

December 10, 2019

Mr. Jason Pelton New York State Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau A, 12th Floor 625 Broadway Albany, New York 12233-7015

Reference: CLEAN Contract No. N6247016D9008

Contract Task Order WE13

Subject: 2018 Annual Groundwater Sampling Data Report

OU2 Volatile Organic Compound (VOC) and 1,4-Dioxane Investigation Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, New York

Dear Mr. Pelton:

On behalf of the Department of the Navy, Tetra Tech is submitting the subject document to the New York State Department of Environmental Conservation (NYSDEC) for information. This report presents validated analytical results from the OU2 groundwater monitoring program, 2018 quarterly groundwater sampling events.

If you have any questions please contact Mr. Brian Murray, NAVFAC MIDLANT, at <u>brian.s.murray@navy.mil</u> or (757) 341-0491.

Sincerely

Ernie Wu for DDB

David D. Brayack, P.E. Project Manager

Enclosures: 2018 Annual Groundwater Sampling Data Report

OU2 VOC and 1,4-Dioxane Investigation

NWIRP Bethpage, New York

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Naval Facilities Engineering Command Atlantic Norfolk, Virginia

2018 Annual Groundwater Sampling Data Report OU2 VOC and 1,4-Dioxane Investigation

Naval Weapons Industrial Reserve Plant Bethpage, New York

December 2019



2018 ANNUAL GROUNDWATER SAMPLING DATA REPORT OU2 VOC AND 1,4-DIOXANE INVESTIGATION

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT

COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
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Naval Facilities Engineering Command Mid-Atlantic
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Acronyms and Abbreviations

CLEAN Comprehensive Long-Term Environmental Action Navy

IDW Investigative-Derived Waste

μg/L Microgram per liter

NAVFAC Naval Facilities Engineering Command

NWIRP Naval Weapons Industrial Reserve Plant

OU Operable Unit

PWSCP Public Water Supply Contingency Plan

ROD Record Of Decision

US EPA United States Environmental Protection Agency

VOC Volatile Organic Compound

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1.0 Introduction

Tetra Tech has prepared this Groundwater Sampling Data Summary Report for the Naval Facilities Command (NAVFAC) Atlantic Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract Number N6247016D9008 Task Order WE13, which is part of the Navy's ongoing Environmental Restoration Program for the Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage Operable Unit (OU) 2 Site 1 off-property plume. As shown in Figure 1, NWIRP Bethpage is located in east-central Nassau County, Long Island, New York, approximately 30 miles east of New York City.

This data summary report documents the sampling and analytical testing of samples from 36 groundwater monitoring wells for Volatile Organic Compounds (VOCs) and 1,4-dioxane by Tetra Tech in July, September and October, and December 2018. This report also provides results of sampling groundwater from 13 outpost monitoring wells with analyses provided by Northrop Grumman/Arcadis. In addition, Northrop Grumman/Arcadis provides data for other groundwater and outpost monitoring wells in separate quarterly and annual reports. Detailed analysis of the groundwater data is being conducted under separate cover.

Select VOCs have been identified in groundwater at the former NWIRP Bethpage facility related to the use of chlorinated and non-chlorinated solvents at the facility. These VOCs are identified under the OU2 Record of Decision (ROD) (Navy, 2003), and the Public Water Supply Contingency Plan (PWSCP) (Arcadis, 2003). However, several other VOCs have been identified in OU2 areas that may or may not result from former NWIRP operations (e.g., toluene and Freon 113). In addition, 1,4-dioxane has been detected in OU2 groundwater, including VOC-impacted groundwater associated with the former NWIRP Bethpage. 1,4-Dioxane is most notably known for its industrial use as a stabilizer in trichloroethane. However, it is also widely used in a variety of other residential and commercial products (including dish soaps, cosmetics, shampoos, and deodorants). As a result, the 1,4-dioxane in groundwater may not be associated with industrial activities at the facility.

The objectives of this sampling are described below:

- Evaluate the extent and magnitude of VOCs contaminant migration throughout the current groundwater contaminant plume (including the RE108 Area Hotspot).
- Evaluate concentration and spatial distribution of 1,4-dioxane.
- Evaluate concentration and spatial distribution of VOCs.

The locations of monitoring wells sampled as part of this effort are shown in Figure 2.

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2.0 Field Program

Field sampling events were conducted during July, September and October, and December 2018 in accordance with the Uniform Federal Policy (UFP) Sampling and Analysis Plan Addendum: Tier II Sampling and Analysis Plan, (Field Sampling Plan and Quality Assurance Project Plan) for Regional Groundwater Investigation (Tetra Tech, 2019). The sampling events included purging and sampling of monitoring wells in the quarterly groundwater sampling network.

2.1 Sampling Activities

Sampling activities included groundwater sampling at OU2 and downgradient from NWIRP Bethpage to assess VOC plume migration and attenuation. The monitoring wells sampled were selected from the existing OU2 network of wells previously sampled in 2017, and from additional monitoring wells installed under the vertical profile boring and monitoring well installation program. Groundwater well sampling locations are presented on Figure 2. Monitoring well construction details are presented in Table 1.

Groundwater sampling activities included mobilizing/demobilizing, calibrating monitoring equipment, measuring water levels, managing investigation derived waste (IDW), decontaminating field equipment, documenting field activities, documenting sample custody, and handling and shipping samples. Field instruments requiring daily calibration (e.g. multi-parameter water quality meter, and turbidity meter) were calibrated in accordance with manufacturer's guidance prior to each sampling activity.

Synoptic groundwater elevations were measured in monitoring well locations (Appendix A). Water-level measurements were completed within the shortest time on the same day. Water level measurements were recorded to the nearest 0.01 foot and referenced to a top of casing notch or north side of the well casing (if a notch is absent). Instruments were decontaminated prior to conducting each measurement.

Groundwater sampling activities were conducted in 2018. During each event, 36 groundwater monitoring wells were sampled. In addition, during the October 2018 sampling event, groundwater from recovery well RE137 was sampled. Sample log sheets are presented in Appendix B and chain of custody records are presented in Appendix C. Additional samples were collected from the monitoring wells for quality control and analysis and frequency of collection was in accordance with the Work Plan (Tetra Tech, 2019).

Each monitoring well was purged prior to sampling. A down-hole pump with highdensity polyethylene tubing was used for groundwater purging and collection activities. A bladder or centrifugal pump was used in the purging and sampling. The pump was used in combination with a continuous flow-through cell suitable for taking water quality measurements (dissolved oxygen, oxidation-reduction potential, specific conductance, pH, temperature, and turbidity). Turbidity measurements were made using a separate field turbidity meter. The samples were analyzed by Chemtech for VOCs and 1,4-dioxane.

2.2 Investigation Derived Waste

Aqueous investigative-derived waste (IDW) was generated during well sampling activities. The aqueous IDW was containerized pending waste characterization analysis. The waste was discharged via the local industrial wastewater discharge permit or transported offsite and appropriately disposed by the IDW subcontractor.

2.3 Variations from the Work Plan

Except as noted below, the 2018 groundwater sampling events were conducted in accordance with the Work Plan.

- The pilot study groundwater recovery well RE137 was sampled. RE137 is screened from 625 to 750 feet below ground surface. To evaluate potential stratification of VOC-impacted groundwater within the well, groundwater samples were collected at 640 feet, 700 feet and 745 feet below ground surface.
- Prior to 2018, the groundwater monitoring wells were normally sampled with a bladder pump and drop tube that extended to the screen interval. During the October 2018 groundwater sampling event, the use of a centrifugal pump and drop tube that allowed higher purge rates was evaluated on groundwater monitoring wells RE122D1, RE122D2 and RE122D3. Based on the evaluation that indicated no significant difference in the results, centrifugal pumps and higher purge rates were used on subsequent sampling events (see Appendix D).
- In accordance with the Sampling and Analysis Plan, all the groundwater samples were analyzed for 1,4-dioxane using Method 8270D SIM (Tetra Tech, 2018).
 During each event, several monitoring wells were also analyzed for 1,4-dioxane using Method 8260 SIM and United States Environmental Protection Agency (US EPA) Method 522. As discussed in Section 3.0, these methods did yield different results.

3.0 Results

This section provides the results of the three field sampling events conducted by Tetra Tech in 2018. During each event, 36 groundwater monitoring wells were sampled and analyzed. During one event, three groundwater samples were collected from one recovery well.

The groundwater samples were analyzed by ChemTech of Mountainside New Jersey. The sample results were validated by Validata Chemical Services, Inc of Duluth Georgia. A summary of the data validation is presented in Appendix E. No major issues were identified during this process. Validated data with qualifiers is presented in Table 2. Stabilized water quality parameters are presented in Table 3.

Overall, there were no obvious trends in the chemicals detected or concentrations during 2018. These results are summarized below.

Trichloroethene was found in 32 of 36 wells at a concentration greater than the federal maximum contaminant level of 5 µg/L. Trichloroethene groundwater concentrations in four wells associated with the RE108 Area Hotspot (RE105D2, RE108D2, RE122D2, and RE137) were greater than 1,000 micrograms per liter (µg/L) during one or more of the 2018 sampling events, with a maximum trichloroethene concentration of 4,700 µg/L in RE122D2. Other VOCs, such as 1,1,2-trichloroethane, tetrachloroethene, and 1,1-dichloroethane were also present in these groundwater samples, but at concentrations less than 20 µg/L. Freon 113 (1,1,2-trichlorotrifluoroethane) was generally found at concentrations less than 20 µg/L, but was measured in RE131D2 and RE131D3 at concentrations ranging from 110 µg/L to 190 µg/L. The western location, depth, and chemical signature of the VOCs in these two wells suggest the presence of a separate plume.

1,4-Dioxane (via Method 8270 SIM) was found in 31 of 36 wells at a concentration greater than the United States Environmental Protection Agency Regional Screening Level of 0.46 μ g/L. None of the concentrations of 1,4-dioxane exceeded the current New York State maximum contaminant level of 50 μ g/L.

For three of the groundwater samples collected in 2018, 1,4-dioxane was also analyzed via Method 8260 SIM and US EPA 522, see Table 4. The results of the Method 8260 SIM and US EPA analysis were similar (15 μ g/L versus 12J μ g/L, 17 μ g/L versus 13J μ g/L, and 5.3 μ g/L versus 4.4J μ g/L). The corresponding results from Method 8270 SIM were 4.5 μ g/L, and 1.4 μ g/L, respectively. This comparison indicates that 1,4-dioxane results, as reported using Method 8270 SIM, are approximately 3.4 times lower than the corresponding results via Method 8260 SIM or US EPA Method 522. Under

the current MCL for 1,4-dioxane of 50 μ g/L, there is no need for action since most of the data are less than 50 μ g/L. However, if the 1,4-dioxane MCL is lowered in New York State to its proposed value of 1.0 μ g/L, then this apparent conflict in analytical methods for groundwater will need to be resolved.

Analytical results for the outpost monitoring wells sampled by Northrop Grumman/ Arcadis (BPOW 5-1 to 5.7 and BPOW 6-1 to 6-6) in May, September, and November 2018 are presented in Appendix F. Site-related VOCs were not detected in any of these outpost monitoring wells. Concentrations of 1,4-dioxane (via US EPA Method 522) ranged from not detected to a maximum of 1.4 µg/L.

Also presented in Appendix F are analytical results for VOCs and 1,4-dioxane for 30 additional wells being sampled by Northrop Grumman/Arcadis on a biannual basis (May 2018 and November and December 2018).

Detailed analysis of the groundwater data is being conducted under separate cover.

4.0 References

Arcadis, 2003. Public Water Supply Contingency Plan, NWIRP Bethpage, Bethpage New York. Melville, New York.

