	0.00	4.29- 4.35
11	B	Heptachlor Epoxide	1.129	1.084	4.0	115	0.00	4.87- 4.93
12	B	gamma-Chlordane	1.033	1.102	-6.7	117	0.00	5.04- 5.10
13	B	alpha-Chlordane	0.976	1.092	-11.9	119	0.00	5.21- 5.27
14	A	Endosulfan I	0.989	1.059	-7.1	117	0.00	5.39- 5.45
15	B	4,4'-DDE	1.023	1.075	-5.1	115	0.00	5.32- 5.38
16	MA	Dieldrin	1.030	1.091	-5.9	115	0.00	5.72- 5.78
17	MA	Endrin	0.969	1.027	-6.0	116	0.00	6.05- 6.11
18	A	4,4'-DDD	0.727	0.746	-2.6	115	0.00	6.17- 6.23
19	B	Endosulfan II	1.002	0.960	4.2	111	0.00	6.37- 6.43
20	MA	4,4'-DDT	0.786	0.764	2.8	108	0.00	6.59- 6.65
21	B	Endrin Aldehyde	0.804	0.789	1.9	109	0.00	7.01- 7.07
22	B	Endosulfan Sulfate	0.821	0.767	6.6	103	0.00	7.70- 7.76
23	A	Methoxychlor	0.466	0.476	-2.1	111	0.00	7.38- 7.44
24		Mirex	0.824	0.842	-2.2	113	0.00	7.54- 7.60
25	B	Endrin Ketone	0.961	0.896	6.8	100	0.00	8.14- 8.20
26	SA	Decachlorobiphenyl	1.243	1.231	1.0	112	0.00	9.95-10.01
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.45- 2.45
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	-0.01	1.45- 2.45
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

7.9.18

7

Continuing Calibration Summary

Job Number: JC84381 **Sample:** G6G1954-CC1951
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 6G63685.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

***** Signal #2 *****

1	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	106	0.00	1.67- 2.67
2	SAB	Tetrachloro-m-xylene	0.879	0.901	-2.5	113	0.00	2.96- 3.02
3		hexachlorobenzene	0.944	0.953	-1.0	112	0.00	3.47- 3.53
4	A	alpha-BHC	1.149	1.185	-3.1	112	0.00	3.63- 3.69
5	MA	gamma-BHC	1.060	1.092	-3.0	112	0.00	4.06- 4.12
6	MA	Heptachlor	1.075	1.067	0.7	109	0.00	4.64- 4.70
7	B	beta-BHC	0.499	0.517	-3.6	114	0.00	4.14- 4.20
8	B	delta-BHC	0.985	0.979	0.6	107	0.00	4.54- 4.60
9	MB	Aldrin	0.964	0.989	-2.6	113	0.00	5.10- 5.16
10		alachlor	0.139	0.157	-12.9	117	0.00	4.90- 4.96
11	B	Heptachlor Epoxide	0.918	0.949	-3.4	114	0.00	5.92- 5.98
12	B	gamma-Chlordane	0.928	0.925	0.3	112	0.00	6.21- 6.27
13	B	alpha-Chlordane	0.891	0.919	-3.1	114	0.00	6.44- 6.50
14	A	Endosulfan I	0.832	0.856	-2.9	113	0.00	6.53- 6.59
15	B	4,4'-DDE	0.831	0.866	-4.2	114	0.00	6.70- 6.76
16	MA	Dieldrin	0.892	0.913	-2.4	113	0.00	6.97- 7.03
17	MA	Endrin	0.827	0.858	-3.7	115	0.00	7.48- 7.54
18	A	4,4'-DDD	0.700	0.725	-3.6	114	0.00	7.66- 7.72
19	B	Endosulfan II	0.864	0.807	6.6	110	0.00	7.83- 7.89
20	MA	4,4'-DDT	0.695	0.665	4.3	105	0.00	8.19- 8.25
21	B	Endrin Aldehyde	0.657	0.641	2.4	108	0.00	8.40- 8.46
22	B	Endosulfan Sulfate	0.715	0.666	6.9	103	0.00	8.87- 8.93
23	A	Methoxychlor	0.409	0.419	-2.4	110	0.00	9.44- 9.50
24		Mirex	0.670	0.685	-2.2	113	0.00	9.77- 9.83
25	B	Endrin Ketone	0.804	0.740	8.0	101	0.00	9.84- 9.90
26	SA	Decachlorobiphenyl	0.695	0.677	2.6	110	0.00	11.95-12.01
27	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.67- 2.67
28	L8	Toxaphene{A}		----------NA----------				
29	L8	Toxaphene{B}		----------NA----------				
30	L8	Toxaphene{C}		----------NA----------				
31	L8	Toxaphene{D}		----------NA----------				
32	L8	Toxaphene{E}		----------NA----------				
33	I	1-bromo-2-nitrobenzene	1.000	1.000	0.0	0#	0.00	1.67- 2.67
34		Chlordane {A}		----------NA----------				
35		Chlordane {B}		----------NA----------				
36		Chlordane {C}		----------NA----------				
37		Chlordane {D}		----------NA----------				
38		Chlordane {E}		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
6g63608.d 6PST1951.M Mon Mar 18 15:01:52 2019

7.9.18

Initial Calibration Summary

Job Number: JC84381 **Sample:** GOA4767-ICC4767
Account: NOREASCA NOREAS, Inc. **Lab FileID:** OA138428.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Response Factor Report SVOAGCOA

Method : C:\MSDCHEM\1\METHODS\HOA4767.M (ChemStation Integrator)
Title : HERB
Last Update : Mon Mar 04 17:00:39 2019
Response via : Initial Calibration

Calibration Files
500 =oa138430.d 400 =oa138429.d 300 =oa138428.d 200 =oa138427.d
100 =oa138426.d 50 =oa138425.d

	Compound	500	400	300	200	100	50	Avg		%RSD
1)	Dalapon	1.683	1.718	1.711	1.831	1.958	1.978	1.813	E6	7.18
2) S	2,4-DCAA	1.021	1.040	1.058	1.103	1.177	1.223	1.104	E6	7.31
3)	Dicamba	5.403	5.283	5.293	5.376	5.235	5.248	5.306	E6	1.29
4)	MCPP	2.618	2.488	2.573	2.529	2.298		2.501	E3	4.93
5)	MCPA	4.699	4.692	4.767	4.932	5.329		4.884	E3	5.47
6)	Dichloroprop	1.207	1.237	1.262	1.324	1.469	1.553	1.342	E6	10.35
7)	2,4-D	1.512	1.571	1.589	1.659	1.772	1.780	1.647	E6	6.69
8)	Pentachlorophenol	2.238	2.299	2.206	2.237	2.220	2.054	2.209	E7	3.73
9)	2,4,5-TP	8.033	8.064	8.087	8.052	7.912	7.649	7.966	E6	2.10
10)	2,4,5-T	8.409	8.496	8.478	8.458	8.371	8.003	8.369	E6	2.21
11)	2,4-DB	0.903	0.936	1.019	0.989	1.039	1.033	0.987	E6	5.63
12)	Dinoseb	5.844	6.264	6.432	6.871	7.610	7.337	6.726	E6	9.98
13)	Picloram	9.365	9.569	9.479	9.450	8.743	8.046	9.109	E6	6.58

Signal #2

1)	Dalapon	1.493	1.522	1.533	1.631	1.720	1.625	1.588	E7	5.41
2) S	2,4-DCAA	0.935	0.957	1.018	1.068	1.207	1.323	1.085	E7	14.00
3)	Dicamba	4.108	4.164	4.417	4.450	4.910	4.748	4.466	E7	7.07
4)	MCPP	3.230	3.258	3.441	3.320	3.007		3.251	E4	4.88
5)	MCPA	6.508	6.669	6.893	6.750	6.925		6.749	E4	2.52
6)	Dichloroprop	0.964	1.008	1.061	1.142	1.299	1.408	1.147	E7	15.18
7)	2,4-D	1.299	1.350	1.404	1.481	1.636	1.740	1.485	E7	11.56
8)	Pentachlorophenol	1.496	1.543	1.545	1.609	1.685	1.659	1.590	E8	4.65
9)	2,4,5-TP	5.983	6.168	6.330	6.610	6.947	7.024	6.510	E7	6.49
10)	2,4,5-T	6.525	6.730	6.949	7.161	7.408	7.477	7.042	E7	5.36
11)	2,4-DB	8.878	9.119	9.298	9.639	9.994	9.104	9.339	E6	4.38
12)	Dinoseb	2.879	3.124	3.357	3.772	4.277	4.602	3.668	E7	18.37
13)	Picloram	5.057	5.281	5.532	5.907	6.277	6.485	5.756	E7	9.80

(#) = Out of Range

HOA4767.M Mon Mar 04 17:00:58 2019

7.9.19

7

Initial Calibration Verification

Job Number: JC84381 **Sample:** GOA4767-ICV4767
Account: NOREASCA NOREAS, Inc. **Lab FileID:** OA138431.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4767\oa138431.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4767\oa138431.d\ECD2B.CH
Acq On : 26 Feb 2019 1:13 pm Operator: vinced
Sample : icv4767-300 Inst : SVOAGCOA
Misc : op18696,goa4767,30,,,2.5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4767.M (ChemStation Integrator)
Title : HERB
Last Update : Thu Feb 28 09:40:05 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Dalapon	1.813	1.573 E6	13.2	92	0.00	2.29- 2.35
2 S	2,4-DCAA	1.104	1.003 E6	9.1	95	0.00	7.25- 7.31
3	Dicamba	5.306	5.029 E6	5.2	95	0.00	7.46- 7.52
4	MCPP	2.501	2.499 E3	0.1	97	0.00	7.73- 7.79
5	MCPA	4.884	4.368 E3	10.6	92	0.00	7.92- 7.98
6	Dichloroprop	1.342	1.158 E6	13.7	92	0.00	8.45- 8.51
7	2,4-D	1.647	1.496 E6	9.2	94	0.01	8.78- 8.85
8	Pentachlorophenol	22.089	24.070 E6	-9.0	109	0.00	9.04- 9.10
9	2,4,5-TP	7.966	7.747 E6	2.7	96	0.02	10.07-10.13
10	2,4,5-T	8.369	7.531 E6	10.0	89	0.03	10.55-10.62
11	2,4-DB	986.505	884.177 E3	10.4	87	0.02	11.47-11.56
12	Dinoseb	6.726	6.271 E6	6.8	97	0.00	13.35-13.41
13	Picloram	9.109	8.113 E6	10.9	86	0.04	13.07-13.13

***** Signal #2 *****

1	Dalapon	15.876	14.061 E6	11.4	92	0.00	2.65- 2.71
2 S	2,4-DCAA	10.847	9.358 E6	13.7	92	0.00	8.55- 8.61
3	Dicamba	44.662	39.689 E6	11.1	90	0.00	8.83- 8.89
4	MCPP	32.513	33.488 E3	-3.0	97	0.00	9.02- 9.08
5	MCPA	67.492	63.226 E3	6.3	92	0.00	9.42- 9.48
6	Dichloroprop	11.469	9.789 E6	14.6	92	0.00	10.01-10.07
7	2,4-D	14.850	13.271 E6	10.6	94	0.00	10.58-10.64
8	Pentachlorophenol	158.954	167.732 E6	-5.5	109	0.00	11.23-11.29
9	2,4,5-TP	65.103	60.560 E6	7.0	96	0.00	12.10-12.16
10	2,4,5-T	70.419	61.149 E6	13.2	88	0.00	12.88-12.96
11	2,4-DB	9.339	8.957 E6	4.1	96	0.01	13.92-14.02
12	Dinoseb	36.685	31.730 E6	13.5	95	0.00	14.50-14.57
13	Picloram	57.565	50.659 E6	12.0	92	0.00	16.67-16.73

(#) = Out of Range SPCC's out = 0 CCC's out = 0
oa138428.d HOA4767.M Fri Mar 01 09:54:12 2019

Continuing Calibration Summary

Job Number: JC84381 **Sample:** GOA4782-CC4767
Account: NOREASCA NOREAS, Inc. **Lab FileID:** OA138918.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

Signal #1 : C:\msdchem\1\data\OA4782\oa138918.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4782\oa138918.d\ECD2B.CH
Acq On : 18 Mar 2019 10:13 am Operator: vinced
Sample : cc4767-300 Inst : SVOAGCOA
Misc : op19141,goa4782,15.2,,,5,1 Multiplr: 1.00
IntFile Signal #1: autoint1.e IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\1\METHODS\HOA4767.M (ChemStation Integrator)
Title : HERB
Last Update : Tue Mar 19 15:56:12 2019
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Dalapon	1.813	1.800 E6	0.7	105	0.00	2.28- 2.34
2 S	2,4-DCAA	1.104	1.031 E6	6.6	97	0.00	7.24- 7.30
3	Dicamba	5.306	6.215 E6	-17.1	117	0.00	7.44- 7.50
4	MCPP	2.501	2.289 E3	8.5	89	0.00	7.72- 7.78
5	MCPA	4.884	4.437 E3	9.2	93	0.00	7.91- 7.97
6	Dichloroprop	1.342	1.253 E6	6.6	99	0.00	8.43- 8.49
7	2,4-D	1.647	1.476 E6	10.4	93	0.00	8.78- 8.85
8	Pentachlorophenol	22.089	21.883 E6	0.9	99	0.00	9.03- 9.09
9	2,4,5-TP	7.966	7.675 E6	3.7	95	0.00	10.06-10.12
10	2,4,5-T	8.369	7.851 E6	6.2	93	0.00	10.54-10.61
11	2,4-DB	986.505	898.181 E3	9.0	88	0.00	11.46-11.55
12	Dinoseb	6.726	5.825 E6	13.4	91	0.00	13.32-13.38
13	Picloram	9.109	7.638 E6	16.1	81	0.00	13.04-13.10

***** Signal #2 *****

1	Dalapon	15.876	14.681 E6	7.5	96	0.00	2.63- 2.69
2 S	2,4-DCAA	10.847	10.754 E6	0.9	106	0.00	8.54- 8.60
3	Dicamba	44.662	49.558 E6	-11.0	112	0.00	8.82- 8.88
4	MCPP	32.513	30.763 E3	5.4	89	0.00	9.01- 9.07
5	MCPA	67.492	64.898 E3	3.8	94	0.00	9.40- 9.46
6	Dichloroprop	11.469	11.076 E6	3.4	104	0.00	9.99-10.05
7	2,4-D	14.850	14.453 E6	2.7	103	0.00	10.55-10.65
8	Pentachlorophenol	158.954	155.026 E6	2.5	100	0.00	11.22-11.28
9	2,4,5-TP	65.103	62.381 E6	4.2	99	0.00	12.09-12.15
10	2,4,5-T	70.419	64.750 E6	8.1	93	0.00	12.87-12.95
11	2,4-DB	9.339	7.024 E6	24.8#	76	0.00	13.91-14.00
12	Dinoseb	36.685	29.500 E6	19.6	88	0.00	14.48-14.55
13	Picloram	57.565	46.655 E6	19.0	84	0.00	16.65-16.71

(#) = Out of Range SPCC's out = 0 CCC's out = 0
oa138428.d HOA4767.M Tue Mar 19 15:56:20 2019

7.9.21

7

Continuing Calibration Summary

Job Number: JC84381 **Sample:** GOA4782-CC4767
Account: NOREASCA NOREAS, Inc. **Lab FileID:** OA138926.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\OA4782\oa138926.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4782\oa138926.d\ECD2B.CH
Acq On    : 18 Mar 2019  1:59 pm                    Operator: vinced
Sample    : cc4767-200                               Inst    : SVOAGCOA
Misc      : op19148,goa4782,15.7,,,5,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\HOA4767.M (ChemStation Integrator)
Title        : HERB
Last Update  : Tue Mar 19 15:56:12 2019
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Dalapon	1.813	2.102 E6	-15.9	115	0.00	2.28- 2.34
2 S	2,4-DCAA	1.104	1.010 E6	8.5	92	0.00	7.24- 7.30
3	Dicamba	5.306	5.566 E6	-4.9	104	0.00	7.44- 7.50
4	MCPP	2.501	2.108 E3	15.7	83	0.00	7.71- 7.77
5	MCPA	4.884	4.323 E3	11.5	88	0.00	7.91- 7.97
6	Dichloroprop	1.342	1.334 E6	0.6	101	0.00	8.43- 8.49
7	2,4-D	1.647	1.309 E6	20.5#	79	0.03	8.82- 8.89
8	Pentachlorophenol	22.089	23.119 E6	-4.7	103	0.00	9.03- 9.09
9	2,4,5-TP	7.966	7.549 E6	5.2	94	0.02	10.08-10.14
10	2,4,5-T	8.369	7.309 E6	12.7	86	0.06	10.60-10.67
11	2,4-DB	986.505	904.384 E3	8.3	91	0.06	11.52-11.61
12	Dinoseb	6.726	7.225 E6	-7.4	105	0.00	13.32-13.38
13	Picloram	9.109	3.176 E6	65.1#	34#	0.11#	13.15-13.21
*****	Signal #2 *****						
1	Dalapon	15.876	15.786 E6	0.6	97	0.00	2.64- 2.70
2 S	2,4-DCAA	10.847	10.332 E6	4.7	97	0.00	8.54- 8.60
3	Dicamba	44.662	44.895 E6	-0.5	101	0.00	8.82- 8.88
4	MCPP	32.513	25.747 E3	20.8#	78	0.00	9.01- 9.07
5	MCPA	67.492	58.193 E3	13.8	86	0.00	9.41- 9.47
6	Dichloroprop	11.469	11.532 E6	-0.5	101	0.00	9.99-10.05
7	2,4-D	14.850	15.624 E6	-5.2	105	0.02	10.57-10.67
8	Pentachlorophenol	158.954	157.996 E6	0.6	98	0.00	11.22-11.28
9	2,4,5-TP	65.103	59.901 E6	8.0	91	0.01	12.10-12.16
10	2,4,5-T	70.419	62.467 E6	11.3	87	0.03	12.89-12.97
11	2,4-DB	9.339	8.680 E6	7.1	90	0.03	13.94-14.03
12	Dinoseb	36.685	28.516 E6	22.3#	76	0.01	14.49-14.56
13	Picloram	57.565	36.690 E6	36.3#	62	0.04	16.69-16.75

```
   (#) = Out of Range              SPCC's out = 0  CCC's out = 0
    oa138427.d HOA4767.M        Tue Mar 19 15:56:59 2019
```

Continuing Calibration Summary

Job Number: JC84381 **Sample:** GOA4782-CC4767
Account: NOREASCA NOREAS, Inc. **Lab FileID:** OA138933.D
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Evaluate Continuing Calibration Report

```
Signal #1 : C:\msdchem\1\data\OA4782\oa138933.d\ECD1A.CH Vial: 0
Signal #2 : C:\msdchem\1\data\OA4782\oa138933.d\ECD2B.CH
Acq On    : 18 Mar 2019  5:18 pm                    Operator: vinced
Sample    : cc4767-300                               Inst    : SVOAGCOA
Misc      : op19148,goa4782,15.6,,,5,1               Multiplr: 1.00
IntFile Signal #1: autoint1.e   IntFile Signal #2: autoint2.e

Method       : C:\MSDCHEM\1\METHODS\HOA4767.M (ChemStation Integrator)
Title        : HERB
Last Update  : Tue Mar 19 15:56:12 2019
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.10min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	RT Window
1	Dalapon	1.813	1.921 E6	-6.0	112	0.00	2.28- 2.34
2 S	2,4-DCAA	1.104	1.064 E6	3.6	100	0.00	7.23- 7.29
3	Dicamba	5.306	6.208 E6	-17.0	117	0.00	7.44- 7.50
4	MCPP	2.501	2.503 E3	-0.1	97	0.00	7.71- 7.77
5	MCPA	4.884	4.671 E3	4.4	98	0.00	7.91- 7.97
6	Dichloroprop	1.342	1.368 E6	-1.9	108	0.00	8.43- 8.49
7	2,4-D	1.647	1.443 E6	12.4	91	0.02	8.80- 8.87
8	Pentachlorophenol	22.089	24.610 E6	-11.4	112	0.00	9.03- 9.09
9	2,4,5-TP	7.966	8.308 E6	-4.3	103	0.01	10.07-10.13
10	2,4,5-T	8.369	8.439 E6	-0.8	100	0.04	10.58-10.65
11	2,4-DB	986.505	991.574 E3	-0.5	97	0.04	11.50-11.59
12	Dinoseb	6.726	8.022 E6	-19.3	125	0.00	13.32-13.38
13	Picloram	9.109	4.707 E6	48.3#	50#	0.08	13.13-13.19
*****	Signal #2 *****						
1	Dalapon	15.876	14.777 E6	6.9	96	0.00	2.64- 2.70
2 S	2,4-DCAA	10.847	10.274 E6	5.3	101	0.00	8.54- 8.60
3	Dicamba	44.662	48.844 E6	-9.4	111	0.00	8.81- 8.87
4	MCPP	32.513	34.590 E3	-6.4	101	0.00	9.00- 9.06
5	MCPA	67.492	64.058 E3	5.1	93	0.00	9.40- 9.46
6	Dichloroprop	11.469	11.742 E6	-2.4	111	0.00	9.99-10.05
7	2,4-D	14.850	14.970 E6	-0.8	107	0.01	10.57-10.67
8	Pentachlorophenol	158.954	163.642 E6	-2.9	106	0.00	11.22-11.28
9	2,4,5-TP	65.103	65.111 E6	-0.0	103	0.00	12.10-12.16
10	2,4,5-T	70.419	69.015 E6	2.0	99	0.02	12.89-12.97
11	2,4-DB	9.339	8.971 E6	3.9	96	0.03	13.94-14.03
12	Dinoseb	36.685	30.236 E6	17.6	90	0.00	14.49-14.56
13	Picloram	57.565	43.808 E6	23.9#	79	0.03	16.69-16.75

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 oa138428.d HOA4767.M        Tue Mar 19 15:56:34 2019
```

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries
- IDL and Linear Range Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:21	MA46325-STD1	1		B=1.0682E-004, C=1.4275E-002, RHO=0.9994902
12:22	MA46325-STD2	1		STDB
12:23	MA46325-STD3	1		STDC
12:25	MA46325-STD4	1		STDD
12:26	MA46325-STD5	1		STDE
12:28	MA46325-STD6	1		STDF
12:31	MA46325-ICV1	1		
12:32	MA46325-ICB1	1		
12:34	MA46325-CCV1	1		
12:35	MA46325-CCB1	1		
12:37	MA46325-CRI1	1		
12:39	MA46325-CCV2	1		
12:40	MA46325-CCB2	1		
12:54	MP13213-MB1	1		
12:56	MP13213-B1	1		
12:57	MP13213-S1	1		
12:59	MP13213-S2	1		
13:00	JC83961-23	1		(sample used for QC only; not part of login JC84381)
13:02	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:08	MA46325-CCV3	1		
13:09	MA46325-CCB3	1		
13:11	ZZZZZZ	1		
13:12	ZZZZZZ	1		
13:14	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:22	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:24	MA46325-CCV4	1		
13:25	MA46325-CCB4	1		
13:27	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:34	ZZZZZZ	1		
13:35	MP13214-MB1	1		
13:36	MP13214-B1	1		
13:38	MP13214-S1	1		
13:39	MA46325-CCV5	1		
13:41	MA46325-CCB5	1		
13:43	MP13214-S2	1		
13:44	JC84381-5	1		
13:46	JC84381-1	1		
13:47	JC84381-2	1		
13:49	JC84381-3	1		
13:50	JC84381-4	1		
---------->	Last reportable sample/prep for job JC84381			
13:52	MP13215-MB1	1		
13:53	MP13215-B1	1		
13:54	MP13215-S1	1		
13:56	MA46325-CCV6	1		
13:58	MA46325-CCB6	1		
14:00	MP13215-S2	1		
14:01	JC84460-6	1		(sample used for QC only; not part of login JC84381)
14:03	MP13215-LC1	1		
14:04	MP13215-LC2	1		
14:06	ZZZZZZ	1		
14:08	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:11	ZZZZZZ	1		
14:13	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:14	MA46325-CCV7	1		
14:17	MA46325-CCB7	1		
14:18	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:23	ZZZZZZ	1		
14:24	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:30	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:32	MA46325-CCV8	1		
14:34	MA46325-CCB8	1		
14:35	ZZZZZZ	1		
14:37	ZZZZZZ	1		
14:38	ZZZZZZ	1		
14:40	ZZZZZZ	1		
14:41	ZZZZZZ	1		
14:43	MP13229-MB1	1		
14:44	MP13229-B1	1		
14:45	MP13229-S1	1		
14:47	MP13229-S2	1		
14:49	MA46325-CCV9	1		
14:51	MA46325-CCB9	1		
14:53	JC84471-4	1		(sample used for QC only; not part of login JC84381)
14:54	ZZZZZZ	1		
14:56	ZZZZZZ	1		
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:04	ZZZZZZ	1		
15:06	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:07	MA46325-CCV10	1		
15:09	MA46325-CCB10	1		
15:10	ZZZZZZ	1		
15:12	ZZZZZZ	1		
15:13	ZZZZZZ	1		
15:15	ZZZZZZ	1		
15:17	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:20	ZZZZZZ	1		
15:22	ZZZZZZ	1		
15:23	ZZZZZZ	1		
15:25	MA46325-CCV11	1		
15:26	MA46325-CCB11	1		
15:28	ZZZZZZ	1		
15:29	ZZZZZZ	1		
15:31	MP13230-MB1	1		
15:32	MP13230-B1	1		
15:33	MP13230-S1	1		
15:35	MP13230-S2	1		
15:37	JC84447-10	1		(sample used for QC only; not part of login JC84381)
15:39	ZZZZZZ	1		
15:41	ZZZZZZ	1		
15:43	MA46325-CCV12	1		
15:45	MA46325-CCB12	1		
15:46	ZZZZZZ	1		
15:48	ZZZZZZ	1		
15:50	ZZZZZZ	1		
15:52	ZZZZZZ	1		
15:54	ZZZZZZ	1		
15:56	ZZZZZZ	1		
15:58	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:01	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:03	MA46325-CCV13	1		
16:04	MA46325-CCB13	1		
16:06	ZZZZZZ	1		
16:07	ZZZZZZ	1		
16:09	ZZZZZZ	1		
16:10	MP13241-MB1	1		
16:12	MP13241-B1	1		
16:13	MP13241-S1	1		
16:15	MP13241-S2	1		
16:16	JC84464-1	1		(sample used for QC only; not part of login JC84381)
16:18	ZZZZZZ	25		
16:19	MA46325-CCV14	1		
16:21	MA46325-CCB14	1		
16:23	ZZZZZZ	5		
16:24	MP13230-S1	2		
16:26	MP13230-S2	2		
16:28	JC84447-10	2		(sample used for QC only; not part of login JC84381)
16:30	ZZZZZZ	2		
16:31	ZZZZZZ	2		
16:33	ZZZZZZ	5		
16:35	ZZZZZZ	5		
16:37	ZZZZZZ	1		
16:39	MA46325-CCV15	1		
16:40	MA46325-CCB15	1		
16:42	ZZZZZZ	5		
16:44	MA46325-CRI2	1		
16:46	MA46325-CCV16	1		
16:48	MA46325-CCB16	1		

----------> Last reportable CCB for job JC84381
Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
12:31	MA46325-ICV1	1	X	
12:32	MA46325-ICB1	1	X	
12:34	MA46325-CCV1	1	X	
12:35	MA46325-CCB1	1	X	
12:37	MA46325-CRI1	1	X	
12:39	MA46325-CCV2	1	X	
12:40	MA46325-CCB2	1	X	
12:54	MP13213-MB1	1	X	
12:56	MP13213-B1	1	X	
12:57	MP13213-S1	1	X	
12:59	MP13213-S2	1	X	
13:00	JC83961-23	1	X	(a)
13:02	ZZZZZZ	1		
13:04	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:08	MA46325-CCV3	1	X	
13:09	MA46325-CCB3	1	X	
13:11	ZZZZZZ	1		
13:12	ZZZZZZ	1		
13:14	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:17	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:22	ZZZZZZ	1		
13:24	MA46325-CCV4	1	X	
13:25	MA46325-CCB4	1	X	
13:27	ZZZZZZ	1		
13:28	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:31	ZZZZZZ	1		
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
13:32	ZZZZZZ	1		
13:34	ZZZZZZ	1		
13:35	MP13214-MB1	1	X	
13:36	MP13214-B1	1	X	
13:38	MP13214-S1	1	X	
13:39	MA46325-CCV5	1	X	
13:41	MA46325-CCB5	1	X	
13:43	MP13214-S2	1	X	
13:44	JC84381-5	1	X	
13:46	JC84381-1	1	X	
13:47	JC84381-2	1	X	
13:49	JC84381-3	1	X	
13:50	JC84381-4	1	X	
13:52	MP13215-MB1	1	X	
13:53	MP13215-B1	1	X	
13:54	MP13215-S1	1	X	
13:56	MA46325-CCV6	1	X	
13:58	MA46325-CCB6	1	X	
14:00	MP13215-S2	1	X	
14:01	JC84460-6	1	X	(a)
14:03	MP13215-LC1	1	X	
14:04	MP13215-LC2	1	X	
14:06	ZZZZZZ	1		
14:08	ZZZZZZ	1		
14:10	ZZZZZZ	1		
14:11	ZZZZZZ	1		
14:13	ZZZZZZ	1		
14:14	MA46325-CCV7	1	X	
14:17	MA46325-CCB7	1	X	
14:18	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:23	ZZZZZZ	1		
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
14:24	ZZZZZZ	1		
14:26	ZZZZZZ	1		
14:28	ZZZZZZ	1		
14:30	ZZZZZZ	1		
14:31	ZZZZZZ	1		
14:32	MA46325-CCV8	1	X	
14:34	MA46325-CCB8	1	X	
14:35	ZZZZZZ	1		
14:37	ZZZZZZ	1		
14:38	ZZZZZZ	1		
14:40	ZZZZZZ	1		
14:41	ZZZZZZ	1		
14:43	MP13229-MB1	1	X	
14:44	MP13229-B1	1	X	
14:45	MP13229-S1	1	X	
14:47	MP13229-S2	1	X	
14:49	MA46325-CCV9	1	X	
14:51	MA46325-CCB9	1	X	
14:53	JC84471-4	1	X	(a)
14:54	ZZZZZZ	1		
14:56	ZZZZZZ	1		
14:57	ZZZZZZ	1		
14:59	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:03	ZZZZZZ	1		
15:04	ZZZZZZ	1		
15:06	ZZZZZZ	1		
15:07	MA46325-CCV10	1	X	
15:09	MA46325-CCB10	1	X	
15:10	ZZZZZZ	1		
15:12	ZZZZZZ	1		
15:13	ZZZZZZ	1		
15:15	ZZZZZZ	1		
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg	
15:17	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:20	ZZZZZZ	1		
15:22	ZZZZZZ	1		
15:23	ZZZZZZ	1		
15:25	MA46325-CCV11	1	X	
15:26	MA46325-CCB11	1	X	
15:28	ZZZZZZ	1		
15:29	ZZZZZZ	1		
15:31	MP13230-MB1	1	X	
15:32	MP13230-B1	1	X	
15:33	MP13230-S1	1		
15:35	MP13230-S2	1		
15:37	JC84447-10	1		(a)
15:39	ZZZZZZ	1		
15:41	ZZZZZZ	1		
15:43	MA46325-CCV12	1	X	
15:45	MA46325-CCB12	1	X	
15:46	ZZZZZZ	1		
15:48	ZZZZZZ	1		
15:50	ZZZZZZ	1		
15:52	ZZZZZZ	1		
15:54	ZZZZZZ	1		
15:56	ZZZZZZ	1		
15:58	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:01	ZZZZZZ	1		
16:03	MA46325-CCV13	1	X	
16:04	MA46325-CCB13	1	X	
16:06	ZZZZZZ	1		
16:07	ZZZZZZ	1		
16:09	ZZZZZZ	1		
16:10	MP13241-MB1	1	X	
		Element:	Hg	

REPORTED ELEMENTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
Analyst: LL Run ID: MA46325
Parameters: Hg

Time	Sample Description	Element: Dilution	Hg
16:12	MP13241-B1	1	X
16:13	MP13241-S1	1	X
16:15	MP13241-S2	1	X
16:16	JC84464-1	1	X (a)
16:18	ZZZZZZ	25	
16:19	MA46325-CCV14	1	X
16:21	MA46325-CCB14	1	X
16:23	ZZZZZZ	5	
16:24	MP13230-S1	2	X
16:26	MP13230-S2	2	X
16:28	JC84447-10	2	X (a)
16:30	ZZZZZZ	2	
16:31	ZZZZZZ	2	
16:33	ZZZZZZ	5	
16:35	ZZZZZZ	5	
16:37	ZZZZZZ	1	
16:39	MA46325-CCV15	1	X
16:40	MA46325-CCB15	1	X
16:42	ZZZZZZ	5	
16:44	MA46325-CRI2	1	X
16:46	MA46325-CCV16	1	X
16:48	MA46325-CCB16	1	X

(a) Sample used for QC only; not part of login JC84381.

Element: Hg

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: result < RL Run ID: MA46325 Units: ug/l

Time: / Sample ID:			12:32 ICB1		12:35 CCB1		12:40 CCB2		13:09 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.02	0.0221	<0.20	0.00950	<0.20	0.00890	<0.20	-0.0119	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: result < RL Run ID: MA46325 Units: ug/l

Time: / Sample ID:			13:25 CCB4		13:41 CCB5		13:58 CCB6		14:17 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.02	-0.0107	<0.20	-0.0173	<0.20	-0.0174	<0.20	-0.0480	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: result < RL Run ID: MA46325 Units: ug/l

Time: / Sample ID:			14:34 CCB8		14:51 CCB9		15:09 CCB10		15:26 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.02	-0.0136	<0.20	-0.0249	<0.20	-0.0111	<0.20	-0.0120	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: result < RL Run ID: MA46325 Units: ug/l

Time:			15:45		16:04		16:21		16:40	
Sample ID:			CCB12		CCB13		CCB14		CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Mercury	0.20	.02	-0.0256	<0.20	-0.00520	<0.20	-0.0101	<0.20	-0.0167	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: result < RL Run ID: MA46325 Units: ug/l

Time:			16:48	
Sample ID:			CCB16	
Metal	RL	IDL	raw	final
Mercury	0.20	.02	-0.00850	<0.20

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46325 Units: ug/l

Time:		12:31			12:34			12:39	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	3	3.23	107.7	2.5	2.56	102.4	2.5	2.56	102.4

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46325 Units: ug/l

Time:		13:08			13:24			13:39	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.25	90.0	2.5	2.29	91.6	2.5	2.44	97.6

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46325 Units: ug/l

Time:		13:56			14:14			14:32	
Sample ID:	CCV	CCV6		CCV	CCV7		CCV	CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.47	98.8	2.5	2.36	94.4	2.5	2.47	98.8

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46325 Units: ug/l

Time:		14:49			15:07			15:25	
Sample ID:	CCV	CCV9		CCV	CCV10		CCV	CCV11	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.43	97.2	2.5	2.44	97.6	2.5	2.48	99.2

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46325 Units: ug/l

Time:		15:43			16:03			16:19	
Sample ID:	CCV	CCV12		CCV	CCV13		CCV	CCV14	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.43	97.2	2.5	2.44	97.6	2.5	2.44	97.6

(*) Outside of QC limits
(anr) Analyte not requested

8.1.3
8

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: 90 to 110 % Recovery Run ID: MA46325 Units: ug/l

Time:		16:39			16:46	
Sample ID:	CCV	CCV15		CCV	CCV16	
Metal	True	Results	% Rec	True	Results	% Rec
Mercury	2.5	2.44	97.6	2.5	2.46	98.4

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: H8031919S1.CSV Date Analyzed: 03/19/19 Methods: SW846 7470A, SW846 7471B
QC Limits: 70 to 130 % Recovery Run ID: MA46325 Units: ug/l

Time:			12:37		16:44	
Sample ID:	CRI	CRIA	CRI1		CRI2	
Metal	True	True	Results	% Rec	Results	% Rec
Mercury	0.20		0.228	114.0	0.203	101.5

(*) Outside of QC limits
(anr) Analyte not requested

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46326
Parameters: As,Ba,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:51	MA46326-STD1	1		STDA
10:56	MA46326-STD2	1		STDB
11:01	ZZZZZZ	1		
11:06	ZZZZZZ	1		
11:12	MA46326-ICV1	1		
11:17	MA46326-ICB1	1		
11:22	MA46326-CCV1	1		
11:27	MA46326-CCB1	1		
11:32	MA46326-CRI1	1		
11:37	MA46326-CRID1	1		
11:42	MA46326-ICSA1	1		
11:47	MA46326-ICSAB1	1		
11:53	MA46326-HSTD1	1		
11:58	MA46326-HSTD2	1		
12:04	ZZZZZZ	1		
12:09	ZZZZZZ	1		
12:14	MA46326-CRI2	1		
12:20	ZZZZZZ	1		
12:25	MA46326-CCV2	1		
12:30	MA46326-CCB2	1		
12:35	ZZZZZZ	1		
12:40	MP13061A-B1	1		
12:45	MP13061A-MB1	1		
12:50	MP13061A-S1	1		
12:55	MP13061A-S2	1		
13:00	JC84212-2	1		(sample used for QC only; not part of login JC84381)
13:05	MP13061A-SD1	5		
13:10	MP13061A-PS1	1		
13:15	ZZZZZZ	1		
13:20	MA46326-CCV3	1		
13:25	MA46326-CCB3	1		
13:30	ZZZZZZ	1		
13:35	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46326
Parameters: As,Ba,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Zn

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:40	ZZZZZZ	1		
13:45	ZZZZZZ	1		
13:50	MA46326-CCV4	1		
13:55	MA46326-CCB4	1		
14:00	MP13177-MB1	1		
14:05	MP13177-B1	1		
14:10	MP13177-S1	1		
14:15	MP13177-S2	1		
14:20	JC84381-5	1		
14:25	MP13177-SD1	5		
14:30	MP13177-PS1	1		
14:35	JC84381-1	1		
14:40	JC84381-2	1		
14:45	MA46326-CCV5	1		
14:50	MA46326-CCB5	1		
14:55	JC84381-3	1		
15:00	JC84381-4	1		
---------->	Last reportable sample/prep for job JC84381			
15:05	ZZZZZZ	1		
15:10	ZZZZZZ	1		
15:15	ZZZZZZ	1		
15:20	MA46326-CCV6	1		
15:26	MA46326-CCB6	1		
---------->	Last reportable CCB for job JC84381			
15:31	ZZZZZZ	1		
15:36	ZZZZZZ	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46326
Parameters: As,Ba,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Zn

Time	Sample Description	Dilution	Element: As	Ba	Be	Cd	Cr	Cu	Pb	Mn	Ni	Se	Ag	Zn	
11:01	ZZZZZZ	1													
11:06	ZZZZZZ	1													
11:12	MA46326-ICV1	1	X	X	X	X	X	X	X	X	X	X	X	X	
11:17	MA46326-ICB1	1	X	X	X	X	X	X	X	X	X	X	X	X	
11:22	MA46326-CCV1	1	X	X	X	X	X	X	X	X	X	X	X	X	
11:27	MA46326-CCB1	1	X	X	X	X	X	X	X	X	X	X	X	X	
11:32	MA46326-CRI1	1													
11:37	MA46326-CRID1	1	X	X	X	X	X	X	X	X	X	X	X	X	
11:42	MA46326-ICSA1	1	X	X	X	X	X	X	X	X	X	X	X	X	
11:47	MA46326-ICSAB1	1	X	X	X	X	X	X	X	X	X	X	X	X	
11:53	MA46326-HSTD1	1	X	X	X	X	X	X	X	X	X	X	X	X	
11:58	MA46326-HSTD2	1	X	X	X	X	X	X	X	X	X	X	X	X	
12:04	ZZZZZZ	1													
12:09	ZZZZZZ	1													
12:14	MA46326-CRI2	1	X	X	X	X	X	X	X	X	X	X	X	X	
12:20	ZZZZZZ	1													
12:25	MA46326-CCV2	1	X	X	X	X	X	X	X	X	X	X	X	X	
12:30	MA46326-CCB2	1	X	X	X	X	X	X	X	X	X	X	X	X	
12:35	ZZZZZZ	1													
12:40	MP13061A-B1	1					X								
12:45	MP13061A-MB1	1					X								
12:50	MP13061A-S1	1					X								
12:55	MP13061A-S2	1					X								
13:00	JC84212-2	1					X								(a)
13:05	MP13061A-SD1	5					X								
13:10	MP13061A-PS1	1													
13:15	ZZZZZZ	1													
13:20	MA46326-CCV3	1	X	X	X	X	X	X	X	X	X	X	X	X	
13:25	MA46326-CCB3	1	X	X	X	X	X	X	X	X	X	X	X	X	
13:30	ZZZZZZ	1													
13:35	ZZZZZZ	1													
13:40	ZZZZZZ	1													
13:45	ZZZZZZ	1													
		Element:	As	Ba	Be	Cd	Cr	Cu	Pb	Mn	Ni	Se	Ag	Zn	

REPORTED ELEMENTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46326
Parameters: As,Ba,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Zn

Time	Sample Description	Element: Dilution	As	Ba	Be	Cd	Cr	Cu	Pb	Mn	Ni	Se	Ag	Zn
13:50	MA46326-CCV4	1	X	X	X	X	X	X	X	X	X	X	X	X
13:55	MA46326-CCB4	1	X	X	X	X	X	X	X	X	X	X	X	X
14:00	MP13177-MB1	1	X	X	X	X	X	X	X	X	X	X	X	X
14:05	MP13177-B1	1	X	X	X	X	X	X	X	X	X	X	X	X
14:10	MP13177-S1	1	X	X	X	X	X	X	X	X	X	X	X	X
14:15	MP13177-S2	1	X	X	X	X	X	X	X	X	X	X	X	X
14:20	JC84381-5	1	X	X	X	X	X	X	X	X	X	X	X	X
14:25	MP13177-SD1	5	X	X	X	X	X	X	X	X	X	X	X	X
14:30	MP13177-PS1	1												
14:35	JC84381-1	1	X	X	X	X	X	X	X	X	X	X	X	X
14:40	JC84381-2	1	X	X	X	X	X	X	X	X	X	X	X	X
14:45	MA46326-CCV5	1	X	X	X	X	X	X	X	X	X	X	X	X
14:50	MA46326-CCB5	1	X	X	X	X	X	X	X	X	X	X	X	X
14:55	JC84381-3	1	X	X	X	X	X	X	X	X	X	X	X	X
15:00	JC84381-4	1	X	X	X	X	X	X	X	X	X	X	X	X
15:05	ZZZZZZ	1												
15:10	ZZZZZZ	1												
15:15	ZZZZZZ	1												
15:20	MA46326-CCV6	1	X	X	X	X	X	X	X	X	X	X	X	X
15:26	MA46326-CCB6	1	X	X	X	X	X	X	X	X	X	X	X	X
15:31	ZZZZZZ	1												
15:36	ZZZZZZ	1												

(a) Sample used for QC only; not part of login JC84381.