Navy, 1995. Record of Decision, NWIRP Bethpage, Sites 1,2,3. Bethpage, New York. May.

Navy, 2003. Record of Decision, Operable Unit 2- Groundwater, Revision 1, NWIRP Bethpage. Bethpage, New York. April.

Tetra Tech, 2019. *Tier II Sampling and Analysis Plan, (Field Sampling Plan and Quality Assurance Project Plant) for Regional Groundwater Investigation*. Bethpage, New York. May.

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TABLE 1 MONITORING WELL CONSTRUCTION SUMMARY

2018 ANNUAL OU2 GROUNDWATER INVESTIGATION NWIRP BETHPAGE, NY

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Well	Total Depth (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Sampled By
RE103D1	645	625	640	Tetra Tech
RE103D2	673	653	673	Tetra Tech
RE103D3	735	715	730	Tetra Tech
RE104D1	375	350	370	Tetra Tech
RE104D2	735	710	730	Tetra Tech
RE104D3	785	760	780	Tetra Tech
RE105D1	555	530	550	Tetra Tech
RE105D2	755	730	750	Tetra Tech
RE108D1	555	530	550	Tetra Tech
RE108D2	655	630	650	Tetra Tech
RE109D1	540	515	535	Tetra Tech
RE109D2	575	550	570	Tetra Tech
RE109D3	605	580	600	Tetra Tech
RE117D1	760	730	755	Tetra Tech
RE117D2	810	780	805	Tetra Tech
RE120D1	655	630	650	Tetra Tech
RE120D2	713	690	710	Tetra Tech
RE120D3	765	740	760	Tetra Tech
RE122D1	545	520	540	Tetra Tech
RE122D2	615	590	610	Tetra Tech
RE122D3	740	715	735	Tetra Tech
RE123D1	505	480	500	Tetra Tech
RE123D2	660	635	655	Tetra Tech
RE123D3	840	815	835	Tetra Tech
RE125D1	345	320	340	Tetra Tech
RE125D2	605	580	600	Tetra Tech
RE125D3	695	670	690	Tetra Tech
RE126D1	525	500	520	Tetra Tech
RE126D2	580	555	575	Tetra Tech
RE126D3	665	640	660	Tetra Tech
RE131D1	455	430	450	Tetra Tech
RE131D2	595	565	590	Tetra Tech
RE131D3	685	660	680	Tetra Tech
RE137	750	630	745	Tetra Tech
TT101D	350	325	345	Tetra Tech
TT101D1	595	570	590	Tetra Tech
TT101D2	765	740	760	Tetra Tech

TABLE 1 MONITORING WELL CONSTRUCTION SUMMARY

2018 ANNUAL OU2 GROUNDWATER INVESTIGATION NWIRP BETHPAGE, NY

Page 2 of 2

Well	Total Depth (ft bgs)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Sampled By
BPOW5-1	515	480	510	Arcadis
BPOW5-2	585	540	580	Arcadis
BPOW5-3	665	620	660	Arcadis
BPOW5-4	575	545	570	Arcadis
BPOW5-5	545	515	540	Arcadis
BPOW5-6	615	585	610	Arcadis
BPOW5-7	555	525	550	Arcadis
BPOW6-1	580	550	575	Arcadis
BPOW6-2	785	755	780	Arcadis
BPOW6-3	780	750	775	Arcadis
BPOW6-4	575	545	570	Arcadis
BPOW6-5	555	525	550	Arcadis
BPOW6-6	800	770	795	Arcadis

ft bgs = feet below ground surface.

ANALYTICAL DATA SUMMARY

2018 ANNUAL OU2 GROUNDWATER INVESTIGATION

NWIRP BETHPAGE, NY Page 1 of 10

LOCATION	NYSDEC GROUND- WATER GUIDANCE	RE103D1	RE103D1	RE103D1	RE103D1	RE103D2	RE103D2	RE103D2	RE103D2	RE103D3	RE103D3	RE103D3	RE104D1	RE104D1	RE104D1
SAMPLE DATE	OR STANDARD	20180712	20181003	20181003	20181205	20180712	20180712	20181003	20181205	20180712	20181003	20181205	20180713	20181003	20181206
SAMPLE CODE	VALUE (NOTE 1)	Normal	Original	Dup	Normal	Original	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
VOLATILES (UG/L)			J. I.g.			J. I.g.		110111101							110111101
1,1,1-TRICHLOROETHANE	5	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
1,1,2,2-TETRACHLOROETHANE	5	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
1,1,2-TRICHLOROETHANE	<u></u>	0.63 J	0.91 J	0.87 J	0.5 U	0.38 J	0.41 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROTRIFLUOROETHANE	5	5.1	6.5	6.4	6.1	1.4 J	1.6 J	2.5 J	1.8 J	0.95 J	2.4 J	1.8 J	1.4 J	1.3 J	1.3 J
1,1-DICHLOROETHANE	5	0.92 J	1.3 J	1.2 J	0.1 0.91 J	0.5 U	0.5 U	0.5 U	0.5 U	0.55 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHENE	5	0.92 J 4 J	4.8 J	4.8 J	4 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROBENZENE 1,2-DICHLOROETHANE	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROPROPANE	1	0.75 U	0.75 U	0.75 U		0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
·	•				0.5 U										
1,3-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	50	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-HEXANONE	50	3.8 UJ	3.8 U	3.8 U	3.8 U	3.8 UJ	3.8 UJ	3.8 U	3.8 U	3.8 UJ	3.8 U	3.8 U	3.8 UJ	3.8 U	3.8 U
4-METHYL-2-PENTANONE	NL	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
ACETONE	50	2.5 U	3.8 U	3 U	2.5 U	2.5 U	2.5 U	3.7 U	2.5 U	2.5 U	5.5 U	2.5 U	5.1 U	4.5 U	2.5 U
BENZENE	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8 J	0.5 U				
BROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	60	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	5	0.35 J	0.5 U	0.5 U	0.44 J	0.3 J	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	7	0.75 J	0.94 J	0.95 J	0.78 J	0.71 J	0.76 J	0.82 J	0.61 J	0.52 J	0.57 J	0.39 J	0.5 U	0.5 U	0.5 U
CHLOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	5	2.1 J	2 J	2.1 J	1.6 J	0.5 U	0.5 U	0.65 J	0.61 J	0.5 U	0.81 J	0.57 J	0.5 U	0.63 J	0.5 U
CIS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	5	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		0.5 U	0.5 U		0.5 U	0.5 U	
ETHYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ISOPROPYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL NL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYL TERT-BUTYL ETHER	10	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	5	0.54 J	0.5 U	0.5 U	3.4 J	0.5 U	0.5 U	0.5 U	0.5 U 0.71 J	0.5 U	0.5 U	0.5 U	0.54 J	1.2 J	2.2 J
TOLUENE	5	0.54 J	0.69 J	0.9 J 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7 T 3	0.5 U 0.44 U	0.5 U	0.5 U	0.54 J	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.44 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE TRICHLOROETHENE	 5	430	590	580	650	370	340	500	440	230	420	320	46.4	51.1	46.3
						.									•
TRICHLOROFLUOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Method 8270D (UG/L)	0.40	40.0				0.00	0.00	0.04	0.77	0.47.11	0.00	0.00	4	0.7	0.0
1,4-DIOXANE	0.46	10.6	6.8	6.8	7.7	0.89	0.93	0.61	0.77	0.47 U	0.36	0.28	4	3.7	3.6
Method 8260 SIM (UG/L)															
1,4-DIOXANE	NL														
Method 522 (UG/L)	• 6														
1,4-DIOXANE	NL														

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LOCATION	NYSDEC GROUND- WATER GUIDANCE	RE104D2	RE104D2	RE104D2	RE104D2	RE104D3	RE104D3	RE104D3	RE104D3	RE105D1	RE105D1	RE105D1	RE105D2	RE105D2	RE105D2	RE105D2
SAMPLE DATE	OR STANDARD	20180713	20181003	20181206	20181206	20180713	20181003	20181003	20181206	20180713	20180927	20181210	20180713	20180927	20181210	20181210
SAMPLE CODE	VALUE (NOTE 1)	Normal	Normal	Original	Dup	Normal	Original	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Original	Dup
VOLATILES (UG/L)																
1,1,1-TRICHLOROETHANE	5	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
1,1,2,2-TETRACHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.1 J	1.3 J	0.96 J	1 J
1,1,2-TRICHLOROTRIFLUOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3.7 J	5.3	4.1 J	7.4	15.6	16.7	16.7
1.1-DICHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2 J	2 J	1.5 J	1.4 J
1.1-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.66 J	3 J	6.2	7.9	7.6
1.2-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1.2-DICHLOROETHANE	0.6	0.99 J	0.62 J	0.75 U	0.75 U	0.75 UJ	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
1.2-DICHLOROPROPANE	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1.4-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	50	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-HEXANONE	50	3.8 UJ	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 UJ	3.8 U	3.8 U	3.8 UJ	3.8 U	3.8 U	3.8 U
4-METHYL-2-PENTANONE	NL 50	2.5 U 2.5 U	2.5 U	2.5 U	2.5 U	2.5 U 2.5 UJ	2.5 U 2.7 U	2.5 UJ	2.5 U 2.5 U	2.5 U	2.5 U	2.5 U 25 U	2.5 U 2.5 U	2.5 U	2.5 U	2.5 U
ACETONE			1.9 U	2.5 U	2.5 U		_	3.8 U		5.5 U	2.5 U			2.5 U	25 U	2.5 U
BENZENE	1 50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 UJ	0.5 UJ
CARBON DISULFIDE	60	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.9 J	2.3 J	1.6 J	1.5 J
CHLOROBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	7	3.1 J	1.7 J	1.3 J	1.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8 J	1.7 J	1.3 J	1.3 J
CHLOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	5	23	12.7	11.6	11.1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.6 J	1.3 J	0.5 U	4.2 J	3.7 J	3.6 J
CIS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	5	0.5 U	0.5 U			0.5 U	0.5 U	0.5 U		0.5 U	0.5 U		0.5 U	0.5 U		
ETHYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ISOPROPYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYL TERT-BUTYL ETHER	10	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6 J	0.34 J	0.6 J	3.4 J	3.3 J
TOLUENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	5	62.8	34	45.6	47	0.58 J	1.1 U	0.82 U	0.5 U	80.8	94.4	95.6 J+	760	1400	1600	1600
TRICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.56 J	0.5 U	0.62 U	0.5 U	0.5 U	0.5 U	9 5.6 J+	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Method 8270D (UG/L)		0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0	0.5 0
1,4-DIOXANE	0.46	0.00	0.44	0.42	0.42	0.05 U	0.05 U	0.05 U	0.05 U	5 4	2.7	4 1	5	E 0	E	F 7
	0.40	0.89	0.44	0.43	0.43	0.05 U	U.U5 U	U.UO U	U.U5 U	5.4	2.7	4 J	5	5.8	5	5.7
Method 8260 SIM (UG/L)	A 11															
1,4-DIOXANE	NL															
Method 522 (UG/L)																
1,4-DIOXANE	NL															