Element: As Ba Be Cd Cr Cu Pb Mn Ni Se Ag Zn

INTERNAL STANDARD SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46326
Parameters: As,Ba,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:51	MA46326-STD1	6136 R	139460 R	22325 R	8185 R
10:56	MA46326-STD2	5705	127160	21730	7352
11:01	ZZZZZZ	5828	130220	21832	7440
11:06	ZZZZZZ	6072	138320	22040	8145
11:12	MA46326-ICV1	5760	128750	21312	7400
11:17	MA46326-ICB1	6003	137250	21875	8072
11:22	MA46326-CCV1	5719	128580	21369	7370
11:27	MA46326-CCB1	6052	135540	21728	8149
11:32	MA46326-CRI1	No results reported for the elements associated with this internal standard.			
11:37	MA46326-CRID1	6057	138680	22229	8066
11:42	MA46326-ICSA1	5379	119110	21123	6847
11:47	MA46326-ICSAB1	5400	119890	21143	6882
11:53	MA46326-HSTD1	5859	135060	22363	8021
11:58	MA46326-HSTD2	5458	121210	21298	6862
12:04	ZZZZZZ	5994	136290	22084	8164
12:09	ZZZZZZ	5894	139590	22168	8126
12:14	MA46326-CRI2	6024	136860	21932	7906
12:20	ZZZZZZ	6024	137140	21996	8093
12:25	MA46326-CCV2	5769	129960	21828	7424
12:30	MA46326-CCB2	6056	138620	22212	8127
12:35	ZZZZZZ	6142	141090	22506	8180
12:40	MP13061A-B1	5897	133530	22132	7556
12:45	MP13061A-MB1	6120	140360	22376	8149
12:50	MP13061A-S1	5801	130400	22025	7417
12:55	MP13061A-S2	5927	133900	22207	7522
13:00	JC84212-2	5994	136560	22343	7740
13:05	MP13061A-SD1	6015	137390	22033	7965
13:10	MP13061A-PS1	5848	131850	22097	7484
13:15	ZZZZZZ	5931	135580	22279	7718
13:20	MA46326-CCV3	5786	129950	21643	7400
13:25	MA46326-CCB3	6090	139060	22070	8133
13:30	ZZZZZZ	5987	137510	22336	7775
13:35	ZZZZZZ	5975	136850	22231	7724

INTERNAL STANDARD SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
Analyst: ND Run ID: MA46326
Parameters: As,Ba,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Zn

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
13:40	ZZZZZZ	5985	136140	22272	7713
13:45	ZZZZZZ	6017	137180	22345	7786
13:50	MA46326-CCV4	5804	130250	21732	7414
13:55	MA46326-CCB4	6071	138970	22106	8091
14:00	MP13177-MB1	6159	141450	22496	8166
14:05	MP13177-B1	5877	132840	22021	7531
14:10	MP13177-S1	6000	132940	22622	7487
14:15	MP13177-S2	5946	134600	22833	7452
14:20	JC84381-5	6194	138000	22841	7742
14:25	MP13177-SD1	6122	139400	22389	7919
14:30	MP13177-PS1	6039	135710	22686	7556
14:35	JC84381-1	6181	138420	23019	7676
14:40	JC84381-2	6160	137480	22956	7620
14:45	MA46326-CCV5	5754	129990	21673	7353
14:50	MA46326-CCB5	6150	141770	22478	8191
14:55	JC84381-3	6149	137090	22842	7658
15:00	JC84381-4	6262	139850	23513	7763
15:05	ZZZZZZ	6164	142030	22495	8174
15:10	ZZZZZZ	6141	141760	22653	8152
15:15	ZZZZZZ	6071	139060	22232	8061
15:20	MA46326-CCV6	5832	131560	21347	7454
15:26	MA46326-CCB6	6103	140290	22242	8159
15:31	ZZZZZZ	6193	142270	22724	8247
15:36	ZZZZZZ	5984	135070	21987	8019

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46326 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	11:17 ICB1 raw	final	11:27 CCB1 raw	final	12:30 CCB2 raw	final
Aluminum	200	14	100						
Antimony	6.0	1.4	5.0						
Arsenic	5.0	1.5	3.0	0.600	<5.0	2.10	<5.0	3.00	<5.0*(a)
Barium	200	.5	100	-0.300	<200	0.400	<200	0.200	<200
Beryllium	2.0	.1	1.0	0.300	<2.0	0.500	<2.0	1.00	<2.0*(a)
Bismuth	20	1.8	10						
Boron	200	.8	100						
Cadmium	3.0	.3	2.0	0.300	<3.0	0.600	<3.0	0.400	<3.0
Calcium	5000	3.9	200						
Chromium	10	.3	5.0	0.300	<10	0.600	<10	0.800	<10
Cobalt	50	.3	10						
Copper	10	.6	8.0	0.400	<10	0.600	<10	1.50	<10
Iron	100	2.6	50						
Lead	5.0	1.6	3.0	0.700	<5.0	-0.300	<5.0	0.00	<5.0
Lithium	50	2.1	20						
Magnesium	5000	16	500						
Manganese	15	.1	5.0	0.200	<15	0.600	<15	1.00	<15
Molybdenum	20	.4	8.0						
Nickel	10	.5	8.0	0.700	<10	0.900	<10	0.700	<10
Phosphorus	50	1.9	25						
Potassium	10000	79	500						
Selenium	10	3	8.0	-2.10	<10	0.800	<10	-0.700	<10
Silicon	200	1.2	150						
Silver	10	.5	4.0	0.900	<10	0.700	<10	0.700	<10
Sodium	10000	9.9	1000						
Strontium	10	.3	2.0						
Sulfur	100	3.5	50						
Thallium	10	1.3	5.0						
Tin	10	.7	8.0						
Titanium	10	.5	4.0						
Tungsten	100	1.7	50						
Vanadium	50	.5	4.0						
Zinc	20	.2	10	0.00	<20	0.200	<20	0.100	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46326 Units: ug/l

Time:				11:17		11:27		12:30	
Sample ID:				ICB1		CCB1		CCB2	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Zirconium	10	.3	5.0						

(*) Outside of QC limits
(anr) Analyte not requested
(a) No samples reported for this element in the area bracketed by this QC.

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46326 Units: ug/l

Time: / Sample ID: / Metal	RL	IDL	LOD	13:25 CCB3 raw	final	13:55 CCB4 raw	final	14:50 CCB5 raw	final
Aluminum	200	14	100						
Antimony	6.0	1.4	5.0						
Arsenic	5.0	1.5	3.0	0.100	<5.0	0.500	<5.0	0.300	<5.0
Barium	200	.5	100	-0.400	<200	0.100	<200	0.100	<200
Beryllium	2.0	.1	1.0	0.100	<2.0	0.500	<2.0	0.400	<2.0
Bismuth	20	1.8	10						
Boron	200	.8	100						
Cadmium	3.0	.3	2.0	0.100	<3.0	0.400	<3.0	0.400	<3.0
Calcium	5000	3.9	200						
Chromium	10	.3	5.0	0.300	<10	0.500	<10	0.500	<10
Cobalt	50	.3	10						
Copper	10	.6	8.0	0.400	<10	0.600	<10	0.800	<10
Iron	100	2.6	50						
Lead	5.0	1.6	3.0	0.400	<5.0	0.500	<5.0	0.400	<5.0
Lithium	50	2.1	20						
Magnesium	5000	16	500						
Manganese	15	.1	5.0	0.200	<15	0.500	<15	0.400	<15
Molybdenum	20	.4	8.0						
Nickel	10	.5	8.0	0.300	<10	0.400	<10	0.500	<10
Phosphorus	50	1.9	25						
Potassium	10000	79	500						
Selenium	10	3	8.0	-0.900	<10	-1.30	<10	-0.300	<10
Silicon	200	1.2	150						
Silver	10	.5	4.0	0.200	<10	0.600	<10	0.500	<10
Sodium	10000	9.9	1000						
Strontium	10	.3	2.0						
Sulfur	100	3.5	50						
Thallium	10	1.3	5.0						
Tin	10	.7	8.0						
Titanium	10	.5	4.0						
Tungsten	100	1.7	50						
Vanadium	50	.5	4.0						
Zinc	20	.2	10	-0.200	<20	0.00	<20	0.200	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46326 Units: ug/l

Time:				13:25		13:55		14:50	
Sample ID:				CCB3		CCB4		CCB5	
Metal	RL	IDL	LOD	raw	final	raw	final	raw	final
Zirconium	10	.3	5.0						

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46326 Units: ug/l

Time:				15:26	
Sample ID:				CCB6	
Metal	RL	IDL	LOD	raw	final
Aluminum	200	14	100		
Antimony	6.0	1.4	5.0		
Arsenic	5.0	1.5	3.0	0.600	<5.0
Barium	200	.5	100	-0.500	<200
Beryllium	2.0	.1	1.0	0.700	<2.0
Bismuth	20	1.8	10		
Boron	200	.8	100		
Cadmium	3.0	.3	2.0	0.500	<3.0
Calcium	5000	3.9	200		
Chromium	10	.3	5.0	0.900	<10
Cobalt	50	.3	10		
Copper	10	.6	8.0	0.900	<10
Iron	100	2.6	50		
Lead	5.0	1.6	3.0	0.100	<5.0
Lithium	50	2.1	20		
Magnesium	5000	16	500		
Manganese	15	.1	5.0	1.10	<15
Molybdenum	20	.4	8.0		
Nickel	10	.5	8.0	0.700	<10
Phosphorus	50	1.9	25		
Potassium	10000	79	500		
Selenium	10	3	8.0	-0.700	<10
Silicon	200	1.2	150		
Silver	10	.5	4.0	0.600	<10
Sodium	10000	9.9	1000		
Strontium	10	.3	2.0		
Sulfur	100	3.5	50		
Thallium	10	1.3	5.0		
Tin	10	.7	8.0		
Titanium	10	.5	4.0		
Tungsten	100	1.7	50		
Vanadium	50	.5	4.0		
Zinc	20	.2	10	0.100	<20

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: result < 1/2 RL Run ID: MA46326 Units: ug/l

Time:				15:26	
Sample ID:				CCB6	
Metal	RL	IDL	LOD	raw	final
Zirconium	10	.3	5.0		

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46326 Units: ug/l

Time:		11:12			11:22			12:25	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	2000	1930	96.5	2000	2010	100.5	2000	2000	100.0
Barium	2000	1990	99.5	2000	2010	100.5	2000	2030	101.5
Beryllium	2000	2040	102.0	2000	2070	103.5	2000	2080	104.0
Bismuth									
Boron	anr								
Cadmium	2000	1980	99.0	2000	2020	101.0	2000	2030	101.5
Calcium									
Chromium	2000	1960	98.0	2000	2010	100.5	2000	2020	101.0
Cobalt									
Copper	2000	1950	97.5	2000	1990	99.5	2000	2000	100.0
Iron									
Lead	2000	1980	99.0	2000	2030	101.5	2000	2050	102.5
Lithium	anr								
Magnesium									
Manganese	2000	2010	100.5	2000	2050	102.5	2000	2060	103.0
Molybdenum									
Nickel	2000	1990	99.5	2000	2040	102.0	2000	2060	103.0
Phosphorus									
Potassium									
Selenium	2000	1930	96.5	2000	2000	100.0	2000	1980	99.0
Silicon									
Silver	250	239	95.6	250	248	99.2	250	249	99.6
Sodium									
Strontium									
Sulfur									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	2000	1970	98.5	2000	2030	101.5	2000	2030	101.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46326 Units: ug/l

Time:		11:12			11:22			12:25	
Sample ID:	ICV	ICV1		CCV	CCV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46326 Units: ug/l

Time:		13:20			13:50			14:45	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony									
Arsenic	2000	2030	101.5	2000	2040	102.0	2000	2050	102.5
Barium	2000	2030	101.5	2000	2040	102.0	2000	2080	104.0
Beryllium	2000	2090	104.5	2000	2080	104.0	2000	2110	105.5
Bismuth									
Boron	anr								
Cadmium	2000	2040	102.0	2000	2040	102.0	2000	2070	103.5
Calcium									
Chromium	2000	2030	101.5	2000	2030	101.5	2000	2050	102.5
Cobalt									
Copper	2000	2020	101.0	2000	2010	100.5	2000	2040	102.0
Iron									
Lead	2000	2060	103.0	2000	2070	103.5	2000	2090	104.5
Lithium	anr								
Magnesium									
Manganese	2000	2070	103.5	2000	2060	103.0	2000	2100	105.0
Molybdenum									
Nickel	2000	2070	103.5	2000	2080	104.0	2000	2100	105.0
Phosphorus									
Potassium									
Selenium	2000	2020	101.0	2000	2020	101.0	2000	2050	102.5
Silicon									
Silver	250	250	100.0	250	250	100.0	250	253	101.2
Sodium									
Strontium									
Sulfur									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	2000	2040	102.0	2000	2040	102.0	2000	2070	103.5

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46326 Units: ug/l

Time:		13:20			13:50			14:45	
Sample ID:	CCV	CCV3		CCV	CCV4		CCV	CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Zirconium									

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46326 Units: ug/l

Time:		15:20	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec
Aluminum			
Antimony			
Arsenic	2000	2030	101.5
Barium	2000	2110	105.5
Beryllium	2000	2140	107.0
Bismuth			
Boron	anr		
Cadmium	2000	2040	102.0
Calcium			
Chromium	2000	2010	100.5
Cobalt			
Copper	2000	2000	100.0
Iron			
Lead	2000	2070	103.5
Lithium	anr		
Magnesium			
Manganese	2000	2050	102.5
Molybdenum			
Nickel	2000	2070	103.5
Phosphorus			
Potassium			
Selenium	2000	2010	100.5
Silicon			
Silver	250	249	99.6
Sodium			
Strontium			
Sulfur			
Thallium			
Tin			
Titanium			
Tungsten			
Vanadium			
Zinc	2000	2040	102.0

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA46326 Units: ug/l

Time:		15:20	
Sample ID:	CCV	CCV6	
Metal	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA46326 Units: ug/l

Time:		11:53			11:58	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony						
Arsenic	8000	7950	99.4			
Barium	8000	8150	101.9			
Beryllium	8000	8280	103.5			
Bismuth						
Boron	anr					
Cadmium	8000	8000	100.0			
Calcium						
Chromium	8000	8160	102.0			
Cobalt						
Copper	8000	8190	102.4			
Iron						
Lead	8000	8140	101.8			
Lithium	anr					
Magnesium						
Manganese	8000	8190	102.4			
Molybdenum						
Nickel	8000	8020	100.3			
Phosphorus						
Potassium						
Selenium	8000	8030	100.4			
Silicon						
Silver	625	602	96.3			
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	8000	8250	103.1			

HIGH STANDARD CHECK SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 90 to 110 % Recovery Run ID: MA46326 Units: ug/l

Time:		11:53			11:58	
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Zirconium						

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46326 Units: ug/l

Time:				11:37		12:14	
Sample ID:	CRI	CRIA	CRID	CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Aluminum	200	500	100				
Antimony	6.0	20	3.0				
Arsenic	8.0	20	3.0	2.90	96.7	8.60	107.5
Barium	200		4.0	4.00	100.0	202	101.0
Beryllium	2.0		1.0			2.20	110.0
Bismuth	20						
Boron	100		10				
Cadmium	3.0		1.0	1.20	120.0	3.10	103.3
Calcium	5000	2000	1000				
Chromium	10		2.0			11.3	113.0
Cobalt	50		3.0				
Copper	10		2.0			10.3	103.0
Iron	100	500					
Lead	3.0	20	2.5			3.10	103.3
Lithium	50						
Magnesium	5000	2000	100				
Manganese	15		3.0	3.60	120.0	16.0	106.7
Molybdenum	20						
Nickel	10		4.0			10.9	109.0
Phosphorus	50						
Potassium	5000		2000				
Selenium	10	20	5.0	4.40	88.0	9.80	98.0
Silicon	200						
Silver	5.0		2.0			5.50	110.0
Sodium	5000		1000				
Strontium	10						
Sulfur	50						
Thallium	10		2.0				
Tin	10						
Titanium	10						
Tungsten	50						
Vanadium	50		2.0				
Zinc	20		10	11.7	117.0	20.7	103.5

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA46326 Units: ug/l

Time:				11:37		12:14	
Sample ID:	CRI	CRIA	CRID	CRID1		CRI2	
Metal	True	True	True	Results	% Rec	Results	% Rec
Zirconium	10						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46326 Units: ug/l

Time:			11:42		11:47	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	511000	102.2	521000	104.2
Antimony		1000	0.900		1080	108.0
Arsenic		1000	1.60		1080	108.0
Barium		500	0.200		510	102.0
Beryllium		500	0.100		510	102.0
Bismuth		500	2.90		508	101.6
Boron		500	0.200		497	99.4
Cadmium		1000	-0.400		1020	102.0
Calcium	400000	400000	404000	101.0	397000	99.3
Chromium		500	1.60		493	98.6
Cobalt		500	0.400		494	98.8
Copper		500	-1.20		502	100.4
Iron	200000	200000	201000	100.5	197000	98.5
Lead		1000	-0.300		959	95.9
Lithium		500	-6.40		541	108.2
Magnesium	500000	500000	513000	102.6	511000	102.2
Manganese		500	0.800		515	103.0
Molybdenum		500	-0.200		496	99.2
Nickel		1000	0.500		979	97.9
Phosphorus		500	12.2		544	108.8
Potassium			241		164	
Selenium		1000	0.400		1070	107.0
Silicon		500	6.70		528	105.6
Silver		1000	1.50		1050	105.0
Sodium			108		34.3	
Strontium		500	-0.700		573	114.6
Sulfur		500	2.30		499	99.8
Thallium		1000	-0.100		994	99.4
Tin		500	-0.800		473	94.6
Titanium		500	-1.60		496	99.2
Tungsten		500	-1.90		467	93.4
Vanadium		500	-2.40		502	100.4
Zinc		1000	-1.00		966	96.6

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: SC031919M1L.ICP Date Analyzed: 03/19/19 Methods: EPA 200.7, SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA46326 Units: ug/l

Time:			11:42		11:47	
Sample ID:	ICSA	ICSAB	ICSA1		ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec
Zirconium		500	2.00		535	107.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 03/18/19

Metal	RL	IDL	MDL	MB raw	final
Aluminum	49	1.4	7.9		
Antimony	2.0	.14	.4		
Arsenic	2.0	.15	.27	-0.020	<2.0
Barium	20	.049	1.9	-0.029	<20
Beryllium	0.20	.0098	.078	0.020	<0.20
Bismuth	2.0	.18	.51		
Boron	9.8	.078	.15		
Cadmium	0.49	.029	.069	0.020	<0.49
Calcium	490	.38	43		
Chromium	0.98	.029	.36	0.15	<0.98
Cobalt	4.9	.029	.27		
Copper	2.5	.059	.82	0.18	<2.5
Iron	49	.25	19		
Lead	2.0	.16	.4	0.020	<2.0
Lithium	4.9	.21	.9		
Magnesium	490	1.6	13		
Manganese	1.5	.0098	.4	0.049	<1.5
Molybdenum	2.0	.039	.31		
Nickel	3.9	.049	.34	0.088	<3.9
Potassium	980	7.7	31		
Selenium	2.0	.29	.64	-0.039	<2.0
Silicon	20	.12	10		
Silver	0.49	.049	.17	0.039	<0.49
Sodium	980	.97	76		
Strontium	4.9	.029	.18		
Sulfur	20	.34	9.2		
Thallium	0.98	.13	.57		
Tin	9.8	.069	3.7		
Titanium	0.98	.049	.33		
Tungsten	4.9	.17	1.7		
Vanadium	4.9	.049	.19		
Zinc	4.9	.02	2.3	0.27	<4.9
Zirconium	2.0	.029	.23		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177 Methods: SW846 6010D
Matrix Type: SOLID Units: mg/kg

Prep Date: 03/18/19

Metal	RL	IDL	MDL	MB raw	final

Associated samples MP13177: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 03/18/19

Metal	JC84381-5 Original	MS	Spikelot MPSPK2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	3.6	191	207	90.3	75-125
Barium	20.9	222	207	96.9	75-125
Beryllium	0.36	199	207	95.8	75-125
Bismuth					
Boron					
Cadmium	0.0	192	207	92.6	75-125
Calcium					
Chromium	11.6	205	207	93.2	75-125
Cobalt					
Copper	8.0	203	207	94.0	75-125
Iron					
Lead	12.0	209	207	95.0	75-125
Lithium					
Magnesium					
Manganese	94.0	299	207	98.8	75-125
Molybdenum					
Nickel	6.4	204	207	95.3	75-125
Potassium					
Selenium	0.0	186	207	89.7	75-125
Silicon					
Silver	0.41	25.7	25.9	97.5	75-125
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc	18.1	209	207	92.0	75-125
Zirconium					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 03/18/19

	JC84381-5	Spikelot		QC
Metal	Original MS	MPSPK2	% Rec	Limits

Associated samples MP13177: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 03/18/19

Metal	JC84381-5 Original	MSD	Spikelot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	3.6	200	214	91.9	4.6	20
Barium	20.9	229	214	97.4	3.1	20
Beryllium	0.36	205	214	95.8	3.0	20
Bismuth						
Boron						
Cadmium	0.0	201	214	94.1	4.6	20
Calcium						
Chromium	11.6	211	214	93.3	2.9	20
Cobalt						
Copper	8.0	210	214	94.6	3.4	20
Iron						
Lead	12.0	218	214	96.4	4.2	20
Lithium						
Magnesium						
Manganese	94.0	303	214	97.8	1.3	20
Molybdenum						
Nickel	6.4	214	214	97.2	4.8	20
Potassium						
Selenium	0.0	195	214	91.3	4.7	20
Silicon						
Silver	0.41	26.5	26.7	97.7	3.1	20
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	18.1	226	214	97.3	7.8	20
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177 Methods: SW846 6010D
Matrix Type: SOLID Units: mg/kg

Prep Date: 03/18/19

	JC84381-5	Spikelot		MSD	QC
Metal	Original MSD	MPSPK2	% Rec	RPD	Limit

Associated samples MP13177: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 03/18/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	186	194	95.8	80-120
Barium	190	194	97.9	80-120
Beryllium	195	194	100.4	80-120
Bismuth				
Boron				
Cadmium	189	194	97.3	80-120
Calcium				
Chromium	188	194	96.8	80-120
Cobalt				
Copper	189	194	97.3	80-120
Iron				
Lead	193	194	99.4	80-120
Lithium				
Magnesium				
Manganese	191	194	98.4	80-120
Molybdenum				
Nickel	193	194	99.4	80-120
Potassium				
Selenium	185	194	95.3	80-120
Silicon				
Silver	24.2	24.3	99.7	80-120
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	190	194	97.9	80-120
Zirconium				

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177
Matrix Type: SOLID

Methods: SW846 6010D
Units: mg/kg

Prep Date: 03/18/19

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits

Associated samples MP13177: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177
Matrix Type: SOLID

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/18/19

Metal	JC84381-5 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	33.0	27.0	18.2 (a)	0-10
Barium	193	196	1.3	0-10
Beryllium	3.30	3.40	3.0	0-10
Bismuth				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	108	113	4.9	0-10
Cobalt				
Copper	74.0	89.2	20.5*(b)	0-10
Iron				
Lead	112	114	1.6	0-10
Lithium				
Magnesium				
Manganese	872	890	2.1	0-10
Molybdenum				
Nickel	59.4	62.3	4.9	0-10
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	3.80	3.80	0.0	0-10
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc	168	192	14.2*(b)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13177
Matrix Type: SOLID

Methods: SW846 6010D
Units: ug/l

Prep Date: 03/18/19

	JC84381-5		QC
Metal	Original SDL 1:5	%DIF	Limits

Associated samples MP13177: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13214 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 03/19/19

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.033	.0033	.015	0.00018	<0.033

Associated samples MP13214: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13214 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 03/19/19

Metal	JC84381-5 Original	MS	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.026	0.34	0.317	99.0	80-120

Associated samples MP13214: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13214 Methods: SW846 7471B
Matrix Type: SOLID Units: mg/kg

Prep Date: 03/19/19

Metal	JC84381-5 Original	MSD	Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.026	0.35	0.324	99.9	2.9	20

Associated samples MP13214: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

QC Batch ID: MP13214
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 03/19/19

Metal	BSP Result	Spikelot HGPWS1	% Rec	QC Limits
Mercury	0.34	0.333	102.0	80-120

Associated samples MP13214: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Instrument Detection Limits

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Instrument ID: LEEMANHG8 **Effective Date:** 01/31/19

Analyte	IDL ug/l
Mercury	.0201

The above applies to the following instrument runs:
MA46325

Instrument Detection Limits

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Instrument ID: SSTRACE3 **Effective Date:** 02/18/19

Analyte	IDL ug/l
Aluminum	14.3
Antimony	1.4
Arsenic	1.5
Barium	.5
Beryllium	.1
Bismuth	1.8
Boron	.8
Cadmium	.3
Calcium	3.9
Chromium	.3
Cobalt	.3
Copper	.6
Iron	2.6
Lead	1.6
Lithium	2.1
Magnesium	16.3
Manganese	.1
Molybdenum	.4
Nickel	.5
Phosphorus	1.9
Potassium	79
Selenium	3
Silicon	1.2
Silver	.5
Sodium	9.9
Sulfur	3.5
Strontium	.3
Thallium	1.3
Tin	.7
Titanium	.5
Tungsten	1.7
Vanadium	.5
Yttrium	5
Zinc	.2
Zirconium	.3

The above applies to the following instrument runs:
MA46326

Instrument Linear Ranges

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Instrument ID: LEEMANHG8 **Effective Date:** 03/10/17

Analyte	Linear Range ug/l
Mercury	5

The above applies to the following instrument runs:
MA46325

Instrument Linear Ranges

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Instrument ID: SSTRACE3 **Effective Date:** 07/16/18

Analyte	Linear Range ug/l
Aluminum	300000
Antimony	8000
Arsenic	8000
Barium	8000
Beryllium	8000
Bismuth	8000
Boron	8000
Cadmium	8000
Calcium	200000
Chromium	8000
Cobalt	8000
Copper	8000
Iron	200000
Lead	8000
Lithium	8000
Magnesium	300000
Manganese	8000
Molybdenum	8000
Nickel	8000
Palladium	8000
Phosphorus	8000
Potassium	200000
Selenium	8000
Silicon	25000
Silver	625
Sodium	200000
Sulfur	100000
Strontium	8000
Thallium	8000
Tin	8000
Titanium	8000
Tungsten	8000
Vanadium	8000
Zinc	8000
Zirconium	8000

The above applies to the following instrument runs:
MA46326

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC
- Percent Solids Raw Data Summary

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chromium, Hexavalent	GP20255/GN93652	0.40	0.0	mg/kg	40	37.4	93.5	80-120%
Chromium, Hexavalent	GP20255/GN93652			mg/kg	933.17	880	94.3	80-120%
Cyanide	GP19976/GN93025	0.24	0.0	mg/kg	2	2.05	102.5	90-110%

Associated Samples:
Batch GP19976: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
Batch GP20255: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chromium, Hexavalent	GP20255/GN93652	JC84381-1	mg/kg	1.8	2.4	28.6*(a)	0-20%
Cyanide	GP19976/GN93025	JC84381-2	mg/kg	0.17	0.18	5.7	0-49%
Redox Potential Vs H2	GN93602	JC84121-1	mv	422	433	2.6	0-15%
Solids, Percent	GN92934	JC83961-23	%	80.2	78.7	1.9	0-5%
pH	GN93603	JC84121-1	su	6.72	6.67	0.8	0-5%

Associated Samples:
Batch GN92934: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
Batch GN93602: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
Batch GN93603: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
Batch GP19976: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
Batch GP20255: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
(*) Outside of QC limits
(a) High RPD due to possible sample nonhomogeneity.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chromium, Hexavalent	GP20255/GN93652	JC84381-1	mg/kg	1.8	45.1	34.9	73.4N(a)	75-125%
Chromium, Hexavalent	GP20255/GN93652	JC84381-1	mg/kg	1.8	1280	1100	85.9(b)	75-125%
Cyanide	GP19976/GN93025	JC84381-2	mg/kg	0.17	2.07	2.1	93.2	75-125%

Associated Samples:
Batch GP19976: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
Batch GP20255: JC84381-1, JC84381-2, JC84381-3, JC84381-4, JC84381-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Soluble XCR matrix spike recovery indicates possible matrix interference. Good post spike recovery (90_%) on this sample.
(b) Good recovery on insoluble XCR matrix spike. See additional comments on soluble matrix spike recovery.

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: E031919W1.CN Date Analyzed: 03/19/19 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: KI Run ID: GN93025
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:58	GN93025-STD1	1		STDA
12:59	GN93025-STD2	1		STDB
13:01	GN93025-STD3	1		STDC
13:02	GN93025-STD4	1		STDD
13:03	GN93025-STD5	1		STDE
13:05	GN93025-STD6	1		STDF
13:06	GN93025-STD7	1		STDG
13:08	GN93025-ICV1	1		
13:09	GN93025-ICB1	1		
13:10	GN93025-CCV1	1		
13:12	GN93025-CCB1	1		
13:13	GP19970-MB1	1		
13:14	GP19970-B1	1		
13:16	GP19970-D1	1		
13:17	JC83925-1A	1		(sample used for QC only; not part of login JC84381)
13:18	ZZZZZZ	1		
13:20	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:22	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:25	ZZZZZZ	1		
13:27	GN93025-CCV2	1		
13:28	GN93025-CCB2	1		
13:29	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:32	ZZZZZZ	1		
13:33	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:36	ZZZZZZ	1		
13:37	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:41	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: E031919W1.CN Date Analyzed: 03/19/19 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: KI Run ID: GN93025
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
13:43	GN93025-CCV3	1		
13:44	GN93025-CCB3	1		
13:46	ZZZZZZ	1		
13:47	ZZZZZZ	1		
13:48	ZZZZZZ	1		
13:50	GP19978-MB1	1		
13:51	GP19978-B1	1		
13:52	GP19978-B2	1		
13:54	GP19978-S1	1		
13:55	GP19978-D1	1		
13:57	JC84026-1	1		(sample used for QC only; not part of login JC84381)
13:58	ZZZZZZ	1		
13:59	GN93025-CCV4	1		
14:01	GN93025-CCB4	1		
14:02	ZZZZZZ	1		
14:03	ZZZZZZ	1		
14:05	GP19927-MB1	1		
14:06	GP19927-B1	1		
14:07	GP19927-S1	1		
14:09	GP19927-D1	1		
14:10	ZZZZZZ	1		
14:11	JC84116-1	1		(sample used for QC only; not part of login JC84381)
14:13	ZZZZZZ	1		
14:14	ZZZZZZ	1		
14:16	GN93025-CCV5	1		
14:17	GN93025-CCB5	1		
14:18	ZZZZZZ	1		
14:20	ZZZZZZ	1		
14:21	GP19928-MB1	1		
14:22	GP19928-B1	1		
14:24	GP19928-S1	1		
14:25	GP19928-S2	1		
14:26	GP19928-D1	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: E031919W1.CN Date Analyzed: 03/19/19 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: KI Run ID: GN93025
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:28	JC84028-2	1		(sample used for QC only; not part of login JC84381)
14:29	JC84061-1	1		(sample used for QC only; not part of login JC84381)
14:30	ZZZZZZ	1		
14:32	GN93025-CCV6	1		
14:33	GN93025-CCB6	1		
14:35	ZZZZZZ	1		
14:36	ZZZZZZ	1		
14:37	ZZZZZZ	1		
14:39	ZZZZZZ	1		
14:40	ZZZZZZ	1		
14:41	ZZZZZZ	1		
14:43	ZZZZZZ	1		
14:44	ZZZZZZ	1		
14:46	ZZZZZZ	1		
14:47	ZZZZZZ	1		
14:48	GN93025-CCV7	1		
14:50	GN93025-CCB7	1		
14:51	ZZZZZZ	1		
14:52	ZZZZZZ	1		
14:54	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:56	GP19976-MB1	1		
14:58	GP19976-B1	1		
14:59	GP19976-S1	1		
15:00	GP19976-S2	1		
15:02	GP19976-D1	1		
15:03	ZZZZZZ	1		
15:05	GN93025-CCV8	1		
15:06	GN93025-CCB8	1		
15:07	JC84381-1	1		
15:09	JC84381-2	1		
15:10	JC84381-3	1		
15:11	JC84381-4	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: E031919W1.CN Date Analyzed: 03/19/19 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: KI Run ID: GN93025
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:13	JC84381-5	1		
15:14	ZZZZZZ	1		
15:15	ZZZZZZ	1		
15:17	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:20	ZZZZZZ	1		
15:21	GN93025-CCV9	1		
15:22	GN93025-CCB9	1		
15:24	JC84120-2	1		(sample used for QC only; not part of login JC84381)
15:25	ZZZZZZ	1		
15:26	ZZZZZZ	1		
15:28	ZZZZZZ	1		
15:29	ZZZZZZ	1		
15:30	ZZZZZZ	1		
15:32	ZZZZZZ	1		
15:33	ZZZZZZ	1		
15:35	ZZZZZZ	1		
15:36	GP19977-MB1	1		
15:37	GN93025-CCV10	1		
15:39	GN93025-CCB10	1		
15:40	GP19977-B1	1		
15:41	GP19977-S1	1		
15:43	GP19977-S2	1		
15:44	GP19977-D1	1		
15:45	ZZZZZZ	1		
15:47	JC84397-4	1		(sample used for QC only; not part of login JC84381)
15:48	ZZZZZZ	1		
15:50	ZZZZZZ	1		
15:51	JC84147-1	1		(sample used for QC only; not part of login JC84381)
15:52	ZZZZZZ	1		
15:54	GN93025-CCV11	1		
15:55	GN93025-CCB11	1		
15:56	ZZZZZZ	1		

SGS Instrument Runlog
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: E031919W1.CN Date Analyzed: 03/19/19 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Analyst: KI Run ID: GN93025
Parameters: Cyanide

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:58	ZZZZZZ	1		
15:59	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:02	ZZZZZZ	1		
16:05	GN93025-CCV12	1		
16:06	GN93025-CCB12	1		

Refer to raw data for calibration curve and standards.

Instrument QC Summary
Inorganics Analyses

Login Number: JC84381
Account: NOREASCA - NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

File ID: E031919W1.CN Date Analyzed: 03/19/19 Methods: EPA 335.4/LACHAT, SM4500CN I-2011, SW846 9012B/L
Run ID: GN93025 Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN93025-ICV1	Cyanide	0.300	0.010	0.0041	.3	100.0	90-110
GN93025-ICB1	Cyanide	-0.00715	0.010	0.0041			
GN93025-CCV1	Cyanide	0.415	0.010	0.0041	.4	103.8	90-110
GN93025-CCB1	Cyanide	-0.00643	0.010	0.0041			
GN93025-CCV2	Cyanide	0.415	0.010	0.0041	.4	103.8	90-110
GN93025-CCB2	Cyanide	-0.00519	0.010	0.0041			
GN93025-CCV3	Cyanide	0.416	0.010	0.0041	.4	104.0	90-110
GN93025-CCB3	Cyanide	-0.00764	0.010	0.0041			
GN93025-CCV4	Cyanide	0.416	0.010	0.0041	.4	104.0	90-110
GN93025-CCB4	Cyanide	-0.00685	0.010	0.0041			
GN93025-CCV5	Cyanide	0.417	0.010	0.0041	.4	104.3	90-110
GN93025-CCB5	Cyanide	-0.00707	0.010	0.0041			
GN93025-CCV6	Cyanide	0.415	0.010	0.0041	.4	103.8	90-110
GN93025-CCB6	Cyanide	-0.00478	0.010	0.0041			
GN93025-CCV7	Cyanide	0.415	0.010	0.0041	.4	103.8	90-110
GN93025-CCB7	Cyanide	-0.00555	0.010	0.0041			
GN93025-CCV8	Cyanide	0.413	0.010	0.0041	.4	103.3	90-110
GN93025-CCB8	Cyanide	-0.00529	0.010	0.0041			
GN93025-CCV9	Cyanide	0.413	0.010	0.0041	.4	103.3	90-110
GN93025-CCB9	Cyanide	-0.00524	0.010	0.0041			
GN93025-CCV10	Cyanide	0.412	0.010	0.0041	.4	103.0	90-110
GN93025-CCB10	Cyanide	-0.00545	0.010	0.0041			
GN93025-CCV11	Cyanide	0.415	0.010	0.0041	.4	103.8	90-110
GN93025-CCB11	Cyanide	-0.00566	0.010	0.0041			
GN93025-CCV12	Cyanide	0.413	0.010	0.0041	.4	103.3	90-110
GN93025-CCB12	Cyanide	-0.00531	0.010	0.0041			

(!) Outside of QC limits

Percent Solids Raw Data Summary

Job Number: JC84381
Account: NOREASCA NOREAS, Inc.
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Sample: JC84381-1 **Analyzed:** 17-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-014

Wet Weight (Total)	34.21	g
Tare Weight	24.59	g
Dry Weight (Total)	33.27	g
Solids, Percent	90.2	%

Sample: JC84381-2 **Analyzed:** 17-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-015

Wet Weight (Total)	30.52	g
Tare Weight	21.99	g
Dry Weight (Total)	29.62	g
Solids, Percent	89.4	%

Sample: JC84381-3 **Analyzed:** 17-MAR-19 by BG **Method:** SM2540 G 18TH ED M
ClientID: NWIRP-S1-WC-CF-016

Wet Weight (Total)	36.12	g
Tare Weight	26.73	g
Dry Weight (Total)	35.34	g
Solids, Percent	91.7	%

Sample: JC84381-4 **Analyzed:** 17-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-017

Wet Weight (Total)	35.89	g
Tare Weight	27.43	g
Dry Weight (Total)	35.2	g
Solids, Percent	91.8	%

Sample: JC84381-5 **Analyzed:** 17-MAR-19 by BG **Method:** SM2540 G 18TH ED MOD
ClientID: NWIRP-S1-WC-CF-018

Wet Weight (Total)	33.9	g
Tare Weight	25.78	g
Dry Weight (Total)	33.31	g
Solids, Percent	92.7	%

Sample Summary

NOREAS, Inc.

Job No: JC84381

Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
Project No: 500689

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC84381-1	03/13/19	10:45	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-014
JC84381-2	03/13/19	10:59	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-015
JC84381-3	03/13/19	11:05	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-016
JC84381-4	03/13/19	11:10	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-017
JC84381-5	03/13/19	11:20	NS	03/14/19	SO	Soil	NWIRP-S1-WC-CF-018

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136252.D	1	03/19/19 02:32	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	37 U	73	37	23	ug/kg	
	3&4-Methylphenol	37 U	73	37	30	ug/kg	
87-86-5	Pentachlorophenol	91 U	150	91	34	ug/kg	
108-95-2	Phenol	37 U	73	37	19	ug/kg	
83-32-9	Acenaphthene	19.1	37	18	13	ug/kg	J
208-96-8	Acenaphthylene	27 U	37	27	19	ug/kg	
120-12-7	Anthracene	41.2	37	27	22	ug/kg	
56-55-3	Benzo(a)anthracene	141	37	18	10	ug/kg	
50-32-8	Benzo(a)pyrene	136	37	18	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	179	37	18	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	93.6	37	27	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	60.7	37	18	17	ug/kg	
218-01-9	Chrysene	150	37	18	12	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	25.5	37	18	16	ug/kg	J
132-64-9	Dibenzofuran	18 U	73	18	15	ug/kg	
206-44-0	Fluoranthene	293	37	18	16	ug/kg	
86-73-7	Fluorene	18.8	37	37	17	ug/kg	J
118-74-1	Hexachlorobenzene	18 U	73	18	9.3	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	77.5	37	18	17	ug/kg	
91-20-3	Naphthalene	18 U	37	18	10	ug/kg	
85-01-8	Phenanthrene	178	37	18	12	ug/kg	
129-00-0	Pyrene	305	37	18	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		23-115%
4165-62-2	Phenol-d5	59%		27-114%
118-79-6	2,4,6-Tribromophenol	53%		19-152%
4165-60-0	Nitrobenzene-d5	57%		26-134%
321-60-8	2-Fluorobiphenyl	56%		39-124%
1718-51-0	Terphenyl-d14	80%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138922.D	1	03/18/19 12:06	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	3.3 U	3.7	3.3	3.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	67%		10-159%
19719-28-9	2,4-DCAA	69%		10-159%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63678.D	1	03/18/19 11:32	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	0.60 U	0.73	0.60	0.60	ug/kg	
319-84-6	alpha-BHC	0.60 U	0.73	0.60	0.60	ug/kg	
319-85-7	beta-BHC	0.66 U	0.73	0.66	0.66	ug/kg	
319-86-8	delta-BHC	0.70 U	0.73	0.70	0.70	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.54 U	0.73	0.54	0.54	ug/kg	
5103-71-9	alpha-Chlordane [a]	7.5	0.73	0.59	0.59	ug/kg	
60-57-1	Dieldrin [a]	1.6	0.73	0.55	0.50	ug/kg	
72-54-8	4,4'-DDD	0.67 U	0.73	0.67	0.67	ug/kg	
72-55-9	4,4'-DDE	2.2	0.73	0.64	0.64	ug/kg	
50-29-3	4,4'-DDT	2.4	0.73	0.65	0.65	ug/kg	
72-20-8	Endrin	0.57 U	0.73	0.57	0.57	ug/kg	
1031-07-8	Endosulfan sulfate	0.57 U	0.73	0.57	0.57	ug/kg	
959-98-8	Endosulfan-I	0.55 U	0.73	0.55	0.42	ug/kg	
33213-65-9	Endosulfan-II	0.55 U	0.73	0.55	0.46	ug/kg	
76-44-8	Heptachlor	0.92	0.73	0.63	0.63	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		25-135%
877-09-8	Tetrachloro-m-xylene	80%		25-135%
2051-24-3	Decachlorobiphenyl	68%		10-156%
2051-24-3	Decachlorobiphenyl	79%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86866.D	1	03/18/19 11:51	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	18 U	37	18	15	ug/kg	
11104-28-2	Aroclor 1221	18 U	37	18	15	ug/kg	
11141-16-5	Aroclor 1232	18 U	37	18	9.8	ug/kg	
53469-21-9	Aroclor 1242	18 U	37	18	5.8	ug/kg	
12672-29-6	Aroclor 1248	29 U	37	29	22	ug/kg	
11097-69-1	Aroclor 1254	18 U	37	18	9.0	ug/kg	
11096-82-5	Aroclor 1260	18 U	37	18	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		31-146%
877-09-8	Tetrachloro-m-xylene	76%		31-146%
2051-24-3	Decachlorobiphenyl	63%		17-164%
2051-24-3	Decachlorobiphenyl	60%		17-164%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-014
Lab Sample ID: JC84381-1 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 90.2
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.3	2.1	0.53	0.30	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	23.4	21	11	2.0	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.41	0.21	0.11	0.085	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.21 U	0.53	0.21	0.075	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	14.1	1.1	0.53	0.39	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	10.2	2.7	1.1	0.90	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	12.9	2.1	0.53	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	115	1.6	1.1	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.032 J	0.035	0.026	0.015	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	7.6	4.3	0.43	0.37	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.85 U	2.1	0.85	0.69	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.49 J	0.53	0.43	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	21.7	5.3	4.3	2.5	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-014		
Lab Sample ID:	JC84381-1	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
		Percent Solids:	90.2
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.8	0.44	0.39	0.35	mg/kg	1	04/03/19 18:46	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	12.3	1.5	0.92	0.74	mg/kg	1	04/03/19 18:46	JOO	SW846 6010/7196A M
Cyanide	0.27	0.23	0.17	0.11	mg/kg	1	03/19/19 15:07	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	381				mv	1	04/02/19 20:33	EB	ASTM D1498-76M
Solids, Percent	90.2				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	8.12				su	1	04/02/19 20:42	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136255.D	1	03/19/19 03:56	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	36 U	73	36	23	ug/kg	
	3&4-Methylphenol	36 U	73	36	30	ug/kg	
87-86-5	Pentachlorophenol	91 U	150	91	34	ug/kg	
108-95-2	Phenol	36 U	73	36	19	ug/kg	
83-32-9	Acenaphthene	18.3	36	18	13	ug/kg	J
208-96-8	Acenaphthylene	27 U	36	27	18	ug/kg	
120-12-7	Anthracene	48.4	36	27	22	ug/kg	
56-55-3	Benzo(a)anthracene	146	36	18	10	ug/kg	
50-32-8	Benzo(a)pyrene	144	36	18	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	176	36	18	16	ug/kg	
191-24-2	Benzo(g,h,i)perylene	110	36	27	18	ug/kg	
207-08-9	Benzo(k)fluoranthene	71.7	36	18	17	ug/kg	
218-01-9	Chrysene	153	36	18	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	31.1	36	18	16	ug/kg	J
132-64-9	Dibenzofuran	18 U	73	18	15	ug/kg	
206-44-0	Fluoranthene	269	36	18	16	ug/kg	
86-73-7	Fluorene	19.4	36	36	17	ug/kg	J
118-74-1	Hexachlorobenzene	18 U	73	18	9.2	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	80.0	36	18	17	ug/kg	
91-20-3	Naphthalene	18 U	36	18	10	ug/kg	
85-01-8	Phenanthrene	168	36	18	12	ug/kg	
129-00-0	Pyrene	303	36	18	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	56%		23-115%
4165-62-2	Phenol-d5	60%		27-114%
118-79-6	2,4,6-Tribromophenol	57%		19-152%
4165-60-0	Nitrobenzene-d5	57%		26-134%
321-60-8	2-Fluorobiphenyl	59%		39-124%
1718-51-0	Terphenyl-d14	80%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138928.D	1	03/18/19 14:56	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	3.2 U	3.5	3.2	3.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	71%		10-159%
19719-28-9	2,4-DCAA	80%		10-159%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63679.D	1	03/18/19 11:49	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	1.4	0.71	0.59	0.59	ug/kg	
319-84-6	alpha-BHC	0.58 U	0.71	0.58	0.58	ug/kg	
319-85-7	beta-BHC	0.64 U	0.71	0.64	0.64	ug/kg	
319-86-8	delta-BHC	0.68 U	0.71	0.68	0.68	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.53 U	0.71	0.53	0.53	ug/kg	
5103-71-9	alpha-Chlordane [a]	6.9	0.71	0.57	0.57	ug/kg	
60-57-1	Dieldrin [a]	1.7	0.71	0.53	0.49	ug/kg	
72-54-8	4,4'-DDD	0.65 U	0.71	0.65	0.65	ug/kg	
72-55-9	4,4'-DDE	2.1	0.71	0.62	0.62	ug/kg	
50-29-3	4,4'-DDT [a]	2.5	0.71	0.63	0.63	ug/kg	
72-20-8	Endrin	0.55 U	0.71	0.55	0.55	ug/kg	
1031-07-8	Endosulfan sulfate	0.56 U	0.71	0.56	0.56	ug/kg	
959-98-8	Endosulfan-I	0.53 U	0.71	0.53	0.41	ug/kg	
33213-65-9	Endosulfan-II	0.53 U	0.71	0.53	0.44	ug/kg	
76-44-8	Heptachlor	1.0	0.71	0.61	0.61	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		25-135%
877-09-8	Tetrachloro-m-xylene	72%		25-135%
2051-24-3	Decachlorobiphenyl	63%		10-156%
2051-24-3	Decachlorobiphenyl	70%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86869.D	1	03/18/19 13:31	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	18 U	36	18	14	ug/kg	
11104-28-2	Aroclor 1221	18 U	36	18	15	ug/kg	
11141-16-5	Aroclor 1232	18 U	36	18	9.5	ug/kg	
53469-21-9	Aroclor 1242	18 U	36	18	5.7	ug/kg	
12672-29-6	Aroclor 1248	28 U	36	28	21	ug/kg	
11097-69-1	Aroclor 1254	18 U	36	18	8.8	ug/kg	
11096-82-5	Aroclor 1260	18 U	36	18	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		31-146%
877-09-8	Tetrachloro-m-xylene	76%		31-146%
2051-24-3	Decachlorobiphenyl	63%		17-164%
2051-24-3	Decachlorobiphenyl	57%		17-164%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-015
Lab Sample ID: JC84381-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 89.4
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	4.2	2.2	0.54	0.30	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	25.5	22	11	2.1	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.36	0.22	0.11	0.087	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.22 U	0.54	0.22	0.076	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	12.5	1.1	0.54	0.40	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	8.7	2.7	1.1	0.91	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	16.6	2.2	0.54	0.45	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	108	1.6	1.1	0.45	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.034	0.033	0.025	0.015	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	7.5	4.3	0.43	0.38	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.87 U	2.2	0.87	0.71	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.20 J	0.54	0.43	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	21.6	5.4	4.3	2.5	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-015		
Lab Sample ID:	JC84381-2	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
		Percent Solids:	89.4
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	2.5	0.45	0.39	0.35	mg/kg	1	04/03/19 18:50	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	10.0	1.6	0.93	0.75	mg/kg	1	04/03/19 18:50	JOO	SW846 6010/7196A M
Cyanide	0.17 J	0.26	0.19	0.13	mg/kg	1	03/19/19 15:09	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	379				mv	1	04/02/19 20:35	EB	ASTM D1498-76M
Solids, Percent	89.4				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	8.15				su	1	04/02/19 20:44	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136256.D	1	03/19/19 04:24	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	31.3 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	35 U	70	35	22	ug/kg	
	3&4-Methylphenol	35 U	70	35	29	ug/kg	
87-86-5	Pentachlorophenol	87 U	140	87	33	ug/kg	
108-95-2	Phenol	35 U	70	35	18	ug/kg	
83-32-9	Acenaphthene	24.9	35	17	12	ug/kg	J
208-96-8	Acenaphthylene	26 U	35	26	18	ug/kg	
120-12-7	Anthracene	62.9	35	26	21	ug/kg	
56-55-3	Benzo(a)anthracene	174	35	17	9.9	ug/kg	
50-32-8	Benzo(a)pyrene	160	35	17	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	203	35	17	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	118	35	26	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	71.0	35	17	16	ug/kg	
218-01-9	Chrysene	171	35	17	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	23.0	35	17	15	ug/kg	J
132-64-9	Dibenzofuran	17 U	70	17	14	ug/kg	
206-44-0	Fluoranthene	336	35	17	16	ug/kg	
86-73-7	Fluorene	25.1	35	35	16	ug/kg	J
118-74-1	Hexachlorobenzene	17 U	70	17	8.8	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	93.0	35	17	16	ug/kg	
91-20-3	Naphthalene	17 U	35	17	9.8	ug/kg	
85-01-8	Phenanthrene	220	35	17	12	ug/kg	
129-00-0	Pyrene	373	35	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%		23-115%
4165-62-2	Phenol-d5	64%		27-114%
118-79-6	2,4,6-Tribromophenol	58%		19-152%
4165-60-0	Nitrobenzene-d5	62%		26-134%
321-60-8	2-Fluorobiphenyl	63%		39-124%
1718-51-0	Terphenyl-d14	85%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138929.D	1	03/18/19 15:24	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	3.1 U	3.5	3.1	3.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	55%		10-159%
19719-28-9	2,4-DCAA	56%		10-159%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63682.D	1	03/18/19 12:42	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	1.9	0.70	0.58	0.58	ug/kg	
319-84-6	alpha-BHC	0.57 U	0.70	0.57	0.57	ug/kg	
319-85-7	beta-BHC	0.63 U	0.70	0.63	0.63	ug/kg	
319-86-8	delta-BHC	0.67 U	0.70	0.67	0.67	ug/kg	
58-89-9	gamma-BHC (Lindane) [a]	0.74	0.70	0.52	0.52	ug/kg	
5103-71-9	alpha-Chlordane [a]	8.8	0.70	0.56	0.56	ug/kg	
60-57-1	Dieldrin	2.8	0.70	0.52	0.48	ug/kg	
72-54-8	4,4'-DDD [a]	0.70	0.70	0.64	0.64	ug/kg	
72-55-9	4,4'-DDE	2.8	0.70	0.61	0.61	ug/kg	
50-29-3	4,4'-DDT	3.2	0.70	0.62	0.62	ug/kg	
72-20-8	Endrin	0.54 U	0.70	0.54	0.54	ug/kg	
1031-07-8	Endosulfan sulfate	0.55 U	0.70	0.55	0.55	ug/kg	
959-98-8	Endosulfan-I	0.52 U	0.70	0.52	0.40	ug/kg	
33213-65-9	Endosulfan-II	0.52 U	0.70	0.52	0.44	ug/kg	
76-44-8	Heptachlor	1.5	0.70	0.60	0.60	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	78%		25-135%
877-09-8	Tetrachloro-m-xylene	83%		25-135%
2051-24-3	Decachlorobiphenyl	64%		10-156%
2051-24-3	Decachlorobiphenyl	72%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86870.D	1	03/18/19 14:05	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	17 U	35	17	14	ug/kg	
11104-28-2	Aroclor 1221	17 U	35	17	14	ug/kg	
11141-16-5	Aroclor 1232	17 U	35	17	9.4	ug/kg	
53469-21-9	Aroclor 1242	17 U	35	17	5.6	ug/kg	
12672-29-6	Aroclor 1248	28 U	35	28	20	ug/kg	
11097-69-1	Aroclor 1254	17 U	35	17	8.6	ug/kg	
11096-82-5	Aroclor 1260	17 U	35	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		31-146%
877-09-8	Tetrachloro-m-xylene	78%		31-146%
2051-24-3	Decachlorobiphenyl	64%		17-164%
2051-24-3	Decachlorobiphenyl	58%		17-164%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-016
Lab Sample ID: JC84381-3 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 91.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.8	2.1	0.52	0.29	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	21.9	21	10	2.0	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.34	0.21	0.10	0.083	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.21 U	0.52	0.21	0.073	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	11.7	1.0	0.52	0.38	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	10.8	2.6	1.0	0.87	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	15.4	2.1	0.52	0.43	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	116	1.6	1.0	0.43	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.036	0.033	0.024	0.014	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	8.1	4.2	0.42	0.36	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.83 U	2.1	0.83	0.68	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.30 J	0.52	0.42	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	58.5	5.2	4.2	2.4	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-016		
Lab Sample ID:	JC84381-3	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
		Percent Solids:	91.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.4	0.44	0.38	0.35	mg/kg	1	04/03/19 18:50	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	10.3	1.4	0.90	0.73	mg/kg	1	04/03/19 18:50	JOO	SW846 6010/7196A M
Cyanide	0.14 J	0.23	0.18	0.12	mg/kg	1	03/19/19 15:10	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	373				mv	1	04/02/19 20:36	EB	ASTM D1498-76M
Solids, Percent	91.7				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	8.66				su	1	04/02/19 20:47	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136257.D	1	03/19/19 04:51	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	31.8 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	34 U	69	34	22	ug/kg	
	3&4-Methylphenol	34 U	69	34	28	ug/kg	
87-86-5	Pentachlorophenol	86 U	140	86	32	ug/kg	
108-95-2	Phenol	34 U	69	34	18	ug/kg	
83-32-9	Acenaphthene	18.0	34	17	12	ug/kg	J
208-96-8	Acenaphthylene	26 U	34	26	17	ug/kg	
120-12-7	Anthracene	39.8	34	26	21	ug/kg	
56-55-3	Benzo(a)anthracene	131	34	17	9.7	ug/kg	
50-32-8	Benzo(a)pyrene	123	34	17	16	ug/kg	
205-99-2	Benzo(b)fluoranthene	150	34	17	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	91.8	34	26	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	58.1	34	17	16	ug/kg	
218-01-9	Chrysene	134	34	17	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	18.4	34	17	15	ug/kg	J
132-64-9	Dibenzofuran	17 U	69	17	14	ug/kg	
206-44-0	Fluoranthene	244	34	17	15	ug/kg	
86-73-7	Fluorene	16.5	34	34	16	ug/kg	J
118-74-1	Hexachlorobenzene	17 U	69	17	8.7	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	64.7	34	17	16	ug/kg	
91-20-3	Naphthalene	17 U	34	17	9.7	ug/kg	
85-01-8	Phenanthrene	148	34	17	12	ug/kg	
129-00-0	Pyrene	280	34	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	66%		23-115%
4165-62-2	Phenol-d5	69%		27-114%
118-79-6	2,4,6-Tribromophenol	61%		19-152%
4165-60-0	Nitrobenzene-d5	67%		26-134%
321-60-8	2-Fluorobiphenyl	70%		39-124%
1718-51-0	Terphenyl-d14	89%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138930.D	1	03/18/19 15:53	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	16.8 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	2.9 U	3.2	2.9	2.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	69%		10-159%
19719-28-9	2,4-DCAA	74%		10-159%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63683.D	1	03/18/19 12:59	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin	1.2	0.69	0.56	0.56	ug/kg	
319-84-6	alpha-BHC	0.56 U	0.69	0.56	0.56	ug/kg	
319-85-7	beta-BHC	0.62 U	0.69	0.62	0.62	ug/kg	
319-86-8	delta-BHC	0.66 U	0.69	0.66	0.66	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.50 U	0.69	0.50	0.50	ug/kg	
5103-71-9	alpha-Chlordane [a]	6.3	0.69	0.55	0.55	ug/kg	
60-57-1	Dieldrin	1.5	0.69	0.51	0.47	ug/kg	
72-54-8	4,4'-DDD [a]	0.77	0.69	0.63	0.63	ug/kg	
72-55-9	4,4'-DDE	1.6	0.69	0.60	0.60	ug/kg	
50-29-3	4,4'-DDT	2.0	0.69	0.61	0.61	ug/kg	
72-20-8	Endrin	0.53 U	0.69	0.53	0.53	ug/kg	
1031-07-8	Endosulfan sulfate	0.54 U	0.69	0.54	0.54	ug/kg	
959-98-8	Endosulfan-I	0.51 U	0.69	0.51	0.39	ug/kg	
33213-65-9	Endosulfan-II	0.51 U	0.69	0.51	0.43	ug/kg	
76-44-8	Heptachlor [a]	0.83	0.69	0.59	0.59	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		25-135%
877-09-8	Tetrachloro-m-xylene	72%		25-135%
2051-24-3	Decachlorobiphenyl	56%		10-156%
2051-24-3	Decachlorobiphenyl	63%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86871.D	1	03/18/19 14:39	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	15.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	17 U	34	17	14	ug/kg	
11104-28-2	Aroclor 1221	17 U	34	17	14	ug/kg	
11141-16-5	Aroclor 1232	17 U	34	17	9.2	ug/kg	
53469-21-9	Aroclor 1242	17 U	34	17	5.5	ug/kg	
12672-29-6	Aroclor 1248	27 U	34	27	20	ug/kg	
11097-69-1	Aroclor 1254	17 U	34	17	8.4	ug/kg	
11096-82-5	Aroclor 1260	17 U	34	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	73%		31-146%
877-09-8	Tetrachloro-m-xylene	71%		31-146%
2051-24-3	Decachlorobiphenyl	60%		17-164%
2051-24-3	Decachlorobiphenyl	54%		17-164%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-017
Lab Sample ID: JC84381-4 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 91.8
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.5	2.2	0.54	0.30	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	23.0	22	11	2.1	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.31	0.22	0.11	0.086	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.22 U	0.54	0.22	0.075	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	11.3	1.1	0.54	0.40	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	10.9	2.7	1.1	0.91	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	15.1	2.2	0.54	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	106	1.6	1.1	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.041	0.031	0.023	0.014	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	6.8	4.3	0.43	0.38	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.86 U	2.2	0.86	0.70	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.25 J	0.54	0.43	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	21.1	5.4	4.3	2.5	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-017		
Lab Sample ID:	JC84381-4	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
		Percent Solids:	91.8
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	1.7	0.44	0.38	0.35	mg/kg	1	04/03/19 18:50	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	9.6	1.5	0.92	0.75	mg/kg	1	04/03/19 18:50	JOO	SW846 6010/7196A M
Cyanide	0.21 J	0.30	0.22	0.15	mg/kg	1	03/19/19 15:11	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	367				mv	1	04/02/19 20:37	EB	ASTM D1498-76M
Solids, Percent	91.8				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	8.82				su	1	04/02/19 20:49	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8270D SW846 3546 **Percent Solids:** 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z136258.D	1	03/19/19 05:19	CS	03/15/19 17:40	OP19154	EZ6720
Run #2							

	Initial Weight	Final Volume
Run #1	31.8 g	1.0 ml
Run #2		

ABN Soil Cleanup Objectives Priority List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
95-48-7	2-Methylphenol	34 U	68	34	22	ug/kg	
	3&4-Methylphenol	34 U	68	34	28	ug/kg	
87-86-5	Pentachlorophenol	85 U	140	85	32	ug/kg	
108-95-2	Phenol	34 U	68	34	18	ug/kg	
83-32-9	Acenaphthene	15.5	34	17	12	ug/kg	J
208-96-8	Acenaphthylene	25 U	34	25	17	ug/kg	
120-12-7	Anthracene	37.5	34	25	21	ug/kg	
56-55-3	Benzo(a)anthracene	130	34	17	9.6	ug/kg	
50-32-8	Benzo(a)pyrene	126	34	17	15	ug/kg	
205-99-2	Benzo(b)fluoranthene	163	34	17	15	ug/kg	
191-24-2	Benzo(g,h,i)perylene	97.1	34	25	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	57.4	34	17	16	ug/kg	
218-01-9	Chrysene	143	34	17	11	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	29.1	34	17	15	ug/kg	J
132-64-9	Dibenzofuran	17 U	68	17	14	ug/kg	
206-44-0	Fluoranthene	236	34	17	15	ug/kg	
86-73-7	Fluorene	34 U	34	34	16	ug/kg	
118-74-1	Hexachlorobenzene	17 U	68	17	8.6	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	80.9	34	17	16	ug/kg	
91-20-3	Naphthalene	17 U	34	17	9.6	ug/kg	
85-01-8	Phenanthrene	145	34	17	11	ug/kg	
129-00-0	Pyrene	269	34	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	63%		23-115%
4165-62-2	Phenol-d5	66%		27-114%
118-79-6	2,4,6-Tribromophenol	61%		19-152%
4165-60-0	Nitrobenzene-d5	63%		26-134%
321-60-8	2-Fluorobiphenyl	65%		39-124%
1718-51-0	Terphenyl-d14	84%		36-134%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8151A SW846 3546 **Percent Solids:** 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA138931.D	1	03/18/19 16:21	VDT	03/16/19 04:30	OP19148	GOA4782
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
93-72-1	2,4,5-TP (Silvex)	3.1 U	3.5	3.1	3.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	59%		10-159%
19719-28-9	2,4-DCAA	61%		10-159%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8081B SW846 3546 **Percent Solids:** 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G63684.D	1	03/18/19 13:17	MH	03/18/19 08:00	OP19157	G6G1954
Run #2							

	Initial Weight	Final Volume
Run #1	16.2 g	10.0 ml
Run #2		

Pesticides, Soil Cleanup Objectives

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
309-00-2	Aldrin [a]	0.78	0.67	0.55	0.55	ug/kg	
319-84-6	alpha-BHC	0.54 U	0.67	0.54	0.54	ug/kg	
319-85-7	beta-BHC	0.60 U	0.67	0.60	0.60	ug/kg	
319-86-8	delta-BHC	0.64 U	0.67	0.64	0.64	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.49 U	0.67	0.49	0.49	ug/kg	
5103-71-9	alpha-Chlordane	4.8	0.67	0.54	0.54	ug/kg	
60-57-1	Dieldrin [a]	0.75	0.67	0.50	0.46	ug/kg	
72-54-8	4,4'-DDD	0.61 U	0.67	0.61	0.61	ug/kg	
72-55-9	4,4'-DDE	1.4	0.67	0.58	0.58	ug/kg	
50-29-3	4,4'-DDT	1.6	0.67	0.59	0.59	ug/kg	
72-20-8	Endrin	0.52 U	0.67	0.52	0.52	ug/kg	
1031-07-8	Endosulfan sulfate	0.52 U	0.67	0.52	0.52	ug/kg	
959-98-8	Endosulfan-I	0.50 U	0.67	0.50	0.38	ug/kg	
33213-65-9	Endosulfan-II	0.50 U	0.67	0.50	0.42	ug/kg	
76-44-8	Heptachlor	0.66	0.67	0.57	0.57	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		25-135%
877-09-8	Tetrachloro-m-xylene	71%		25-135%
2051-24-3	Decachlorobiphenyl	60%		10-156%
2051-24-3	Decachlorobiphenyl	60%		10-156%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: SW846 8082A SW846 3540C **Percent Solids:** 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5G86872.D	1	03/18/19 15:12	TR	03/18/19 09:30	OP19156	G5G2082
Run #2							

	Initial Weight	Final Volume
Run #1	16.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
12674-11-2	Aroclor 1016	17 U	33	17	13	ug/kg	
11104-28-2	Aroclor 1221	17 U	33	17	14	ug/kg	
11141-16-5	Aroclor 1232	17 U	33	17	8.9	ug/kg	
53469-21-9	Aroclor 1242	17 U	33	17	5.3	ug/kg	
12672-29-6	Aroclor 1248	27 U	33	27	20	ug/kg	
11097-69-1	Aroclor 1254	17 U	33	17	8.2	ug/kg	
11096-82-5	Aroclor 1260	17 U	33	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	70%		31-146%
877-09-8	Tetrachloro-m-xylene	69%		31-146%
2051-24-3	Decachlorobiphenyl	55%		17-164%
2051-24-3	Decachlorobiphenyl	50%		17-164%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-018
Lab Sample ID: JC84381-5 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Percent Solids: 92.7
Project: Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage

Metals Analysis

Analyte	Result	LOQ	LOD	DL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	3.6	2.2	0.54	0.30	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Barium	20.9 J	22	11	2.1	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Beryllium	0.36	0.22	0.11	0.086	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Cadmium	0.22 U	0.54	0.22	0.076	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Chromium	11.6	1.1	0.54	0.40	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Copper	8.0	2.7	1.1	0.91	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Lead	12.0	2.2	0.54	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Manganese	94.0	1.6	1.1	0.44	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Mercury	0.026 J	0.032	0.024	0.014	mg/kg	1	03/19/19	03/19/19	LL	SW846 7471B [1]	SW846 7471B [4]
Nickel	6.4	4.3	0.43	0.38	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Selenium	0.86 U	2.2	0.86	0.70	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Silver	0.41 J	0.54	0.43	0.18	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]
Zinc	18.1	5.4	4.3	2.5	mg/kg	1	03/18/19	03/19/19	ND	SW846 6010D [2]	SW846 3050B [3]

(1) Instrument QC Batch: MA46325
(2) Instrument QC Batch: MA46326
(3) Prep QC Batch: MP13177
(4) Prep QC Batch: MP13214

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-018		
Lab Sample ID:	JC84381-5	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
		Percent Solids:	92.7
Project:	Site 1-Fmr Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage		

General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	12.9	0.43	0.38	0.34	mg/kg	1	04/03/19 18:50	JOO	SW846 3060A/7196A
Chromium, Trivalent [a]	0.92 U	1.5	0.92	0.74	mg/kg	1	04/03/19 18:50	JOO	SW846 6010/7196A M
Cyanide	0.21 J	0.26	0.19	0.13	mg/kg	1	03/19/19 15:13	KI	SW846 9012B/LACHAT
Redox Potential Vs H2	371				mv	1	04/02/19 20:38	EB	ASTM D1498-76M
Solids, Percent	92.7				%	1	03/17/19 12:35	BG	SM2540 G 18TH ED MOD
pH	7.98				su	1	04/02/19 20:51	EB	SW846 9045D

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

LOQ = Limit of Quantitation DL = Detection Limit U = Indicates a result < LOD
LOD = Limit of Detection B = Analyte found in associated blank J = Indicates a result > = DL (MDL) but < LOQ

50

JC84381

CHAIN-OF-CUSTODY RECORD

COC Number: 501164-20190313
Subcontract Services Agreement : TBD

NOREAS Environmental Science Engineering & Construction

APTIM

APTIM - 150 Boush Street, Suite 701, Norfolk, VA 23510 (757) 640-6200

Lab Name	Lab Receiving Address
SGS Accutest -New Jersey	2235 US-130, Dayton, NJ 08810 Phone: (732) 329-0200

Project Name	Sample Location
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York	*Fill Material Samples*

I.D.	Project Number	APTIM Contact	APTIM Contact Number
F6147	501164	Natasha Kelley Sullivan	(410)529-7598

Client Rep	Deputy Project Manager
NAVY	Monica L. Smeal E.I.T.

Analysis Desired

	Item No.	Sample Number	Date	Time	Matrix Water	Matrix Soil	Sample Description	Number of Containers	SVOC SW-846 8270D	Total PCBs SW-846 8082A	Pesticides SW-846 8081B	Herbicides 8151A	Metals - ICP SW846 6010C/7471A	Cyanide SW-846 9012B	Cr6 and Cr3
1	1	NWIRP-S1-WC-CF-014	03/13/19	1045		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X
2	2	NWIRP-S1-WC-CF-015	03/13/19	1059		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X
3	3	NWIRP-S1-WC-CF-016	03/13/19	1105		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X
4	4	NWIRP-S1-WC-CF-017	03/13/19	1110		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X
5	5	NWIRP-S1-WC-CF-018	03/13/19	1120		X	Soil - Common Backfill	2 x 8 oz glass jar, none	X	X	X	X	X	X	X

B25

INITIAL ASESSMENT 2B

LABEL VERIFICATION

***** See attached list for SPECIFIC COMPOUNDS AND REQUIRED METALS (please run most appopriate method to meet the action level requirements .***

Turnaround Time Required :	Sampled By:	COMMENTS:	Laboratory Report No.:
❑ 14 Day TAT	*McCutcheon, Sean, APTIM*		

Transfer Number	Transfers Relinquished By	Date	Time	Transfers Accepted By	Date	Time
1	*Sampler's Signature*	*Date*	*Time*	*Laboratory Sample Custody Sig*	*Date*	*Time*
2	[signature]	3/13/19	1600	[signature]		
3	[signature]	3/14/19	0945	[signature]		
4						

Report Format: *Full Report*
Deliverables: EDD Excel+NIRIS
Fax results to Natasha Sullivan (410) 529-7599

Fedex 7860 1642 4080 Custody seal 17028 in tact 3.2°C IP ice

JC84381: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: JC84381 **Client:** NOREAS-CB&I JV (NCBI) **Project:** BACKFILL - BETHPAGE, NY

Date / Time Received: 3/14/2019 9:45:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (3.2);

Cooler Temps (Corrected) °C: Cooler 1: (2.2);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 206717 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JC84381: Chain of Custody
Page 2 of 2

LabLink Analytical Data Report
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Client ID	Collected	Time
FA62324-1	Solids, Percent		SM19 2540G	93.2		%			1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorobutanoic acid	375-22-4	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluoropentanoic acid	2706-90-3	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorohexanoic acid	307-24-4	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluoroheptanoic acid	375-85-9	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorooctanoic acid	335-67-1	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorononanoic acid	375-95-1	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorodecanoic acid	335-76-2	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluoroundecanoic acid	2058-94-8	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorododecanoic acid	307-55-1	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorotridecanoic acid	72629-94-8	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorotetradecanoic acid	376-06-7	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorobutanesulfonic acid	375-73-5	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluoropentanesulfonic acid	2706-91-4	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorohexanesulfonic acid	355-46-4	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluoroheptanesulfonic acid	375-92-8	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorooctanesulfonic acid	1763-23-1	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorononanesulfonic acid	68259-12-1	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	Perfluorodecanesulfonic acid	335-77-3	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	PFOSA	754-91-6	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	MeFOSAA	2355-31-9	EPA 537M QSM5.1 B-15	1.1	U	ug/kg	2.7	1.1	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	EtFOSAA	2991-50-6	EPA 537M QSM5.1 B-15	1.1	U	ug/kg	2.7	1.1	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	4:2 Fluorotelomer sulfonate	757124-72-4	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	6:2 Fluorotelomer sulfonate	27619-97-2	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	8:2 Fluorotelomer sulfonate	39108-34-4	EPA 537M QSM5.1 B-15	0.54	U	ug/kg	1.1	0.54	1	NWIRP-S1-WC-CF-019	3/13/2019	10:38
FA62324-1	*13C4-PFBA*		*EPA 537M QSM5.1 B-15*	*87.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C5-PFPeA*		*EPA 537M QSM5.1 B-15*	*90.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C5-PFHxA*		*EPA 537M QSM5.1 B-15*	*89.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C4-PFHpA*		*EPA 537M QSM5.1 B-15*	*92.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C8-PFOA*		*EPA 537M QSM5.1 B-15*	*94.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C9-PFNA*		*EPA 537M QSM5.1 B-15*	*98.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C6-PFDA*		*EPA 537M QSM5.1 B-15*	*103*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C7-PFUnDA*		*EPA 537M QSM5.1 B-15*	*123*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C2-PFDoDA*		*EPA 537M QSM5.1 B-15*	*139*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C2-PFTeDA*		*EPA 537M QSM5.1 B-15*	*140*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C3-PFBS*		*EPA 537M QSM5.1 B-15*	*87.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C3-PFHxS*		*EPA 537M QSM5.1 B-15*	*87.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C8-PFOS*		*EPA 537M QSM5.1 B-15*	*89.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C8-FOSA*		*EPA 537M QSM5.1 B-15*	*97.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*d3-MeFOSAA*		*EPA 537M QSM5.1 B-15*	*97.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C2-4:2FTS*		*EPA 537M QSM5.1 B-15*	*84.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C2-6:2FTS*		*EPA 537M QSM5.1 B-15*	*92.0*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-1	*13C2-8:2FTS*		*EPA 537M QSM5.1 B-15*	*102*		*%*			*1*	*NWIRP-S1-WC-CF-019*	*3/13/2019*	*10:38*
FA62324-2	Solids, Percent		SM19 2540G	90.7		%			1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorobutanoic acid	375-22-4	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluoropentanoic acid	2706-90-3	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorohexanoic acid	307-24-4	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluoroheptanoic acid	375-85-9	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorooctanoic acid	335-67-1	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorononanoic acid	375-95-1	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorodecanoic acid	335-76-2	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluoroundecanoic acid	2058-94-8	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorododecanoic acid	307-55-1	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorotridecanoic acid	72629-94-8	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorotetradecanoic acid	376-06-7	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorobutanesulfonic acid	375-73-5	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluoropentanesulfonic acid	2706-91-4	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorohexanesulfonic acid	355-46-4	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluoroheptanesulfonic acid	375-92-8	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorooctanesulfonic acid	1763-23-1	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorononanesulfonic acid	68259-12-1	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	Perfluorodecanesulfonic acid	335-77-3	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	PFOSA	754-91-6	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	MeFOSAA	2355-31-9	EPA 537M QSM5.1 B-15	1.1	U	ug/kg	2.7	1.1	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	EtFOSAA	2991-50-6	EPA 537M QSM5.1 B-15	1.1	U	ug/kg	2.7	1.1	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	4:2 Fluorotelomer sulfonate	757124-72-4	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	6:2 Fluorotelomer sulfonate	27619-97-2	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	8:2 Fluorotelomer sulfonate	39108-34-4	EPA 537M QSM5.1 B-15	0.55	U	ug/kg	1.1	0.55	1	NWIRP-S1-WC-CF-020	3/13/2019	10:41
FA62324-2	*13C4-PFBA*		*EPA 537M QSM5.1 B-15*	*86.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C5-PFPeA*		*EPA 537M QSM5.1 B-15*	*88.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C5-PFHxA*		*EPA 537M QSM5.1 B-15*	*88.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C4-PFHpA*		*EPA 537M QSM5.1 B-15*	*91.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C8-PFOA*		*EPA 537M QSM5.1 B-15*	*92.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C9-PFNA*		*EPA 537M QSM5.1 B-15*	*96.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*

LabLink Analytical Data Report
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage
APTIM Project Number: 501164, F6147

Sample	Parameter	Cas No.	Method	Result	Qual	Units	LOQ	LOD	DF	Client ID	Collected	Time
FA62324-2	*13C6-PFDA*		*EPA 537M QSM5.1 B-15*	*100*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C7-PFUnDA*		*EPA 537M QSM5.1 B-15*	*119*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C2-PFDoDA*		*EPA 537M QSM5.1 B-15*	*130*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C2-PFTeDA*		*EPA 537M QSM5.1 B-15*	*120*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C3-PFBS*		*EPA 537M QSM5.1 B-15*	*85.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C3-PFHxS*		*EPA 537M QSM5.1 B-15*	*87.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C8-PFOS*		*EPA 537M QSM5.1 B-15*	*88.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C8-FOSA*		*EPA 537M QSM5.1 B-15*	*95.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*d3-MeFOSAA*		*EPA 537M QSM5.1 B-15*	*95.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C2-4:2FTS*		*EPA 537M QSM5.1 B-15*	*82.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C2-6:2FTS*		*EPA 537M QSM5.1 B-15*	*88.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*
FA62324-2	*13C2-8:2FTS*		*EPA 537M QSM5.1 B-15*	*97.0*		*%*			*1*	*NWIRP-S1-WC-CF-020*	*3/13/2019*	*10:41*

Laboratory Qualifiers:
U = Not detected; the analyte was analyzed for, but not detected above the associated detection limit.