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LOCATION	NYSDEC GROUND- WATER GUIDANCE	RE108D1	RE108D1	RE108D1	RE108D2	RE108D2	RE108D2	RE108D2	RE108D2	RE109D1	RE109D1	RE109D1	RE109D2	RE109D2	RE109D2	RE109D3
SAMPLE DATE	OR STANDARD	20180717	20181004	20181210	20180717	20181004	20181004	20181210	20181210	20180716	20181005	20181206	20180716	20181005	20181206	20180716
SAMPLE CODE	VALUE (NOTE 1)	Normal	Normal	Normal	Normal	Original	Dup	Original	Dup	Normal						
VOLATILES (UG/L)																
1,1,1-TRICHLOROETHANE	5	0.75 U	0.75 U	0.75 U	0.65 J	7.5 U	0.72 J	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
1,1,2,2-TETRACHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	1	0.5 U	0.5 U	0.5 U	1.5 J+	5 U	1.6 J	1.3 J	1.3 J	0.5 U						
1.1.2-TRICHLOROTRIFLUOROETHANE	5	0.5 U	0.5 U	0.5 U	2.8 J	5 U	2.3 J	5.9	5.8	0.5 U	0.76 J	0.63 J	0.57 J	0.92 J	1.2 J	0.95 J
1.1-DICHLOROETHANE	5	0.5 U	0.5 U	0.5 U	4 J	5 U	5	3.5 J	3.6 J	0.5 U						
1,1-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	4.2 J	5 U	3.9 J	5.4	5.6	0.5 U						
1,2-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.6	0.75 U	0.75 U	0.75 U	0.75 U	7.5 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
1,2-DICHLOROPROPANE	1	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1.3-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	50	2.5 U	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-HEXANONE	50	3.8 U	3.8 U	3.8 U	3.8 U	37.5 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
4-METHYL-2-PENTANONE	NL	2.5 U	2.5 U	2.5 U	2.5 U	25 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
ACETONE	50	2.5 U	2.7 U	2.5 U	4.8 U	25 U	5.1 U	2.5 U	2.5 U	2.5 U	4.2 U	2.5 U	4.8 U	5.6 U	2.5 U	3.6 U
BENZENE	1	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	50	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 UJ	0.5 UJ	0.5 U						
CARBON DISULFIDE	60	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	5	0.5 U	0.5 U	0.5 U	1 J	5 U	0.71 J	1.1 J	1.1 J	0.5 U						
CHLOROBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	7	0.5 U	0.5 U	0.5 U	2.9 J	5 U	3.1 J	2.5 J	2.5 J	0.5 U						
CHLOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	5.9	5 U	2.4 J	7.5	7.3	0.5 U						
CIS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	5	0.5 U	0.5 U		0.5 U	5 U	0.5 U			0.5 U	0.5 U		0.5 U	0.5 U		0.5 U
ETHYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ISOPROPYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	10	1 U	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYL TERT-BUTYL ETHER	10	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	5	0.5 U	0.5 U	1.4 J	0.5 U	5 U	0.5 U	3.5 J	3.4 J	0.5 U	0.43 J	0.5 U	0.5 U	0.5 U	0.44 J	0.5 U
TOLUENE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	5	22.2	25.1	34.3	1500	800	890	2600	2600	20.4	26.5	22.4	25.3	32.2	33.8	32.5
TRICHLOROFLUOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	2	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Method 8270D (UG/L)																
1,4-DIOXANE	0.46	3.9	3.6	2.8	4.3	3.6	3.7	3	2.9	2.9	3	2.9	3	3	3	3.7
Method 8260 SIM (UG/L)																
1,4-DIOXANE	NL															
Method 522 (UG/L)																
1,4-DIOXANE	NL															

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LOCATION	NYSDEC GROUND- WATER GUIDANCE	RE109D3	RE109D3	RE117D1	RE117D1	RE117D1	RE117D2	RE117D2	RE117D2	RE120D1	RE120D1	RE120D1	RE120D1	RE120D2	RE120D2
SAMPLE DATE	OR STANDARD	20181005	20181206	20180716	20180926	20181204	20180716	20180926	20181204	20180711	20180711	20181002	20181205	20180711	20181002
SAMPLE CODE	VALUE (NOTE 1)	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Original	Dup	Normal	Normal	Normal	Normal
VOLATILES (UG/L)															
1,1,1-TRICHLOROETHANE	5	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.69 J	0.76 J	0.75 U	0.75 U	0.75 U	0.75 U
1,1,2,2-TETRACHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1.1.2-TRICHLOROETHANE	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.99 J	0.94 J	1 J	0.74 J	0.5 U	0.56 J
1,1,2-TRICHLOROTRIFLUOROETHANE	5	2.7 J	2.5 J	0.5 U	12.8	14.5	18	15.3	14.1	12.6					
1,1-DICHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 J	2 J	2.3 J	1.4 J	0.88 J	1 J
1,1-DICHLOROETHENE	5	0.64 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.5	9.3	12.1	8.8	4.2 J	4.1 J
1,2-DICHLOROBENZENE	3	0.04 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.6	0.5 U	0.5 U	0.75 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.75 U	0.75 U	0.5 U
·	1	0.75 U						0.75 U	0.75 U	0.75 U		0.75 U	0.75 U	0.75 U	
1,2-DICHLOROPROPANE	· ·		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U				0.5 U				0.5 U
1,3-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	50	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-HEXANONE	50	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
4-METHYL-2-PENTANONE	NL	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
ACETONE	50	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.1 U	2.4 U	2.5 U	2.5 U	2.4 U	4.5 U
BENZENE	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	60	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	5	0.8 J	0.57 J	0.5 U	0.47 J	0.49 J	0.53 J	0.46 J	0.63 J	0.58 J					
CHLOROBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.67 J	0.73 J	0.71 J	0.54 J	0.68 J	0.69 J
CHLOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	5	1 J	0.89 J	0.5 U	3.3 J	3.5 J	3.7 J	2.9 J	3.6 J	3 J					
CIS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	5	0.5 U		0.5 U	0.5 U		0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		0.5 U	0.5 U
ETHYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ISOPROPYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYL TERT-BUTYL ETHER	10	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	5	0.5 U	0.72 J	0.5 U	0.48 J	0.44 J	0.93 J	3.1 J	1.1 J	0.78 J					
TOLUENE	5	0.5 U	0.72 J	0.5 U	0.46 J	0.44 J	0.93 J	0.5 U	0.5 U	0.76 J					
TRANS-1,2-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	5	71.3	59.3	8.2	15.5	33.5	0.5 U	0.5 U	0.5 U 0.52 J	620	610	740	810	600	520
TRICHLOROFLUOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Method 8270D (UG/L) 1,4-DIOXANE	0.46	4.4	2.5	0.05 U	0.2	_	7.0	0.4	E 4	E 4					
· ·	0.40	4.1	3.5	0.05 0	0.05 0	0.05 0	0.05 0	0.05 0	0.05 0	8.3	8	7.3	9.1	5.4	5.1
Method 8260 SIM (UG/L)	.														
1,4-DIOXANE	NL														
Method 522 (UG/L)	. "														
1,4-DIOXANE	NL														

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LOCATION	NYSDEC GROUND- WATER GUIDANCE	RE120D2	RE120D3	RE120D3	RE120D3	RE120D3	RE122D1	RE122D1	** RE122D1	RE122D1	RE122D2	RE122D2	** RE122D2	RE122D2	RE122D3	RE122D3	** RE122D3	RE122D3
SAMPLE DATE	OR STANDARD	20181205	20180711	20181002	20181205	20181205	20180712	20181004	20181004	20181206	20180712	20181004	20181004	20181206	20180712	20181004	20181004	20181206
SAMPLE CODE	VALUE (NOTE 1)	Normal	Normal	Normal	Original	Dup	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
VOLATILES (UG/L)																		
1,1,1-TRICHLOROETHANE	5	0.75 U	3.8 U	3.8 U	0.75 U	0.75 U	75 U	30 ∪	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U					
1,1,2,2-TETRACHLOROETHANE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 ∪	20 ∪	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
1,1,2-TRICHLOROETHANE	1	0.43 J	0.5 U	2.5 U	2.5 U	0.5 U	2.5 J	50 U	20 U	1.3 J	0.5 U	0.5 U	0.5 U	0.5 U				
1,1,2-TRICHLOROTRIFLUOROETHANE	5	10	0.67 J	1.1 J	0.88 J	0.87 J	2.8 J	3.7 J	5.6 J	3.7 J	12.9	50 U	20 U	10.3	0.5 U	0.5 U	0.5 U	0.5 U
1,1-DICHLOROETHANE	5	0.78 J	0.5 U	2.5 U	2.5 U	0.5 U	1.2 J	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U				
1.1-DICHLOROETHENE	5	3.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.71 J	2.5 U	2.5 U	0.88 J	5.3	50 U	20 U	4.8 J	0.5 U	0.5 U	0.5 U	0.5 U
1.2-DICHLOROBENZENE	3	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
1,2-DICHLOROETHANE	0.6	0.75 U	3.8 U	3.8 U	0.75 U	0.75 U	75 U	30 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U					
1,2-DICHLOROPROPANE	1	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
1,3-DICHLOROBENZENE	3	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
1,4-DICHLOROBENZENE	3	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
2-BUTANONE	50	2.5 U	12.5 U	12.5 U	2.5 U	2.5 U	250 U	100 U	2.5 U	4.2 U	2.6 J	2.5 U	2.5 U					
2-HEXANONE	50	3.8 U	3.8 UJ	18.8 U	18.8 U	3.8 U	3.8 UJ	380 U	150 U	3.8 U	3.8 UJ	3.8 U	3.8 U	3.8 U				
4-METHYL-2-PENTANONE	NL	2.5 U	12.5 U	12.5 U	2.5 U	2.5 U	250 U	100 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U					
ACETONE	50	2.5 U	2.2 U	5 U	2.5 U	2.5 UJ	2.5 U	7.7 U	6.5 U	2.5 U	5.9 U	250 U	100 U	2.5 U	6.3 U	2.5 U	2.5 U	2.5 U
BENZENE	1	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
BROMODICHLOROMETHANE	50	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
BROMOFORM	50	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
BROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	60	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CARBON TETRACHLORIDE	5	0.44 J	0.5 U	0.5 U	0.5 U	0.5 U	0.55 J	2.5 U	2.5 U	0.5 U	2.8 J	50 U	20 U	1.5 J	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROBENZENE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CHLORODIBROMOMETHANE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CHLOROETHANE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CHLOROFORM	7	0.53 J	0.5 U	0.5 U	0.5 U	0.5 U	0.6 J	2.5 U	2.5 U	0.5 U	2.8 J	50 U	20 U	1.4 J	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROMETHANE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CIS-1,2-DICHLOROETHENE	5	2.2 J	0.5 U	3 J	3.5 J	2.4 J	5.8	50 U	20 U	3.5 J	0.5 U	0.5 U	0.5 U	0.5 U				
CIS-1,3-DICHLOROPROPENE	0.4	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
DICHLORODIFLUOROMETHANE	5		0.5 U	0.5 U			0.5 U	2.5 U	2.5 U		0.5 U	50 U	20 U		0.5 U	0.5 U	0.5 U	
ETHYLBENZENE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
ISOPROPYLBENZENE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
M+P-XYLENES	10	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U	100 U	40 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
METHYL TERT-BUTYL ETHER	10	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
METHYLENE CHLORIDE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
O-XYLENE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
STYRENE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
TETRACHLOROETHENE	5	2.7 J	0.5 U	0.5 U	0.5 U	0.5 U	0.27 J	2.5 U	2.3 J	1.8 J	0.85 J	50 U	20 U	3.1 J	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
TRANS-1,2-DICHLOROETHENE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
TRANS-1,3-DICHLOROPROPENE	0.4	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
TRICHLOROETHENE	5	520	23.4	35	29.5	28.1	250	400	670	470	3700	4700	4400	3100	9	4.1 U	1.4 J	4.4 J
TRICHLOROFLUOROMETHANE	5	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
VINYL CHLORIDE	2	0.5 U	2.5 U	2.5 U	0.5 U	0.5 U	50 U	20 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
Method 8270D (UG/L)																		
1,4-DIOXANE	0.46	4.8	0.25 U	0.3	0.25	0.24	4.2	3.9	3.5	3.1	7.4	5.1	5	3.4	0.05 U	0.05 U	0.05 U	0.05 U
Method 8260 SIM (UG/L)																		
1,4-DIOXANE	NL																	
Method 522 (UG/L)	·																	
1,4-DIOXANE	NL																	