% = percent
LOD = limit of detection
LOQ = limit of quantitation
(s) *= surrogates*
µg/kg = microgram/kilogram = ppb

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

NOREAS, Inc.

ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

APTIM 007 RAC WO #12

SGS Job Number: FA62324

Sampling Date: 03/13/19

Report to:

APTIM

natasha.sullivan@aptim.com

ATTN: Natasha Sullivan

Total number of pages in report: **46**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Caitlin Brice, M.S.
General Manager

Client Service contact: Heather Wandrey 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), IL(200063), NC(573), NJ(FL002), NY(12022), SC(96038001) DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177), AK, AR, IA, KY, MA, MS, ND, NH, NV, OK, OR, UT, WA, WV

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Sample Summary

NOREAS, Inc.

Job No: FA62324

ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY
Project No: APTIM 007 RAC WO #12

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA62324-1	03/13/19	10:38	SM	03/14/19	SO	Soil	NWIRP-S1-WC-CF-019
FA62324-2	03/13/19	10:41	SM	03/14/19	SO	Soil	NWIRP-S1-WC-CF-020

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: NOREAS,Inc. **Job No** FA62324

Site: ITVAVAB: Former USTs, Former NWIRP, Bethpage, NY **Report Date** 3/20/2019 1:39:27

2 Samples were collected on 03/13/2019 and were received at SGS North America Inc - Orlando on 03/14/2019 properly preserved, at 3.4 Deg. C and intact. These samples received an SGS Orlando job number of FA62324. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section. Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

MS Semi-volatiles By Method EPA 537M QSM5.1 B-15

Matrix: SO **Batch ID:** OP74195

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) FA62324-2MS, FA62324-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

General Chemistry By Method SM19 2540G

Matrix: SO **Batch ID:** GN81358

Sample(s) FA62309-1DUP were used as the QC samples for Solids, Percent.

SGS Orlando certifies that this report meets the project requirements for analytical data produced for the samples as received at SGS Orlando and as stated on the COC. SGS Orlando certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SGS Orlando Quality Manual except as noted above. This report is to be used in its entirety. SGS Orlando is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

_____

Ariel Hartney, Client Services *(Signature on File)*

Summary of Hits

Job Number: FA62324
Account: NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY
Collected: 03/13/19

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method

FA62324-1 **NWIRP-S1-WC-CF-019**

No hits reported in this sample.

FA62324-2 **NWIRP-S1-WC-CF-020**

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-019		
Lab Sample ID:	FA62324-1	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	EPA 537M QSM5.1 B-15 IN HOUSE	**Percent Solids:**	93.2
Project:	ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q27738.D	1	03/19/19 14:12	NAF	03/18/19 10:00	OP74195	S2Q443
Run #2							

	Initial Weight	Final Volume
Run #1	2.00 g	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
2706-90-3	Perfluoropentanoic acid	0.54 U	1.1	0.54	0.21	ug/kg	
307-24-4	Perfluorohexanoic acid	0.54 U	1.1	0.54	0.21	ug/kg	
375-85-9	Perfluoroheptanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
335-67-1	Perfluorooctanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
375-95-1	Perfluorononanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
335-76-2	Perfluorodecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
2058-94-8	Perfluoroundecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
307-55-1	Perfluorododecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
72629-94-8	Perfluorotridecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
376-06-7	Perfluorotetradecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
PERFLUOROALKYLSULFONATES							
375-73-5	Perfluorobutanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
2706-91-4	Perfluoropentanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
375-92-8	Perfluoroheptanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
68259-12-1	Perfluorononanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
335-77-3	Perfluorodecanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	0.54 U	1.1	0.54	0.27	ug/kg	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	1.1 U	2.7	1.1	0.54	ug/kg	
2991-50-6	EtFOSAA	1.1 U	2.7	1.1	0.54	ug/kg	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	0.54 U	1.1	0.54	0.27	ug/kg	
27619-97-2	6:2 Fluorotelomer sulfonate	0.54 U	1.1	0.54	0.27	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-019		
Lab Sample ID:	FA62324-1	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	EPA 537M QSM5.1 B-15 IN HOUSE	**Percent Solids:**	93.2
Project:	ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY		

PFAS List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	0.54 U	1.1	0.54	0.27	ug/kg	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	87%		50-150%
	13C5-PFPeA	90%		50-150%
	13C5-PFHxA	89%		50-150%
	13C4-PFHpA	92%		50-150%
	13C8-PFOA	94%		50-150%
	13C9-PFNA	98%		50-150%
	13C6-PFDA	103%		50-150%
	13C7-PFUnDA	123%		50-150%
	13C2-PFDoDA	139%		50-150%
	13C2-PFTeDA	140%		50-150%
	13C3-PFBS	87%		50-150%
	13C3-PFHxS	87%		50-150%
	13C8-PFOS	89%		50-150%
	13C8-FOSA	97%		50-150%
	d3-MeFOSAA	97%		50-150%
	13C2-4:2FTS	84%		50-150%
	13C2-6:2FTS	92%		50-150%
	13C2-8:2FTS	102%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-020		
Lab Sample ID:	FA62324-2	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	EPA 537M QSM5.1 B-15 IN HOUSE	**Percent Solids:**	90.7
Project:	ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q27739.D	1	03/19/19 14:28	NAF	03/18/19 10:00	OP74195	S2Q443
Run #2							

	Initial Weight	Final Volume
Run #1	2.01 g	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
2706-90-3	Perfluoropentanoic acid	0.55 U	1.1	0.55	0.22	ug/kg	
307-24-4	Perfluorohexanoic acid	0.55 U	1.1	0.55	0.22	ug/kg	
375-85-9	Perfluoroheptanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
335-67-1	Perfluorooctanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
375-95-1	Perfluorononanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
335-76-2	Perfluorodecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
2058-94-8	Perfluoroundecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
307-55-1	Perfluorododecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
72629-94-8	Perfluorotridecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
376-06-7	Perfluorotetradecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
PERFLUOROALKYLSULFONATES							
375-73-5	Perfluorobutanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
2706-91-4	Perfluoropentanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
375-92-8	Perfluoroheptanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
68259-12-1	Perfluorononanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
335-77-3	Perfluorodecanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	0.55 U	1.1	0.55	0.27	ug/kg	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	1.1 U	2.7	1.1	0.55	ug/kg	
2991-50-6	EtFOSAA	1.1 U	2.7	1.1	0.55	ug/kg	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	0.55 U	1.1	0.55	0.27	ug/kg	
27619-97-2	6:2 Fluorotelomer sulfonate	0.55 U	1.1	0.55	0.27	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-020		
Lab Sample ID:	FA62324-2	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	EPA 537M QSM5.1 B-15 IN HOUSE	**Percent Solids:**	90.7
Project:	ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY		

PFAS List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	0.55 U	1.1	0.55	0.27	ug/kg	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	86%		50-150%
	13C5-PFPeA	88%		50-150%
	13C5-PFHxA	88%		50-150%
	13C4-PFHpA	91%		50-150%
	13C8-PFOA	92%		50-150%
	13C9-PFNA	96%		50-150%
	13C6-PFDA	100%		50-150%
	13C7-PFUnDA	119%		50-150%
	13C2-PFDoDA	130%		50-150%
	13C2-PFTeDA	120%		50-150%
	13C3-PFBS	85%		50-150%
	13C3-PFHxS	87%		50-150%
	13C8-PFOS	88%		50-150%
	13C8-FOSA	95%		50-150%
	d3-MeFOSAA	95%		50-150%
	13C2-4:2FTS	82%		50-150%
	13C2-6:2FTS	88%		50-150%
	13C2-8:2FTS	97%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5 Limits

FA62324

CHAIN-OF-CUSTODY RECORD

COC Number: 501164-20180313
Subcontract Services Agreement : TBD

NOREAS Environmental Defense Engineering & Construction

APTIM

APTIM - 150 Boush Street, Suite 701, Norfolk, VA 23510 (757) 640-6200

Lab Destination:	Lab Receiving Address:
SGS Accutest - Orlando	4405 Vineland Rd. Suite C-15 Orlando, FL, 32811 (407) 425-6700

Project Name	Sample Location:
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York	*Fill Material Samples*

T.O.	Project Number:	APTIM Contact:	APTIM Contact Number:
F6147	501164	Natasha Kelley Sullivan	(410)529-7598

Client Rep:	Deputy Project Manager:
NAVY	Monica L. Smeal E.I.T.

Item No.	Sample Number	Date	Time	Matrix: Water	Matrix: Soil	Sample Description	Number of Containers	Analysis Desired: PFOAs LCQSM537DODFL
1	NWIRP-S1-WC-CF-019	03/13/19	1038		X	Soil - Common Backfill	1 x 4 oz Poly WM, None	X
2	NWIRP-S1-WC-CF-020	03/13/19	1041		X	Soil - Common Backfill	1 x 4 oz Poly WM, None	X

Turnaround Time Required :	Sampled By:	COMMENTS:	Laboratory Report No.:
❑ 14 Day TAT	*McCutcheon, Sean, APTIM*		

Transfer Number	Transfers Relinquished By	Date	Time	Transfers Accepted By	Date	Time
1	*Sampler's Signature*	*Date*	*Time*	*Laboratory Sample Custody S*	*Date*	*Time*
2		3/13/19	1600	FF		
3	FF					
4					3/14/19	1005

Report Format: *Full Report*
Deliverables: EDD Excel+NIRIS
Fax results to Natasha Sullivan (410) 529-7599

3.4

FA62324: Chain of Custody
Page 1 of 2

SGS Sample Receipt Summary

Job Number: FA62324 **Client:** APTIM **Project:** SITE-FORMER DRUM MARSHALLING

Date / Time Received: 3/14/2019 10:00:00 AM **Delivery Method:** FX **Airbill #'s:** 7860 1648 4730

Therm ID: IR 1; **Therm CF:** -0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.4);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: PETERH Date: 3/14/2019 10:00:00 A Reviewer: _____ Date: _____

QC Evaluation: DOD QSM5 Limits

Job Number: FA62324
Account: NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY
Collected: 03/13/19

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits

No Exceptions found.

* Sample used for QC is not from job FA62324

MS Semi-volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Injection Standard Area Summaries
- Isotope Dilution Standard Recovery Summaries
- Initial and Continuing Calibration Summaries

Instrument Blank

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q443-IBLK	2Q27725.D	1	03/19/19	NAF	n/a	n/a	S2Q443

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.1 B-15

FA62324-1, FA62324-2

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	1.0	0.25	ug/kg	
2706-90-3	Perfluoropentanoic acid	ND	1.0	0.20	ug/kg	
307-24-4	Perfluorohexanoic acid	ND	1.0	0.20	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	1.0	0.25	ug/kg	
335-67-1	Perfluorooctanoic acid	ND	1.0	0.25	ug/kg	
375-95-1	Perfluorononanoic acid	ND	1.0	0.25	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	1.0	0.25	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	1.0	0.25	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	1.0	0.25	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	1.0	0.25	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	1.0	0.25	ug/kg	
375-73-5	Perfluorobutanesulfonic acid	ND	1.0	0.25	ug/kg	
2706-91-4	Perfluoropentanesulfonic acid	ND	1.0	0.25	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	1.0	0.25	ug/kg	
375-92-8	Perfluoroheptanesulfonic acid	ND	1.0	0.25	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	ND	1.0	0.25	ug/kg	
68259-12-1	Perfluorononanesulfonic acid	ND	1.0	0.25	ug/kg	
335-77-3	Perfluorodecanesulfonic acid	ND	1.0	0.25	ug/kg	
754-91-6	PFOSA	ND	1.0	0.25	ug/kg	
2355-31-9	MeFOSAA	ND	2.5	0.50	ug/kg	
2991-50-6	EtFOSAA	ND	2.5	0.50	ug/kg	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	1.0	0.25	ug/kg	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	1.0	0.25	ug/kg	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	1.0	0.25	ug/kg	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	109%	50-150%
	13C5-PFPeA	107%	50-150%
	13C5-PFHxA	107%	50-150%
	13C4-PFHpA	107%	50-150%
	13C8-PFOA	109%	50-150%
	13C9-PFNA	108%	50-150%
	13C6-PFDA	112%	50-150%
	13C7-PFUnDA	112%	50-150%

Instrument Blank

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S2Q443-IBLK	2Q27725.D	1	03/19/19	NAF	n/a	n/a	S2Q443

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.1 B-15

FA62324-1, FA62324-2

CAS No.	ID Standard Recoveries		Limits
	13C2-PFDoDA	110%	50-150%
	13C2-PFTeDA	114%	50-150%
	13C3-PFBS	108%	50-150%
	13C3-PFHxS	108%	50-150%
	13C8-PFOS	112%	50-150%
	13C8-FOSA	115%	50-150%
	d3-MeFOSAA	109%	50-150%
	13C2-4:2FTS	100%	50-150%
	13C2-6:2FTS	102%	50-150%
	13C2-8:2FTS	103%	50-150%

Method Blank Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74195-MB	2Q27737.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.1 B-15

FA62324-1, FA62324-2

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	0.301	1.0	0.25	ug/kg	J
2706-90-3	Perfluoropentanoic acid	ND	1.0	0.20	ug/kg	
307-24-4	Perfluorohexanoic acid	ND	1.0	0.20	ug/kg	
375-85-9	Perfluoroheptanoic acid	ND	1.0	0.25	ug/kg	
335-67-1	Perfluorooctanoic acid	ND	1.0	0.25	ug/kg	
375-95-1	Perfluorononanoic acid	ND	1.0	0.25	ug/kg	
335-76-2	Perfluorodecanoic acid	ND	1.0	0.25	ug/kg	
2058-94-8	Perfluoroundecanoic acid	ND	1.0	0.25	ug/kg	
307-55-1	Perfluorododecanoic acid	ND	1.0	0.25	ug/kg	
72629-94-8	Perfluorotridecanoic acid	ND	1.0	0.25	ug/kg	
376-06-7	Perfluorotetradecanoic acid	ND	1.0	0.25	ug/kg	
375-73-5	Perfluorobutanesulfonic acid	ND	1.0	0.25	ug/kg	
2706-91-4	Perfluoropentanesulfonic acid	ND	1.0	0.25	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	ND	1.0	0.25	ug/kg	
375-92-8	Perfluoroheptanesulfonic acid	ND	1.0	0.25	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	ND	1.0	0.25	ug/kg	
68259-12-1	Perfluorononanesulfonic acid	ND	1.0	0.25	ug/kg	
335-77-3	Perfluorodecanesulfonic acid	ND	1.0	0.25	ug/kg	
754-91-6	PFOSA	ND	1.0	0.25	ug/kg	
2355-31-9	MeFOSAA	ND	2.5	0.50	ug/kg	
2991-50-6	EtFOSAA	ND	2.5	0.50	ug/kg	
757124-72-4	4:2 Fluorotelomer sulfonate	ND	1.0	0.25	ug/kg	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	1.0	0.25	ug/kg	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	1.0	0.25	ug/kg	

CAS No.	ID Standard Recoveries		Limits
	13C4-PFBA	88%	50-150%
	13C5-PFPeA	90%	50-150%
	13C5-PFHxA	90%	50-150%
	13C4-PFHpA	92%	50-150%
	13C8-PFOA	95%	50-150%
	13C9-PFNA	96%	50-150%
	13C6-PFDA	99%	50-150%
	13C7-PFUnDA	113%	50-150%

Method Blank Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74195-MB	2Q27737.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.1 B-15

FA62324-1, FA62324-2

CAS No.	ID Standard Recoveries		Limits
	13C2-PFDoDA	126%	50-150%
	13C2-PFTeDA	100%	50-150%
	13C3-PFBS	87%	50-150%
	13C3-PFHxS	89%	50-150%
	13C8-PFOS	89%	50-150%
	13C8-FOSA	97%	50-150%
	d3-MeFOSAA	97%	50-150%
	13C2-4:2FTS	85%	50-150%
	13C2-6:2FTS	90%	50-150%
	13C2-8:2FTS	91%	50-150%

Blank Spike Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74195-BS	2Q27736.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.1 B-15

FA62324-1, FA62324-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
375-22-4	Perfluorobutanoic acid	10	10.4	104	60-134
2706-90-3	Perfluoropentanoic acid	10	10.0	100	62-134
307-24-4	Perfluorohexanoic acid	10	10.3	103	63-130
375-85-9	Perfluoroheptanoic acid	10	10.3	103	63-122
335-67-1	Perfluorooctanoic acid	10	10.2	102	71-128
375-95-1	Perfluorononanoic acid	10	10.4	104	66-124
335-76-2	Perfluorodecanoic acid	10	10.4	104	68-127
2058-94-8	Perfluoroundecanoic acid	10	10.3	103	61-137
307-55-1	Perfluorododecanoic acid	10	10.2	102	71-126
72629-94-8	Perfluorotridecanoic acid	10	10.2	102	60-137
376-06-7	Perfluorotetradecanoic acid	10	10.1	101	61-131
375-73-5	Perfluorobutanesulfonic acid	10	10.1	101	70-135
2706-91-4	Perfluoropentanesulfonic acid	10	10.1	101	70-130
355-46-4	Perfluorohexanesulfonic acid	10	10.4	104	72-129
375-92-8	Perfluoroheptanesulfonic acid	10	10.5	105	62-129
1763-23-1	Perfluorooctanesulfonic acid	10	9.81	98	69-125
68259-12-1	Perfluorononanesulfonic acid	10	10.3	103	70-130
335-77-3	Perfluorodecanesulfonic acid	10	10.3	103	63-141
754-91-6	PFOSA	10	10.1	101	65-140
2355-31-9	MeFOSAA	10	10.1	101	71-124
2991-50-6	EtFOSAA	10	10.1	101	63-129
757124-72-4	4:2 Fluorotelomer sulfonate	10	10.6	106	70-130
27619-97-2	6:2 Fluorotelomer sulfonate	10	10.6	106	76-131
39108-34-4	8:2 Fluorotelomer sulfonate	10	10.7	107	60-138

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	88%	50-150%
	13C5-PFPeA	89%	50-150%
	13C5-PFHxA	89%	50-150%
	13C4-PFHpA	90%	50-150%
	13C8-PFOA	92%	50-150%
	13C9-PFNA	94%	50-150%
	13C6-PFDA	95%	50-150%
	13C7-PFUnDA	111%	50-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74195-BS	2Q27736.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.1 B-15

FA62324-1, FA62324-2

CAS No.	ID Standard Recoveries	BSP	Limits
	13C2-PFDoDA	125%	50-150%
	13C2-PFTeDA	97%	50-150%
	13C3-PFBS	87%	50-150%
	13C3-PFHxS	87%	50-150%
	13C8-PFOS	89%	50-150%
	13C8-FOSA	94%	50-150%
	d3-MeFOSAA	96%	50-150%
	13C2-4:2FTS	88%	50-150%
	13C2-6:2FTS	91%	50-150%
	13C2-8:2FTS	95%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74195-MS	2Q27740.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443
OP74195-MSD	2Q27741.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443
FA62324-2	2Q27739.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.1 B-15

FA62324-1, FA62324-2

CAS No.	Compound	FA62324-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
375-22-4	Perfluorobutanoic acid	1.1	U	10.9	11.0	101	10.8	9.99	93	10	60-134/30
2706-90-3	Perfluoropentanoic acid	1.1	U	10.9	10.8	99	10.8	9.77	91	10	62-134/30
307-24-4	Perfluorohexanoic acid	1.1	U	10.9	10.9	100	10.8	10.0	93	9	63-130/30
375-85-9	Perfluoroheptanoic acid	1.1	U	10.9	11.0	101	10.8	9.95	93	10	63-122/30
335-67-1	Perfluorooctanoic acid	1.1	U	10.9	11.0	101	10.8	9.97	93	10	71-128/30
375-95-1	Perfluorononanoic acid	1.1	U	10.9	10.9	100	10.8	10.1	94	8	66-124/30
335-76-2	Perfluorodecanoic acid	1.1	U	10.9	11.2	103	10.8	10.2	95	9	68-127/30
2058-94-8	Perfluoroundecanoic acid	1.1	U	10.9	11.0	101	10.8	10.1	94	9	61-137/30
307-55-1	Perfluorododecanoic acid	1.1	U	10.9	11.0	101	10.8	10.0	93	10	71-126/30
72629-94-8	Perfluorotridecanoic acid	1.1	U	10.9	11.2	103	10.8	9.81	91	13	60-137/30
376-06-7	Perfluorotetradecanoic acid	1.1	U	10.9	10.9	100	10.8	9.95	93	9	61-131/30
375-73-5	Perfluorobutanesulfonic acid	1.1	U	10.9	10.9	100	10.8	9.93	92	9	70-135/30
2706-91-4	Perfluoropentanesulfonic acid	1.1	U	10.9	10.6	98	10.8	9.79	91	8	70-130/30
355-46-4	Perfluorohexanesulfonic acid	1.1	U	10.9	11.1	102	10.8	9.83	91	12	72-129/30
375-92-8	Perfluoroheptanesulfonic acid	1.1	U	10.9	11.5	106	10.8	10.2	95	12	62-129/30
1763-23-1	Perfluorooctanesulfonic acid	1.1	U	10.9	10.7	99	10.8	9.79	91	9	69-125/30
68259-12-1	Perfluorononanesulfonic acid	1.1	U	10.9	11.4	105	10.8	10.5	98	8	70-130/30
335-77-3	Perfluorodecanesulfonic acid	1.1	U	10.9	11.0	101	10.8	10.4	97	6	63-141/30
754-91-6	PFOSA	1.1	U	10.9	11.0	101	10.8	9.92	92	10	65-140/30
2355-31-9	MeFOSAA	2.7	U	10.9	11.3	104	10.8	10.1	94	11	71-124/30
2991-50-6	EtFOSAA	2.7	U	10.9	11.3	104	10.8	9.85	92	14	63-129/30
757124-72-4	4:2 Fluorotelomer sulfonate	1.1	U	10.9	11.3	104	10.8	10.2	95	10	70-130/30
27619-97-2	6:2 Fluorotelomer sulfonate	1.1	U	10.9	11.2	103	10.8	10.2	95	9	76-131/30
39108-34-4	8:2 Fluorotelomer sulfonate	1.1	U	10.9	11.6	107	10.8	10.2	95	13	60-138/30

CAS No.	ID Standard Recoveries	MS	MSD	FA62324-2	Limits
	13C4-PFBA	84%	89%	86%	50-150%
	13C5-PFPeA	87%	92%	88%	50-150%
	13C5-PFHxA	87%	92%	88%	50-150%
	13C4-PFHpA	89%	95%	91%	50-150%
	13C8-PFOA	90%	96%	92%	50-150%
	13C9-PFNA	95%	100%	96%	50-150%
	13C6-PFDA	99%	104%	100%	50-150%
	13C7-PFUnDA	119%	125%	119%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP74195-MS	2Q27740.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443
OP74195-MSD	2Q27741.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443
FA62324-2	2Q27739.D	1	03/19/19	NAF	03/18/19	OP74195	S2Q443

The QC reported here applies to the following samples: **Method:** EPA 537M QSM5.1 B-15

FA62324-1, FA62324-2

CAS No.	ID Standard Recoveries	MS	MSD	FA62324-2	Limits
	13C2-PFDoDA	132%	137%	130%	50-150%
	13C2-PFTeDA	132%	144%	120%	50-150%
	13C3-PFBS	84%	90%	85%	50-150%
	13C3-PFHxS	83%	90%	87%	50-150%
	13C8-PFOS	88%	92%	88%	50-150%
	13C8-FOSA	92%	97%	95%	50-150%
	d3-MeFOSAA	95%	101%	95%	50-150%
	13C2-4:2FTS	86%	91%	82%	50-150%
	13C2-6:2FTS	92%	97%	88%	50-150%
	13C2-8:2FTS	105%	111%	97%	50-150%

* = Outside of Control Limits.

Injection Standard Area Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Check Std:	S2Q443-CC442	**Injection Date:**	03/19/19
Lab File ID:	2Q27734.D	**Injection Time:**	13:09
Instrument ID:	GCMS2Q	**Method:**	EPA 537M QSM5.1 B-15

	IS 1 AREA	RT	IS 2 AREA	RT
Initial Cal [a]	270918	6.43	43615	7.05
Check Std [b]	295041	6.43	46956	7.05
Upper Limit [c]	406377	7.43	65423	8.05
Lower Limit [d]	135459	5.43	21808	6.05

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT
OP74195-BS	268859	6.43	42386	7.05
OP74195-MB	278593	6.43	42473	7.05
FA62324-1	271955	6.45	42053	7.05
FA62324-2	262948	6.43	40432	7.05
OP74195-MS	261382	6.43	40964	7.05
OP74195-MSD	254407	6.43	39575	7.05

IS 1 = 13C2-PFOA
IS 2 = 13C4-PFOS

(a) Initial Cal is: S2Q442-ICC442 2Q27672.D 03/18/19 09:37
(b) Check Std Limit = -50 to + 50% of initial cal area.
(c) Upper Limit = + 50% of initial standard area; Retention time + 1 minutes of check standard.
(d) Lower Limit = -50% of initial standard area; Retention time -1 minutes of check standard.

Isotope Dilution Standard Recovery Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Method: EPA 537M QSM5.1 B-15 **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6	S7	S8
FA62324-1	2Q27738.D	87	90	89	92	94	98	103	123
FA62324-2	2Q27739.D	86	88	88	91	92	96	100	119
OP74195-BS	2Q27736.D	88	89	89	90	92	94	95	111
OP74195-MB	2Q27737.D	88	90	90	92	95	96	99	113
OP74195-MS	2Q27740.D	84	87	87	89	90	95	99	119
OP74195-MSD	2Q27741.D	89	92	92	95	96	100	104	125
S2Q443-IBLK	2Q27725.D	109	107	107	107	109	108	112	112

Isotope Dilution Standards	Recovery Limits
S1 = 13C4-PFBA	50-150%
S2 = 13C5-PFPeA	50-150%
S3 = 13C5-PFHxA	50-150%
S4 = 13C4-PFHpA	50-150%
S5 = 13C8-PFOA	50-150%
S6 = 13C9-PFNA	50-150%
S7 = 13C6-PFDA	50-150%
S8 = 13C7-PFUnDA	50-150%

Isotope Dilution Standard Recovery Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Method: EPA 537M QSM5.1 B-15 **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S9	S10	S11	S12	S13	S14	S15	S16
FA62324-1	2Q27738.D	139	140	87	87	89	97	97	84
FA62324-2	2Q27739.D	130	120	85	87	88	95	95	82
OP74195-BS	2Q27736.D	125	97	87	87	89	94	96	88
OP74195-MB	2Q27737.D	126	100	87	89	89	97	97	85
OP74195-MS	2Q27740.D	132	132	84	83	88	92	95	86
OP74195-MSD	2Q27741.D	137	144	90	90	92	97	101	91
S2Q443-IBLK	2Q27725.D	110	114	108	108	112	115	109	100

Isotope Dilution Standards	Recovery Limits
S9 = 13C2-PFDoDA	50-150%
S10 = 13C2-PFTeDA	50-150%
S11 = 13C3-PFBS	50-150%
S12 = 13C3-PFHxS	50-150%
S13 = 13C8-PFOS	50-150%
S14 = 13C8-FOSA	50-150%
S15 = d3-MeFOSAA	50-150%
S16 = 13C2-4:2FTS	50-150%

Isotope Dilution Standard Recovery Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Method: EPA 537M QSM5.1 B-15 **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S17	S18
FA62324-1	2Q27738.D	92	102
FA62324-2	2Q27739.D	88	97
OP74195-BS	2Q27736.D	91	95
OP74195-MB	2Q27737.D	90	91
OP74195-MS	2Q27740.D	92	105
OP74195-MSD	2Q27741.D	97	111
S2Q443-IBLK	2Q27725.D	102	103

Isotope Dilution Standards	Recovery Limits
S17 = 13C2-6:2FTS	50-150%
S18 = 13C2-8:2FTS	50-150%

Initial Calibration Report

Method Path	D:\MassHunter\damethods
Method File	ID_GENX_031819_S2Q442.quantmethod.xml
Batch Name	D:\MassHunter\Data\0318_ID_GENX_S2Q442\QuantResults\S2Q442.batch.bin
Last Calib Update	3/18/2019 10:25:16 AM

Level Name	Calibration Files	Acq. Date-Time	Level Last Update Time
1	D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27667.d	3/18/2019 8:18:31 AM	3/18/2019 10:25:16 AM
2	D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27668.d	3/18/2019 8:34:20 AM	3/18/2019 10:25:16 AM
3	D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27669.d	3/18/2019 8:50:04 AM	3/18/2019 10:25:16 AM
4	D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27670.d	3/18/2019 9:05:48 AM	3/18/2019 10:25:16 AM
5	D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27671.d	3/18/2019 9:21:31 AM	3/18/2019 10:25:16 AM
6	D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27672.d	3/18/2019 9:37:15 AM	3/18/2019 10:25:16 AM
7	D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27673.d	3/18/2019 9:52:58 AM	3/18/2019 10:25:16 AM
8	D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27674.d	3/18/2019 10:08:42 AM	3/18/2019 10:25:16 AM

Compound	Curve Fit	1	2	3	4	5	6	7	8	Avg RF	%RSD
S 13C4-PFBA	Linear	6277	6274	6497	5911	5748	5806	5902	5558	5997	5.319
S 13C5-PFPeA	Linear	5324	5292	5484	5025	4900	4926	4989	4727	5083	5.040
S 13C3-PFBS	Linear	975.9	954.8	994.3	898.4	871.6	880.8	884.6	833.8	911.8	6.199
S 13C2-4:2FTS	Linear	2976	2911	3044	2812	2756	2842	3119	3329	2974	6.315
S 13C5-PFHxA	Linear	7685	7604	7914	7178	6924	7034	7134	6657	7266	5.878
S 13C3-HFPO-DA	Linear	1680	1731	1787	1617	1593	1546	1500	1338	1599	8.854
S 13C4-PFHpA	Linear	10960	10821	11261	10227	9959	10006	10078	9430	10343	5.926
S 13C3-PFHxS	Linear	1089	1088	1109	1009	976.0	987.2	978.6	918.5	1019	6.683
S 13C2-6:2FTS	Linear	3225	3166	3336	3073	3033	3109	3346	3390	3210	4.232
S 13C8-PFOA	Linear	11126	11043	11352	10406	10173	10118	10068	9169	10432	6.871
S 13C8-FOSA	Linear	4451	4385	4469	4143	3958	3924	3794	3315	4055	9.717
S 13C8-PFOS	Linear	1415	1367	1432	1295	1238	1243	1270	1169	1304	7.131
S 13C9-PFNA	Linear	11090	11008	11453	10537	10268	10391	10351	9603	10588	5.469
S d3-MeFOSAA	Linear	2010	1945	2049	1875	1884	1869	1905	1798	1917	4.250
S 13C6-PFDA	Linear	14484	14198	14830	13586	13271	13392	13383	12027	13646	6.381
S 13C2-8:2FTS	Linear	2167	2130	2245	2072	2063	2137	2384	2540	2217	7.502
S 13C7-PFUnDA	Linear	17527	17558	18250	16865	16491	16595	16774	15330	16924	5.184
S 13C2-PFDoDA	Linear	19066	19032	20039	18611	18441	18520	18929	17831	18809	3.397
S 13C2-PFTeDA	Linear	13033	12884	13611	12653	12546	12693	12984	12305	12839	3.066
I 13C2-PFOA				---------- ISTD ----------							
S M2-PFOA	Linear	1.0006	1.0012	1.0007	1.0010	1.0007	1.0013	1.0008	1.0013	1.0010	0.029
I 13C4-PFOS				---------- ISTD ----------							
S M4-PFOS	Linear	0.9990	1.0013	0.9989	1.0030	1.0010	1.0000	1.0018	0.9987	1.0005	0.156
I M4-PFBA				---------- ISTD ----------							
T PFBA	Linear	0.1888	0.1964	0.1844	0.1919	0.1953	0.1958	0.1963	0.1979	0.1934	2.403
I M5-PFPeA				---------- ISTD ----------							
T PFPeA	Linear	0.8749	0.8458	0.8261	0.8490	0.8534	0.8630	0.8626	0.8667	0.8552	1.776

Initial Calibration Summary

Job Number: FA62324 **Sample:** S2Q442-ICC442

Account: NOREASCA NOREAS, Inc. **Lab FileID:** 2Q27672.D

Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

Initial Calibration Summary

Job Number: FA62324 **Sample:** S2Q442-ICC442
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 2Q27672.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Initial Calibration Report

Compound	Curve Fit	1	2	3	4	5	6	7	8	Avg RF	%RSD
I M5-PFHxA						ISTD					
T PFHxA	Linear	0.3283	0.3352	0.3150	0.3386	0.3434	0.3392	0.3424	0.3452	0.3359	2.972
I M4-PFHpA						ISTD					
T PFHpA	Linear	0.7915	0.8459	0.7825	0.8413	0.8467	0.8573	0.8638	0.8621	0.8364	3.777
I M8-PFOA						ISTD					
T ADONA	Quadratic	0.9168	0.9441	0.9241	0.9637	0.9852	0.9948	1.0148	1.0572	0.9751	4.888
T PFOA	Linear	0.5068	0.5210	0.4959	0.5196	0.5200	0.5310	0.5305	0.5433	0.5210	2.831
I M9-PFNA						ISTD					
T PFNA	Linear	0.6153	0.6162	0.6019	0.6283	0.6641	0.6600	0.6627	0.6637	0.6390	4.102
I M6-PFDA						ISTD					
T 9Cl-PF3ONS	Quadratic	0.0704	0.0764	0.0686	0.0743	0.0778	0.0756	0.0770	0.0806	0.0751	5.219
T PFDA	Linear	0.4079	0.4103	0.4065	0.4198	0.4308	0.4336	0.4300	0.4368	0.4220	2.939
I M7-PFUnDA						ISTD					
T PFUnDA	Linear	0.3692	0.3818	0.3659	0.3907	0.4041	0.4025	0.4058	0.4149	0.3919	4.601
I M2-PFDoDA						ISTD					
T 11Cl-PF3OUdS	Linear	0.2894	0.2829	0.2600	0.2728	0.2757	0.2776	0.2741	0.2734	0.2757	3.084
T PFDoDA	Linear	0.4193	0.4282	0.4029	0.4298	0.4383	0.4448	0.4432	0.4458	0.4315	3.443
I M2-PFTeDA						ISTD					
T PFTrDA	Linear	0.6703	0.6814	0.6677	0.6984	0.7209	0.7205	0.7268	0.7294	0.7019	3.686
T PFTeDA	Linear	0.6752	0.6706	0.6400	0.6743	0.6947	0.6943	0.6932	0.7013	0.6804	2.938
I M8-FOSA						ISTD					
T FOSA	Quadratic	0.4457	0.4272	0.4292	0.4430	0.4520	0.4652	0.4628	0.4667	0.4490	3.458
I M3-PFBS						ISTD					
T PFBS	Linear	1.5405	1.5464	1.4950	1.5509	1.5670	1.5611	1.5914	1.5884	1.5551	1.964
T PFPeS	Linear	1.0208	0.9895	0.9434	0.9825	1.0100	1.0105	1.0249	1.0146	0.9995	2.699
I M3-PFHxS						ISTD					
T PFHxS	Linear	1.0766	1.0002	1.0240	1.0641	1.0874	1.0760	1.1192	1.1037	1.0689	3.698
T PFHpS	Linear	0.9332	1.0002	0.8912	0.9598	0.9754	0.9785	0.9883	0.9656	0.9615	3.616
I M8-PFOS						ISTD					
T PFOS	Linear	0.9167	0.9238	0.9556	0.9482	0.9884	0.9698	0.9628	0.9734	0.9548	2.572
T PFNS	Linear	0.5850	0.7658	0.6364	0.6977	0.7225	0.7059	0.6911	0.6828	0.6859	7.971
T PFDS	Linear	0.3694	0.3805	0.3508	0.3700	0.3743	0.3861	0.3694	0.3673	0.3710	2.800
I M2-4:2FTS						ISTD					
T 4:2FTS	Avg RF	0.5573	0.5899	0.5499	0.5744	0.5665	0.5660	0.5297	0.4741	0.5510	6.483
I M2-6:2FTS						ISTD					

Generated at 10:25 AM on 3/18/2019

Initial Calibration Summary

Job Number: FA62324 **Sample:** S2Q442-ICC442
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 2Q27672.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Initial Calibration Report

Compound	Curve Fit	1	2	3	4	5	6	7	8	Avg RF	%RSD
T 6:2FTS	Avg RF	0.5288	0.5368	0.5090	0.4944	0.4989	0.4964	0.4565	0.4152	0.4920	8.012
I M2-8:2FTS				----------	----------	ISTD	----------	----------			
T 8:2FTS	Avg RF	0.5362	0.4821	0.5185	0.5277	0.5312	0.5130	0.4775	0.4141	0.5000	8.200
I M3-MeFOSAA				----------	----------	ISTD	----------	----------			
T MeFOSAA	Quadratic	0.4441	0.5244	0.4642	0.5122	0.4984	0.5144	0.5143	0.5217	0.4992	5.878
T EtFOSAA	Quadratic	0.4227	0.4942	0.4075	0.4047	0.4191	0.4230	0.4197	0.4061	0.4246	6.855
I M3-HFPO-DA				----------	----------	ISTD	----------	----------			
T HFPO-DA	Linear	1.1493	1.1180	1.0889	1.1647	1.1458	1.1794	1.1788	1.1911	1.1520	2.994

(RedFont and #) = Outlier Flag; (I) = Internal Standard; (T) = Target; (S) = Surrogate; (M) = Matrix Spike

Initial Calibration Summary

Job Number: FA62324 **Sample:** S2Q442-ICC442
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 2Q27672.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Initial Calibration Report

Compounds with Curve fitting not using Avg Response Factor:

Compound	Curve Fit	Curve Fit Formula	Curve Fit R2
S 13C4-PFBA	Linear	y = 5996.518789 * x	0.000000
T PFBA	Linear	y = 0.197520 * x	0.999975
S 13C5-PFPeA	Linear	y = 5083.356394 * x	0.000000
T PFPeA	Linear	y = 0.865662 * x	0.999990
T PFBS	Linear	y = 1.587873 * x	0.999980
S 13C3-PFBS	Linear	y = 911.778702 * x	0.000000
S 13C2-4:2FTS	Linear	y = 2973.580736 * x	0.000000
S 13C5-PFHxA	Linear	y = 7266.192219 * x	0.000000
T PFHxA	Linear	y = 0.344421 * x	0.999970
T PFPeS	Linear	y = 1.016317 * x	0.999968
T HFPO-DA	Linear	y = 1.187915 * x	0.999953
S 13C3-HFPO-DA	Linear	y = 1599.025152 * x	0.000000
S 13C4-PFHpA	Linear	y = 10342.763286 * x	0.000000
T PFHpA	Linear	y = 0.862058 * x	0.999988
S 13C3-PFHxS	Linear	y = 1019.424693 * x	0.000000
T PFHxS	Linear	y = 1.105562 * x	0.999908
T ADONA	Quadratic	y = 0.016622 * x ^ 2 + 0.974049 * x	0.999997
S 13C2-6:2FTS	Linear	y = 3209.585519 * x	0.000000
S 13C8-PFOA	Linear	y = 10431.663893 * x	0.000000
S M2-PFOA	Linear	y = 1.000962 * x	0.000000
T PFOA	Linear	y = 0.540236 * x	0.999831
T PFHpS	Linear	y = 0.970406 * x	0.999866
T FOSA	Quadratic	y = 0.001527 * x ^ 2 + 0.459098 * x	0.999986
S 13C8-FOSA	Linear	y = 4054.959560 * x	0.000000
S M4-PFOS	Linear	y = 1.000462 * x	0.000000
T PFOS	Linear	y = 0.971314 * x	0.999967
S 13C8-PFOS	Linear	y = 1303.510781 * x	0.000000
S 13C9-PFNA	Linear	y = 10587.712977 * x	0.000000
T PFNA	Linear	y = 0.663287 * x	0.999985
T 9Cl-PF3ONS	Quadratic	y = 0.001311 * x ^ 2 + 0.073985 * x	0.999975
S d3-MeFOSAA	Linear	y = 1916.910382 * x	0.000000
T MeFOSAA	Quadratic	y = 0.002859 * x ^ 2 + 0.507371 * x	0.999988
T PFNS	Linear	y = 0.685455 * x	0.999881
S 13C6-PFDA	Linear	y = 13646.262526 * x	0.000000
T PFDA	Linear	y = 0.435348 * x	0.999935
T EtFOSAA	Quadratic	y = -0.004715 * x ^ 2 + 0.429857 * x	0.999975
S 13C2-8:2FTS	Linear	y = 2217.301028 * x	0.000000
T PFDS	Linear	y = 0.368354 * x	0.999876
S 13C7-PFUnDA	Linear	y = 16923.713644 * x	0.000000
T PFUnDA	Linear	y = 0.412589 * x	0.999838
T 11Cl-PF3OUdS	Linear	y = 0.274079 * x	0.999929
S 13C2-PFDoDA	Linear	y = 18808.572482 * x	0.000000
T PFDoDA	Linear	y = 0.445132 * x	0.999981

Initial Calibration Summary

Job Number: FA62324 **Sample:** S2Q442-ICC442
Account: NOREASCA NOREAS, Inc. **Lab FileID:** 2Q27672.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Initial Calibration Report

T PFTrDA	Linear	y = 0.728459 * x	0.999981
T PFTeDA	Linear	y = 0.699430 * x	0.999958
S 13C2-PFTeDA	Linear	y = 12838.574424 * x	0.000000

(RedFont and #) = Outlier Flag; (I) = Internal Standard; (T) = Target; (S) = Surrogate; (M) = Matrix Spike

Initial Calibration Verification

Job Number: FA62324 **Sample:** S2Q442-ICV442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27676.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

Continuing Calibration Report

Batch: D:\MassHunter\Data\0318_ID_GENX_S2Q442\S2Q442.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27667.d
2:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27668.d
3:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27669.d
4:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27670.d
5:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27671.d
6:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27672.d
7:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27673.d
8:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27674.d

Data File: 2Q27676
Type : QC
Level : 6

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	20.000	20.252	1.3	101.3
13C2-6:2FTS	20.000	20.889	4.4	104.4
13C2-8:2FTS	20.000	21.759	8.8	108.8
13C2-PFDoDA	20.000	24.560	22.8	122.8
13C2-PFOA	---	--ISTD--		
13C2-PFTeDA	20.000	25.772	28.9	128.9
13C3-PFBS	20.000	20.930	4.7	104.7
13C3-PFHxS	20.000	21.132	5.7	105.7
13C4-PFBA	20.000	20.498	2.5	102.5
13C4-PFHpA	20.000	22.142	10.7	110.7
13C4-PFOS	---	--ISTD--		
13C5-PFHxA	20.000	21.644	8.2	108.2
13C5-PFPeA	20.000	21.319	6.6	106.6
13C6-PFDA	20.000	23.118	15.6	115.6
13C7-PFUnDA	20.000	22.940	14.7	114.7
13C8-FOSA	20.000	22.597	13.0	113.0
13C8-PFOA	20.000	22.066	10.3	110.3
13C8-PFOS	20.000	21.430	7.2	107.2
13C9-PFNA	20.000	22.205	11.0	111.0
4:2FTS	20.000	0.000	# -100.0	0.0
6:2FTS	20.000	0.000	# -100.0	0.0
8:2FTS	20.000	0.000	# -100.0	0.0
d3-MeFOSAA	20.000	21.717	8.6	108.6
M2-PFOA	20.000	19.988	-0.1	99.9
EtFOSAA	20.000	15.917	-20.4	79.6
FOSA	20.000	0.000	# -100.0	0.0
MeFOSAA	20.000	17.692	-11.5	88.5
PFBA	20.000	0.000	# -100.0	0.0
PFBS	20.000	0.000	# -100.0	0.0
PFDA	20.000	0.000	# -100.0	0.0
PFDoDA	20.000	0.000	# -100.0	0.0
PFDS	20.000	0.000	# -100.0	0.0
PFHpA	20.000	0.000	# -100.0	0.0
PFHpS	20.000	0.000	# -100.0	0.0
PFHxA	20.000	0.000	# -100.0	0.0
PFHxS	20.000	0.000	# -100.0	0.0
PFNA	20.000	0.000	# -100.0	0.0

Initial Calibration Verification

Job Number: FA62324 **Sample:** S2Q442-ICV442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27676.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

PFNS	20.000	0.000	# -100.0	0.0
PFOA	20.000	17.009	-15.0	85.0
PFOS	20.000	19.885	-0.6	99.4
PFPeA	20.000	0.000	# -100.0	0.0
PFPeS	20.000	0.000	# -100.0	0.0
PFTeDA	20.000	0.000	# -100.0	0.0
PFTrDA	20.000	0.000	# -100.0	0.0
PFUnDA	20.000	0.000	# -100.0	0.0
M4-PFOS	20.000	20.005	0.0	100.0
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	0.000	# -100.0	0.0
13C3-HFPO-DA	100.000	103.129	3.1	103.1
9Cl-PF3ONS	20.000	0.000	# -100.0	0.0
ADONA	20.000	0.000	# -100.0	0.0
HFPO-DA	100.000	0.000	# -100.0	0.0
M3-HFPO-DA	---	--ISTD--		

CC Criteria: +/- 30%

Initial Calibration Verification

Job Number: FA62324 **Sample:** S2Q442-ICV442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27677.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

Continuing Calibration Report

Batch: D:\MassHunter\Data\0318_ID_GENX_S2Q442\S2Q442.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27667.d
2:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27668.d
3:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27669.d
4:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27670.d
5:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27671.d
6:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27672.d
7:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27673.d
8:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27674.d

Data File: 2Q27677
Type : QC
Level : 6

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	20.000	22.638	13.2	113.2
13C2-6:2FTS	20.000	22.817	14.1	114.1
13C2-8:2FTS	20.000	23.035	15.2	115.2
13C2-PFDoDA	20.000	23.742	18.7	118.7
13C2-PFOA	---	--ISTD--		
13C2-PFTeDA	20.000	24.339	21.7	121.7
13C3-PFBS	20.000	22.365	11.8	111.8
13C3-PFHxS	20.000	22.260	11.3	111.3
13C4-PFBA	20.000	22.456	12.3	112.3
13C4-PFHpA	20.000	23.074	15.4	115.4
13C4-PFOS	---	--ISTD--		
13C5-PFHxA	20.000	22.916	14.6	114.6
13C5-PFPeA	20.000	22.739	13.7	113.7
13C6-PFDA	20.000	23.318	16.6	116.6
13C7-PFUnDA	20.000	23.698	18.5	118.5
13C8-FOSA	20.000	22.532	12.7	112.7
13C8-PFOA	20.000	23.216	16.1	116.1
13C8-PFOS	20.000	22.252	11.3	111.3
13C9-PFNA	20.000	23.187	15.9	115.9
4:2FTS	20.000	17.691	-11.5	88.5
6:2FTS	20.000	18.148	-9.3	90.7
8:2FTS	20.000	18.613	-6.9	93.1
d3-MeFOSAA	20.000	23.338	16.7	116.7
M2-PFOA	20.000	20.004	0.0	100.0
EtFOSAA	20.000	18.369	-8.2	91.8
FOSA	20.000	19.229	-3.9	96.1
MeFOSAA	20.000	19.078	-4.6	95.4
PFBA	20.000	18.609	-7.0	93.0
PFBS	20.000	15.884	-20.6	79.4
PFDA	20.000	17.488	-12.6	87.4
PFDoDA	20.000	19.612	-1.9	98.1
PFDS	20.000	18.040	-9.8	90.2
PFHpA	20.000	19.524	-2.4	97.6
PFHpS	20.000	18.494	-7.5	92.5
PFHxA	20.000	16.735	-16.3	83.7
PFHxS	20.000	16.344	-18.3	81.7
PFNA	20.000	17.441	-12.8	87.2

Initial Calibration Verification

Job Number: FA62324 **Sample:** S2Q442-ICV442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27677.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

PFNS	20.000	18.531	-7.3	92.7
PFOA	20.000	18.815	-5.9	94.1
PFOS	20.000	18.739	-6.3	93.7
PFPeA	20.000	17.947	-10.3	89.7
PFPeS	20.000	15.768	-21.2	78.8
PFTeDA	20.000	17.125	-14.4	85.6
PFTrDA	20.000	19.985	-0.1	99.9
PFUnDA	20.000	19.148	-4.3	95.7
M4-PFOS	20.000	20.020	0.1	100.1
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	0.000	# -100.0	0.0
13C3-HFPO-DA	100.000	112.339	12.3	112.3
9Cl-PF3ONS	20.000	0.000	# -100.0	0.0
ADONA	20.000	0.000	# -100.0	0.0
HFPO-DA	100.000	0.000	# -100.0	0.0
M3-HFPO-DA	---	--ISTD--		

CC Criteria: +/- 30%

Initial Calibration Verification

Job Number: FA62324 **Sample:** S2Q442-ICV442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27678.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

Continuing Calibration Report

Batch: D:\MassHunter\Data\0318_ID_GENX_S2Q442\S2Q442.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27667.d
2:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27668.d
3:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27669.d
4:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27670.d
5:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27671.d
6:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27672.d
7:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27673.d
8:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27674.d

Data File: 2Q27678
Type : QC
Level : 6

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	20.000	19.949	-0.3	99.7
13C2-6:2FTS	20.000	20.397	2.0	102.0
13C2-8:2FTS	20.000	20.279	1.4	101.4
13C2-PFDoDA	20.000	22.005	10.0	110.0
13C2-PFOA	---	--ISTD--		
13C2-PFTeDA	20.000	22.045	10.2	110.2
13C3-PFBS	20.000	20.708	3.5	103.5
13C3-PFHxS	20.000	20.662	3.3	103.3
13C4-PFBA	20.000	20.885	4.4	104.4
13C4-PFHpA	20.000	21.553	7.8	107.8
13C4-PFOS	---	--ISTD--		
13C5-PFHxA	20.000	21.131	5.7	105.7
13C5-PFPeA	20.000	21.185	5.9	105.9
13C6-PFDA	20.000	22.187	10.9	110.9
13C7-PFUnDA	20.000	21.945	9.7	109.7
13C8-FOSA	20.000	22.035	10.2	110.2
13C8-PFOA	20.000	21.863	9.3	109.3
13C8-PFOS	20.000	21.032	5.2	105.2
13C9-PFNA	20.000	21.779	8.9	108.9
4:2FTS	20.000	0.000	# -100.0	0.0
6:2FTS	20.000	0.000	# -100.0	0.0
8:2FTS	20.000	0.000	# -100.0	0.0
d3-MeFOSAA	20.000	21.405	7.0	107.0
M2-PFOA	20.000	19.984	-0.1	99.9
EtFOSAA	20.000	17.754	-11.2	88.8
FOSA	20.000	0.000	# -100.0	0.0
MeFOSAA	20.000	17.719	-11.4	88.6
PFBA	20.000	0.000	# -100.0	0.0
PFBS	20.000	18.581	-7.1	92.9
PFDA	20.000	18.965	-5.2	94.8
PFDoDA	20.000	18.808	-6.0	94.0
PFDS	20.000	0.000	# -100.0	0.0
PFHpA	20.000	18.868	-5.7	94.3
PFHpS	20.000	0.000	# -100.0	0.0
PFHxA	20.000	18.761	-6.2	93.8
PFHxS	20.000	19.135	-4.3	95.7
PFNA	20.000	19.556	-2.2	97.8

Initial Calibration Verification

Job Number: FA62324 **Sample:** S2Q442-ICV442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27678.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

PFNS	20.000	0.000	# -100.0	0.0
PFOA	20.000	19.149	-4.3	95.7
PFOS	20.000	18.260	-8.7	91.3
PFPeA	20.000	0.000	# -100.0	0.0
PFPeS	20.000	0.000	# -100.0	0.0
PFTeDA	20.000	18.900	-5.5	94.5
PFTrDA	20.000	19.098	-4.5	95.5
PFUnDA	20.000	19.168	-4.2	95.8
M4-PFOS	20.000	20.007	0.0	100.0
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	19.907	-0.5	99.5
13C3-HFPO-DA	100.000	103.306	3.3	103.3
9Cl-PF3ONS	20.000	19.678	-1.6	98.4
ADONA	20.000	19.409	-3.0	97.0
HFPO-DA	20.000	19.973	-0.1	99.9
M3-HFPO-DA	---	--ISTD--		

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: FA62324 **Sample:** S2Q443-CC442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27734.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

Continuing Calibration Report

Batch: D:\MassHunter\Data\0319_ID_GENX_S2Q443\S2Q443.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27667.d
2:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27668.d
3:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27669.d
4:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27670.d
5:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27671.d
6:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27672.d
7:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27673.d
8:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27674.d

Data File: 2Q27734
Type : QC
Level : 6

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	20.000	20.684	3.4	103.4
13C2-6:2FTS	20.000	21.060	5.3	105.3
13C2-8:2FTS	20.000	22.104	10.5	110.5
13C2-PFDoDA	20.000	22.205	11.0	111.0
13C2-PFOA	---	--ISTD--		
13C2-PFTeDA	20.000	22.786	13.9	113.9
13C3-PFBS	20.000	20.332	1.7	101.7
13C3-PFHxS	20.000	20.571	2.9	102.9
13C4-PFBA	20.000	20.979	4.9	104.9
13C4-PFHpA	20.000	21.078	5.4	105.4
13C4-PFOS	---	--ISTD--		
13C5-PFHxA	20.000	21.001	5.0	105.0
13C5-PFPeA	20.000	21.247	6.2	106.2
13C6-PFDA	20.000	22.148	10.7	110.7
13C7-PFUnDA	20.000	22.514	12.6	112.6
13C8-FOSA	20.000	20.956	4.8	104.8
13C8-PFOA	20.000	21.036	5.2	105.2
13C8-PFOS	20.000	21.023	5.1	105.1
13C9-PFNA	20.000	21.594	8.0	108.0
4:2FTS	20.000	20.493	2.5	102.5
6:2FTS	20.000	20.258	1.3	101.3
8:2FTS	20.000	19.991	0.0	100.0
d3-MeFOSAA	20.000	21.634	8.2	108.2
M2-PFOA	20.000	20.002	0.0	100.0
EtFOSAA	20.000	20.281	1.4	101.4
FOSA	20.000	19.956	-0.2	99.8
MeFOSAA	20.000	19.934	-0.3	99.7
PFBA	20.000	19.663	-1.7	98.3
PFBS	20.000	19.950	-0.2	99.8
PFDA	20.000	19.878	-0.6	99.4
PFDoDA	20.000	20.084	0.4	100.4
PFDS	20.000	19.316	-3.4	96.6
PFHpA	20.000	19.728	-1.4	98.6
PFHpS	20.000	20.277	1.4	101.4
PFHxA	20.000	20.225	1.1	101.1
PFHxS	20.000	19.717	-1.4	98.6
PFNA	20.000	19.982	-0.1	99.9

Continuing Calibration Summary

Job Number: FA62324 **Sample:** S2Q443-CC442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27734.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

PFNS	20.000	20.079	0.4	100.4
PFOA	20.000	19.643	-1.8	98.2
PFOS	20.000	19.554	-2.2	97.8
PFPeA	20.000	19.668	-1.7	98.3
PFPeS	20.000	20.518	2.6	102.6
PFTeDA	20.000	19.636	-1.8	98.2
PFTrDA	20.000	19.711	-1.4	98.6
PFUnDA	20.000	19.415	-2.9	97.1
M4-PFOS	20.000	20.027	0.1	100.1
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	18.946	-5.3	94.7
13C3-HFPO-DA	100.000	113.737	13.7	113.7
9Cl-PF3ONS	20.000	19.302	-3.5	96.5
ADONA	20.000	20.112	0.6	100.6
HFPO-DA	100.000	99.435	-0.6	99.4
M3-HFPO-DA	---	--ISTD--		

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: FA62324 **Sample:** S2Q443-CC442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27742.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

Continuing Calibration Report

Batch: D:\MassHunter\Data\0319_ID_GENX_S2Q443\S2Q443.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27667.d
2:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27668.d
3:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27669.d
4:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27670.d
5:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27671.d
6:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27672.d
7:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27673.d
8:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27674.d

Data File: 2Q27742
Type : QC
Level : 6

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	20.000	20.921	4.6	104.6
13C2-6:2FTS	20.000	21.602	8.0	108.0
13C2-8:2FTS	20.000	22.687	13.4	113.4
13C2-PFDoDA	20.000	23.476	17.4	117.4
13C2-PFOA	---	--ISTD--		
13C2-PFTeDA	20.000	24.026	20.1	120.1
13C3-PFBS	20.000	20.639	3.2	103.2
13C3-PFHxS	20.000	20.637	3.2	103.2
13C4-PFBA	20.000	20.892	4.5	104.5
13C4-PFHpA	20.000	21.594	8.0	108.0
13C4-PFOS	---	--ISTD--		
13C5-PFHxA	20.000	21.222	6.1	106.1
13C5-PFPeA	20.000	21.432	7.2	107.2
13C6-PFDA	20.000	22.631	13.2	113.2
13C7-PFUnDA	20.000	23.104	15.5	115.5
13C8-FOSA	20.000	21.500	7.5	107.5
13C8-PFOA	20.000	21.662	8.3	108.3
13C8-PFOS	20.000	21.188	5.9	105.9
13C9-PFNA	20.000	22.203	11.0	111.0
4:2FTS	20.000	20.442	2.2	102.2
6:2FTS	20.000	19.897	-0.5	99.5
8:2FTS	20.000	20.595	3.0	103.0
d3-MeFOSAA	20.000	21.731	8.7	108.7
M2-PFOA	20.000	19.997	0.0	100.0
EtFOSAA	20.000	20.735	3.7	103.7
FOSA	20.000	19.717	-1.4	98.6
MeFOSAA	20.000	20.660	3.3	103.3
PFBA	20.000	19.616	-1.9	98.1
PFBS	20.000	19.907	-0.5	99.5
PFDA	20.000	20.271	1.4	101.4
PFDoDA	20.000	20.046	0.2	100.2
PFDS	20.000	19.677	-1.6	98.4
PFHpA	20.000	19.691	-1.5	98.5
PFHpS	20.000	20.234	1.2	101.2
PFHxA	20.000	20.148	0.7	100.7
PFHxS	20.000	19.938	-0.3	99.7
PFNA	20.000	19.997	0.0	100.0

Continuing Calibration Summary

Job Number: FA62324 **Sample:** S2Q443-CC442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27742.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

PFNS	20.000	20.249	1.2	101.2
PFOA	20.000	19.610	-1.9	98.1
PFOS	20.000	19.231	-3.8	96.2
PFPeA	20.000	19.577	-2.1	97.9
PFPeS	20.000	20.653	3.3	103.3
PFTeDA	20.000	19.581	-2.1	97.9
PFTrDA	20.000	19.663	-1.7	98.3
PFUnDA	20.000	19.632	-1.8	98.2
M4-PFOS	20.000	20.030	0.1	100.1
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	20.000	18.032	-9.8	90.2
13C3-HFPO-DA	100.000	114.940	14.9	114.9
9Cl-PF3ONS	20.000	19.011	-4.9	95.1
ADONA	20.000	19.591	-2.0	98.0
HFPO-DA	100.000	99.516	-0.5	99.5
M3-HFPO-DA	---	--ISTD--		

CC Criteria: +/- 30%

Continuing Calibration Summary

Job Number: FA62324 **Sample:** S2Q443-CC442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27744.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

Continuing Calibration Report

Batch: D:\MassHunter\Data\0319_ID_GENX_S2Q443\S2Q443.batch.bin

Level ID:Calibration File
1:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27667.d
2:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27668.d
3:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27669.d
4:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27670.d
5:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27671.d
6:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27672.d
7:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27673.d
8:D:\MassHunter\Data\0318_ID_GENX_S2Q442\2Q27674.d

Data File: 2Q27744
Type : QC
Level : 2

Cpnd Name	Exp. Conc	Final Conc	Dev %	Area %
13C2-4:2FTS	20.000	21.265	6.3	106.3
13C2-6:2FTS	20.000	22.516	12.6	112.6
13C2-8:2FTS	20.000	23.238	16.2	116.2
13C2-PFDoDA	20.000	25.290	26.4	126.4
13C2-PFOA	---	--ISTD--		
13C2-PFTeDA	20.000	25.866	29.3	129.3
13C3-PFBS	20.000	22.304	11.5	111.5
13C3-PFHxS	20.000	22.068	10.3	110.3
13C4-PFBA	20.000	22.506	12.5	112.5
13C4-PFHpA	20.000	23.628	18.1	118.1
13C4-PFOS	---	--ISTD--		
13C5-PFHxA	20.000	22.971	14.9	114.9
13C5-PFPeA	20.000	23.015	15.1	115.1
13C6-PFDA	20.000	25.435	27.2	127.2
13C7-PFUnDA	20.000	25.478	27.4	127.4
13C8-FOSA	20.000	23.928	19.6	119.6
13C8-PFOA	20.000	24.038	20.2	120.2
13C8-PFOS	20.000	22.634	13.2	113.2
13C9-PFNA	20.000	24.657	23.3	123.3
4:2FTS	1.000	1.034	3.4	103.4
6:2FTS	1.000	1.106	10.6	110.6
8:2FTS	1.000	1.066	6.6	106.6
d3-MeFOSAA	20.000	23.734	18.7	118.7
M2-PFOA	20.000	20.002	0.0	100.0
EtFOSAA	1.000	1.067	6.7	106.7
FOSA	1.000	0.942	-5.8	94.2
MeFOSAA	1.000	0.964	-3.6	96.4
PFBA	1.000	0.967	-3.3	96.7
PFBS	1.000	0.965	-3.5	96.5
PFDA	1.000	0.969	-3.1	96.9
PFDoDA	1.000	0.967	-3.3	96.7
PFDS	1.000	1.036	3.6	103.6
PFHpA	1.000	0.932	-6.8	93.2
PFHpS	1.000	0.979	-2.1	97.9
PFHxA	1.000	1.005	0.5	100.5
PFHxS	1.000	0.976	-2.4	97.6
PFNA	1.000	0.901	-9.9	90.1

Continuing Calibration Summary

Job Number: FA62324 **Sample:** S2Q443-CC442
Account: NOREASCA NOREAS,Inc. **Lab FileID:** 2Q27744.D
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

PFNS	1.000	1.025	2.5	102.5
PFOA	1.000	0.977	-2.3	97.7
PFOS	1.000	0.995	-0.5	99.5
PFPeA	1.000	0.978	-2.2	97.8
PFPeS	1.000	0.981	-1.9	98.1
PFTeDA	1.000	0.956	-4.4	95.6
PFTrDA	1.000	0.936	-6.4	93.6
PFUnDA	1.000	0.941	-5.9	94.1
M4-PFOS	20.000	20.023	0.1	100.1
M4-PFBA	---	--ISTD--		
M5-PFPeA	---	--ISTD--		
M5-PFHxA	---	--ISTD--		
M4-PFHpA	---	--ISTD--		
M8-PFOA	---	--ISTD--		
M9-PFNA	---	--ISTD--		
M6-PFDA	---	--ISTD--		
M7-PFUnDA	---	--ISTD--		
M2-PFDoDA	---	--ISTD--		
M2-PFTeDA	---	--ISTD--		
M8-FOSA	---	--ISTD--		
M3-PFBS	---	--ISTD--		
M3-PFHxS	---	--ISTD--		
M8-PFOS	---	--ISTD--		
M2-4:2FTS	---	--ISTD--		
M2-6:2FTS	---	--ISTD--		
M2-8:2FTS	---	--ISTD--		
M3-MeFOSAA	---	--ISTD--		
11Cl-PF3OUdS	1.000	0.879	-12.1	87.9
13C3-HFPO-DA	100.000	124.630	24.6	124.6
9Cl-PF3ONS	1.000	1.050	5.0	105.0
ADONA	1.000	0.927	-7.3	92.7
HFPO-DA	5.000	4.794	-4.1	95.9
M3-HFPO-DA	---	--ISTD--		

CC Criteria: +/- 30%

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: FA62324
Account: NOREASCA NOREAS, Inc.
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY

Sample: FA62324-1 **Analyzed:** 15-MAR-19 by AG **Method:** SM19 2540G
ClientID: NWIRP-S1-WC-CF-019

Wet Weight (Total)	13.74	g
Tare Weight	2.55	g
Dry Weight (Total)	12.98	g
Solids, Percent	93.2	%

Sample: FA62324-2 **Analyzed:** 15-MAR-19 by AG **Method:** SM19 2540G
ClientID: NWIRP-S1-WC-CF-020

Wet Weight (Total)	17.69	g
Tare Weight	2.56	g
Dry Weight (Total)	16.29	g
Solids, Percent	90.7	%

Sample Summary

NOREAS, Inc.

Job No: FA62324

ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage, NY
Project No: APTIM 007 RAC WO #12

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA62324-1	03/13/19	10:38	SM	03/14/19	SO	Soil	NWIRP-S1-WC-CF-019
FA62324-2	03/13/19	10:41	SM	03/14/19	SO	Soil	NWIRP-S1-WC-CF-020

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-019		
Lab Sample ID:	FA62324-1	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	EPA 537M QSM5.1 B-15 IN HOUSE	**Percent Solids:**	93.2
Project:	ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q27738.D	1	03/19/19 14:12	NAF	03/18/19 10:00	OP74195	S2Q443
Run #2							

	Initial Weight	Final Volume
Run #1	2.00 g	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
2706-90-3	Perfluoropentanoic acid	0.54 U	1.1	0.54	0.21	ug/kg	
307-24-4	Perfluorohexanoic acid	0.54 U	1.1	0.54	0.21	ug/kg	
375-85-9	Perfluoroheptanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
335-67-1	Perfluorooctanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
375-95-1	Perfluorononanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
335-76-2	Perfluorodecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
2058-94-8	Perfluoroundecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
307-55-1	Perfluorododecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
72629-94-8	Perfluorotridecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
376-06-7	Perfluorotetradecanoic acid	0.54 U	1.1	0.54	0.27	ug/kg	
PERFLUOROALKYLSULFONATES							
375-73-5	Perfluorobutanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
2706-91-4	Perfluoropentanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
375-92-8	Perfluoroheptanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
68259-12-1	Perfluorononanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
335-77-3	Perfluorodecanesulfonic acid	0.54 U	1.1	0.54	0.27	ug/kg	
PERFLUOROOCTANESULFONAMIDES							
754-91-6	PFOSA	0.54 U	1.1	0.54	0.27	ug/kg	
PERFLUOROOCTANESULFONAMIDOACETIC ACIDS							
2355-31-9	MeFOSAA	1.1 U	2.7	1.1	0.54	ug/kg	
2991-50-6	EtFOSAA	1.1 U	2.7	1.1	0.54	ug/kg	
FLUOROTELOMER SULFONATES							
757124-72-4	4:2 Fluorotelomer sulfonate	0.54 U	1.1	0.54	0.27	ug/kg	
27619-97-2	6:2 Fluorotelomer sulfonate	0.54 U	1.1	0.54	0.27	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-019		
Lab Sample ID:	FA62324-1	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	EPA 537M QSM5.1 B-15 IN HOUSE	**Percent Solids:**	93.2
Project:	ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY		

PFAS List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	0.54 U	1.1	0.54	0.27	ug/kg	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	87%		50-150%
	13C5-PFPeA	90%		50-150%
	13C5-PFHxA	89%		50-150%
	13C4-PFHpA	92%		50-150%
	13C8-PFOA	94%		50-150%
	13C9-PFNA	98%		50-150%
	13C6-PFDA	103%		50-150%
	13C7-PFUnDA	123%		50-150%
	13C2-PFDoDA	139%		50-150%
	13C2-PFTeDA	140%		50-150%
	13C3-PFBS	87%		50-150%
	13C3-PFHxS	87%		50-150%
	13C8-PFOS	89%		50-150%
	13C8-FOSA	97%		50-150%
	d3-MeFOSAA	97%		50-150%
	13C2-4:2FTS	84%		50-150%
	13C2-6:2FTS	92%		50-150%
	13C2-8:2FTS	102%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: NWIRP-S1-WC-CF-020
Lab Sample ID: FA62324-2 **Date Sampled:** 03/13/19
Matrix: SO - Soil **Date Received:** 03/14/19
Method: EPA 537M QSM5.1 B-15 IN HOUSE **Percent Solids:** 90.7
Project: ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Q27739.D	1	03/19/19 14:28	NAF	03/18/19 10:00	OP74195	S2Q443
Run #2							

	Initial Weight	Final Volume
Run #1	2.01 g	1.0 ml
Run #2		

PFAS List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
PERFLUOROALKYLCARBOXYLIC ACIDS							
375-22-4	Perfluorobutanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
2706-90-3	Perfluoropentanoic acid	0.55 U	1.1	0.55	0.22	ug/kg	
307-24-4	Perfluorohexanoic acid	0.55 U	1.1	0.55	0.22	ug/kg	
375-85-9	Perfluoroheptanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
335-67-1	Perfluorooctanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
375-95-1	Perfluorononanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
335-76-2	Perfluorodecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
2058-94-8	Perfluoroundecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
307-55-1	Perfluorododecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
72629-94-8	Perfluorotridecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
376-06-7	Perfluorotetradecanoic acid	0.55 U	1.1	0.55	0.27	ug/kg	
PERFLUOROALKYLSULFONATES							
375-73-5	Perfluorobutanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
2706-91-4	Perfluoropentanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
355-46-4	Perfluorohexanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
375-92-8	Perfluoroheptanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
1763-23-1	Perfluorooctanesulfonic acid	0.55 U	1.1	0.55	0.27	ug/kg	
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PERFLUOROOCTANESULFONAMIDES							
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FLUOROTELOMER SULFONATES							
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27619-97-2	6:2 Fluorotelomer sulfonate	0.55 U	1.1	0.55	0.27	ug/kg	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
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Report of Analysis

Client Sample ID:	NWIRP-S1-WC-CF-020		
Lab Sample ID:	FA62324-2	**Date Sampled:**	03/13/19
Matrix:	SO - Soil	**Date Received:**	03/14/19
Method:	EPA 537M QSM5.1 B-15 IN HOUSE	**Percent Solids:**	90.7
Project:	ITVAVAB: Former Drum Marshalling Area NWIRP Bethpage,NY		

PFAS List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
39108-34-4	8:2 Fluorotelomer sulfonate	0.55 U	1.1	0.55	0.27	ug/kg	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	86%		50-150%
	13C5-PFPeA	88%		50-150%
	13C5-PFHxA	88%		50-150%
	13C4-PFHpA	91%		50-150%
	13C8-PFOA	92%		50-150%
	13C9-PFNA	96%		50-150%
	13C6-PFDA	100%		50-150%
	13C7-PFUnDA	119%		50-150%
	13C2-PFDoDA	130%		50-150%
	13C2-PFTeDA	120%		50-150%
	13C3-PFBS	85%		50-150%
	13C3-PFHxS	87%		50-150%
	13C8-PFOS	88%		50-150%
	13C8-FOSA	95%		50-150%
	d3-MeFOSAA	95%		50-150%
	13C2-4:2FTS	82%		50-150%
	13C2-6:2FTS	88%		50-150%
	13C2-8:2FTS	97%		50-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

FA62324

CHAIN-OF-CUSTODY RECORD

COC Number: 501164-20180313
Subcontract Services Agreement: TBD

NOREAS Environmental Science, Engineering & Construction

APTIM

APTIM - 150 Boush Street, Suite 701, Norfolk, VA 23510 (757) 640-6200

Lab Destination:	Lab Receiving Address:
SGS Accutest - Orlando	4405 Vineland Rd. Suite C-15 Orlando, FL, 32811 (407) 425-6700

Project Name	Sample Location:
Site 1 – Former Drum Marshalling Area Naval Weapons Industrial Reserve Plant Bethpage, New York	*Fill Material Samples*

T.O.	Project Number:	APTIM Contact:	APTIM Contact Number:
F6147	501164	Natasha Kelley Sullivan	(410)529-7598

Client Rep:	Deputy Project Manager:
NAVY	Monica L. Smeal E.I.T.

Item No.	Sample Number	Date	Time	Matrix: Water	Matrix: Soil	Sample Description	Number of Containers	PFOAs LCQSM537DODFL	Analysis Desired
1	NWIRP-S1-WC-CF-019	03/13/19	1038		X	Soil - Common Backfill	1 x 4 oz Poly WM, None	X	
2	NWIRP-S1-WC-CF-020	03/13/19	1041		X	Soil - Common Backfill	1 x 4 oz Poly WM, None	X	

Turnaround Time Required:	Sampled By:	COMMENTS:	Laboratory Report No.:
❑ 14 Day TAT	*McCutcheon, Sean, APTIM*		

Transfer Number	Transfers Relinquished By	Date	Time	Transfers Accepted By	Date	Time
1	*Sampler's Signature*	*Date*	*Time*	*Laboratory Sample Custody S*	*Date*	*Time*
2		3/13/19	1600	FF		
3	FF					
4					3/14/19	1005

Report Format: *Full Report*
Deliverables: EDD Excel+NIRIS
Fax results to Natasha Sullivan (410) 529-7599

3.4

SGS Sample Receipt Summary

Job Number: FA62324 **Client:** APTIM **Project:** SITE-FORMER DRUM MARSHALLING

Date / Time Received: 3/14/2019 10:00:00 AM **Delivery Method:** FX **Airbill #'s:** 7860 1648 4730

Therm ID: IR 1; **Therm CF:** -0.2; **# of Coolers:** 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.4);

Cooler Information	Y	or	N
1. Custody Seals Present	☑		☐
2. Custody Seals Intact	☑		☐
3. Temp criteria achieved	☑		☐
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

Trip Blank Information	Y	or	N	N/A
1. Trip Blank present / cooler	☐		☐	☑
2. Trip Blank listed on COC	☐		☐	☑

	W	or	S	N/A
3. Type Of TB Received	☐		☐	☑

Sample Information	Y	or	N	N/A
1. Sample labels present on bottles	☑		☐	
2. Samples preserved properly	☑		☐	
3. Sufficient volume/containers recvd for analysis:	☑		☐	
4. Condition of sample	Intact			
5. Sample recvd within HT	☑		☐	
6. Dates/Times/IDs on COC match Sample Label	☑		☐	
7. VOCs have headspace	☐		☐	☑
8. Bottles received for unspecified tests	☐		☑	
9. Compositing instructions clear	☐		☐	☑
10. Voa Soil Kits/Jars received past 48hrs?	☐		☐	☑
11. % Solids Jar received?	☐		☐	☑
12. Residual Chlorine Present?	☐		☐	☑

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230315 pH 10-12 219813A Other: (Specify) _____ _____

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: PETERH Date: 3/14/2019 10:00:00 A Reviewer: _____ Date: _____

December 1, 2017

Ref: 28338.00

Richard W. Rosenberg, Esq.
Richard W. Rosenberg, P.C.
200 Robbins Lane, Suite D1
Jericho, New York 11753

Re: Unrestricted Soils – Stockpiles B and C
Country Pointe at Plainview
1425 Old Country Road, Plainview, New York 11803

Dear Mr. Rosenberg:

VHB has prepared this letter to summarize the stockpile soil waste characterization results meeting New York State Department of Environmental Conservation (NYSDEC) Unrestricted Use Soil Cleanup Objectives (UUSCOs) located at 1425 Old Country Road, Plainview, New York, 11803. Specifically, this letter covers the laboratory analytical results of soil Stockpiles B and C in accordance with the Nassau County Department of Health (NCDH)-approved Stockpile Material Site Investigation Work Plan, dated February 6, 2017. It should be noted, Stockpiles B and C consist of topsoil and fine-to-coarse bank run material generated from sections of the Country Pointe at Plainview project (hereinafter the "subject property") designated as Condo Area 1, Condo Area 2 and the Homeowner Association (HOA).