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LOCATION	NYSDEC GROUND- WATER GUIDANCE	RE123D1	RE123D1	RE123D1	RE123D2	RE123D2	RE123D2	RE123D3	RE123D3	RE123D3	RE125D1	RE125D1	RE125D1	RE125D2	RE125D2	RE125D2	RE125D2	RE125D3
SAMPLE DATE	OR STANDARD	20180718	20181009	20181207	20180718	20181008	20181207	20180718	20181008	20181207	20180711	20181001	20181204	20180711	20180711	20181001	20181204	20180711
SAMPLE CODE	VALUE (NOTE 1)	Normal	Original	Dup	Normal	Normal	Normal											
VOLATILES (UG/L)																		
1,1,1-TRICHLOROETHANE	5	0.75 U	0.42 J	0.44 J	0.75 U	0.75 U	0.75 U											
1,1,2,2-TETRACHLOROETHANE	5	0.5 U																
1,1,2-TRICHLOROETHANE	1	0.5 U	0.5 J	0.5 U	0.5 U													
1,1,2-TRICHLOROTRIFLUOROETHANE	5	0.5 U	6.2	6	9.3	8.3	9	11.8	18	11.8								
1,1-DICHLOROETHANE	5	0.5 U	1.7 J	1.6 J	1.5 J	0.5 U	0.81 J	0.9 J	0.5 U	0.5 U								
1,1-DICHLOROETHENE	5	0.5 U	1.9 J	1.7 J	2.2 J	4.1 J	4.4 J	5.8	5.4	0.5 U								
1,2-DICHLOROBENZENE	3	0.5 U																
1,2-DICHLOROETHANE	0.6	0.75 U																
1,2-DICHLOROPROPANE	1	0.5 U																
1,3-DICHLOROBENZENE	3	0.5 U																
1,4-DICHLOROBENZENE	3	0.5 U																
2-BUTANONE	50	2.5 U																
2-HEXANONE	50	3.8 U																
4-METHYL-2-PENTANONE	NL	2.5 U																
ACETONE	50	4.3 U	2.5 U	2.5 U	2.5 U	5.7 U	2.5 U	3.3 U	1.5 U	2.5 U	2.6 U	2.5 U	4.9 J	2.4 U	2.5 U	4.4 U	2.5 U	2.6 U
BENZENE	1	0.5 U																
BROMODICHLOROMETHANE	50	0.5 U																
BROMOFORM	50	0.5 U																
BROMOMETHANE	5	0.5 U																
CARBON DISULFIDE	60	0.5 U																
CARBON TETRACHLORIDE	5	0.5 U	0.25 J	0.5 U	0.5 U	0.36 J	0.36 J	0.5 U	0.5 U	0.24 J								
CHLOROBENZENE	5	0.5 U																
CHLORODIBROMOMETHANE	5	0.5 U																
CHLOROETHANE	5	0.5 U																
CHLOROFORM	7	0.5 U	0.91 J	0.88 J	0.69 J	0.49 J	0.54 J	0.53 J	0.5 U	0.37 J								
CHLOROMETHANE	5	0.5 U																
CIS-1,2-DICHLOROETHENE	5	0.5 U	4.6 J	4.3 J	4.2 J	4.2 J	4.4 J	4.7 J	4.3 J	1.5 J								
CIS-1,3-DICHLOROPROPENE	0.4	0.5 U																
DICHLORODIFLUOROMETHANE	5	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U		0.5 U									
ETHYLBENZENE	5	0.5 U																
ISOPROPYLBENZENE	5	0.5 U																
M+P-XYLENES	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL	0.5 U																
METHYL TERT-BUTYL ETHER	10	0.5 U	0.51 J	0.58 J	0.39 J	0.5 U												
METHYLENE CHLORIDE	5	0.5 U																
O-XYLENE	5	0.5 U																
STYRENE	5	0.5 U																
TETRACHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U	0.86 J	1.5 J	0.5 U	0.5 U	0.3 J	2.4 J	2.4 J	7.4	0.37 J	0.35 J	0.4 J	4.5 J	0.5 U
TOLUENE	5	0.5 U																
TRANS-1,2-DICHLOROETHENE	5	0.5 U																
TRANS-1,3-DICHLOROPROPENE	0.4	0.5 U																
TRICHLOROETHENE	5	5.7	7.9	9	1.6 J	2.6 U	1.8 J	0.95 J	0.48 U	0.5 U	140	130	170	120	120	160	220	52.3
TRICHLOROFLUOROMETHANE	5	0.5 U																
VINYL CHLORIDE	2	0.5 U																
Method 8270D (UG/L)																		
1,4-DIOXANE	0.46	2.7	1.9	0.05 U	0.55	0.41	0.38	0.05 UJ	0.27	0.05 U	5.6	7.8	7.2	6.6	6.7	7.3	7.8	2.2
Method 8260 SIM (UG/L)																		
1,4-DIOXANE	NL																	
Method 522 (UG/L)																		
1,4-DIOXANE	NL																	

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LOCATION	NYSDEC GROUND- WATER GUIDANCE	RE125D3	RE125D3	RE126D1	RE126D1	RE126D1	RE126D2	RE126D2	RE126D2	RE126D2	RE126D2	RE126D3	RE126D3	RE126D3	RE131D1	RE131D1	RE131D1	RE131D2
SAMPLE DATE	OR STANDARD	20181001	20181204	20180717	20181008	20181207	20180717	20180717	20181008	20181008	20181207	20180717	20181008	20181207	20180710	20180927	20181205	20180710
SAMPLE CODE	VALUE (NOTE 1)	Normal	Normal	Normal	Normal	Normal	Original	Dup	Original	Dup	Normal							
VOLATILES (UG/L)																		
1,1,1-TRICHLOROETHANE	5	0.75 U	0.75 U	0.75 U	0.75 UJ	0.75 U	0.44 J	0.43 J	0.75 U	0.53 J	0.75 U							
1,1,2,2-TETRACHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	1	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.41 J+	0.4 J+	0.5 U									
1,1,2-TRICHLOROTRIFLUOROETHANE	5	27.7	37.4	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.76 J	0.79 J	0.5 U	0.5 U	0.75 J	0.5 U	2.5 J	4.1 J	3.4 J	110
1,1-DICHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	2.2 J	2.1 J	1.7 J	1.7 J	1.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.61 J	0.5 U	0.5 U
1,1-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.81 J	0.87 J	1.6 J	1.8 J	1.3 J	0.5 U	0.6 J	0.5 U	0.61 J	0.98 J	0.76 J	1.4 J
1,2-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.6	0.75 U	0.75 U	0.75 U	0.75 UJ	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
1,2-DICHLOROPROPANE	1	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	50	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2-HEXANONE	50	3.8 U	3.8 U	3.8 U	3.8 UJ	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
4-METHYL-2-PENTANONE	NL	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
ACETONE	50	4.1 U	2.5 U	2.5 U	2.5 UJ	2.5 U	4.4 U	5.4 U	2.5 U	2.5 U	2.5 U	5.4 U	4 U	2.5 U	2.7 U	2.5 U	2.5 U	2.2 U
BENZENE	1	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	50	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON DISULFIDE	60	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.42 J	0.41 J	0.78 J	0.84 J	0.5 U	0.29 J						
CHLOROBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	7	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.45 J	0.44 J	0.57 J	0.54 J	0.34 J	0.5 U	0.5 U	0.5 U	2.2 J	2.3 J	1.9 J	0.39 J
CHLOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	5	2 J	1.6 J	0.5 U	0.5 UJ	0.5 U	21.8	21.3	1.8 J	1.7 J	1.6 J	0.5 U	0.5 U	0.5 U	4.9 J	5.5	4.7 J	4.8 J
CIS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	5	0.5 U		0.5 U	0.5 UJ		0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U		0.5 U	0.5 U		0.5 U
ETHYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ISOPROPYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	10	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
METHYL TERT-BUTYL ETHER	10	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.57 J	0.71 J	0.51 J	0.5 U
METHYLENE CHLORIDE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	5	0.68 J	3.4 J	0.32 J	0.5 UJ	1.4 J	0.5 U	0.5 U	0.42 J	0.48 J	0.86 J	1.1 J	2.4 J	4.1 J	1.6 J	6.3	13.2	2.8 J
TOLUENE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	5	130	140	35.7	36.2 J-	39.3	400	390 J-	430	430	460	3 J	5.8	5.6	88.4	150	140	44.3
TRICHLOROFLUOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	2	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Method 8270D (UG/L)																		
1,4-DIOXANE	0.46	1.9	2.2	4	3.2	2.9	3.6	3.3	2.8	3.1	2.6	1.1	1.1	1	6.5	7.1	8.5	6.1
Method 8260 SIM (UG/L)																		
1,4-DIOXANE	NL																	
Method 522 (UG/L)																		
1,4-DIOXANE	NL																	

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LOCATION	NYSDEC GROUND- WATER GUIDANCE	RE131D2	RE131D2	RE131D3	RE131D3	RE131D3	RE137- 640FT	RE137- 700FT	RE137- 745FT	TT101D	TT101D	TT101D	TT101D	TT101D1	TT101D1
SAMPLE DATE	OR STANDARD	20180927	20181205	20180710	20180927	20181205	20181009	20181009	20181009	20180710	20180928	20180928	20181212	20180710	20180928
SAMPLE CODE	VALUE (NOTE 1)	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Original	Dup	Normal	Normal	Normal
VOLATILES (UG/L)															
1,1,1-TRICHLOROETHANE	5	0.75 U	0.75 U	0.75 UJ	0.75 U	0.75 U	0.75 U	0.75 U	0.58 J	0.75 U					
1,1,2,2-TETRACHLOROETHANE	5	0.75 U	0.75 U	0.75 UJ	0.75 U	0.75 U	0.75 U	0.75 U	0.50 U	0.75 U					
1,1,2-TRICHLOROETHANE	1	0.5 U	1.8 J	2.3 J	2.3 J-	0.5 U	0.5 J	0.5 U	0.5 U	0.5 U	0.5 U				
1.1.2-TRICHLOROTRIFLUOROETHANE	5	170	180	120	160	190	33.7	51.7	2.5 J- 54.6 J-	12.8	17.7	15.2	11.7	11.3	15
1,1-DICHLOROETHANE	5	0.5 U	1.7 J	2.7 J	2.8 J-	0.95 J	1.3 J	13.2 1 J	0.74 J	1.2 J	1 J				
														6 6	_
1,1-DICHLOROETHENE	5	0.5 U	1.9 J	0.5 U	0.5 U	1.6 J	9.4	13.5	16.4 J-	3.2 J	7.5	3.4 J	2.5 J		3.5 J
1,2-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
1,2-DICHLOROETHANE	0.6	0.75 U	0.75 U	0.75 UJ	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U					
1,2-DICHLOROPROPANE	1	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
1,3-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
1,4-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
2-BUTANONE	50	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U					
2-HEXANONE	50	3.8 U	3.8 U	3.8 UJ	3.8 U	3.8 U	3.8 U	3.8 U	3.8 UJ	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
4-METHYL-2-PENTANONE	NL	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U					
ACETONE	50	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	5.8 U	2.5 U	2.5 U	4.2 U					
BENZENE	1	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
BROMODICHLOROMETHANE	50	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
BROMOFORM	50	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
BROMOMETHANE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U					
CARBON DISULFIDE	60	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CARBON TETRACHLORIDE	5	0.39 J	0.5 U	0.5 U	0.5 U	0.5 U	5.2	6	5.8 J-	0.24 J	1.6 J	0.5 U	0.5 U	1.3 J	0.5 U
CHLOROBENZENE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CHLORODIBROMOMETHANE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CHLOROETHANE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
CHLOROFORM	7	0.43 J	0.5 U	0.5 U	0.5 U	0.5 U	2.8 J	2.9 J	3.1 J-	0.58 J	1 J	0.55 J	0.51 J	1.1 J	0.57 J
CHLOROMETHANE	5	0.45 J	0.5 U	0.5 U	0.5 UJ	0.56 J	0.5 U	0.55 U	0.51 U	0.5 U	0.5 U				
CIS-1,2-DICHLOROETHENE	5	5.1	4.5 J	0.5 U	0.69 J	0.54 J	6.5	6.9	7.8 J-	3.6 J	2.4 J	3.5 J	3.1 J	2.2 J	3.5 J
CIS-1,2-DICHLOROETHENE CIS-1.3-DICHLOROPROPENE															
- ,	0.4	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
DICHLORODIFLUOROMETHANE	5	0.5 U		0.5 U	0.5 U		0.5 U	0.5 U	0.5 UJ	1.4 J	1.1 J	1.5 J		0.9 J	1.6 J
ETHYLBENZENE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
ISOPROPYLBENZENE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
M+P-XYLENES	10	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
METHYL TERT-BUTYL ETHER	10	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
METHYLENE CHLORIDE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
O-XYLENE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
STYRENE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
TETRACHLOROETHENE	5	2.9 J	10.3	0.75 J	1.5 J	4.6 J	2.3 J	4.3 J	3.7 J-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
TOLUENE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
TRANS-1,2-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
TRANS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
TRICHLOROETHENE	5	67.2	69.8	6.5	10.2	13.2	2100	3100	2900 J-	73.3	220 J	82.3 J	64.7	140	84.7
TRICHLOROFLUOROMETHANE	5	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
VINYL CHLORIDE	2	0.5 U	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U					
Method 8270D (UG/L)															
1,4-DIOXANE	0.46	6.7	6.8	1.1	1.1	1.3	4.9	5.5	4.3	4.7	4.5	5.2	4.5	4.1	6.2
Method 8260 SIM (UG/L)															
1,4-DIOXANE	NL												15		
·	145												10		
Method 522 (UG/L)															