Based upon conversations with the general contractor, representatives of The Beechwood Organization (subject property owner and developer; hereinafter "Beechwood"), and visual inspections, open space areas located to the north and southeast of former Buildings B and C have been excavated to a depth of approximately three-to-eight feet below grade. Portions of this material were compiled into two (2) stockpiles (a.k.a. Stockpile B and Stockpile C) and contain approximately 19,000 cubic yards (c.y.) and 5,000 c.y. of material, respectively, and a total of 24,000 c.y. of material. According to Beechwood, these soils have the potential to be exported off-site or reused onsite during the proposed site redevelopment activities.

Soil Waste Characterization

Based upon the total estimated quantity of 24,000 c.y. of soil within Stockpiles B and C, the stockpiles were broken up into 24, 1,000 c.y. sections. In order to determine the integrity of soils within Stockpiles B and C, VHB collected a total of 24 composite and 48 discrete soil samples from the aforementioned 18 sections slated for potential export or on-site reuse during the proposed site redevelopment activities. Soil samples were collected in accordance with

Engineers | Scientists | Planners | Designers

100 Motor Parkway
Suite 135
Hauppauge, New York 11788
P 631.787.3400
F 631.813.2545

NYSDEC Department of Environmental Remediation (DER)-10 / Technical Guidance for Site Investigation and Remediation (date issued: May 3, 2010) Table 5.4(e)10 criteria (hereinafter "DER-10 criteria"), and the NCDH-approved Work Plan for these sampling activities. The 24 sections were depicted in Figure No. 2A in the Soil Waste Characterization and Soil Disposal Summary Letter, dated May 15, 2017 (provided under separate cover).

The soil samples were evaluated in the field by a VHB Project Scientist for visual and olfactory evidence of contamination. In addition, a photoionization detector (PID) was utilized to field screen for the presence of volatile organic compounds (VOCs). Soils within Stockpiles B and C consisted of fine-to-coarse sands, sandy loam, organic material with traces of gravel and silt, and fine-to-coarse bank run material. No visual and olfactory evidence of contamination or elevated PID readings were noted by VHB during the sampling activities.

All soil samples collected by VHB as part of this waste characterization project were taken directly from an excavation bucket and/or from field decontaminated hand tools (i.e., stainless steel hand auger and shovel). Each sample was placed into laboratory-supplied glassware and a cooler packed with ice. The soil samples were submitted to a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) and National Environmental Laboratory Accreditation Program (NELAP)-certified laboratory under appropriate chain-of-custody protocols. VHB's data summary table is shown as Table 1 in Attachment A. Figures indicating the sample locations and laboratory data sheets are provided in the Soil Waste Characterization and Soil Disposal Summary Latter, dated May 15, 2017 (submitted under separate cover).

Soil Analytical Results

VHB compared the resultant data associated with soil Stockpiles B and C to the NYSDEC's DER 6 NYCRR Part 375 (Effective December 14, 2006) Table 375-6.8(a): UUSCOs. Twenty-one (21) of the 24, 1,000 c.y. sections of soils sampled and analyzed during the conduct of VHB's waste characterization of soil Stockpiles B and C did not exceed the NYSDEC's UUSCOs. As such, a total of 21,000 c.y. of soil are permitted to be reused on-site and/or transported off-site from the following sections:

- Stockpile B: B-1, B-3, B-4, B-5, B-6, B-7, B-8, B-10, B-12, B-13, B-14, B-15, B-16, B-17, B-18, and B-19
- Stockpile C: C-1, C-2, C-3, C-4, and C-5

Soil Consolidation

The following 21 sections have been combined into one separate stockpile (hereinafter referred to as "Stockpile B/C-U1"):

- B-1, B-3, B-4, B-5, B-6, B-7, B-8, B-10, B-12, B-13, B-14, B-15, B-16, B-17, B-18, B-19, C-1, C-2, C-3, C-4, and C-5

By definition, and in accordance with the NYSDEC's and NCDH's criteria, the 21 aforementioned sections of Stockpiles B and C (a.k.a. Stockpile B/C-U1) meet the NYSDEC's UUSCOs parameters; and therefore, are considered clean fill suitable for unrestricted onsite reuse or offsite export.

Should you wish to discuss, please do not hesitate to contact either of the undersigned. Thank you.

Sincerely,

VHB Engineering, Surveying and Landscape Architecture, P.C.

Kevin P. Walsh, P.E.
Managing Director, Long Island

Joseph Stressler
Project Scientist, OHM Services

KPW/JS/ag
att.