ANALYTICAL DATA SUMMARY

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LOCATION	NYSDEC GROUND- WATER GUIDANCE	TT101D1	TT101D2	TT101D2	TT101D2
SAMPLE DATE	OR STANDARD	20181212	20180710	20180928	20181212
SAMPLE CODE	VALUE (NOTE 1)	Normal	Normal	Normal	Normal
VOLATILES (UG/L)					
1,1,1-TRICHLOROETHANE	5	0.75 U	0.45 J	0.75 U	0.75 U
1,1,2,2-TETRACHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-TRICHLOROETHANE	1	0.53 J	0.5 U	0.8 J	0.62 J
1,1,2-TRICHLOROTRIFLUOROETHANE	5	14.7	20.1	26.4	18.6
1,1-DICHLOROETHANE	5	1.1 J	1.2 J	1.3 J	0.93 J
1,1-DICHLOROETHENE	5	5.5	5.9	6.9	4.9 J
1,2-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U
1,2-DICHLOROETHANE	0.6	0.75 U	0.75 U	0.75 U	0.75 U
1,2-DICHLOROPROPANE	1	0.5 U	0.5 U	0.5 U	0.5 U
1,3-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U
1,4-DICHLOROBENZENE	3	0.5 U	0.5 U	0.5 U	0.5 U
2-BUTANONE	50	2.5 U	2.5 U	2.5 U	2.5 U
2-HEXANONE	50	3.8 U	3.8 U	3.8 U	3.8 U
4-METHYL-2-PENTANONE	NL NL	2.5 U	2.5 U	2.5 U	2.5 U
ACETONE	50	2.5 U	2.5 U	2.5 U	2.5 U
BENZENE	1	0.5 U	0.5 U	0.5 U	0.5 U
BROMODICHLOROMETHANE	50	0.5 U	0.5 U	0.5 U	0.5 U
BROMOFORM	50	0.5 U	0.5 U	0.5 U	0.5 U
BROMOMETHANE	5	0.5 UJ	0.5 U	0.5 U	0.5 UJ
CARBON DISULFIDE	60	0.5 U	0.5 U	0.5 U	0.5 U
CARBON TETRACHLORIDE	5	1.1 J	1.4 J	1.5 J	0.85 J
CHLOROBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U
CHLORODIBROMOMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U
CHLOROFORM	7	0.84 J	1 J	1 J	0.84 J
CHLOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	5	1.9 J	2.3 J	2.5 J	2.3 J
CIS-1,3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U
DICHLORODIFLUOROMETHANE	5		0.5 U	0.5 U	
ETHYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U
ISOPROPYLBENZENE	5	0.5 U	0.5 U	0.5 U	0.5 U
M+P-XYLENES	10	1 U	1 U	1 U	1 U
METHYL CYCLOHEXANE	NL	0.5 U	0.5 U	0.5 U	0.5 U
METHYL TERT-BUTYL ETHER	10	0.5 U	0.5 U	0.5 U	0.5 U
METHYLENE CHLORIDE	5	0.5 U	0.5 U	0.5 U	0.5 U
O-XYLENE	5	0.5 U	0.5 U	0.5 U	0.5 U
STYRENE	5	0.5 U	0.5 U	0.5 U	0.5 U
TETRACHLOROETHENE	5	0.32 J	1.1 J	1.4 J	1.5 J
TOLUENE	5	0.52 J	0.5 U	0.5 U	0.5 U
TRANS-1,2-DICHLOROETHENE	5	0.5 U	0.5 U	0.5 U	0.5 U
TRANS-1.3-DICHLOROPROPENE	0.4	0.5 U	0.5 U	0.5 U	0.5 U
TRICHLOROETHENE	5	190	660	870	830
TRICHLOROFLUOROMETHANE	5	0.5 U	0.5 U	0.5 U	0.5 U
VINYL CHLORIDE	2	0.5 U	0.5 U	0.5 U	0.5 U
Method 8270D (UG/L)		5.5 5	0.0 0	5.5 5	0.0 0
1,4-DIOXANE	0.46	4	1.7	1.6	1.4
Method 8260 SIM (UG/L)	27.0				
1,4-DIOXANE	NL	17			5.3
Method 522 (UG/L)	IVL				0.0
1,4-DIOXANE	NL	13 J			4.4 J+

TABLE 2 ANALYTICAL DATA SUMMARY

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- 1 = New York State Department of Environmental Conservation Division of Water Technical and Operation Guidance series. (6 NYCRR 700-706, Part 703.5 summarized in TOGS 1.1.1). Ambient water quality standards and groundwater effluent limitations, class GA.
- ** = Groundwater sample was collected using impeller pump.
- **Bold** = Exceeds NYS Groundwater Standards or guidance value.
- Dup = Field Duplicate.
- J = Estimated value. One or more quality control parameters were outside control limits or the analyte concentration was less than the limit of quantitation.
- J- = Estimated value. One or more quality control parameters were outside control limits and biased low. The result was an estimated quantity, but the result may be biased low.
- J+ = Estimated value. One or more quality control parameters were outside control limits and biased high. The result was an estimated quantity, but the result may be biased high.
- NL = Not Listed.
- U = Undetected. The parameter was analyzed but undetected at the listed limit of quantitation or was qualified as undetected during data review due to blank artifacts.
- UJ = Undetected and estimated. The analyte was analyzed but undetected at the listed limit of quantitation; one or more quality control parameters were outside control limits.

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Well	Sample Date	Sample Code	PH (S.U.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (°C)	ORP (mV)	Salinity (ppt)
RE103D1	07/12/2018	Normal	4.63	0.109	5.75	0.4	17.91	303	0
RE103D1	10/03/2018	Original	5.39	0.107	0.92	0.7	16.55	275	0
RE103D1	10/03/2018	Dup	5.39	0.107	0.92	0.7	16.55	275	0
RE103D1	12/05/2018	Normal	5.36	0.115	1.43	0.6	14.77	284	0.1
RE103D2	07/12/2018	Original	5.53	0.034	4	1	17.1	245	0
RE103D2	07/12/2018	Dup	5.53	0.034	4	1	17.1	245	0
RE103D2	10/03/2018	Normal	5.42	0.042	3.1	2.18	19.82	272	0
RE103D2	12/05/2018	Normal	4.97	0.037	2.78	0.31	14.65	337	0
RE103D3	07/12/2018	Normal	5.24	0.026	4.55	1.3	24.78	262	0
RE103D3	10/03/2018	Normal	4.73	0.033	3.83	3.22	18.49	329	0
RE103D3	12/05/2018	Normal	4.62	0.028	3.26	1.81	13.66	388	0
RE104D1	07/13/2018	Normal	4.13	0.084	6.34	0	16.79	347	0
RE104D1	10/03/2018	Normal	4.93	0.086	6.67	0.4	17.76	344	0
RE104D1	12/06/2018	Normal	4.23	0.113	3.97	0.19	13.55	382	0.1
RE104D2	07/13/2018	Normal	5.17	0.024	5.2	1.1	15.03	293	0
RE104D2	10/03/2018	Normal	5.26	0.03	5.27	1.2	15.98	315	0
RE104D2	12/06/2018	Original	5.32	0.03	4.3	0.55	14.41	299	0
RE104D2	12/06/2018	Dup	5.32	0.03	4.3	0.55	14.41	299	0
RE104D3	07/13/2018	Normal	5.05	0.014	3.88	3.8	16.75	307	0
RE104D3	10/03/2018	Normal	4.96	0.026	5.1	7.55	16.11	325	0
RE104D3	10/03/2018	Normal	4.96	0.026	5.1	7.55	16.11	325	0
RE104D3	12/06/2018	Normal	4.29	0.022	3	6.09	13.84	375	0
RE105D1	07/13/2018	Normal	4.86	0.109	1.96	1.7	17.28	318	0.1

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Well	Sample Date	Sample Code	PH (S.U.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (°C)	ORP (mV)	Salinity (ppt)
RE105D1	09/27/2018	Normal	4.98	0.105	0.74	0.6	15.74	333	0
RE105D1	12/10/2018	Normal	4.87	0.112	2.05	0.65	13.51	336	0.1
RE105D2	07/13/2018	Normal	5.17	0.064	1.98	0.6	18.43	303	0
RE105D2	09/27/2018	Normal	5.11	0.079	6.15	17.1	15.54	255	0
RE105D2	12/10/2018	Original	4.76	0.079	3.32	0.22	14.5	311	0
RE105D2	12/10/2018	Dup	4.76	0.079	3.32	0.22	14.5	311	0
RE108D1	07/17/2018	Normal	4.6	0.099	5.06	0	20.82	325	0
RE108D1	10/04/2018	Normal	5.03	0.116	5.86	1.2	19.4	311	0.1
RE108D1	12/10/2018	Normal	4.93	0.1	7.07	0.66	13.73	355	0
RE108D2	07/17/2018	Normal	4.51	0.08	2.31	0.19	22.21	323	0
RE108D2	10/04/2018	Original	5.16	0.09	6.26	1.11	19.87	304	0
RE108D2	10/04/2018	Dup	5.16	0.09	6.26	1.11	19.87	304	0
RE108D2	12/10/2018	Original	5.06	0.081	3.47	0.11	15.5	278	0
RE108D2	12/10/2018	Dup	5.06	0.081	3.47	0.11	15.5	278	0
RE109D1	07/16/2018	Normal	5.14	0.085	2.1	0	21.91	270	0
RE109D1	10/05/2018	Normal	5.03	0.099	3.92	33.6	16.84	250	0
RE109D1	12/06/2018	Normal	5.1	0.107	3.56	17.8	12.97	246	0
RE109D2	07/16/2018	Normal	5.45	0.095	2.95	24	26.93	201	0
RE109D2	10/05/2018	Normal	5.41	0.112	1.64	48.2	19.61	150	0.1
RE109D2	12/06/2018	Normal	5.06	0.095	4.87	5.06	13.27	266	0
RE109D3	07/16/2018	Normal	5.4	0.086	1.05	8	21.4	240	0
RE109D3	10/05/2018	Normal	5.32	0.086	1.96	20.1	16.64	210	0
RE109D3	12/06/2018	Normal	4.4	0.115	2.08	8.63	13.44	293	0.1

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Well	Sample Date	Sample Code	PH (S.U.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (°C)	ORP (mV)	Salinity (ppt)
RE117D1	07/16/2018	Normal	5.48	0.02	3.68	4.2	24.5	234	0
RE117D1	09/26/2018	Normal	4.3	0.027	2.67	3.73	19.53	332	0
RE117D1	12/04/2018	Normal	5.07	0.025	3.45	3.06	14.47	305	0
RE117D2	07/16/2018	Normal	5.49	0.031	0.39	0	22.44	277	0
RE117D2	09/26/2018	Normal	4.52	0.03	0.29	43.3	21.05	110	0
RE117D2	12/04/2018	Normal	6.4	0.031	0	81.6	13.43	193	0
RE120D1	07/11/2018	Original	4.65	0.116	2.5	0	19.21	326	0
RE120D1	07/11/2018	Dup	4.65	0.116	2.5	0	19.21	326	0
RE120D1	10/02/2018	Normal	5.01	0.134	2.63	2.6	19.9	308	0.1
RE120D1	12/05/2018	Normal	4.36	0.132	1.95	0.21	14.79	363	0
RE120D2	07/11/2018	Normal	5.24	0.077	3.55	0.5	18.79	302	0
RE120D2	10/02/2018	Normal	5.09	0.086	1.55	0.81	19.94	273	0
RE120D2	12/05/2018	Normal	5.37	0.087	1.97	0.79	15.05	281	0
RE120D3	07/11/2018	Normal	4.81	0.015	1.39	1.8	19.24	343	0
RE120D3	10/02/2018	Normal	4.61	0.026	1.62	1.19	19.21	368	0
RE120D3	12/05/2018	Original	3.79	0.032	1.53	8.0	14.41	420	0
RE120D3	12/05/2018	Dup	3.79	0.032	1.53	8.0	14.41	420	0
RE122D1	07/12/2018	Normal	4.87	0.096	3.56	0	19.24	316	0
RE122D1	10/04/2018	Normal	5.18	0.111	3.58	2	18.87	289	0.1
** RE122D1	10/04/2018	Normal	5.21	0.096	3.04	1.25	16	248	0
RE122D1	12/06/2018	Normal	4.44	0.126	3.06	0.6	13.8	359	0.1
RE122D2	07/12/2018	Normal	4.96	0.095	2.03	0.8	21.26	329	0
RE122D2	10/04/2018	Normal	5	0.11	2.91	0.71	24.55	306	0

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Well	Sample Date	Sample Code	PH (S.U.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (°C)	ORP (mV)	Salinity (ppt)
** RE122D2	10/04/2018	Normal	4.92	0.104	4.92	2.1	16.9	216	0
RE122D2	12/06/2018	Normal	4.58	0.107	1.83	0.24	14.03	376	0
RE122D3	07/12/2018	Normal	5.09	0.022	0.33	4.6	23.35	110	0
RE122D3	10/04/2018	Normal	4.88	0.022	0	3.08	20.38	323	0
**RE122D3	10/04/2018	Normal	4.83	0.022	1.49	3.13	16.41	256	0
RE122D3	12/06/2018	Normal	5	0.026	1.96	1.98	13.97	339	0
RE123D1	07/18/2018	Normal	5.06	0.127	6.88	1.1	16.98	318	0.1
RE123D1	10/09/2018	Normal	4.86	0.154	5.51	0.94	18.46	319	0
RE123D1	12/07/2018	Normal	4.46	0.162	6.53	0.67	13.67	383	0
RE123D2	07/18/2018	Normal	5.29	0.025	4.18	0.97	21.53	281	0
RE123D2	10/08/2018	Normal	5.32	0.031	10.52	0.51	15.56	302	0
RE123D2	12/07/2018	Normal	4.96	0.035	4.91	0.6	13.56	312	0
RE123D3	07/18/2018	Normal	5.42	0.033	1.98	0.3	20.09	-60	0
RE123D3	10/08/2018	Normal	5.72	0.045	1.13	14.6	15.59	-52	0
RE123D3	12/07/2018	Normal	5.7	0.038	0.35	9.2	12.45	41	0
RE125D1	07/11/2018	Normal	4.8	0.144	2.35	5.6	17.48	307	0.1
RE125D1	10/01/2018	Normal	4.79	0.148	0.85	1.52	19.74	330	0.1
RE125D1	12/04/2018	Normal	4.81	0.158	4.03	3.86	13.04	326	0.1
RE125D2	07/11/2018	Original	5.33	0.08	7.15	1.3	17.68	257	0
RE125D2	07/11/2018	Dup	5.33	0.08	7.15	1.3	17.68	257	0
RE125D2	10/01/2018	Normal	NA	NA	NA	NA	NA	NA	NA
RE125D2	12/04/2018	Normal	4.96	0.091	54.4	0.35	12.94	317	0
RE125D3	07/11/2018	Normal	4.65	0.052	4.94	0	21.21	312	0

2018 ANNUAL OU2 GROUNDWATER INVESTIGATION NWIRP BETHPAGE, NY Page 5 of 6

Well	Sample Date	Sample Code	PH (S.U.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (°C)	ORP (mV)	Salinity (ppt)
RE125D3	10/01/2018	Normal	5.15	0.054	5.17	4.9	18.57	279	0
RE125D3	12/04/2018	Normal	4.97	0.054	5.33	0.36	12.89	331	0
RE126D1	07/17/2018	Normal	5.3	0.096	5.29	0.8	19.84	278	0
RE126D1	10/08/2018	Normal	NA	NA	NA	NA	NA	NA	NA
RE126D1	12/07/2018	Normal	4.36	0.119	5.88	0.73	13.03	373	0.1
RE126D2	07/17/2018	Original	6.49	0.178	1.48	0.2	21.35	206	0
RE126D2	07/17/2018	Dup	6.49	0.178	1.48	0.2	21.35	206	0
RE126D2	10/08/2018	Normal	5.26	0.116	3.67	1.8	15.57	279	0.1
RE126D2	10/08/2018	Normal	5.26	0.116	3.67	1.8	15.57	279	0.1
RE126D2	12/07/2018	Normal	5.36	0.115	4.51	1.18	13.72	256	0.1
RE126D3	07/17/2018	Normal	5.16	0.036	5.24	3.2	23.3	271	0
RE126D3	10/08/2018	Normal	NA	NA	NA	NA	NA	NA	NA
RE126D3	12/07/2018	Normal	4.82	0.046	4.24	1.23	14.27	316	0
RE131D1	07/10/2018	Normal	4.68	0.112	4.84	1.23	22.93	350	0.1
RE131D1	09/27/2018	Normal	4.44	0.137	3.1	0.67	17.46	384	0.1
RE131D1	12/05/2018	Normal	4.41	0.118	2.35	5.06	13.53	362	0.1
RE131D2	07/10/2018	Normal	4.66	0.079	4.61	0.2	18.65	325	0
RE131D2	09/27/2018	Normal	5.05	0.076	4.55	1	14.72	328	0
RE131D2	12/05/2018	Normal	4.99	0.086	4.05	1.07	14	321	0
RE131D3	07/10/2018	Normal	5.26	0.041	4.68	0.7	24.09	277	0
RE131D3	09/27/2018	Normal	5.14	0.05	5.52	0.5	17.65	300	0
RE131D3	12/05/2018	Normal	12	0.054	3.75	0.68	12.81	357	0

TABLE 3 STABILIZED WATER QUALITY PARAMETERS

2018 ANNUAL OU2 GROUNDWATER INVESTIGATION NWIRP BETHPAGE, NY Page 6 of 6

Well	Sample Date	Sample Code	PH (S.U.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Temperature (°C)	ORP (mV)	Salinity (ppt)
RE137-640FT	10/09/2018	Normal	4.75	0.106	2.26	19.9	15.42	220	0
RE137-700FT	10/09/2018	Normal	4.72	0.109	2.68	10.7	15.3	263	0.1
RE137-745FT	10/09/2018	Normal	4.99	0.109	2.4	49.5	15.77	207	0.1
TT101D	07/10/2018	Normal	4.89	0.101	0	2.8	16.2	271	0
TT101D	09/28/2018	Normal	4.69	0.1	0	0.87	14.71	276	0
TT101D	09/28/2018	Normal	4.69	0.1	0	0.87	14.71	276	0
TT101D	12/12/2018	Normal	4.24	0.11	0.84	8.4	15.17	308	0.1
TT-101D1	07/10/2018	Normal	4.74	0.107	0.33	0	16.8	312	0
TT-101D1	09/28/2018	Normal	5	0.119	0	0.4	15.72	360	0.1
TT-101D1	12/12/2018	Normal	4.82	0.104	4.79	2.46	14.2	312	0
TT-101D2	07/10/2018	Normal	5.02	0.047	2.48	0.6	16.07	312	0
TT-101D2	09/28/2018	Normal	5.03	0.05	6.15	1.4	14.91	343	0
TT-101D2	12/12/2018	Normal	4.65	0.033	6.08	1.23	14.08	345	0

** = Groundwater sample was collected using centrifugal pump.

Dup = Field duplicate.
S.U. = Standard Units.

mS/cm = Micro-Siemens per centimeter.

mg/L = Milligrams per Liter.

NTU = Nephelometric Turbidity Units.

°C = Degree Celsius.

ORP = Oxidation-Reduction Potential.

mV = Millivolts.

ppt = Parts per thousand.

NA = Sample not analyzed.

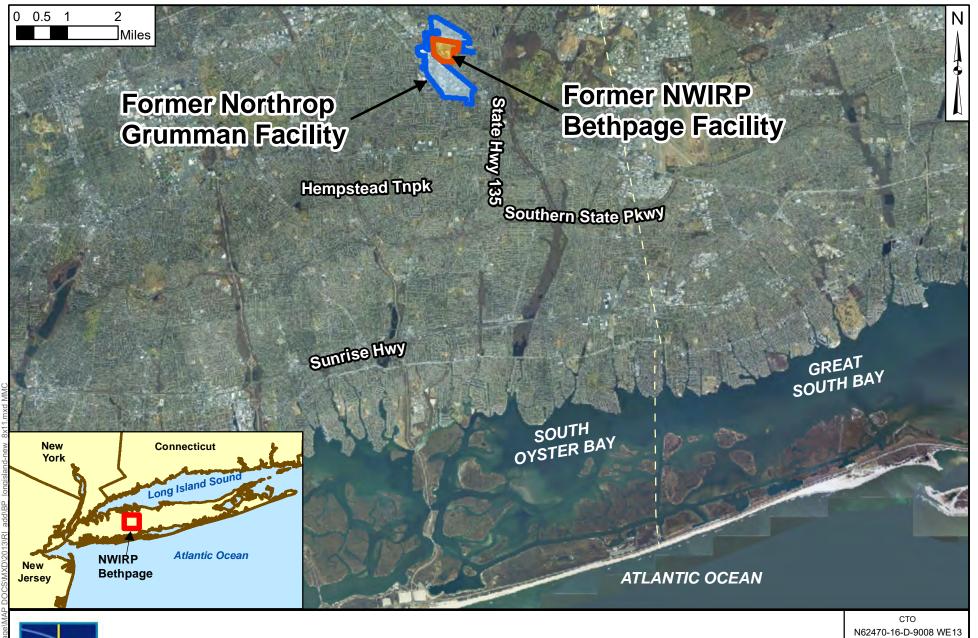
TABLE 4
COMPARISON OF DIOXANE RESULTS BY METHOD
NWIRP BETHPAGE, NY

Sample Leastion	Sample Date	1,4-Dioxane Result (micrograms per liter)							
Sample Location	Sample Date	Method 8260 SIM	EPA Method 522	Method 8270 SIM					
TT101D	12/12/2018	15	12J	4.5					
TT101D1	12/12/2018	17	13J	4					
TT101D2	12/12/2018	5.3	4.4J	1.4					

J - Estimated value. One or more quality control parameters were outside control limits or the analyte concentration was less than the limit of quantitation.