Table 1
Stockpiles B and C Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																							
			B-1A 4/10/2017 Soil		B-1B 4/10/2017 Soil		B-1C 4/10/2017 Soil		B-3A 4/10/2017 Soil		B-3B 4/10/2017 Soil		B-3C 4/10/2017 Soil		B-4A 4/10/2017 Soil		B-4B 4/10/2017 Soil		B-4C 4/10/2017 Soil		B-5A 4/10/2017 Soil		B-5B 4/10/2017 Soil		B-5C 4/10/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,1-Dichloroethane	0.27	26	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,1-Dichloroethylene	0.33	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,2-Dichlorobenzene	1.1	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,2-Dichloroethane	0.02	3.1	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,3-Dichlorobenzene	2.4	49	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,4-Dichlorobenzene	1.8	13	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
1,4-Dioxane	0.1	13	0.0610	U	0.0430	U	NT		0.0490	U	0.0520	U	NT		0.0540	U	0.0460	U	NT		0.0540	U	0.0500	U	NT	
2-Butanone	0.12	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Acetone	0.05	100	0.0240		0.0110		NT		0.0180		0.0120		NT		0.00540	U	0.00460	U	NT		0.00950	J	0.00770	J	NT	
Benzene	0.06	4.8	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Carbon tetrachloride	0.76	2.4	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Chlorobenzene	1.1	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Chloroform	0.37	49	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Ethyl Benzene	1	41	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Methylene chloride	0.05	100	0.00610	U	0.00430	U	NT		0.00490	U	0.00520	U	NT		0.00540	U	0.00460	U	NT		0.00540	U	0.00500	U	NT	
Naphthalene	12	100	0.00470	JB	0.00260	JB	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
n-Butylbenzene	12	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
n-Propylbenzene	3.9	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
o-Xylene	~	~	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
p- & m- Xylenes	~	~	0.00610	U	0.00430	U	NT		0.00490	U	0.00520	U	NT		0.00540	U	0.00460	U	NT		0.00540	U	0.00500	U	NT	
sec-Butylbenzene	11	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
tert-Butylbenzene	5.9	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Tetrachloroethylene	1.3	19	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Toluene	0.7	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Trichloroethylene	0.47	21	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Vinyl Chloride	0.02	0.9	0.00300	U	0.00210	U	NT		0.00250	U	0.00260	U	NT		0.00270	U	0.00230	U	NT		0.00270	U	0.00250	U	NT	
Xylenes, Total	0.26	100	0.00910	U	0.00640	U	NT		0.00740	U	0.00780	U	NT		0.00810	U	0.00690	U	NT		0.00810	U	0.00750	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
3- & 4-Methylphenols	~	~	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Acenaphthene	20	100	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Acenaphthylene	100	100	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Anthracene	100	100	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Benzo(a)anthracene	1	1	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0446	JD	NT		NT		0.0427	U
Benzo(a)pyrene	1	1	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Benzo(b)fluoranthene	1	1	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Benzo(g,h,i)perylene	100	100	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Chrysene	1	3.9	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0474	JD	NT		NT		0.0427	U
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Dibenzofuran	7	59	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Fluoranthene	100	100	NT		NT		0.0441	U	NT		NT		0.0682	JD	NT		NT		0.0949	D	NT		NT		0.0524	JD
Fluorene	30	100	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Hexachlorobenzene	0.33	1.2	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Naphthalene	12	100	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Pentachlorophenol	0.8	6.7	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Phenanthrene	100	100	NT		NT		0.0441	U	NT		NT		0.0661	JD	NT		NT		0.0858	JD	NT		NT		0.0427	U
Phenol	0.33	100	NT		NT		0.0441	U	NT		NT		0.0436	U	NT		NT		0.0437	U	NT		NT		0.0427	U
Pyrene	100	100	NT		NT		0.0441	U	NT		NT		0.0494	JD	NT		NT		0.0698	JD	NT		NT		0.0427	U
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Arsenic	13	16	NT		NT		3.420		NT		NT		2.300		NT		NT		3.230		NT		NT		1.640	
Barium	350	400	NT		NT		15		NT		NT		10.900		NT		NT		10.400		NT		NT		8.980	
Beryllium	7.2	72	NT		NT		0.219		NT		NT		0.142		NT		NT		0.620		NT		NT		0.114	
Cadmium	2.5	4.3	NT		NT		0.317	U	NT		NT		0.313	U	NT		NT		0.314	U	NT		NT		0.306	U
Chromium	~	~	NT		NT		10.200		NT		NT		7.490		NT		NT		11.300		NT		NT		4.940	
Copper	50	270	NT		NT		5.990		NT		NT		4.190		NT		NT		3.820		NT		NT		4.110	
Lead	63	400	NT		NT		4.580		NT		NT		3.140		NT		NT		3.330		NT		NT		2.810	
Manganese	1600	2000	NT		NT		90.300		NT		NT		109		NT		NT		72.500		NT		NT		74.200	
Nickel	30	310	NT		NT		6.130		NT		NT		4.520		NT		NT		10.800		NT		NT		3.100	
Selenium	3.9	180	NT		NT		1.260		NT		NT		1.040	U	NT		NT		2.050		NT		NT		1.380	
Silver	2	180	NT		NT		0.528	U	NT		NT		0.522	U	NT		NT		0.523	U	NT		NT		0.510	U
Zinc	109	10000	NT		NT		9.720		NT		NT		5.900		NT		NT		60.600		NT		NT		6.660	
Mercury	0.18	0.81	NT		NT		0.0317	U	NT		NT		0.0313	U	NT		NT		0.0314	U	NT		NT		0.0306	U
Chromium, Hexavalent	1	110	NT		NT		0.528	U	NT		NT		0.522	U	NT		NT		0.523	U	NT		NT		0.510	U
Chromium, Trivalent	30	180	NT		NT		10.200		NT		NT		7.490		NT		NT		11.300		NT		NT		4.940	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		NT		0.528	U	NT		NT		0.522	U	NT		NT		0.523	U	NT		NT		0.510	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0211	U	NT		NT		0.0209	U	NT		NT		0.0209	U	NT		NT		0.0204	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		NT		0.0176	U	NT		NT		0.0174	U	NT		NT		0.0174	U	NT		NT		0.0170	U
Aroclor 1221	~	~	NT		NT		0.0176	U	NT		NT		0.0174	U	NT		NT		0.0174	U	NT		NT		0.0170	U
Aroclor 1232	~	~	NT		NT		0.0176	U	NT		NT		0.0174	U	NT		NT		0.0174	U	NT		NT		0.0170	U
Aroclor 1242	~	~	NT		NT		0.0176	U	NT		NT		0.0174	U	NT		NT		0.0174	U	NT		NT		0.0170	U
Aroclor 1248	~	~	NT		NT		0.0176	U	NT		NT		0.0174	U	NT		NT		0.0174	U	NT		NT		0.0170	U
Aroclor 1254	~	~	NT		NT		0.0176	U	NT		NT		0.0174	U	NT		NT		0.0174	U	NT		NT		0.0170	U
Aroclor 1260	~	~	NT		NT		0.0176	U	NT		NT		0.0174	U	NT		NT		0.0174	U	NT		NT		0.0170	U
Total PCBs	0.1	1	NT		NT		0.0176	U	NT		NT		0.0174	U	NT		NT		0.0174	U	NT		NT		0.0170	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stockpiles B and C Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																					
			B-6A 4/10/2017 Soil		B-6B 4/10/2017 Soil		B-6C 4/10/2017 Soil		B-7A 4/10/2017 Soil		B-7B 4/10/2017 Soil		B-7C 4/10/2017 Soil		B-8A 4/10/2017 Soil		B-8B 4/10/2017 Soil		B-8C 4/10/2017 Soil		B-10A 4/10/2017 Soil		B-10B 4/10/2017 Soil		B-10C 4/10/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,1-Dichloroethane	0.27	26	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,1-Dichloroethylene	0.33	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,2-Dichlorobenzene	1.1	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,2-Dichloroethane	0.02	3.1	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,3-Dichlorobenzene	2.4	49	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,4-Dichlorobenzene	1.8	13	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
1,4-Dioxane	0.1	13	0.0450	U	0.0530	U	NT		0.0440	U	0.0550	U	NT		0.0490	U	0.0590	U	NT		0.0650	U	0.0570	U	NT	
2-Butanone	0.12	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Acetone	0.05	100	0.0100		0.0110		NT		0.0210		0.00800	J	NT		0.00490	U	0.00590	U	NT		0.00650	U	0.00600	J	NT	
Benzene	0.06	4.8	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Carbon tetrachloride	0.76	2.4	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Chlorobenzene	1.1	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Chloroform	0.37	49	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Ethyl Benzene	1	41	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Methylene chloride	0.05	100	0.00450	U	0.00530	U	NT		0.00510	J	0.00550	U	NT		0.00490	U	0.00590	U	NT		0.00650	U	0.00570	U	NT	
Naphthalene	12	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
n-Butylbenzene	12	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
n-Propylbenzene	3.9	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
o-Xylene	~	~	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
p- & m- Xylenes	~	~	0.00450	U	0.00530	U	NT		0.00440	U	0.00550	U	NT		0.00490	U	0.00590	U	NT		0.00650	U	0.00570	U	NT	
sec-Butylbenzene	11	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
tert-Butylbenzene	5.9	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Tetrachloroethylene	1.3	19	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Toluene	0.7	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Trichloroethylene	0.47	21	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Vinyl Chloride	0.02	0.9	0.00230	U	0.00270	U	NT		0.00220	U	0.00270	U	NT		0.00240	U	0.00300	U	NT		0.00320	U	0.00290	U	NT	
Xylenes, Total	0.26	100	0.00680	U	0.00800	U	NT		0.00660	U	0.00820	U	NT		0.00730	U	0.00890	U	NT		0.00970	U	0.00860	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		NT		0.0439	U	NT		NT		0.0429	U	NT		NT		0.0426	U	NT		NT		0.0428	U
3- & 4-Methylphenols	~	~	NT		NT		0.0439	U	NT		NT		0.0429	U	NT		NT		0.0426	U	NT		NT		0.0428	U
Acenaphthene	20	100	NT		NT		0.104	D	NT		NT		0.290	D	NT		NT		0.0585	JD	NT		NT		0.0428	U
Acenaphthylene	100	100	NT		NT		0.0439	U	NT		NT		0.0429	U	NT		NT		0.0426	U	NT		NT		0.0428	U
Anthracene	100	100	NT		NT		0.124	D	NT		NT		0.375	D	NT		NT		0.0686	JD	NT		NT		0.0428	U
Benzo(a)anthracene	1	1	NT		NT		0.244	D	NT		NT		0.708	D	NT		NT		0.135	D	NT		NT		0.0723	JD
Benzo(a)pyrene	1	1	NT		NT		0.221	D	NT		NT		0.626	D	NT		NT		0.126	D	NT		NT		0.0648	JD
Benzo(b)fluoranthene	1	1	NT		NT		0.165	D	NT		NT		0.558	D	NT		NT		0.113	D	NT		NT		0.0553	JD
Benzo(g,h,i)perylene	100	100	NT		NT		0.218	D	NT		NT		0.573	D	NT		NT		0.131	D	NT		NT		0.0676	JD
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.214	D	NT		NT		0.585	D	NT		NT		0.123	D	NT		NT		0.0607	JD
Chrysene	1	3.9	NT		NT		0.250	D	NT		NT		0.710	D	NT		NT		0.141	D	NT		NT		0.0778	JD
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.0728	JD	NT		NT		0.247	D	NT		NT		0.0483	JD	NT		NT		0.0428	U
Dibenzofuran	7	59	NT		NT		0.0448	JD	NT		NT		0.130	D	NT		NT		0.0426	U	NT		NT		0.0428	U
Fluoranthene	100	100	NT		NT		0.643	D	NT		NT		2.030	D	NT		NT		0.321	D	NT		NT		0.176	D
Fluorene	30	100	NT		NT		0.0777	JD	NT		NT		0.224	D	NT		NT		0.0449	JD	NT		NT		0.0428	U
Hexachlorobenzene	0.33	1.2	NT		NT		0.0439	U	NT		NT		0.0429	U	NT		NT		0.0426	U	NT		NT		0.0428	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.181	D	NT		NT		0.493	D	NT		NT		0.0986	D	NT		NT		0.0512	JD
Naphthalene	12	100	NT		NT		0.0441	JD	NT		NT		0.105	D	NT		NT		0.0426	U	NT		NT		0.0428	U
Pentachlorophenol	0.8	6.7	NT		NT		0.0439	U	NT		NT		0.0429	U	NT		NT		0.0426	U	NT		NT		0.0428	U
Phenanthrene	100	100	NT		NT		0.533	D	NT		NT		1.720	D	NT		NT		0.305	D	NT		NT		0.153	D
Phenol	0.33	100	NT		NT		0.0439	U	NT		NT		0.0429	U	NT		NT		0.0426	U	NT		NT		0.0428	U
Pyrene	100	100	NT		NT		0.472	D	NT		NT		1.380	D	NT		NT		0.248	D	NT		NT		0.130	D
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Arsenic	13	16	NT		NT		4.550		NT		NT		2.180		NT		NT		3.320		NT		NT		2.040	
Barium	350	400	NT		NT		14.100		NT		NT		13.400		NT		NT		12.300		NT		NT		10.400	
Beryllium	7.2	72	NT		NT		0.175		NT		NT		0.117		NT		NT		0.167		NT		NT		0.152	
Cadmium	2.5	4.3	NT		NT		0.315	U	NT		NT		0.308	U	NT		NT		0.306	U	NT		NT		0.307	U
Chromium	~	~	NT		NT		9.750		NT		NT		6.500		NT		NT		5.770		NT		NT		4.170	
Copper	50	270	NT		NT		5.190		NT		NT		4.570		NT		NT		4.930		NT		NT		3.400	
Lead	63	400	NT		NT		4.400		NT		NT		3.650		NT		NT		5.970		NT		NT		3.970	
Manganese	1600	2000	NT		NT		110		NT		NT		86.400		NT		NT		98.100		NT		NT		65.400	
Nickel	30	310	NT		NT		4.850		NT		NT		4.110		NT		NT		3.940		NT		NT		3.370	
Selenium	3.9	180	NT		NT		1.660		NT		NT		1.170		NT		NT		1.390		NT		NT		1.020	U
Silver	2	180	NT		NT		0.525	U	NT		NT		0.513	U	NT		NT		0.510	U	NT		NT		0.512	U
Zinc	109	10000	NT		NT		11.900		NT		NT		7.280		NT		NT		10.300		NT		NT		7.180	
Mercury	0.18	0.81	NT		NT		0.0315	U	NT		NT		0.0308	U	NT		NT		0.0306	U	NT		NT		0.0307	U
Chromium, Hexavalent	1	110	NT		NT		0.525	U	NT		NT		0.513	U	NT		NT		0.510	U	NT		NT		0.512	U
Chromium, Trivalent	30	180	NT		NT		9.750		NT		NT		6.500		NT		NT		5.770		NT		NT		4.170	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		NT		0.525	U	NT		NT		0.513	U	NT		NT		0.510	U	NT		NT		0.512	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0210	U	NT		NT		0.0205	U	NT		NT		0.0204	U	NT		NT		0.0205	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		NT		0.0175	U	NT		NT		0.0171	U	NT		NT		0.0170	U	NT		NT		0.0171	U
Aroclor 1221	~	~	NT		NT		0.0175	U	NT		NT		0.0171	U	NT		NT		0.0170	U	NT		NT		0.0171	U
Aroclor 1232	~	~	NT		NT		0.0175	U	NT		NT		0.0171	U	NT		NT		0.0170	U	NT		NT		0.0171	U
Aroclor 1242	~	~	NT		NT		0.0175	U	NT		NT		0.0171	U	NT		NT		0.0170	U	NT		NT		0.0171	U
Aroclor 1248	~	~	NT		NT		0.0175	U	NT		NT		0.0171	U	NT		NT		0.0170	U	NT		NT		0.0171	U
Aroclor 1254	~	~	NT		NT		0.0175	U	NT		NT		0.0171	U	NT		NT		0.0170	U	NT		NT		0.0171	U
Aroclor 1260	~	~	NT		NT		0.0175	U	NT		NT		0.0171	U	NT		NT		0.0170	U	NT		NT		0.0171	U
Total PCBs	0.1	1	NT		NT		0.0175	U	NT		NT		0.0171	U	NT		NT		0.0170	U	NT		NT		0.0171	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stockpiles B and C Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																									
			B-12A 4/10/2017 Soil		B-12B 4/10/2017 Soil		B-12C 4/10/2017 Soil		B-13A 4/10/2017 Soil		B-13B 4/10/2017 Soil		B-13C 4/10/2017 Soil		B-14A 4/10/2017 Soil		B-14B 4/10/2017 Soil		B-14C 4/10/2017 Soil		B-15A 4/10/2017 Soil		B-15B 4/10/2017 Soil		B-15C 4/10/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,1-Dichloroethane	0.27	26	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,1-Dichloroethylene	0.33	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,2-Dichlorobenzene	1.1	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,2-Dichloroethane	0.02	3.1	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,3-Dichlorobenzene	2.4	49	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,4-Dichlorobenzene	1.8	13	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
1,4-Dioxane	0.1	13	0.0790	U	0.0690	U	NT		0.0580	U	0.0560	U	NT		0.0580	U	0.0540	U	NT		0.0510	U	0.0440	U	NT	
2-Butanone	0.12	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Acetone	0.05	100	0.00790	U	0.00690	U	NT		0.00580	U	0.00560	U	NT		0.00580	U	0.00540	U	NT		0.00510	U	0.00440	U	NT	
Benzene	0.06	4.8	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Carbon tetrachloride	0.76	2.4	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Chlorobenzene	1.1	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Chloroform	0.37	49	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Ethyl Benzene	1	41	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Methylene chloride	0.05	100	0.00790	U	0.00690	U	NT		0.00580	U	0.00560	U	NT		0.00580	U	0.00540	U	NT		0.00510	U	0.00440	U	NT	
Naphthalene	12	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.0130	B	NT		0.00260	U	0.00220	U	NT	
n-Butylbenzene	12	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
n-Propylbenzene	3.9	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
o-Xylene	~	~	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
p- & m- Xylenes	~	~	0.00790	U	0.00690	U	NT		0.00580	U	0.00560	U	NT		0.00580	U	0.00540	U	NT		0.00510	U	0.00440	U	NT	
sec-Butylbenzene	11	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
tert-Butylbenzene	5.9	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Tetrachloroethylene	1.3	19	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Toluene	0.7	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Trichloroethylene	0.47	21	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Vinyl Chloride	0.02	0.9	0.00390	U	0.00340	U	NT		0.00290	U	0.00280	U	NT		0.00290	U	0.00270	U	NT		0.00260	U	0.00220	U	NT	
Xylenes, Total	0.26	100	0.0120	U	0.0100	U	NT		0.00870	U	0.00840	U	NT		0.00870	U	0.00820	U	NT		0.00770	U	0.00660	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0442	U	NT		NT		0.0455	U
3- & 4-Methylphenols	~	~	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0442	U	NT		NT		0.0455	U
Acenaphthene	20	100	NT		NT		0.0458	JD	NT		NT		0.0447	U	NT		NT		0.0768	JD	NT		NT		0.0587	JD
Acenaphthylene	100	100	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0442	U	NT		NT		0.0455	U
Anthracene	100	100	NT		NT		0.0564	JD	NT		NT		0.0447	U	NT		NT		0.0810	JD	NT		NT		0.0681	JD
Benzo(a)anthracene	1	1	NT		NT		0.116	D	NT		NT		0.0447	U	NT		NT		0.183	D	NT		NT		0.163	D
Benzo(a)pyrene	1	1	NT		NT		0.104	D	NT		NT		0.0447	U	NT		NT		0.161	D	NT		NT		0.146	D
Benzo(b)fluoranthene	1	1	NT		NT		0.102	D	NT		NT		0.0447	U	NT		NT		0.144	D	NT		NT		0.138	D
Benzo(g,h,i)perylene	100	100	NT		NT		0.108	D	NT		NT		0.0447	U	NT		NT		0.171	D	NT		NT		0.146	D
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.104	D	NT		NT		0.0447	U	NT		NT		0.158	D	NT		NT		0.146	D
Chrysene	1	3.9	NT		NT		0.128	D	NT		NT		0.0447	U	NT		NT		0.189	D	NT		NT		0.167	D
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.0444	JD	NT		NT		0.0447	U	NT		NT		0.0705	JD	NT		NT		0.0602	JD
Dibenzofuran	7	59	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0442	U	NT		NT		0.0455	U
Fluoranthene	100	100	NT		NT		0.286	D	NT		NT		0.0447	U	NT		NT		0.462	D	NT		NT		0.395	D
Fluorene	30	100	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0564	JD	NT		NT		0.0455	U
Hexachlorobenzene	0.33	1.2	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0442	U	NT		NT		0.0455	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.0881	JD	NT		NT		0.0447	U	NT		NT		0.142	D	NT		NT		0.116	D
Naphthalene	12	100	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0442	U	NT		NT		0.0455	U
Pentachlorophenol	0.8	6.7	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0442	U	NT		NT		0.0455	U
Phenanthrene	100	100	NT		NT		0.245	D	NT		NT		0.0447	U	NT		NT		0.388	D	NT		NT		0.298	D
Phenol	0.33	100	NT		NT		0.0442	U	NT		NT		0.0447	U	NT		NT		0.0442	U	NT		NT		0.0455	U
Pyrene	100	100	NT		NT		0.216	D	NT		NT		0.0447	U	NT		NT		0.341	D	NT		NT		0.304	D
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Arsenic	13	16	NT		NT		5.100		NT		NT		5.150		NT		NT		4.110		NT		NT		2.680	
Barium	350	400	NT		NT		16.600		NT		NT		35.800		NT		NT		20.600		NT		NT		14.100	
Beryllium	7.2	72	NT		NT		0.202		NT		NT		0.209		NT		NT		0.181		NT		NT		0.178	
Cadmium	2.5	4.3	NT		NT		0.317	U	NT		NT		0.321	U	NT		NT		0.317	U	NT		NT		0.326	U
Chromium	~	~	NT		NT		17.400		NT		NT		23.300		NT		NT		9.340		NT		NT		7.060	
Copper	50	270	NT		NT		9.130		NT		NT		13.100		NT		NT		5.970		NT		NT		6.630	
Lead	63	400	NT		NT		7.700		NT		NT		10.100		NT		NT		9.620		NT		NT		7.380	
Manganese	1600	2000	NT		NT		89.400		NT		NT		162		NT		NT		84.500		NT		NT		70.500	
Nickel	30	310	NT		NT		6.100		NT		NT		11.500		NT		NT		5.750		NT		NT		5.210	
Selenium	3.9	180	NT		NT		2.200		NT		NT		3.720		NT		NT		1.320		NT		NT		1.260	
Silver	2	180	NT		NT		0.529	U	NT		NT		0.535	U	NT		NT		0.529	U	NT		NT		0.544	U
Zinc	109	10000	NT		NT		12		NT		NT		20.200		NT		NT		16.100		NT		NT		11.500	
Mercury	0.18	0.81	NT		NT		0.0317	U	NT		NT		0.0321	U	NT		NT		0.0317	U	NT		NT		0.0326	U
Chromium, Hexavalent	1	110	NT		NT		0.529	U	NT		NT		0.535	U	NT		NT		0.529	U	NT		NT		0.544	U
Chromium, Trivalent	30	180	NT		NT		17.400		NT		NT		23.300		NT		NT		9.340		NT		NT		7.060	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		NT		0.529	U	NT		NT		0.535	U	NT		NT		0.529	U	NT		NT		0.544	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0211	U	NT		NT		0.0214	U	NT		NT		0.0211	U	NT		NT		0.0217	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		NT		0.0176	U	NT		NT		0.0178	U	NT		NT		0.0176	U	NT		NT		0.0181	U
Aroclor 1221	~	~	NT		NT		0.0176	U	NT		NT		0.0178	U	NT		NT		0.0176	U	NT		NT		0.0181	U
Aroclor 1232	~	~	NT		NT		0.0176	U	NT		NT		0.0178	U	NT		NT		0.0176	U	NT		NT		0.0181	U
Aroclor 1242	~	~	NT		NT		0.0176	U	NT		NT		0.0178	U	NT		NT		0.0176	U	NT		NT		0.0181	U
Aroclor 1248	~	~	NT		NT		0.0176	U	NT		NT		0.0178	U	NT		NT		0.0176	U	NT		NT		0.0181	U
Aroclor 1254	~	~	NT		NT		0.0176	U	NT		NT		0.0178	U	NT		NT		0.0176	U	NT		NT		0.0181	U
Aroclor 1260	~	~	NT		NT		0.0176	U	NT		NT		0.0178	U	NT		NT		0.0176	U	NT		NT		0.0181	U
Total PCBs	0.1	1	NT		NT		0.0176	U	NT		NT		0.0178	U	NT		NT		0.0176	U	NT		NT		0.0181	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stockpiles B and C Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																									
			B-16A 4/10/2017 Soil		B-16B 4/10/2017 Soil		B-16C 4/10/2017 Soil		B-17A 4/10/2017 Soil		B-17B 4/10/2017 Soil		B-17C 4/10/2017 Soil		B-18A 4/10/2017 Soil		B-18B 4/10/2017 Soil		B-18C 4/10/2017 Soil		B-19A 4/10/2017 Soil		B-19B 4/10/2017 Soil		B-19C 4/10/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,1-Dichloroethane	0.27	26	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,1-Dichloroethylene	0.33	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,2-Dichlorobenzene	1.1	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,2-Dichloroethane	0.02	3.1	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,3-Dichlorobenzene	2.4	49	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,4-Dichlorobenzene	1.8	13	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
1,4-Dioxane	0.1	13	0.0550	U	0.0530	U	NT		0.0580	U	0.0570	U	NT		0.0670	U	0.0500	U	NT		0.0500	U	0.0500	U	NT	
2-Butanone	0.12	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Acetone	0.05	100	0.00550	U	0.00530	U	NT		0.00580	U	0.00570	U	NT		0.00670	U	0.00500	U	NT		0.00500	U	0.00500	U	NT	
Benzene	0.06	4.8	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Carbon tetrachloride	0.76	2.4	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Chlorobenzene	1.1	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Chloroform	0.37	49	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Ethyl Benzene	1	41	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Methylene chloride	0.05	100	0.00550	U	0.00530	U	NT		0.00580	U	0.00570	U	NT		0.00670	U	0.00500	U	NT		0.00500	U	0.00500	U	NT	
Naphthalene	12	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
n-Butylbenzene	12	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
n-Propylbenzene	3.9	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
o-Xylene	~	~	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
p- & m- Xylenes	~	~	0.00550	U	0.00530	U	NT		0.00580	U	0.00570	U	NT		0.00670	U	0.00500	U	NT		0.00500	U	0.00500	U	NT	
sec-Butylbenzene	11	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
tert-Butylbenzene	5.9	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Tetrachloroethylene	1.3	19	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Toluene	0.7	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Trichloroethylene	0.47	21	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Vinyl Chloride	0.02	0.9	0.00270	U	0.00270	U	NT		0.00290	U	0.00290	U	NT		0.00330	U	0.00250	U	NT		0.00250	U	0.00250	U	NT	
Xylenes, Total	0.26	100	0.00820	U	0.00800	U	NT		0.00880	U	0.00860	U	NT		0.0100	U	0.00760	U	NT		0.00750	U	0.00750	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		NT		0.0446	U	NT		NT		0.0445	U	NT		NT		0.0446	U	NT		NT		0.0467	U
3- & 4-Methylphenols	~	~	NT		NT		0.0446	U	NT		NT		0.0445	U	NT		NT		0.0446	U	NT		NT		0.0467	U
Acenaphthene	20	100	NT		NT		0.100	D	NT		NT		0.0589	JD	NT		NT		0.155	D	NT		NT		0.0759	JD
Acenaphthylene	100	100	NT		NT		0.0446	U	NT		NT		0.0445	U	NT		NT		0.0446	U	NT		NT		0.0467	U
Anthracene	100	100	NT		NT		0.120	D	NT		NT		0.324	D	NT		NT		0.189	D	NT		NT		0.0967	D
Benzo(a)anthracene	1	1	NT		NT		0.230	D	NT		NT		0.195	D	NT		NT		0.403	D	NT		NT		0.179	D
Benzo(a)pyrene	1	1	NT		NT		0.399	D	NT		NT		0.169	D	NT		NT		0.343	D	NT		NT		0.156	D
Benzo(b)fluoranthene	1	1	NT		NT		0.179	D	NT		NT		0.144	D	NT		NT		0.259	D	NT		NT		0.144	D
Benzo(g,h,i)perylene	100	100	NT		NT		0.143	D	NT		NT		0.184	D	NT		NT		0.334	D	NT		NT		0.156	D
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.199	D	NT		NT		0.170	D	NT		NT		0.338	D	NT		NT		0.150	D
Chrysene	1	3.9	NT		NT		0.242	D	NT		NT		0.199	D	NT		NT		0.404	D	NT		NT		0.183	D
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.0484	JD	NT		NT		0.0639	JD	NT		NT		0.145	D	NT		NT		0.0506	JD
Dibenzofuran	7	59	NT		NT		0.0448	JD	NT		NT		0.0445	U	NT		NT		0.0690	JD	NT		NT		0.0467	U
Fluoranthene	100	100	NT		NT		0.649	D	NT		NT		0.463	D	NT		NT		1.060	D	NT		NT		0.435	D
Fluorene	30	100	NT		NT		0.0861	JD	NT		NT		0.0445	U	NT		NT		0.122	D	NT		NT		0.0685	JD
Hexachlorobenzene	0.33	1.2	NT		NT		0.0446	U	NT		NT		0.0445	U	NT		NT		0.0446	U	NT		NT		0.0467	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.122	D	NT		NT		0.151	D	NT		NT		0.284	D	NT		NT		0.125	D
Naphthalene	12	100	NT		NT		0.0446	U	NT		NT		0.0445	U	NT		NT		0.0540	JD	NT		NT		0.0467	U
Pentachlorophenol	0.8	6.7	NT		NT		0.0446	U	NT		NT		0.0445	U	NT		NT		0.0446	U	NT		NT		0.0467	U
Phenanthrene	100	100	NT		NT		0.460	D	NT		NT		0.343	D	NT		NT		0.936	D	NT		NT		0.426	D
Phenol	0.33	100	NT		NT		0.0446	U	NT		NT		0.0445	U	NT		NT		0.0446	U	NT		NT		0.0467	U
Pyrene	100	100	NT		NT		0.369	D	NT		NT		0.337	D	NT		NT		0.773	D	NT		NT		0.327	D
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Arsenic	13	16	NT		NT		3.340		NT		NT		2.570		NT		NT		2.700		NT		NT		3.370	
Barium	350	400	NT		NT		47.800		NT		NT		15		NT		NT		14.900		NT		NT		21.300	
Beryllium	7.2	72	NT		NT		0.172		NT		NT		0.139		NT		NT		0.107	U	NT		NT		0.112	U
Cadmium	2.5	4.3	NT		NT		0.320	U	NT		NT		0.319	U	NT		NT		0.320	U	NT		NT		0.335	U
Chromium	~	~	NT		NT		9.500		NT		NT		7.830		NT		NT		8.200		NT		NT		11.900	
Copper	50	270	NT		NT		6.680		NT		NT		5.730		NT		NT		4.380		NT		NT		5.520	
Lead	63	400	NT		NT		13.300		NT		NT		6.170		NT		NT		5.950		NT		NT		8.460	
Manganese	1600	2000	NT		NT		129		NT		NT		70.200		NT		NT		74.900		NT		NT		85.900	
Nickel	30	310	NT		NT		5.930		NT		NT		5.190		NT		NT		5.240		NT		NT		6.630	
Selenium	3.9	180	NT		NT		1.220		NT		NT		1.230		NT		NT		1.070	U	NT		NT		1.120	U
Silver	2	180	NT		NT		0.534	U	NT		NT		0.532	U	NT		NT		0.533	U	NT		NT		0.558	U
Zinc	109	10000	NT		NT		28.500		NT		NT		13.200		NT		NT		10.800		NT		NT		14	
Mercury	0.18	0.81	NT		NT		0.0320	U	NT		NT		0.0319	U	NT		NT		0.0320	U	NT		NT		0.0619	
Chromium, Hexavalent	1	110	NT		NT		0.534	U	NT		NT		0.532	U	NT		NT		0.533	U	NT		NT		0.558	U
Chromium, Trivalent	30	180	NT		NT		9.500		NT		NT		7.830		NT		NT		8.200		NT		NT		11.900	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		NT		0.534	U	NT		NT		0.532	U	NT		NT		0.533	U	NT		NT		0.558	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0213	U	NT		NT		0.0213	U	NT		NT		0.0213	U	NT		NT		0.0223	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		NT		0.0178	U	NT		NT		0.0177	U	NT		NT		0.0178	U	NT		NT		0.0186	U
Aroclor 1221	~	~	NT		NT		0.0178	U	NT		NT		0.0177	U	NT		NT		0.0178	U	NT		NT		0.0186	U
Aroclor 1232	~	~	NT		NT		0.0178	U	NT		NT		0.0177	U	NT		NT		0.0178	U	NT		NT		0.0186	U
Aroclor 1242	~	~	NT		NT		0.0178	U	NT		NT		0.0177	U	NT		NT		0.0178	U	NT		NT		0.0186	U
Aroclor 1248	~	~	NT		NT		0.0178	U	NT		NT		0.0177	U	NT		NT		0.0178	U	NT		NT		0.0186	U
Aroclor 1254	~	~	NT		NT		0.0178	U	NT		NT		0.0177	U	NT		NT		0.0178	U	NT		NT		0.0186	U
Aroclor 1260	~	~	NT		NT		0.0178	U	NT		NT		0.0177	U	NT		NT		0.0178	U	NT		NT		0.0186	U
Total PCBs	0.1	1	NT		NT		0.0178	U	NT		NT		0.0177	U	NT		NT		0.0178	U	NT		NT		0.0186	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stockpiles B and C Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																									
			C-1A 4/10/2017 Soil		C-1B 4/10/2017 Soil		C-1C 4/10/2017 Soil		C-2A 4/10/2017 Soil		C-2B 4/10/2017 Soil		C-2C 4/10/2017 Soil		C-3A 4/10/2017 Soil		C-3B 4/10/2017 Soil		C-3C 4/10/2017 Soil		C-4A 4/10/2017 Soil		C-4B 4/10/2017 Soil		C-4C 4/10/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,1-Dichloroethane	0.27	26	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,1-Dichloroethylene	0.33	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,2-Dichlorobenzene	1.1	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,2-Dichloroethane	0.02	3.1	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,3-Dichlorobenzene	2.4	49	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,4-Dichlorobenzene	1.8	13	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
1,4-Dioxane	0.1	13	0.0490	U	0.0530	U	NT		0.0490	U	0.0470	U	NT		0.0550	U	0.0490	U	NT		0.0500	U	0.0630	U	NT	
2-Butanone	0.12	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Acetone	0.05	100	0.00760	J	0.0160		NT		0.0130		0.00470	U	NT		0.00870	J	0.00960	J	NT		0.00620	J	0.0250		NT	
Benzene	0.06	4.8	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Carbon tetrachloride	0.76	2.4	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Chlorobenzene	1.1	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Chloroform	0.37	49	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Ethyl Benzene	1	41	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Methylene chloride	0.05	100	0.00490	U	0.00530	U	NT		0.00490	U	0.00470	U	NT		0.00550	U	0.00490	U	NT		0.00500	U	0.00630	U	NT	
Naphthalene	12	100	0.00330	JB	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
n-Butylbenzene	12	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
n-Propylbenzene	3.9	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
o-Xylene	~	~	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
p- & m- Xylenes	~	~	0.00490	U	0.00530	U	NT		0.00490	U	0.00470	U	NT		0.00550	U	0.00490	U	NT		0.00500	U	0.00630	U	NT	
sec-Butylbenzene	11	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
tert-Butylbenzene	5.9	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Tetrachloroethylene	1.3	19	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Toluene	0.7	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Trichloroethylene	0.47	21	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Vinyl Chloride	0.02	0.9	0.00240	U	0.00270	U	NT		0.00250	U	0.00240	U	NT		0.00280	U	0.00240	U	NT		0.00250	U	0.00310	U	NT	
Xylenes, Total	0.26	100	0.00730	U	0.00800	U	NT		0.00740	U	0.00710	U	NT		0.00830	U	0.00730	U	NT		0.00750	U	0.00940	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
3- & 4-Methylphenols	~	~	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Acenaphthene	20	100	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Acenaphthylene	100	100	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Anthracene	100	100	NT		NT		0.0728	JD	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Benzo(a)anthracene	1	1	NT		NT		0.194	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Benzo(a)pyrene	1	1	NT		NT		0.197	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Benzo(b)fluoranthene	1	1	NT		NT		0.145	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Benzo(g,h,i)perylene	100	100	NT		NT		0.209	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.187	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Chrysene	1	3.9	NT		NT		0.220	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.0661	JD	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Dibenzofuran	7	59	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Fluoranthene	100	100	NT		NT		0.530	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0671	JD
Fluorene	30	100	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Hexachlorobenzene	0.33	1.2	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.167	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Naphthalene	12	100	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Pentachlorophenol	0.8	6.7	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Phenanthrene	100	100	NT		NT		0.456	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Phenol	0.33	100	NT		NT		0.0471	U	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0648	JD
Pyrene	100	100	NT		NT		0.401	D	NT		NT		0.0484	U	NT		NT		0.0469	U	NT		NT		0.0467	U
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Arsenic	13	16	NT		NT		4.500		NT		NT		3.980		NT		NT		4.220		NT		NT		4.490	
Barium	350	400	NT		NT		31		NT		NT		24.100		NT		NT		23.500		NT		NT		23.400	
Beryllium	7.2	72	NT		NT		0.113	U	NT		NT		0.116	U	NT		NT		0.112	U	NT		NT		0.112	U
Cadmium	2.5	4.3	NT		NT		0.338	U	NT		NT		0.347	U	NT		NT		0.336	U	NT		NT		0.335	U
Chromium	~	~	NT		NT		15.800		NT		NT		15.500		NT		NT		14.200		NT		NT		14.100	
Copper	50	270	NT		NT		7.050		NT		NT		8.210		NT		NT		8.040		NT		NT		6.640	
Lead	63	400	NT		NT		6.110		NT		NT		6.720		NT		NT		6.920		NT		NT		7.730	
Manganese	1600	2000	NT		NT		88.500		NT		NT		82.300		NT		NT		94.800		NT		NT		92.600	
Nickel	30	310	NT		NT		9.690		NT		NT		8.860		NT		NT		8.980		NT		NT		9.400	
Selenium	3.9	180	NT		NT		1.410		NT		NT		1.230		NT		NT		1.120	U	NT		NT		1.120	U
Silver	2	180	NT		NT		0.563	U	NT		NT		0.579	U	NT		NT		0.561	U	NT		NT		0.559	U
Zinc	109	10000	NT		NT		21.700		NT		NT		19.300		NT		NT		20.100		NT		NT		19.500	
Mercury	0.18	0.81	NT		NT		0.0338	U	NT		NT		0.0782		NT		NT		0.0609		NT		NT		0.0531	
Chromium, Hexavalent	1	110	NT		NT		0.563	U	NT		NT		0.579	U	NT		NT		0.561	U	NT		NT		0.559	U
Chromium, Trivalent	30	180	NT		NT		15.800		NT		NT		15.500		NT		NT		14.200		NT		NT		14.100	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		NT		0.563	U	NT		NT		0.579	U	NT		NT		0.561	U	NT		NT		0.559	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0225	U	NT		NT		0.0232	U	NT		NT		0.0224	U	NT		NT		0.0224	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		NT		0.0188	U	NT		NT		0.0193	U	NT		NT		0.0187	U	NT		NT		0.0186	U
Aroclor 1221	~	~	NT		NT		0.0188	U	NT		NT		0.0193	U	NT		NT		0.0187	U	NT		NT		0.0186	U
Aroclor 1232	~	~	NT		NT		0.0188	U	NT		NT		0.0193	U	NT		NT		0.0187	U	NT		NT		0.0186	U
Aroclor 1242	~	~	NT		NT		0.0188	U	NT		NT		0.0193	U	NT		NT		0.0187	U	NT		NT		0.0186	U
Aroclor 1248	~	~	NT		NT		0.0188	U	NT		NT		0.0193	U	NT		NT		0.0187	U	NT		NT		0.0186	U
Aroclor 1254	~	~	NT		NT		0.0188	U	NT		NT		0.0193	U	NT		NT		0.0187	U	NT		NT		0.0186	U
Aroclor 1260	~	~	NT		NT		0.0188	U	NT		NT		0.0193	U	NT		NT		0.0187	U	NT		NT		0.0186	U
Total PCBs	0.1	1	NT		NT		0.0188	U	NT		NT		0.0193	U	NT		NT		0.0187	U	NT		NT		0.0186	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stockpiles B and C Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID					
			C-5A 4/10/2017 Soil		C-5B 4/10/2017 Soil		C-5C 4/10/2017 Soil	
			Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.00270	U	0.00260	U	NT	
1,1-Dichloroethane	0.27	26	0.00270	U	0.00260	U	NT	
1,1-Dichloroethylene	0.33	100	0.00270	U	0.00260	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.00270	U	0.00260	U	NT	
1,2-Dichlorobenzene	1.1	100	0.00270	U	0.00260	U	NT	
1,2-Dichloroethane	0.02	3.1	0.00270	U	0.00260	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.00270	U	0.00260	U	NT	
1,3-Dichlorobenzene	2.4	49	0.00270	U	0.00260	U	NT	
1,4-Dichlorobenzene	1.8	13	0.00270	U	0.00260	U	NT	
1,4-Dioxane	0.1	13	0.0530	U	0.0520	U	NT	
2-Butanone	0.12	100	0.00270	U	0.00260	U	NT	
Acetone	0.05	100	0.00530	U	0.0460		NT	
Benzene	0.06	4.8	0.00270	U	0.00260	U	NT	
Carbon tetrachloride	0.76	2.4	0.00270	U	0.00260	U	NT	
Chlorobenzene	1.1	100	0.00270	U	0.00260	U	NT	
Chloroform	0.37	49	0.00270	U	0.00260	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.00270	U	0.00260	U	NT	
Ethyl Benzene	1	41	0.00270	U	0.00260	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.00270	U	0.00260	U	NT	
Methylene chloride	0.05	100	0.00530	U	0.00520	U	NT	
Naphthalene	12	100	0.00270	U	0.00260	U	NT	
n-Butylbenzene	12	100	0.00270	U	0.00260	U	NT	
n-Propylbenzene	3.9	100	0.00270	U	0.00260	U	NT	
o-Xylene	~	~	0.00270	U	0.00260	U	NT	
p- & m- Xylenes	~	~	0.00530	U	0.00520	U	NT	
sec-Butylbenzene	11	100	0.00270	U	0.00260	U	NT	
tert-Butylbenzene	5.9	100	0.00270	U	0.00260	U	NT	
Tetrachloroethylene	1.3	19	0.00270	U	0.00260	U	NT	
Toluene	0.7	100	0.00270	U	0.00260	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.00270	U	0.00260	U	NT	
Trichloroethylene	0.47	21	0.00270	U	0.00260	U	NT	
Vinyl Chloride	0.02	0.9	0.00270	U	0.00260	U	NT	
Xylenes, Total	0.26	100	0.00800	U	0.00780	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg	
2-Methylphenol	0.33	100	NT		NT		0.0469	U
3- & 4-Methylphenols	~	~	NT		NT		0.0469	U
Acenaphthene	20	100	NT		NT		0.0469	U
Acenaphthylene	100	100	NT		NT		0.0469	U
Anthracene	100	100	NT		NT		0.0469	U
Benzo(a)anthracene	1	1	NT		NT		0.0469	U
Benzo(a)pyrene	1	1	NT		NT		0.0469	U
Benzo(b)fluoranthene	1	1	NT		NT		0.0469	U
Benzo(g,h,i)perylene	100	100	NT		NT		0.0469	U
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.0469	U
Chrysene	1	3.9	NT		NT		0.0469	U
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.0469	U
Dibenzofuran	7	59	NT		NT		0.0469	U
Fluoranthene	100	100	NT		NT		0.0711	JD
Fluorene	30	100	NT		NT		0.0469	U
Hexachlorobenzene	0.33	1.2	NT		NT		0.0469	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.0469	U
Naphthalene	12	100	NT		NT		0.0469	U
Pentachlorophenol	0.8	6.7	NT		NT		0.0469	U
Phenanthrene	100	100	NT		NT		0.0486	JD
Phenol	0.33	100	NT		NT		0.0469	U
Pyrene	100	100	NT		NT		0.0524	JD
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg	
4,4'-DDD	0.0033	13	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U
Endrin	0.014	11	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg	
Arsenic	13	16	NT		NT		3.600	
Barium	350	400	NT		NT		14.800	
Beryllium	7.2	72	NT		NT		0.112	U
Cadmium	2.5	4.3	NT		NT		0.337	U
Chromium	~	~	NT		NT		9.630	
Copper	50	270	NT		NT		4.270	
Lead	63	400	NT		NT		6.930	
Manganese	1600	2000	NT		NT		82.800	
Nickel	30	310	NT		NT		5.920	
Selenium	3.9	180	NT		NT		1.120	U
Silver	2	180	NT		NT		0.561	U
Zinc	109	10000	NT		NT		13.600	
Mercury	0.18	0.81	NT		NT		0.0921	
Chromium, Hexavalent	1	110	NT		NT		0.561	U
Chromium, Trivalent	30	180	NT		NT		9.630	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg	
Cyanide, total	27	27	NT		NT		0.561	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0224	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg	
Aroclor 1016	~	~	NT		NT		0.0187	U
Aroclor 1221	~	~	NT		NT		0.0187	U
Aroclor 1232	~	~	NT		NT		0.0187	U
Aroclor 1242	~	~	NT		NT		0.0187	U
Aroclor 1248	~	~	NT		NT		0.0187	U
Aroclor 1254	~	~	NT		NT		0.0187	U
Aroclor 1260	~	~	NT		NT		0.0187	U
Total PCBs	0.1	1	NT		NT		0.0187	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stock Pile A Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID											
			A-75A 4/5/2017 Soil		A-75B 4/5/2017 Soil		A-75C 4/5/2017 Soil		A-76A 4/5/2017 Soil		A-76B 4/5/2017 Soil		A-76C 4/5/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,1-Dichloroethane	0.27	26	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,1-Dichloroethylene	0.33	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,2-Dichlorobenzene	1.1	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,2-Dichloroethane	0.02	3.1	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,3-Dichlorobenzene	2.4	49	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,4-Dichlorobenzene	1.8	13	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
1,4-Dioxane	0.1	13	0.0730	U	0.0550	U	NT		0.0470	U	0.0510	U	NT	
2-Butanone	0.12	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Acetone	0.05	100	0.0079	J	0.0064	J	NT		0.0130		0.0051	U	NT	
Benzene	0.06	4.8	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Carbon tetrachloride	0.76	2.4	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Chlorobenzene	1.1	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Chloroform	0.37	49	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Ethyl Benzene	1	41	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Methylene chloride	0.05	100	0.0073	U	0.0055	U	NT		0.0047	U	0.0051	U	NT	
Naphthalene	12	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
n-Butylbenzene	12	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
n-Propylbenzene	3.9	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
o-Xylene	~	~	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
p- & m- Xylenes	~	~	0.0073	U	0.0055	U	NT		0.0047	U	0.0051	U	NT	
sec-Butylbenzene	11	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
tert-Butylbenzene	5.9	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Tetrachloroethylene	1.3	19	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Toluene	0.7	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Trichloroethylene	0.47	21	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Vinyl Chloride	0.02	0.9	0.0036	U	0.0027	U	NT		0.0023	U	0.0025	U	NT	
Xylenes, Total	0.26	100	0.0110	U	0.0082	U	NT		0.0070	U	0.0076	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		NT		0.0513	U	NT		NT		0.0475	U
3- & 4-Methylphenols	~	~	NT		NT		0.0513	U	NT		NT		0.0475	U
Acenaphthene	20	100	NT		NT		0.0513	U	NT		NT		0.0475	U
Acenaphthylene	100	100	NT		NT		0.0513	U	NT		NT		0.0475	U
Anthracene	100	100	NT		NT		0.164	D	NT		NT		0.0515	JD
Benzo(a)anthracene	1	1	NT		NT		0.299	D	NT		NT		0.0999	D
Benzo(a)pyrene	1	1	NT		NT		0.305	D	NT		NT		0.137	D
Benzo(b)fluoranthene	1	1	NT		NT		0.249	D	NT		NT		0.102	D
Benzo(g,h,i)perylene	100	100	NT		NT		0.264	D	NT		NT		0.0886	JD
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.345	D	NT		NT		0.148	D
Chrysene	1	3.9	NT		NT		0.355	D	NT		NT		0.106	D
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.118	D	NT		NT		0.0475	U
Dibenzofuran	7	59	NT		NT		0.0513	U	NT		NT		0.0475	U
Fluoranthene	100	100	NT		NT		0.877	D	NT		NT		0.254	D
Fluorene	30	100	NT		NT		0.0513	U	NT		NT		0.0475	U
Hexachlorobenzene	0.33	1.2	NT		NT		0.0513	U	NT		NT		0.0475	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.255	D	NT		NT		0.0810	JD
Naphthalene	12	100	NT		NT		0.0513	U	NT		NT		0.0475	U
Pentachlorophenol	0.8	6.7	NT		NT		0.0513	U	NT		NT		0.0475	U
Phenanthrene	100	100	NT		NT		0.578	D	NT		NT		0.164	D
Phenol	0.33	100	NT		NT		0.0513	U	NT		NT		0.0475	U
Pyrene	100	100	NT		NT		0.631	D	NT		NT		0.180	D
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg						mg/Kg	
Arsenic	13	16	NT		NT		6.480		NT		NT		3.670	
Barium	350	400	NT		NT		50.600		NT		NT		15.700	
Beryllium	7.2	72	NT		NT		0.123	U	NT		NT		0.114	U
Cadmium	2.5	4.3	NT		NT		0.368	U	NT		NT		0.341	U
Chromium	~	~	NT		NT		18.400		NT		NT		10.800	
Copper	50	270	NT		NT		11.200		NT		NT		5.840	
Lead	63	400	NT		NT		12.600		NT		NT		8.140	
Manganese	1600	2000	NT		NT		222		NT		NT		53.800	
Nickel	30	310	NT		NT		13.600		NT		NT		6.990	
Selenium	3.9	180	NT		NT		1.230	U	NT		NT		1.140	U
Silver	2	180	NT		NT		0.614	U	NT		NT		0.568	U
Zinc	109	10000	NT		NT		36.500		NT		NT		13	
Mercury	0.18	0.81	NT		NT		0.112		NT		NT		0.0547	
Chromium, Hexavalent	1	110	NT		NT		0.614	U	NT		NT		0.568	U
Chromium, Trivalent	30	180	NT		NT		18.400		NT		NT		10.800	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		NT		0.614	U	NT		NT		0.568	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0246	U	NT		NT		0.0227	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		NT		0.0205	U	NT		NT		0.0189	U
Aroclor 1221	~	~	NT		NT		0.0205	U	NT		NT		0.0189	U
Aroclor 1232	~	~	NT		NT		0.0205	U	NT		NT		0.0189	U
Aroclor 1242	~	~	NT		NT		0.0205	U	NT		NT		0.0189	U
Aroclor 1248	~	~	NT		NT		0.0205	U	NT		NT		0.0189	U
Aroclor 1254	~	~	NT		NT		0.0205	U	NT		NT		0.0189	U
Aroclor 1260	~	~	NT		NT		0.0205	U	NT		NT		0.0189	U
Total PCBs	0.1	1	NT		NT		0.0205	U	NT		NT		0.0189	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stock Pile A Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																					
			A-70B 4/5/2017 Soil		A-70C 4/5/2017 Soil		A-71A 4/5/2017 Soil		A-71B 4/5/2017 Soil		A-71C 4/5/2017 Soil		A-72A 4/5/2017 Soil		A-72B 4/5/2017 Soil		A-72C 4/5/2017 Soil		A-74A 4/5/2017 Soil		A-74B 4/5/2017 Soil		A-74C 4/5/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,1-Dichloroethane	0.27	26	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,1-Dichloroethylene	0.33	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.0026	U	NT		0.0055	J	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,2-Dichlorobenzene	1.1	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,2-Dichloroethane	0.02	3.1	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.0026	U	NT		0.0230		0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,3-Dichlorobenzene	2.4	49	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,4-Dichlorobenzene	1.8	13	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
1,4-Dioxane	0.1	13	0.0530	U	NT		0.0580	U	0.0520	U	NT		0.0550	U	0.0630	U	NT		0.0940	U	0.0570	U	NT	
2-Butanone	0.12	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Acetone	0.05	100	0.0053	U	NT		0.0058	U	0.0052	U	NT		0.0055	U	0.0063	U	NT		0.0094	U	0.0210		NT	
Benzene	0.06	4.8	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Carbon tetrachloride	0.76	2.4	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Chlorobenzene	1.1	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Chloroform	0.37	49	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0048	J	NT	
cis-1,2-Dichloroethylene	0.25	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Ethyl Benzene	1	41	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Methylene chloride	0.05	100	0.0053	U	NT		0.0058	U	0.0052	U	NT		0.0055	U	0.0063	U	NT		0.0094	U	0.0057	U	NT	
Naphthalene	12	100	0.0026	U	NT		0.0340	B	0.0036	JB	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
n-Butylbenzene	12	100	0.0026	U	NT		0.0084		0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
n-Propylbenzene	3.9	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
o-Xylene	~	~	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
p- & m- Xylenes	~	~	0.0053	U	NT		0.0058	U	0.0052	U	NT		0.0055	U	0.0063	U	NT		0.0094	U	0.0057	U	NT	
sec-Butylbenzene	11	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
tert-Butylbenzene	5.9	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Tetrachloroethylene	1.3	19	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Toluene	0.7	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Trichloroethylene	0.47	21	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Vinyl Chloride	0.02	0.9	0.0026	U	NT		0.0029	U	0.0026	U	NT		0.0027	U	0.0031	U	NT		0.0047	U	0.0028	U	NT	
Xylenes, Total	0.26	100	0.0079	U	NT		0.0087	U	0.0078	U	NT		0.0082	U	0.0094	U	NT		0.0140	U	0.0085	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		0.0466	U	NT		NT		0.0482	U	NT		NT		0.0472	U	NT		NT		0.0500	U
3- & 4-Methylphenols	~	~	NT		0.0466	U	NT		NT		0.0482	U	NT		NT		0.0472	U	NT		NT		0.0500	U
Acenaphthene	20	100	NT		0.0466	U	NT		NT		0.134	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Acenaphthylene	100	100	NT		0.0466	U	NT		NT		0.0482	U	NT		NT		0.0472	U	NT		NT		0.0500	U
Anthracene	100	100	NT		0.0466	U	NT		NT		0.240	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Benzo(a)anthracene	1	1	NT		0.0466	U	NT		NT		0.346	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Benzo(a)pyrene	1	1	NT		0.0466	U	NT		NT		0.323	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Benzo(b)fluoranthene	1	1	NT		0.0466	U	NT		NT		0.231	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Benzo(g,h,i)perylene	100	100	NT		0.0466	U	NT		NT		0.295	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Benzo(k)fluoranthene	0.8	3.9	NT		0.0466	U	NT		NT		0.302	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Chrysene	1	3.9	NT		0.0466	U	NT		NT		0.355	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Dibenzo(a,h)anthracene	0.33	0.33	NT		0.0466	U	NT		NT		0.118	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Dibenzofuran	7	59	NT		0.0466	U	NT		NT		0.0823	JD	NT		NT		0.0472	U	NT		NT		0.0500	U
Fluoranthene	100	100	NT		0.0466	U	NT		NT		0.900	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Fluorene	30	100	NT		0.0466	U	NT		NT		0.126	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Hexachlorobenzene	0.33	1.2	NT		0.0466	U	NT		NT		0.0482	U	NT		NT		0.0472	U	NT		NT		0.0500	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		0.0466	U	NT		NT		0.236	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Naphthalene	12	100	NT		0.0466	U	NT		NT		0.0482	U	NT		NT		0.0472	U	NT		NT		0.0500	U
Pentachlorophenol	0.8	6.7	NT		0.0466	U	NT		NT		0.0482	U	NT		NT		0.0472	U	NT		NT		0.0500	U
Phenanthrene	100	100	NT		0.0466	U	NT		NT		0.770	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Phenol	0.33	100	NT		0.0466	U	NT		NT		0.0482	U	NT		NT		0.0472	U	NT		NT		0.0500	U
Pyrene	100	100	NT		0.0466	U	NT		NT		0.703	D	NT		NT		0.0472	U	NT		NT		0.0500	U
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Arsenic	13	16	NT		4.660		NT		NT		4.520		NT		NT		5.250		NT		NT		5.570	
Barium	350	400	NT		24.300		NT		NT		26.800		NT		NT		24.800		NT		NT		23.300	
Beryllium	7.2	72	NT		0.112	U	NT		NT		0.115	U	NT		NT		0.113	U	NT		NT		0.120	U
Cadmium	2.5	4.3	NT		0.335	U	NT		NT		0.346	U	NT		NT		0.339	U	NT		NT		0.359	U
Chromium	~	~	NT		16.600		NT		NT		12.700		NT		NT		17.600		NT		NT		17.100	
Copper	50	270	NT		7.960		NT		NT		9.610		NT		NT		9.820		NT		NT		8.190	
Lead	63	400	NT		10		NT		NT		16		NT		NT		12.900		NT		NT		10.200	
Manganese	1600	2000	NT		83.600		NT		NT		117		NT		NT		129		NT		NT		88.800	
Nickel	30	310	NT		9.280		NT		NT		8.770		NT		NT		10		NT		NT		9.690	
Selenium	3.9	180	NT		1.120	U	NT		NT		1.150	U	NT		NT		1.130	U	NT		NT		1.200	U
Silver	2	180	NT		0.558	U	NT		NT		0.577	U	NT		NT		0.565	U	NT		NT		0.598	U
Zinc	109	10000	NT		18.300		NT		NT		24.200		NT		NT		22.200		NT		NT		19.800	
Mercury	0.18	0.81	NT		0.0370		NT		NT		0.0698		NT		NT		0.0405		NT		NT		0.0494	
Chromium, Hexavalent	1	110	NT		0.558	U	NT		NT		0.577	U	NT		NT		0.565	U	NT		NT		0.598	U
Chromium, Trivalent	30	180	NT		16.600		NT		NT		12.700		NT		NT		17.600		NT		NT		17.100	
Cyanide, Total	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		0.558	U	NT		NT		0.577	U	NT		NT		0.565	U	NT		NT		0.598	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		0.0223	U	NT		NT		0.0231	U	NT		NT		0.0226	U	NT		NT		0.0239	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		0.0186	U	NT		NT		0.0192	U	NT		NT		0.0188	U	NT		NT		0.0199	U
Aroclor 1221	~	~	NT		0.0186	U	NT		NT		0.0192	U	NT		NT		0.0188	U	NT		NT		0.0199	U
Aroclor 1232	~	~	NT		0.0186	U	NT		NT		0.0192	U	NT		NT		0.0188	U	NT		NT		0.0199	U
Aroclor 1242	~	~	NT		0.0186	U	NT		NT		0.0192	U	NT		NT		0.0188	U	NT		NT		0.0199	U
Aroclor 1248	~	~	NT		0.0186	U	NT		NT		0.0192	U	NT		NT		0.0188	U	NT		NT		0.0199	U
Aroclor 1254	~	~	NT		0.0186	U	NT		NT		0.0192	U	NT		NT		0.0188	U	NT		NT		0.0199	U
Aroclor 1260	~	~	NT		0.0186	U	NT		NT		0.0192	U	NT		NT		0.0188	U	NT		NT		0.0199	U
Total PCBs	0.1	1	NT		0.0186	U	NT		NT		0.0192	U	NT		NT		0.0188	U	NT		NT		0.0199	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stock Pile A Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																			
			A-63A 4/5/2017 Soil		A-63B 4/5/2017 Soil		A-63C 4/5/2017 Soil		A-64A 4/5/2017 Soil		A-64B 4/5/2017 Soil		A-64C 4/5/2017 Soil		A-65A 4/5/2017 Soil		A-65B 4/5/2017 Soil		A-65C 4/5/2017 Soil		A-66A 4/5/2017 Soil		A-66B 4/5/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg	
1,1,1-Trichloroethane	0.68	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,1-Dichloroethane	0.27	26	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,1-Dichloroethylene	0.33	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,2,4-Trimethylbenzene	3.6	52	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,2-Dichlorobenzene	1.1	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,2-Dichloroethane	0.02	3.1	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,3,5-Trimethylbenzene	8.4	52	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,3-Dichlorobenzene	2.4	49	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,4-Dichlorobenzene	1.8	13	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
1,4-Dioxane	0.1	13	0.0680	U	0.0650	U	NT		0.0500	U	0.0600	U	NT		0.0520	U	0.0490	U	NT		0.0560	U	0.0520	U
2-Butanone	0.12	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Acetone	0.05	100	0.0068	U	0.0065	U	NT		0.0050	U	0.0060	U	NT		0.0052	U	0.0049	U	NT		0.0320		0.0052	U
Benzene	0.06	4.8	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Carbon tetrachloride	0.76	2.4	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Chlorobenzene	1.1	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Chloroform	0.37	49	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
cis-1,2-Dichloroethylene	0.25	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Ethyl Benzene	1	41	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Methylene chloride	0.05	100	0.0068	U	0.0065	U	NT		0.0050	U	0.0060	U	NT		0.0052	U	0.0049	U	NT		0.0056	U	0.0052	U
Naphthalene	12	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
n-Butylbenzene	12	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
n-Propylbenzene	3.9	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
o-Xylene	~	~	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
p- & m- Xylenes	~	~	0.0068	U	0.0065	U	NT		0.0050	U	0.0060	U	NT		0.0052	U	0.0049	U	NT		0.0056	U	0.0052	U
sec-Butylbenzene	11	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
tert-Butylbenzene	5.9	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Tetrachloroethylene	1.3	19	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Toluene	0.7	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
trans-1,2-Dichloroethylene	0.19	100	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Trichloroethylene	0.47	21	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Vinyl Chloride	0.02	0.9	0.0034	U	0.0032	U	NT		0.0025	U	0.0030	U	NT		0.0026	U	0.0025	U	NT		0.0028	U	0.0026	U
Xylenes, Total	0.26	100	0.0100	U	0.0097	U	NT		0.0074	U	0.0090	U	NT		0.0078	U	0.0074	U	NT		0.0084	U	0.0079	U
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
2-Methylphenol	0.33	100	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
3- & 4-Methylphenols	~	~	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Acenaphthene	20	100	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Acenaphthylene	100	100	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Anthracene	100	100	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Benzo(a)anthracene	1	1	NT		NT		0.0650	JD	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Benzo(a)pyrene	1	1	NT		NT		0.0666	JD	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Benzo(b)fluoranthene	1	1	NT		NT		0.0580	JD	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Benzo(g,h,i)perylene	100	100	NT		NT		0.0744	JD	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.0760	JD	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Chrysene	1	3.9	NT		NT		0.0775	JD	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Dibenzofuran	7	59	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Fluoranthene	100	100	NT		NT		0.150	D	NT		NT		0.0484	U	NT		NT		0.0731	JD	NT		NT	
Fluorene	30	100	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Hexachlorobenzene	0.33	1.2	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.0642	JD	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Naphthalene	12	100	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Pentachlorophenol	0.8	6.7	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Phenanthrene	100	100	NT		NT		0.0744	JD	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Phenol	0.33	100	NT		NT		0.0491	U	NT		NT		0.0484	U	NT		NT		0.0483	U	NT		NT	
Pyrene	100	100	NT		NT		0.128	D	NT		NT		0.0484	U	NT		NT		0.0531	JD	NT		NT	
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
4,4'-DDD	0.0033	13	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Aldrin	0.005	0.097	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
alpha-BHC	0.02	0.48	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
beta-BHC	0.036	0.36	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
delta-BHC	0.04	100	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Dieldrin	0.005	0.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Endosulfan I	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Endosulfan II	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Endrin	0.014	11	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Heptachlor	0.042	2.1	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
Arsenic	13	16	NT		NT		6.260		NT		NT		4.860		NT		NT		5.830		NT		NT	
Barium	350	400	NT		NT		42.300		NT		NT		21.600		NT		NT		37.200		NT		NT	
Beryllium	7.2	72	NT		NT		0.117	U	NT		NT		0.116	U	NT		NT		0.115	U	NT		NT	
Cadmium	2.5	4.3	NT		NT		0.352	U	NT		NT		0.348	U	NT		NT		0.346	U	NT		NT	
Chromium	~	~	NT		NT		17.900		NT		NT		13.700		NT		NT		17.700		NT		NT	
Copper	50	270	NT		NT		12.200		NT		NT		8.640		NT		NT		10.900		NT		NT	
Lead	63	400	NT		NT		33.200		NT		NT		18.800		NT		NT		22.100		NT		NT	
Manganese	1600	2000	NT		NT		162		NT		NT		73.900		NT		NT		172		NT		NT	
Nickel	30	310	NT		NT		10.900		NT		NT		8.010		NT		NT		11.100		NT		NT	
Selenium	3.9	180	NT		NT		1.170	U	NT		NT		1.160	U	NT		NT		1.150	U	NT		NT	
Silver	2	180	NT		NT		0.587	U	NT		NT		0.579	U	NT		NT		0.577	U	NT		NT	
Zinc	109	10000	NT		NT		33.200		NT		NT		18.800		NT		NT		34.900		NT		NT	
Mercury	0.18	0.81	NT		NT		0.0927		NT		NT		0.0521		NT		NT		0.0926		NT		NT	
Chromium, Hexavalent	1	110	NT		NT		0.587	U	NT		NT		0.579	U	NT		NT		0.577	U	NT		NT	
Chromium, Trivalent	30	180	NT		NT		17.900		NT		NT		13.700		NT		NT		17.700		NT		NT	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
Cyanide, total	27	27	NT		NT		0.587	U	NT		NT		0.579	U	NT		NT		0.693		NT		NT	
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0235	U	NT		NT		0.0232	U	NT		NT		0.0231	U	NT		NT	
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
Aroclor 1016	~	~	NT		NT		0.0196	U	NT		NT		0.0193	U	NT		NT		0.0192	U	NT		NT	
Aroclor 1221	~	~	NT		NT		0.0196	U	NT		NT		0.0193	U	NT		NT		0.0192	U	NT		NT	
Aroclor 1232	~	~	NT		NT		0.0196	U	NT		NT		0.0193	U	NT		NT		0.0192	U	NT		NT	
Aroclor 1242	~	~	NT		NT		0.0196	U	NT		NT		0.0193	U	NT		NT		0.0192	U	NT		NT	
Aroclor 1248	~	~	NT		NT		0.0196	U	NT		NT		0.0193	U	NT		NT		0.0192	U	NT		NT	
Aroclor 1254	~	~	NT		NT		0.0196	U	NT		NT		0.0193	U	NT		NT		0.0192	U	NT		NT	
Aroclor 1260	~	~	NT		NT		0.0196	U	NT		NT		0.0193	U	NT		NT		0.0192	U	NT		NT	
Total PCBs	0.1	1	NT		NT		0.0196	U	NT		NT		0.0193	U	NT		NT		0.0192	U	NT		NT	