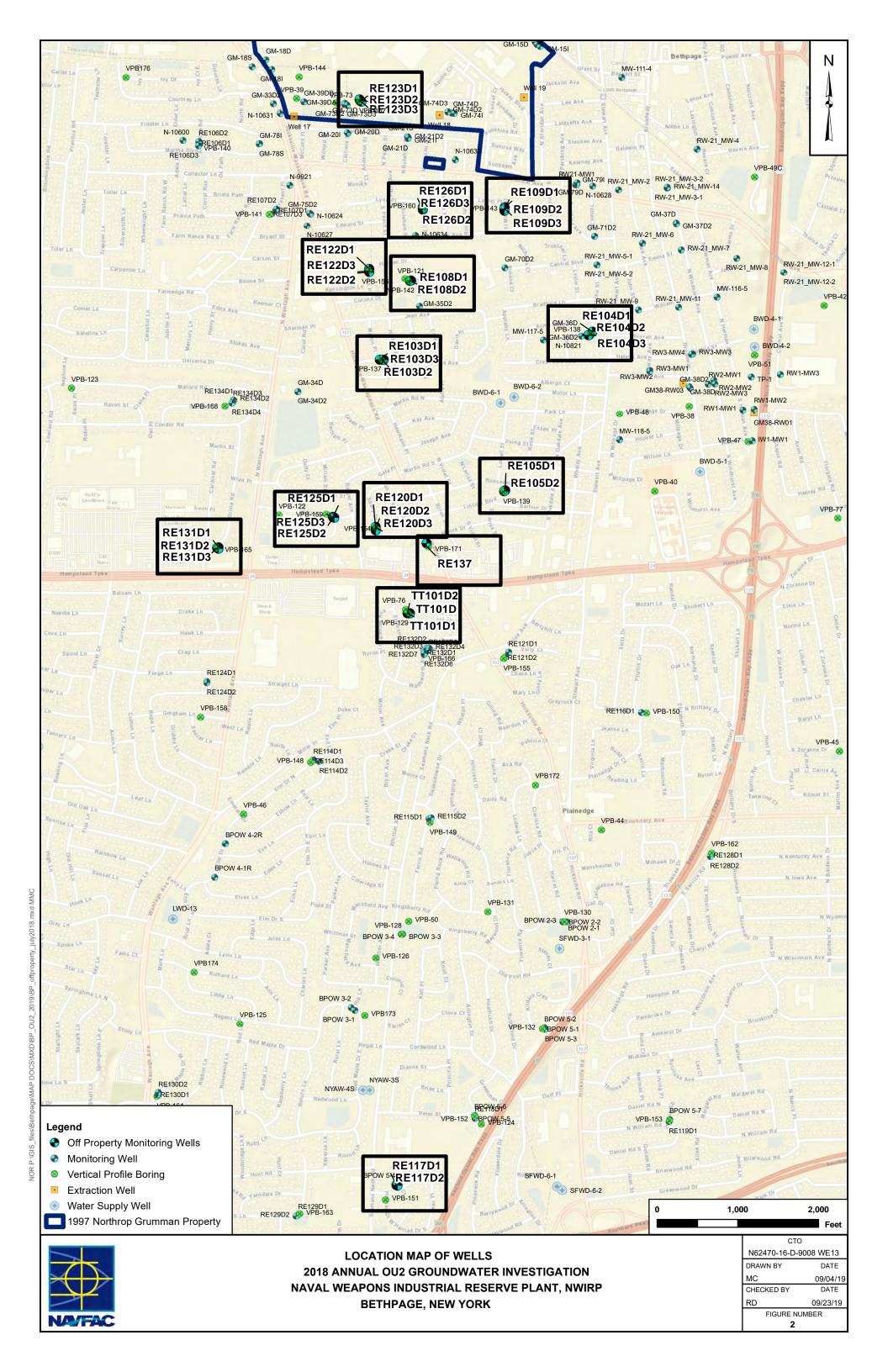
EPA – United States Environmental Protection Agency.

FIGURES



GENERAL LOCATION MAP NWIRP BETHPAGE, NEW YORK

СТ	0
N62470-16-D	-9008 WE13
DRAWN BY	DATE
MC	08/13/19
CHECKED BY	DATE
EW	08/13/19
FIGURE N	UMBER
4	



APPENDICES

APPENDIX A SYNOPTIC WATER LEVELS

TABLE 2 SYNOPTIC WATER LEVELS

2018 ANNUAL OU2 GROUNDWATER INVESTIGATION NWIRP BETHPAGE, NY Page 1 of 2

		July	Septem	ber/October	Dec	cember
Well	Date	Water Level Measurement (ft)	Date	Water Level Measurement (ft)	Date	Water Level Measurement (ft)
RE103D1	7/19/2018	42.97	10/11/2018	40.45	12/10/2018	38.63
RE103D2	7/19/2018	42.82	10/11/2018	40.25	12/10/2018	38.40
RE103D3	7/19/2018	43.02	10/11/2018	41.42	12/10/2018	38.64
RE104D1	7/19/2018	37.47	10/11/2018	36.78	12/10/2018	34.85
RE104D2	7/19/2018	43.29	10/11/2018	40.05	12/10/2018	37.47
RE104D3	7/19/2018	44.00	10/11/2018	40.33	12/10/2018	37.59
RE105D1	7/23/2018	39.98	10/11/2018	38.19	12/10/2018	35.85
RE105D2	7/19/2018	43.21	10/11/2018	39.01	12/10/2018	36.41
RE108D1	7/19/2018	42.53	10/11/2018	41.18	12/10/2018	39.53
RE108D2	7/19/2018	43.53	10/11/2018	41.62	12/10/2018	39.96
RE109D1	7/19/2018	46.63	10/11/2018	45.33	12/10/2018	43.62
RE109D2	7/19/2018	46.95	10/11/2018	45.69	12/10/2018	43.86
RE109D3	7/19/2018	46.95	10/11/2018	45.58	12/10/2018	43.82
RE117D1	7/19/2018	25.72	10/11/2018	24.45	12/10/2018	20.50
RE117D2	7/19/2018	24.41	10/11/2018	23.03	12/10/2018	19.51
RE120D1	7/23/2018	38.80	10/11/2018	36.99	12/10/2018	34.89
RE120D2	7/23/2018	38.61	10/11/2018	36.85	12/10/2018	34.66
RE120D3	7/23/2018	38.92	10/11/2018	37.26	12/10/2018	35.06
RE122D1	7/19/2018	43.92	10/11/2018	42.81	12/10/2018	41.32
RE122D2	7/19/2018	44.42	10/11/2018	43.01	12/10/2018	41.54
RE122D3	7/19/2018	45.15	10/11/2018	43.56	12/10/2018	41.97
RE123D1	7/18/2018	48.08	10/11/2018	48.32	12/10/2018	47.04
RE123D2	7/18/2018	49.25	10/11/2018	49.52	12/10/2018	48.20
RE123D3	7/18/2018	49.55	10/11/2018	49.30	12/10/2018	47.87
RE125D1	7/23/2018	35.20	10/11/2018	34.73	12/10/2018	33.17
RE125D2	7/23/2018	38.62	10/11/2018	37.04	12/10/2018	35.05
RE125D3	7/23/2018	38.90	10/11/2018	37.26	12/10/2018	33.20
RE126D1	7/19/2018	46.98	10/11/2018	46.09	12/10/2018	44.54
RE126D2	7/19/2018	47.64	10/11/2018	46.65	12/10/2018	45.11
RE126D3	7/19/2018	47.38	10/11/2018	46.36	12/10/2018	44.77

TABLE 2 SYNOPTIC WATER LEVELS

2018 ANNUAL OU2 GROUNDWATER INVESTIGATION NWIRP BETHPAGE, NY Page 2 of 2

		July	Septeml	ber/October	December		
Well	Date	(ft)		Water Level Measurement (ft)	Date	Water Level Measurement (ft)	
RE131D1	7/23/2018	37.96	10/11/2018	36.70	12/10/2018	34.81	
RE131D2	7/23/2018	38.93	10/11/2018	37.35	12/10/2018	35.29	
RE131D3	7/23/2018	39.39	10/11/2018	37.79	12/10/2018	35.68	
RE137	NA	NA	10/11/2018	36.95	NA	NA	
TT101D	7/23/2018	33.69	10/11/2018	33.30	12/10/2018	31.40	
TT101D1	7/23/2018	36.04	10/11/2018	35.00	12/10/2018	32.57	
TT101D2	7/23/2018	36.65	10/11/2018	35.50	12/10/2018	33.00	

ft = Feet.

NA = Sample not analyzed.

APPENDIX B GROUNDWATER SAMPLING LOG SHEETS



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

							• •		Vince S	nıckora	
Coor	dinates:		N	ı	E	Signature	(s):		a): -	· C · C	
			5. 54		·	. 3 -					
OBSERVA ⁻	TIONS / NOTE		tains or od	ors observe	ed durina n	ourge					
									J		
	ioxane		846 8270D			ne	2	1 L		ass	Yes
	OCs .	S	W846 8260	ОВ		CL	3	40-ml		ass	Yes
	alysis		Method		Preser	vative	Number	Vol.	Bottle '	Туре	Collected
	, PRESERVA					3.70	Ŭ. 1		000	0.0	14/1
8:55	10:05	70.00	7.0 gal	4.63	0.109	5.75	0.4	17.91	303	0.0	NA
Start Purge	End Purge	Total (min.)	(gal. / L.)	pH (S.U.)	S.C. (mS/cm)	(mg/L)	(NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Otner
			Total Vol.	nμ	S.C	DO	Turbidity	Temn	OPP	Salinity	Other
INAL DUE	GE / SAMPLI	F DATA:					<u> </u>				
10:05	41.26	375.00	Clear	4.63	0.109	5.75	0.4	17.91	303	0.0	NA
10:00	41.26	375.00	Clear	4.63	0.109	5.77	0.5	17.89	304	0.0	NA
9:55	41.26	375.00	Clear	4.63	0.108	5.80	0.6	17.90	304	0.0	NA
9:50	41.26	375.00	Clear	4.62	0.109	5.83	0.8	17.88	304	0.0	NA
9:45	41.26	375.00	Clear	4.64	0.108	6.19	0.5	17.74	307	0.0	NA
9:40	41.26	375.00	Clear	4.67	0.107	6.62	0.3	17.65	310	0.0	NA
9:35	41.26	375.00	Clear	4.67	0.107	7.01	0.0	17.62	308	0.0	NA
9:30	41.26	375.00	Clear	4.69	0.107	7.11	0.0	17.61	308	0.0	NA
9:25	41.26	375.00	Clear	4.70	0.107	7.28	0.0	17.58	307	0.0	NA
9:20	41.26	375.00	Clear	4.72	0.107	7.72	0.0	17.66	302	0.0	NA
9:10	41.26	375.00	Clear	4.74	0.107	8.88	0.0	17.82	298	0.0	NA
9:05	41.26	375.00	Clear	4.85	0.108	9.42	0.0	17.89	291	0.0	NA
9:00	41.26	375.00	Clear	4.93	0.108	10.16	0.0	17.99	283	0.0	NA
8:55	41.26	375.00	Clear	4.90	0.109	10.22	0.0	18.42	278	0.0	NA
(Hrs)	(ft-BTOR)	mL / min.	00101	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Julion
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Turbidity PURGE DA		Lamotte 20	020								
	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder			
	IT INFORMAT	-									
	Depth (ft-BT		645			Sample N	lethod:	Low Flow			
Bottom of	Screen (ft-B	TOR):	640			Purge Me	thod:	Low Flow			
Top of Sc	reen (ft-BTOF	₹):	625				tor Reading		3.5 ppm		
Well Diam		4 inch					iter Level (fi		41.29		
Well ID :	RE103D1					Purge Da	te:	07/12/18			
	ORMATION:										
	uplicate ID: Collected:	No No				Sample D		10:05			
Sample II		RE103D12	20100/12			Sampled Sample D	•	07/12/18	NUIA		
		DE400D4	20400740			Sampled By: Vince Shikora					
						Project N	U	11260800	JJ-VV L 1J		