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stock Pile A Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																			
			A-66C 4/5/2017 Soil		A-67A 4/5/2017 Soil		A-67B 4/5/2017 Soil		A-67C 4/5/2017 Soil		A-68A 4/5/2017 Soil		A-68B 4/5/2017 Soil		A-68C 4/5/2017 Soil		A-69A 4/5/2017 Soil		A-69B 4/5/2017 Soil		A-69C 4/5/2017 Soil		A-70A 4/5/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg			mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg	
1,1,1-Trichloroethane	0.68	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,1-Dichloroethane	0.27	26	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,1-Dichloroethylene	0.33	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,2,4-Trimethylbenzene	3.6	52	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,2-Dichlorobenzene	1.1	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,2-Dichloroethane	0.02	3.1	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,3,5-Trimethylbenzene	8.4	52	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,3-Dichlorobenzene	2.4	49	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,4-Dichlorobenzene	1.8	13	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
1,4-Dioxane	0.1	13	NT		0.0530	U	0.0760	U	NT		0.0510	U	0.0500	U	NT		0.0610	U	0.0480	U	NT		0.0670	U
2-Butanone	0.12	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Acetone	0.05	100	NT		0.0053	U	0.0076	U	NT		0.0051	U	0.0050	U	NT		0.0061	U	0.0048	U	NT		0.0067	U
Benzene	0.06	4.8	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Carbon tetrachloride	0.76	2.4	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Chlorobenzene	1.1	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Chloroform	0.37	49	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
cis-1,2-Dichloroethylene	0.25	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Ethyl Benzene	1	41	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Methyl tert-butyl ether (MTBE)	0.93	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Methylene chloride	0.05	100	NT		0.0053	U	0.0076	U	NT		0.0051	U	0.0050	U	NT		0.0061	U	0.0048	U	NT		0.0067	U
Naphthalene	12	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
n-Butylbenzene	12	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
n-Propylbenzene	3.9	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
o-Xylene	~	~	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
p- & m- Xylenes	~	~	NT		0.0053	U	0.0076	U	NT		0.0051	U	0.0050	U	NT		0.0061	U	0.0048	U	NT		0.0067	U
sec-Butylbenzene	11	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
tert-Butylbenzene	5.9	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Tetrachloroethylene	1.3	19	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Toluene	0.7	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
trans-1,2-Dichloroethylene	0.19	100	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Trichloroethylene	0.47	21	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Vinyl Chloride	0.02	0.9	NT		0.0027	U	0.0038	U	NT		0.0026	U	0.0025	U	NT		0.0031	U	0.0024	U	NT		0.0033	U
Xylenes, Total	0.26	100	NT		0.0080	U	0.0110	U	NT		0.0077	U	0.0075	U	NT		0.0092	U	0.0072	U	NT		0.0100	U
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
2-Methylphenol	0.33	100	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
3- & 4-Methylphenols	~	~	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Acenaphthene	20	100	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Acenaphthylene	100	100	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Anthracene	100	100	0.0470	U	NT		NT		0.0633	JD	NT		NT		0.0469	U	NT		NT		0.136	D	NT	
Benzo(a)anthracene	1	1	0.0470	U	NT		NT		0.122	D	NT		NT		0.0469	U	NT		NT		0.277	D	NT	
Benzo(a)pyrene	1	1	0.0470	U	NT		NT		0.120	D	NT		NT		0.0469	U	NT		NT		0.270	D	NT	
Benzo(b)fluoranthene	1	1	0.0470	U	NT		NT		0.0958	JD	NT		NT		0.0469	U	NT		NT		0.195	D	NT	
Benzo(g,h,i)perylene	100	100	0.0470	U	NT		NT		0.120	D	NT		NT		0.0469	U	NT		NT		0.255	D	NT	
Benzo(k)fluoranthene	0.8	3.9	0.0470	U	NT		NT		0.143	D	NT		NT		0.0469	U	NT		NT		0.281	D	NT	
Chrysene	1	3.9	0.0470	U	NT		NT		0.133	D	NT		NT		0.0469	U	NT		NT		0.280	D	NT	
Dibenzo(a,h)anthracene	0.33	0.33	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.120	D	NT	
Dibenzofuran	7	59	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Fluoranthene	100	100	0.0470	U	NT		NT		0.311	D	NT		NT		0.0469	U	NT		NT		0.694	D	NT	
Fluorene	30	100	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Hexachlorobenzene	0.33	1.2	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0470	U	NT		NT		0.113	D	NT		NT		0.0469	U	NT		NT		0.242	D	NT	
Naphthalene	12	100	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Pentachlorophenol	0.8	6.7	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Phenanthrene	100	100	0.0470	U	NT		NT		0.188	D	NT		NT		0.0469	U	NT		NT		0.396	D	NT	
Phenol	0.33	100	0.0470	U	NT		NT		0.0496	U	NT		NT		0.0469	U	NT		NT		0.0487	U	NT	
Pyrene	100	100	0.0470	U	NT		NT		0.237	D	NT		NT		0.0469	U	NT		NT		0.528	D	NT	
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
4,4'-DDD	0.0033	13	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
4,4'-DDE	0.0033	8.9	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
4,4'-DDT	0.0033	7.9	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Aldrin	0.005	0.097	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
alpha-BHC	0.02	0.48	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
alpha-Chlordane	0.094	4.2	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
beta-BHC	0.036	0.36	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
delta-BHC	0.04	100	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Dieldrin	0.005	0.2	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Endosulfan I	2.4	24	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Endosulfan II	2.4	24	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Endosulfan sulfate	2.4	24	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Endrin	0.014	11	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
gamma-BHC (Lindane)	0.1	1.3	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Heptachlor	0.042	2.1	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Metals, NYSDEC Part 375	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
Arsenic	13	16	5.570		NT		NT		7.990		NT		NT		4.490		NT		NT		7.220		NT	
Barium	350	400	24.200		NT		NT		58.800		NT		NT		22.400		NT		NT		37.700		NT	
Beryllium	7.2	72	0.113	U	NT		NT		0.119	U	NT		NT		0.112	U	NT		NT		0.117	U	NT	
Cadmium	2.5	4.3	0.338	U	NT		NT		0.356	U	NT		NT		0.337	U	NT		NT		0.350	U	NT	
Chromium	~	~	15.900		NT		NT		20.600		NT		NT		15.400		NT		NT		20.700		NT	
Copper	50	270	8.910		NT		NT		11.800		NT		NT		7.040		NT		NT		12.300		NT	
Lead	63	400	20.500		NT		NT		21.500		NT		NT		8.860		NT		NT		19.200		NT	
Manganese	1600	2000	89.400		NT		NT		175		NT		NT		86.400		NT		NT		170		NT	
Nickel	30	310	8.660		NT		NT		12.100		NT		NT		9.090		NT		NT		12.200		NT	
Selenium	3.9	180	1.130	U	NT		NT		1.190	U	NT		NT		1.120	U	NT		NT		1.170	U	NT	
Silver	2	180	0.563	U	NT		NT		0.594	U	NT		NT		0.561	U	NT		NT		0.583	U	NT	
Zinc	109	10000	26.800		NT		NT		35.900		NT		NT		17.200		NT		NT		31.100		NT	
Mercury	0.18	0.81	0.0812		NT		NT		0.0880		NT		NT		0.0435		NT		NT		0.0759		NT	
Chromium, Hexavalent	1	110	0.563	U	NT		NT		0.594	U	NT		NT		0.561	U	NT		NT		0.583	U	NT	
Chromium, Trivalent	30	180	15.900		NT		NT		20.600		NT		NT		15.400		NT		NT		20.700		NT	
Cyanide, Total	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
Cyanide, total	27	27	0.563	U	NT		NT		0.594	U	NT		NT		0.561		NT		NT		0.583	U	NT	
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
2,4,5-TP (Silvex)	3.8	100	0.0225	U	NT		NT		0.0237	U	NT		NT		0.0224	U	NT		NT		0.0233	U	NT	
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
Aroclor 1016	~	~	0.0187	U	NT		NT		0.0198	U	NT		NT		0.0187	U	NT		NT		0.0194	U	NT	
Aroclor 1221	~	~	0.0187	U	NT		NT		0.0198	U	NT		NT		0.0187	U	NT		NT		0.0194	U	NT	
Aroclor 1232	~	~	0.0187	U	NT		NT		0.0198	U	NT		NT		0.0187	U	NT		NT		0.0194	U	NT	
Aroclor 1242	~	~	0.0187	U	NT		NT		0.0198	U	NT		NT		0.0187	U	NT		NT		0.0194	U	NT	
Aroclor 1248	~	~	0.0187	U	NT		NT		0.0198	U	NT		NT		0.0187	U	NT		NT		0.0194	U	NT	
Aroclor 1254	~	~	0.0187	U	NT		NT		0.0198	U	NT		NT		0.0187	U	NT		NT		0.0194	U	NT	
Aroclor 1260	~	~	0.0187	U	NT		NT		0.0198	U	NT		NT		0.0187	U	NT		NT		0.0194	U	NT	
Total PCBs	0.1	1	0.0187	U	NT		NT		0.0198	U	NT		NT		0.0187	U	NT		NT		0.0194	U	NT	

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stock Pile A Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																							
			A-58B 4/5/2017 Soil		A-58C 4/5/2017 Soil		A-59A 4/5/2017 Soil		A-59B 4/5/2017 Soil		A-59C 4/5/2017 Soil		A-60A 4/5/2017 Soil		A-60B 4/5/2017 Soil		A-60C 4/5/2017 Soil		A-62A 4/5/2017 Soil		A-62B 4/5/2017 Soil		A-62C 4/5/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,1-Dichloroethane	0.27	26	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,1-Dichloroethylene	0.33	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,2-Dichlorobenzene	1.1	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,2-Dichloroethane	0.02	3.1	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,3-Dichlorobenzene	2.4	49	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,4-Dichlorobenzene	1.8	13	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
1,4-Dioxane	0.1	13	0.0570	U	NT		0.0590	U	0.0490	U	NT		0.0550	U	0.0530	U	NT		0.0520	U	0.0490	U	NT	
2-Butanone	0.12	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Acetone	0.05	100	0.0057	U	NT		0.0059	U	0.0049	U	NT		0.0180		0.0053	U	NT		0.0052	U	0.0049	U	NT	
Benzene	0.06	4.8	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Carbon tetrachloride	0.76	2.4	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Chlorobenzene	1.1	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Chloroform	0.37	49	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Ethyl Benzene	1	41	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Methylene chloride	0.05	100	0.0057	U	NT		0.0059	U	0.0049	U	NT		0.0055	U	0.0053	U	NT		0.0052	U	0.0049	U	NT	
Naphthalene	12	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
n-Butylbenzene	12	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
n-Propylbenzene	3.9	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
o-Xylene	~	~	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
p- & m- Xylenes	~	~	0.0057	U	NT		0.0059	U	0.0049	U	NT		0.0055	U	0.0053	U	NT		0.0052	U	0.0049	U	NT	
sec-Butylbenzene	11	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
tert-Butylbenzene	5.9	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Tetrachloroethylene	1.3	19	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Toluene	0.7	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Trichloroethylene	0.47	21	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Vinyl Chloride	0.02	0.9	0.0028	U	NT		0.0030	U	0.0025	U	NT		0.0027	U	0.0026	U	NT		0.0026	U	0.0025	U	NT	
Xylenes, Total	0.26	100	0.0085	U	NT		0.0089	U	0.0074	U	NT		0.0082	U	0.0079	U	NT		0.0077	U	0.0074	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
3- & 4-Methylphenols	~	~	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Acenaphthene	20	100	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Acenaphthylene	100	100	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Anthracene	100	100	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Benzo(a)anthracene	1	1	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Benzo(a)pyrene	1	1	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Benzo(b)fluoranthene	1	1	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Benzo(g,h,i)perylene	100	100	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Benzo(k)fluoranthene	0.8	3.9	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Chrysene	1	3.9	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Dibenzo(a,h)anthracene	0.33	0.33	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Dibenzofuran	7	59	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Fluoranthene	100	100	NT		0.0513	U	NT		NT		0.0544	JD	NT		NT		0.0491	U	NT		NT		0.0503	U
Fluorene	30	100	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Hexachlorobenzene	0.33	1.2	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Naphthalene	12	100	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Pentachlorophenol	0.8	6.7	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Phenanthrene	100	100	NT		0.0513	U	NT		NT		0.0528	JD	NT		NT		0.0491	U	NT		NT		0.0503	U
Phenol	0.33	100	NT		0.0513	U	NT		NT		0.0487	U	NT		NT		0.0491	U	NT		NT		0.0503	U
Pyrene	100	100	NT		0.0513	U	NT		NT		0.0521	JD	NT		NT		0.0491	U	NT		NT		0.0503	U
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Arsenic	13	16	NT		5.300		NT		NT		5.050		NT		NT		5.700		NT		NT		5.480	
Barium	350	400	NT		30.300		NT		NT		37.400		NT		NT		28.100		NT		NT		22.800	
Beryllium	7.2	72	NT		0.123	U	NT		NT		0.117	U	NT		NT		0.118	U	NT		NT		0.120	U
Cadmium	2.5	4.3	NT		0.368	U	NT		NT		0.350	U	NT		NT		0.353	U	NT		NT		0.361	U
Chromium	~	~	NT		19.300		NT		NT		17.300		NT		NT		17.900		NT		NT		12.800	
Copper	50	270	NT		10.400		NT		NT		7.880		NT		NT		9.740		NT		NT		10.500	
Lead	63	400	NT		17.500		NT		NT		10.300		NT		NT		19.400		NT		NT		34.500	
Manganese	1600	2000	NT		115		NT		NT		463		NT		NT		99.200		NT		NT		93.200	
Nickel	30	310	NT		11		NT		NT		10.700		NT		NT		10		NT		NT		7.400	
Selenium	3.9	180	NT		1.230	U	NT		NT		1.170	U	NT		NT		1.180	U	NT		NT		1.200	U
Silver	2	180	NT		0.613	U	NT		NT		0.583	U	NT		NT		0.588	U	NT		NT		0.601	U
Zinc	109	10000	NT		25.700		NT		NT		24.400		NT		NT		25.300		NT		NT		26.800	
Mercury	0.18	0.81	NT		0.0643		NT		NT		0.0350	U	NT		NT		0.0823		NT		NT		0.103	
Chromium, Hexavalent	1	110	NT		0.613	U	NT		NT		0.583	U	NT		NT		0.588	U	NT		NT		0.601	U
Chromium, Trivalent	30	180	NT		19.300		NT		NT		17.300		NT		NT		17.900		NT		NT		12.800	
Cyanide, Total	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		0.613	U	NT		NT		0.583	U	NT		NT		0.588	U	NT		NT		0.601	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		0.0245	U	NT		NT		0.0233	U	NT		NT		0.0235	U	NT		NT		0.0241	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		0.0204	U	NT		NT		0.0194	U	NT		NT		0.0196	U	NT		NT		0.0200	U
Aroclor 1221	~	~	NT		0.0204	U	NT		NT		0.0194	U	NT		NT		0.0196	U	NT		NT		0.0200	U
Aroclor 1232	~	~	NT		0.0204	U	NT		NT		0.0194	U	NT		NT		0.0196	U	NT		NT		0.0200	U
Aroclor 1242	~	~	NT		0.0204	U	NT		NT		0.0194	U	NT		NT		0.0196	U	NT		NT		0.0200	U
Aroclor 1248	~	~	NT		0.0204	U	NT		NT		0.0194	U	NT		NT		0.0196	U	NT		NT		0.0200	U
Aroclor 1254	~	~	NT		0.0204	U	NT		NT		0.0194	U	NT		NT		0.0196	U	NT		NT		0.0200	U
Aroclor 1260	~	~	NT		0.0204	U	NT		NT		0.0194	U	NT		NT		0.0196	U	NT		NT		0.0200	U
Total PCBs	0.1	1	NT		0.0204	U	NT		NT		0.0194	U	NT		NT		0.0196	U	NT		NT		0.0200	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stock Pile A Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																					
			A-52C 4/3/2017 Soil		A-54A 4/3/2017 Soil		A-54B 4/3/2017 Soil		A-54C 4/3/2017 Soil		A-56A 4/5/2017 Soil		A-56B 4/5/2017 Soil		A-56C 4/5/2017 Soil		A-57A 4/5/2017 Soil		A-57B 4/5/2017 Soil		A-57C 4/5/2017 Soil		A-58A 4/5/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg			mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg	
1,1,1-Trichloroethane	0.68	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
1,1-Dichloroethane	0.27	26	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
1,1-Dichloroethylene	0.33	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
1,2,4-Trimethylbenzene	3.6	52	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0086	J	NT		0.0028	U
1,2-Dichlorobenzene	1.1	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
1,2-Dichloroethane	0.02	3.1	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
1,3,5-Trimethylbenzene	8.4	52	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0120		NT		0.0028	U
1,3-Dichlorobenzene	2.4	49	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
1,4-Dichlorobenzene	1.8	13	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
1,4-Dioxane	0.1	13	NT		0.0580	U	0.0470	U	NT		0.0520	U	0.0460	U	NT		0.0630	U	0.0910	U	NT		0.0570	U
2-Butanone	0.12	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Acetone	0.05	100	NT		0.0058	U	0.0047	U	NT		0.0054	J	0.0046	U	NT		0.0063	U	0.0091	U	NT		0.0057	U
Benzene	0.06	4.8	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Carbon tetrachloride	0.76	2.4	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Chlorobenzene	1.1	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Chloroform	0.37	49	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
cis-1,2-Dichloroethylene	0.25	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Ethyl Benzene	1	41	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Methyl tert-butyl ether (MTBE)	0.93	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	J	NT		0.0028	U
Methylene chloride	0.05	100	NT		0.0058	U	0.0047	U	NT		0.0052	U	0.0046	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Naphthalene	12	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0063	U	0.0091	U	NT		0.0057	U
n-Butylbenzene	12	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0110	J	NT		0.0028	U
n-Propylbenzene	3.9	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
o-Xylene	~	~	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
p- & m- Xylenes	~	~	NT		0.0058	U	0.0047	U	NT		0.0052	U	0.0046	U	NT		0.0063	U	0.0091	U	NT		0.0057	U
sec-Butylbenzene	11	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
tert-Butylbenzene	5.9	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Tetrachloroethylene	1.3	19	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Toluene	0.7	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
trans-1,2-Dichloroethylene	0.19	100	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Trichloroethylene	0.47	21	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Vinyl Chloride	0.02	0.9	NT		0.0029	U	0.0024	U	NT		0.0026	U	0.0023	U	NT		0.0032	U	0.0045	U	NT		0.0028	U
Xylenes, Total	0.26	100	NT		0.0087	U	0.0071	U	NT		0.0078	U	0.0069	U	NT		0.0095	U	0.0140	U	NT		0.0085	U
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
2-Methylphenol	0.33	100	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.0499	U	NT	
3- & 4-Methylphenols	~	~	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.0499	U	NT	
Acenaphthene	20	100	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.183	D	NT	
Acenaphthylene	100	100	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.0499	U	NT	
Anthracene	100	100	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.267	D	NT	
Benzo(a)anthracene	1	1	0.0912	JD	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.349	D	NT	
Benzo(a)pyrene	1	1	0.116	D	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.470	D	NT	
Benzo(b)fluoranthene	1	1	0.0652	JD	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.200	D	NT	
Benzo(g,h,i)perylene	100	100	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.0898	JD	NT	
Benzo(k)fluoranthene	0.8	3.9	0.0888	JD	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.243	D	NT	
Chrysene	1	3.9	0.0825	JD	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.357	D	NT	
Dibenzo(a,h)anthracene	0.33	0.33	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.0499	U	NT	
Dibenzofuran	7	59	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.114	D	NT	
Fluoranthene	100	100	0.196	D	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.805	D	NT	
Fluorene	30	100	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.186	D	NT	
Hexachlorobenzene	0.33	1.2	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.0499	U	NT	
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0644	JD	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.102	D	NT	
Naphthalene	12	100	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.158	D	NT	
Pentachlorophenol	0.8	6.7	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.0499	U	NT	
Phenanthrene	100	100	0.163	D	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.848	D	NT	
Phenol	0.33	100	0.0493	U	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.0499	U	NT	
Pyrene	100	100	0.132	D	NT		NT		0.0462	U	NT		NT		0.0529	U	NT		NT		0.641	D	NT	
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
4,4'-DDD	0.0033	13	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
4,4'-DDE	0.0033	8.9	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
4,4'-DDT	0.0033	7.9	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Aldrin	0.005	0.097	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
alpha-BHC	0.02	0.48	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
alpha-Chlordane	0.094	4.2	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
beta-BHC	0.036	0.36	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
delta-BHC	0.04	100	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Dieldrin	0.005	0.2	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Endosulfan I	2.4	24	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Endosulfan II	2.4	24	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Endosulfan sulfate	2.4	24	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Endrin	0.014	11	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
gamma-BHC (Lindane)	0.1	1.3	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Heptachlor	0.042	2.1	0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT	
Metals, NYSDEC Part 375	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
Arsenic	13	16	5.49		NT		NT		4.060		NT		NT		6.040		NT		NT		8.950		NT	
Barium	350	400	38.600		NT		NT		24.800		NT		NT		35.100		NT		NT		33.800		NT	
Beryllium	7.2	72	0.508		NT		NT		0.435		NT		NT		0.126	U	NT		NT		0.119	U	NT	
Cadmium	2.5	4.3	0.354	U	NT		NT		0.331	U	NT		NT		0.379	U	NT		NT		0.358	U	NT	
Chromium	~	~	20.500		NT		NT		16.800		NT		NT		21.900		NT		NT		18		NT	
Copper	50	270	16.100		NT		NT		8.870		NT		NT		11.900		NT		NT		16.400		NT	
Lead	63	400	27		NT		NT		10.600		NT		NT		23.700		NT		NT		37.100		NT	
Manganese	1600	2000	117		NT		NT		101.000		NT		NT		117		NT		NT		157		NT	
Nickel	30	310	11.600		NT		NT		9.080		NT		NT		11.700		NT		NT		9.110		NT	
Selenium	3.9	180	2.070		NT		NT		2.460		NT		NT		1.590		NT		NT		1.720		NT	
Silver	2	180	0.589	U	NT		NT		0.552	U	NT		NT		0.632	U	NT		NT		0.596	U	NT	
Zinc	109	10000	34.500		NT		NT		18.600		NT		NT		29.700		NT		NT		33.300		NT	
Mercury	0.18	0.81	0.117		NT		NT		0.059		NT		NT		0.0732		NT		NT		0.0986		NT	
Chromium, Hexavalent	1	110	0.589	U	NT		NT		0.552	U	NT		NT		0.632	U	NT		NT		0.596	U	NT	
Chromium, Trivalent	30	180	20.5		NT		NT		16.800		NT		NT		21.900		NT		NT		18		NT	
Cyanide, Total	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
Cyanide, total	27	27	0.589	U	NT		NT		0.552	U	NT		NT		0.632	U	NT		NT		0.895		NT	
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
2,4,5-TP (Silvex)	3.8	100	0.0236	U	NT		NT		0.0221	U	NT		NT		0.0253	U	NT		NT		0.0239	U	NT	
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg	mg/Kg						mg/Kg						mg/Kg						mg/Kg			
Aroclor 1016	~	~	0.0196	U	NT		NT		0.0184	U	NT		NT		0.0211	U	NT		NT		0.0199	U	NT	
Aroclor 1221	~	~	0.0196	U	NT		NT		0.0184	U	NT		NT		0.0211	U	NT		NT		0.0199	U	NT	
Aroclor 1232	~	~	0.0196	U	NT		NT		0.0184	U	NT		NT		0.0211	U	NT		NT		0.0199	U	NT	
Aroclor 1242	~	~	0.0196	U	NT		NT		0.0184	U	NT		NT		0.0211	U	NT		NT		0.0199	U	NT	
Aroclor 1248	~	~	0.0196	U	NT		NT		0.0184	U	NT		NT		0.0211	U	NT		NT		0.0199	U	NT	
Aroclor 1254	~	~	0.0196	U	NT		NT		0.0184	U	NT		NT		0.0211	U	NT		NT		0.0199	U	NT	
Aroclor 1260	~	~	0.0196	U	NT		NT		0.0184	U	NT		NT		0.0211	U	NT		NT		0.0199	U	NT	
Total PCBs	0.1	1	0.0196	U	NT		NT		0.0184	U	NT		NT		0.0211	U	NT		NT		0.0199	U	NT	

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stock Pile A Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																					
			A-46A 4/3/2017 Soil		A-46B 4/3/2017 Soil		A-46C 4/3/2017 Soil		A-48A 4/3/2017 Soil		A-48B 4/3/2017 Soil		A-48C 4/3/2017 Soil		A-49A 4/5/2017 Soil		A-49B 4/5/2017 Soil		A-49C 4/5/2017 Soil		A-52A 4/3/2017 Soil		A-52B 4/3/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg	
1,1,1-Trichloroethane	0.68	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,1-Dichloroethane	0.27	26	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,1-Dichloroethylene	0.33	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,2,4-Trimethylbenzene	3.6	52	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,2-Dichlorobenzene	1.1	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,2-Dichloroethane	0.02	3.1	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,3,5-Trimethylbenzene	8.4	52	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,3-Dichlorobenzene	2.4	49	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,4-Dichlorobenzene	1.8	13	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
1,4-Dioxane	0.1	13	0.0520	U	0.0490	U	NT		0.0670	U	0.0580	U	NT		0.0630	U	0.0740	U	NT		0.0560	U	0.0700	U
2-Butanone	0.12	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Acetone	0.05	100	0.0052	U	0.0049	U	NT		0.0067	U	0.0058	U	NT		0.0220		0.0230		NT		0.0056	U	0.0070	U
Benzene	0.06	4.8	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Carbon tetrachloride	0.76	2.4	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Chlorobenzene	1.1	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Chloroform	0.37	49	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
cis-1,2-Dichloroethylene	0.25	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Ethyl Benzene	1	41	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Methylene chloride	0.05	100	0.0052	U	0.0049	U	NT		0.0067	U	0.0058	U	NT		0.0063	U	0.0074	U	NT		0.0056	U	0.0070	U
Naphthalene	12	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
n-Butylbenzene	12	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
n-Propylbenzene	3.9	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
o-Xylene	~	~	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
p- & m- Xylenes	~	~	0.0052	U	0.0049	U	NT		0.0067	U	0.0058	U	NT		0.0063	U	0.0074	U	NT		0.0056	U	0.0070	U
sec-Butylbenzene	11	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
tert-Butylbenzene	5.9	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Tetrachloroethylene	1.3	19	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Toluene	0.7	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
trans-1,2-Dichloroethylene	0.19	100	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Trichloroethylene	0.47	21	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Vinyl Chloride	0.02	0.9	0.0026	U	0.0024	U	NT		0.0033	U	0.0029	U	NT		0.0031	U	0.0037	U	NT		0.0028	U	0.0035	U
Xylenes, Total	0.26	100	0.0079	U	0.0073	U	NT		0.0100	U	0.0087	U	NT		0.0094	U	0.0110	U	NT		0.0083	U	0.0110	U
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
2-Methylphenol	0.33	100	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0501	U	NT		NT	
3- & 4-Methylphenols	~	~	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0501	U	NT		NT	
Acenaphthene	20	100	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.146	D	NT		NT	
Acenaphthylene	100	100	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0501	U	NT		NT	
Anthracene	100	100	NT		NT		0.0651	JD	NT		NT		0.0499	U	NT		NT		0.279	D	NT		NT	
Benzo(a)anthracene	1	1	NT		NT		0.172	D	NT		NT		0.0499	U	NT		NT		0.366	D	NT		NT	
Benzo(a)pyrene	1	1	NT		NT		0.181	D	NT		NT		0.0499	U	NT		NT		0.556	D	NT		NT	
Benzo(b)fluoranthene	1	1	NT		NT		0.115	D	NT		NT		0.0499	U	NT		NT		0.233	D	NT		NT	
Benzo(g,h,i)perylene	100	100	NT		NT		0.0972	JD	NT		NT		0.0499	U	NT		NT		0.155	D	NT		NT	
Benzo(k)fluoranthene	0.8	3.9	NT		NT		0.177	D	NT		NT		0.0499	U	NT		NT		0.285	D	NT		NT	
Chrysene	1	3.9	NT		NT		0.190	D	NT		NT		0.0499	U	NT		NT		0.367	D	NT		NT	
Dibenzo(a,h)anthracene	0.33	0.33	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0704	JD	NT		NT	
Dibenzofuran	7	59	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0839	JD	NT		NT	
Fluoranthene	100	100	NT		NT		0.375	D	NT		NT		0.0499	U	NT		NT		0.907	D	NT		NT	
Fluorene	30	100	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.148	D	NT		NT	
Hexachlorobenzene	0.33	1.2	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0501	U	NT		NT	
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		NT		0.0635	JD	NT		NT		0.0499	U	NT		NT		0.150	D	NT		NT	
Naphthalene	12	100	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0863	JD	NT		NT	
Pentachlorophenol	0.8	6.7	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0501	U	NT		NT	
Phenanthrene	100	100	NT		NT		0.219	D	NT		NT		0.0499	U	NT		NT		0.876	D	NT		NT	
Phenol	0.33	100	NT		NT		0.0491	U	NT		NT		0.0499	U	NT		NT		0.0501	U	NT		NT	
Pyrene	100	100	NT		NT		0.298	D	NT		NT		0.0499	U	NT		NT		0.692	D	NT		NT	
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
4,4'-DDD	0.0033	13	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
4,4'-DDE	0.0033	8.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
4,4'-DDT	0.0033	7.9	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Aldrin	0.005	0.097	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
alpha-BHC	0.02	0.48	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
alpha-Chlordane	0.094	4.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
beta-BHC	0.036	0.36	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
delta-BHC	0.04	100	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Dieldrin	0.005	0.2	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Endosulfan I	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Endosulfan II	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Endosulfan sulfate	2.4	24	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Endrin	0.014	11	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
gamma-BHC (Lindane)	0.1	1.3	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Heptachlor	0.042	2.1	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT	
Metals, NYSDEC Part 375	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
Arsenic	13	16	NT		NT		6.06		NT		NT		5.62		NT		NT		7.020		NT		NT	
Barium	350	400	NT		NT		43.100		NT		NT		34.100		NT		NT		30.400		NT		NT	
Beryllium	7.2	72	NT		NT		0.547		NT		NT		0.486		NT		NT		0.120	U	NT		NT	
Cadmium	2.5	4.3	NT		NT		0.353	U	NT		NT		0.358	U	NT		NT		0.360	U	NT		NT	
Chromium	~	~	NT		NT		20.400		NT		NT		19.800		NT		NT		16.100		NT		NT	
Copper	50	270	NT		NT		17.100		NT		NT		16.700		NT		NT		9.760		NT		NT	
Lead	63	400	NT		NT		35.200		NT		NT		23		NT		NT		23.700		NT		NT	
Manganese	1600	2000	NT		NT		111		NT		NT		117		NT		NT		133		NT		NT	
Nickel	30	310	NT		NT		14.300		NT		NT		11		NT		NT		10.700		NT		NT	
Selenium	3.9	180	NT		NT		2.260		NT		NT		2.810		NT		NT		1.200	U	NT		NT	
Silver	2	180	NT		NT		0.588	U	NT		NT		0.597	U	NT		NT		0.600	U	NT		NT	
Zinc	109	10000	NT		NT		40.700		NT		NT		31		NT		NT		24.800		NT		NT	
Mercury	0.18	0.81	NT		NT		0.137		NT		NT		0.0993		NT		NT		0.0561		NT		NT	
Chromium, Hexavalent	1	110	NT		NT		0.588	U	NT		NT		0.597	U	NT		NT		0.600	U	NT		NT	
Chromium, Trivalent	30	180	NT		NT		20.4		NT		NT		19.8		NT		NT		16.100		NT		NT	
Cyanide, Total	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
Cyanide, total	27	27	NT		NT		0.588	U	NT		NT		0.597	U	NT		NT		0.600	U	NT		NT	
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
2,4,5-TP (Silvex)	3.8	100	NT		NT		0.0235	U	NT		NT		0.0239	U	NT		NT		0.0240	U	NT		NT	
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg					mg/Kg						mg/Kg						mg/Kg					
Aroclor 1016	~	~	NT		NT		0.0196	U	NT		NT		0.0199	U	NT		NT		0.0200	U	NT		NT	
Aroclor 1221	~	~	NT		NT		0.0196	U	NT		NT		0.0199	U	NT		NT		0.0200	U	NT		NT	
Aroclor 1232	~	~	NT		NT		0.0196	U	NT		NT		0.0199	U	NT		NT		0.0200	U	NT		NT	
Aroclor 1242	~	~	NT		NT		0.0196	U	NT		NT		0.0199	U	NT		NT		0.0200	U	NT		NT	
Aroclor 1248	~	~	NT		NT		0.0196	U	NT		NT		0.0199	U	NT		NT		0.0200	U	NT		NT	
Aroclor 1254	~	~	NT		NT		0.0196	U	NT		NT		0.0199	U	NT		NT		0.0200	U	NT		NT	
Aroclor 1260	~	~	NT		NT		0.0196	U	NT		NT		0.0199	U	NT		NT		0.0200	U	NT		NT	
Total PCBs	0.1	1	NT		NT		0.0196	U	NT		NT		0.0199	U	NT		NT		0.0200	U	NT		NT	

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte

Table 1
Stock Pile A Soil Analytical Data
1425 Old Country Road,
Plainview, NY

Compound	NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	NYSDEC Part 375 Restricted Use Soil Cleanup Objectives - Restricted Residential	Sample ID																			
			A-39B 4/3/2017 Soil		A-39C 4/3/2017 Soil		A-40A 4/3/2017 Soil		A-40B 4/3/2017 Soil		A-40C 4/3/2017 Soil		A-43A 4/3/2017 Soil		A-43B 4/3/2017 Soil		A-43C 4/3/2017 Soil		A-45A 4/3/2017 Soil		A-45B 4/3/2017 Soil		A-45C 4/3/2017 Soil	
			Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, NYSDEC Part 375 List	mg/Kg	mg/Kg	mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg				mg/Kg		mg/Kg			
1,1,1-Trichloroethane	0.68	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,1-Dichloroethane	0.27	26	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,1-Dichloroethylene	0.33	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,2,4-Trimethylbenzene	3.6	52	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,2-Dichlorobenzene	1.1	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,2-Dichloroethane	0.02	3.1	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,3,5-Trimethylbenzene	8.4	52	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,3-Dichlorobenzene	2.4	49	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,4-Dichlorobenzene	1.8	13	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
1,4-Dioxane	0.1	13	0.0510	U	NT		0.0510	U	0.0500	U	NT		0.0530	U	0.0500	U	NT		0.0510	U	0.0540	U	NT	
2-Butanone	0.12	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Acetone	0.05	100	0.0051	U	NT		0.0051	U	0.0051	JB	NT		**0.0560**	B	0.0140		NT		0.0051	U	0.0054	U	NT	
Benzene	0.06	4.8	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Carbon tetrachloride	0.76	2.4	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Chlorobenzene	1.1	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Chloroform	0.37	49	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
cis-1,2-Dichloroethylene	0.25	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Ethyl Benzene	1	41	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Methyl tert-butyl ether (MTBE)	0.93	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Methylene chloride	0.05	100	0.0051	U	NT		0.0051	U	0.0050	U	NT		0.0053	U	0.0050	U	NT		0.0051	U	0.0054	U	NT	
Naphthalene	12	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
n-Butylbenzene	12	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
n-Propylbenzene	3.9	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
o-Xylene	~	~	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
p- & m- Xylenes	~	~	0.0051	U	NT		0.0051	U	0.0050	U	NT		0.0053	U	0.0050	U	NT		0.0051	U	0.0054	U	NT	
sec-Butylbenzene	11	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
tert-Butylbenzene	5.9	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Tetrachloroethylene	1.3	19	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Toluene	0.7	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
trans-1,2-Dichloroethylene	0.19	100	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Trichloroethylene	0.47	21	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Vinyl Chloride	0.02	0.9	0.0026	U	NT		0.0025	U	0.0025	U	NT		0.0026	U	0.0025	U	NT		0.0026	U	0.0027	U	NT	
Xylenes, Total	0.26	100	0.0077	U	NT		0.0076	U	0.0075	U	NT		0.0079	U	0.0075	U	NT		0.0077	U	0.0080	U	NT	
Semi-Volatiles, NYSDEC Part 375 List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2-Methylphenol	0.33	100	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
3- & 4-Methylphenols	~	~	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Acenaphthene	20	100	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Acenaphthylene	100	100	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Anthracene	100	100	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0671	JD	NT		NT		0.0494	U
Benzo(a)anthracene	1	1	NT		0.0479	U	NT		NT		0.132	D	NT		NT		0.196	D	NT		NT		0.0494	U
Benzo(a)pyrene	1	1	NT		0.0479	U	NT		NT		0.109	D	NT		NT		0.198	D	NT		NT		0.0494	U
Benzo(b)fluoranthene	1	1	NT		0.0479	U	NT		NT		0.0904	JD	NT		NT		0.140	D	NT		NT		0.0494	U
Benzo(g,h,i)perylene	100	100	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.193	D	NT		NT		0.0494	U
Benzo(k)fluoranthene	0.8	3.9	NT		0.0479	U	NT		NT		0.124	D	NT		NT		0.202	D	NT		NT		0.0494	U
Chrysene	1	3.9	NT		0.0479	U	NT		NT		0.126	D	NT		NT		0.211	D	NT		NT		0.0494	U
Dibenzo(a,h)anthracene	0.33	0.33	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0671	JD	NT		NT		0.0494	U
Dibenzofuran	7	59	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Fluoranthene	100	100	NT		0.0649	JD	NT		NT		0.285	D	NT		NT		0.451	D	NT		NT		0.0883	JD
Fluorene	30	100	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Hexachlorobenzene	0.33	1.2	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	NT		0.0479	U	NT		NT		0.0536	JD	NT		NT		0.146	D	NT		NT		0.0494	U
Naphthalene	12	100	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Pentachlorophenol	0.8	6.7	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Phenanthrene	100	100	NT		0.0479	U	NT		NT		0.131	D	NT		NT		0.234	D	NT		NT		0.0773	JD
Phenol	0.33	100	NT		0.0479	U	NT		NT		0.0502	U	NT		NT		0.0495	U	NT		NT		0.0494	U
Pyrene	100	100	NT		0.0565	JD	NT		NT		0.195	D	NT		NT		0.361	D	NT		NT		0.0820	JD
Pesticides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
4,4'-DDD	0.0033	13	NT		0.00293	D	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDE	0.0033	8.9	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
4,4'-DDT	0.0033	7.9	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Aldrin	0.005	0.097	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-BHC	0.02	0.48	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
alpha-Chlordane	0.094	4.2	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
beta-BHC	0.036	0.36	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
delta-BHC	0.04	100	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Dieldrin	0.005	0.2	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan I	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan II	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endosulfan sulfate	2.4	24	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Endrin	0.014	11	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
gamma-BHC (Lindane)	0.1	1.3	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Heptachlor	0.042	2.1	NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U	NT		NT		0.00165	U
Metals, NYSDEC Part 375	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Arsenic	13	16	NT		4.73		NT		NT		5.59		NT		NT		5.90		NT		NT		5.29	
Barium	350	400	NT		42.500		NT		NT		50.700		NT		NT		45.700		NT		NT		30.200	
Beryllium	7.2	72	NT		0.549		NT		NT		0.548		NT		NT		0.561		NT		NT		0.544	
Cadmium	2.5	4.3	NT		0.343	U	NT		NT		0.360	U	NT		NT		0.355	U	NT		NT		0.355	U
Chromium	~	~	NT		21.100		NT		NT		19.800		NT		NT		20.300		NT		NT		20.200	
Copper	50	270	NT		10.700		NT		NT		24.300		NT		NT		14		NT		NT		12.300	
Lead	63	400	NT		10.200		NT		NT		36.900		NT		NT		26.400		NT		NT		8.340	
Manganese	1600	2000	NT		145		NT		NT		145		NT		NT		167		NT		NT		245	
Nickel	30	310	NT		12.900		NT		NT		11.900		NT		NT		11.800		NT		NT		12.900	
Selenium	3.9	180	NT		1.790		NT		NT		1.990		NT		NT		2.900		NT		NT		3.470	
Silver	2	180	NT		0.572	U	NT		NT		0.600	U	NT		NT		0.592	U	NT		NT		0.591	U
Zinc	109	10000	NT		27.800		NT		NT		52.600		NT		NT		34.300		NT		NT		25.600	
Mercury	0.18	0.81	NT		0.119		NT		NT		0.172		NT		NT		0.0603		NT		NT		0.0438	
Chromium, Hexavalent	1	110	NT		0.572	U	NT		NT		0.600	U	NT		NT		0.592	U	NT		NT		0.591	U
Chromium, Trivalent	30	180	NT		21.1		NT		NT		19.8		NT		NT		20.3		NT		NT		20.2	
Cyanide, Total	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Cyanide, total	27	27	NT		0.572	U	NT		NT		0.600	U	NT		NT		0.592	U	NT		NT		0.591	U
Herbicides, NYSDEC Part 375 Target List	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
2,4,5-TP (Silvex)	3.8	100	NT		0.0229	U	NT		NT		0.0240	U	NT		NT		0.0237	U	NT		NT		0.0237	U
Polychlorinated Biphenyls (PCB)	mg/Kg	mg/Kg			mg/Kg						mg/Kg						mg/Kg						mg/Kg	
Aroclor 1016	~	~	NT		0.0191	U	NT		NT		0.0200	U	NT		NT		0.0197	U	NT		NT		0.0197	U
Aroclor 1221	~	~	NT		0.0191	U	NT		NT		0.0200	U	NT		NT		0.0197	U	NT		NT		0.0197	U
Aroclor 1232	~	~	NT		0.0191	U	NT		NT		0.0200	U	NT		NT		0.0197	U	NT		NT		0.0197	U
Aroclor 1242	~	~	NT		0.0191	U	NT		NT		0.0200	U	NT		NT		0.0197	U	NT		NT		0.0197	U
Aroclor 1248	~	~	NT		0.0191	U	NT		NT		0.0200	U	NT		NT		0.0197	U	NT		NT		0.0197	U
Aroclor 1254	~	~	NT		0.0191	U	NT		NT		0.0200	U	NT		NT		0.0197	U	NT		NT		0.0197	U
Aroclor 1260	~	~	NT		0.0191	U	NT		NT		0.0200	U	NT		NT		0.0197	U	NT		NT		0.0197	U
Total PCBs	0.1	1	NT		0.0191	U	NT		NT		0.0200	U	NT		NT		0.0197	U	NT		NT		0.0197	U

NOTES:
Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:
D=result is from an analysis that required a dilution
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
U=analyte not detected at or above the level indicated
B=analyte found in the analysis batch blank
E=result is estimated and cannot be accurately reported due to levels encountered or interferences
P=this flag is used for pesticide and PCB (Aroclor) target compounds when there is a % difference for detected concentrations that exceed method dictated limits between the two GC columns used for analysis
NT=this indicates the analyte was not a target for this sample
~=this indicates that no regulatory limit has been established for this analyte