Coordinates:

Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

olicate ID: ollected: RMATION: RE103D1 eter (in): een (ft-BTOF Screen (ft-B Depth (ft-BT INFORMAT lity Instrume leter: A: H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	4 R): TOR): OR):	625 640 645 Horiba U-5	52			Date: Time: Inte: Inter Level (filter Reading Sethod: Idethod:		40.41		
ollected: RMATION: RE103D1 eter (in): een (ft-BTOF Screen (ft-BT TINFORMAT dity Instrume leter: A: H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	4 R): TOR): OR): TION: ent: Lamotte 2 Flow mL/min. 400.00	625 640 645 Horiba U-5	52		Purge Da Static Wa PID Moni Purge Me Sample M	te: ater Level (f tor Reading ethod: //ethod:	1115 10/03/18 1-BTOR): j: Low Flow	40.41		
RMATION: RE103D1 eter (in): een (ft-BTOF Screen (ft-BT Depth (ft-BT INFORMAT lity Instrume leter: A: H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	R): TOR): OR): TON: ION: Lamotte 2 Flow mL/min. 400.00	640 645 Horiba U-5 020			Purge Da Static Wa PID Moni Purge Me Sample M	ite: ater Level (f tor Reading ethod: Method:	10/03/18 t-BTOR): : Low Flow	40.41		
RE103D1 eter (in): een (ft-BTOF Screen (ft-BT Depth (ft-BT INFORMAT lity Instrume leter: A: H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	R): TOR): OR): TON: ION: Lamotte 2 Flow mL/min. 400.00	640 645 Horiba U-5 020			Static Wa PID Moni Purge Me Sample M	ater Level (f tor Reading ethod: //ethod:	t-BTOR): : Low Flow	40.41		
eter (in): een (ft-BTOF Screen (ft-BT Depth (ft-BT TINFORMAT lity Instrume leter: A: H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	R): TOR): OR): TON: ION: Lamotte 2 Flow mL/min. 400.00	640 645 Horiba U-5 020			Static Wa PID Moni Purge Me Sample M	ater Level (f tor Reading ethod: //ethod:	t-BTOR): : Low Flow	40.41		
een (ft-BTOR Screen (ft-B' Depth (ft-BT INFORMAT lity Instrume leter: A: H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	R): TOR): OR): TON: ION: Lamotte 2 Flow mL/min. 400.00	640 645 Horiba U-5 020			PID Moni Purge Me Sample M	tor Reading ethod: //ethod:	: Low Flow	40.41		
Screen (ft-B' Depth (ft-BT INFORMAT lity Instrume leter: A: H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	TOR): OR): TON: ent: Lamotte 2 Flow mL/min. 400.00	640 645 Horiba U-5 020			Purge Me Sample M	ethod: //ethod:	Low Flow			
Depth (ft-BT INFORMAT lity Instrume leter: A: H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	OR): TION: Ent: Lamotte 2 Flow mL/min. 400.00	645 Horiba U-5 020			Sample N	lethod:				
INFORMAT lity Instrume leter: A: H ₂ 0 Level (ff-BTOR) 40.41 40.44 40.55 40.45	Flow mL/min. 400.00	Horiba U-5 020			·		Low Flow			
H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	Ent: Lamotte 2 Flow mL / min. 400.00	020			Pump Co	mtrollor.				
H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	Flow mL / min. 400.00	020			Pump Co	ntrallar.				
H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	Flow mL / min. 400.00		-11			ntroller:	Bladder			
H ₂ 0 Level (ft-BTOR) 40.41 40.44 40.55 40.45	mL / min. 400.00	Color	11							
(ft-BTOR) 40.41 40.44 40.55 40.45	mL / min. 400.00	Color								
40.41 40.44 40.55 40.45	400.00		pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp.	ORP (mV)	Salinity	Other
40.44 40.55 40.45		Class			(mg/L)		(C°)		(ppt)	NIA
40.55 40.45	400.00	Clear	5.23	0.124	8.03	3.1	16.56	264	0.1	NA
40.45		Clear	5.45	0.109	3.61	2.4	15.27	269	0.1	
	400.00	Clear	5.40	0.108	1.43	2.5	15.24	275	0.0	
40 45	400.00	Clear	5.38	0.108	1.01	2.8	15.30	278	0.0	
40.45	400.00	Clear	5.38	0.107	0.76	3.0	15.30	278	0.0	
40.62	400.00	Clear	5.38	0.107	0.70	2.8	15.26	278	0.0	
		1		1						
		t t								
		Clear	5.39	0.107	0.76	1.5	18.93	269	0.0	
		1		1		1				
						1				
		1								
				1						
		1		1						
		Clear	5.39	0.107	0.92	0.7	16.55	275	0.0	
Collect samp	ole									
- (O A BADI I	- DATA									
		Total Val		6.0	DO.	Tunk! die	Tarre	ODD	Calimiter	Cth
										Other
		13				0.7		275	0.0	
ysis	Method Preservative Number Vol. Bottle					Bottle ⁻	Гуре	Collecte		
OCs SW846 8260B		H	CL	2	40-ml	gla	ass	YES		
-Dioxane SW846 8270D SIM			no	ne	1	1 L			YES	
2112 /										
	_	0.00		4						
PI	41.36 41.50 41.59 41.60 41.63 41.67 41.69 bllect samp E/SAMPLI End Purge 11:15 RESERVAT Sis Sxane	41.15	41.15	41.15	41.15 400.00 Clear 5.40 0.106 41.23 400.00 Clear 5.39 0.107 r line issues 41.36 400.00 Clear 5.44 0.107 41.50 400.00 Clear 5.41 0.108 41.59 400.00 Clear 5.40 0.107 41.60 400.00 Clear 5.39 0.107 41.63 400.00 Clear 5.39 0.107 41.69 400.00 Clear 5.39 0.107 ollect sample 5.39 0.107 0.107 cs SMAPLE DATA: S.C. (mS/cm) (ms/cm) estance 13 5.39 0.107 RESERVATION AND BOTTLE REQUIRMENTS Sis Method Preservation cs SW846 8260B Ho exame SW846 8270D SIM no	41.15 400.00 Clear 5.40 0.106 0.66 41.23 400.00 Clear 5.39 0.107 0.76 r line issues 41.36 400.00 Clear 5.44 0.107 2.21 41.50 400.00 Clear 5.41 0.108 3.51 41.59 400.00 Clear 5.40 0.107 1.13 41.60 400.00 Clear 5.39 0.107 0.88 41.63 400.00 Clear 5.39 0.107 0.84 41.69 400.00 Clear 5.39 0.107 0.92 ollect sample E/SAMPLE DATA: End Total (min.) (gal./L.) (S.U.) (mS/cm) (mg/L) 11:15 125.00 13 5.39 0.107 0.92 RESERVATION AND BOTTLE REQUIRMENTS Sis Method Preservative Cs SW846 8260B HCL cxane SW846 8270D SIM none	41.15	41.15	41.15	41.15

Signature(s):

Chuck Meyer



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

						Project N	o.:	112G08005-WE13				
Sample ID):	RE103D1-	-20181205			Sampled	By:	Katie Gre	gory			
•	uplicate ID:					Sample D	•	12/05/18	<u> </u>			
	Collected:		NO			Sample T		1650				
	ORMATION:											
	RE103D1					Purge Da	te:	12/05/18				
Well Diam		4					ter Level (fi		38.95			
	reen (ft-BTC		625				tor Reading		0			
	f Screen (ft-		640			Purge Me		Low-flow				
	Depth (ft-B		0.0			Sample M		Low-flow				
	IT INFORMA											
Water Qua	ality Instrun	nent:	Horiba U-5	52		Pump Co	ntroller:	Centrifuga	al			
Turbidity		HACH 210	00Q			•						
PURGE DA												
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
1557	38.95											
1605	38.97	700	Clear	5.42	0.114	3.56	1.57	14.15	301	0.1		
1610	38.97	700	Clear	5.42	0.115	2.15	1.3	14.47	293	0.1		
1615	38.97	700	Clear	5.38	0.115	1.56	1.27	14.54	282	0.1		
1620	38.97	700	Clear	5.38	0.115	1.53	0.73	14.61	282	0.1		
1625	38.97	700	Clear	5.37	0.115	1.47	0.62	14.62	284	0.1		
1630	38.97	700	Clear	5.37	0.115	1.46	0.77	14.65	285	0.1		
1635	38.97	700	Clear	5.37	0.115	1.42	0.84	14.68	284	0.1		
1640	38.97	700	Clear	5.37	0.115	1.44	0.67	14.72	282	0.1		
1645	38.97	700	Clear	5.36	0.115	1.43	0.60	14.77	284	0.1		
1650	Grab samp		0.00	0.00	511.15		0.00			0		
INAL PUR	RGE / SAMP	LE DATA:						<u> </u>				
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
1600	1645	45	10	5.36	0.115	1.43	0.60	14.77	284	0.1		
	, PRESERV	ATION AND		EQUIRMEN	1		1	1				
	lysis	_	Method		Preser		Number	Vol.	Bottle 1		Collected	
)Cs		W846 8260			CI	2	40-mL		ass	yes	
1,4-Di	ioxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	r glass	yes	
	TIONS / NOT											
640-38.95	=601.05x0.	010=6.01 g	gal to purge	drop tubin	g							
Coord	inates:		N		E	Signature	(s):					
Coordinates: N E						Katie Gregory						

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Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage
Project No.: 112G08005-WE13

						Project N	o.:	112G08005-WE13				
Sample II	D:	RE103D2-	-20180712			Sampled	By:	Beau Ben	au Benfield			
QA/QC D	uplicate ID:	GW03-07	1218.	1200		Sample D	ate:	07/12/18				
MS/MSD	Collected:	NO				Sample T	ime:	10:00				
VELL INFO	ORMATION:											
Well ID:	RE103D2					Purge Da	te:	07/12/18				
Well Dian	neter (in):	4				Static Wa	ter Level (f	t-BTOR):	41.11			
Top of So	reen (ft-BTOF	₹):	653			PID Moni	tor Reading	j:	7.3			
Bottom o	f Screen (ft-B	TOR):	673			Purge Me	thod:	Low Flow				
Total Wel	I Depth (ft-BT	OR):	673			Sample N	lethod:	Low Flow				
QUIPMEN	NT INFORMAT	TON:										
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity	Meter:	Hanna fas	t tracker									
URGE DA	ATA:											
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
8:55	Start purge											
9:00	41.18	300.00	Clear	5.18	0.034	8.18	1.24	17.60	245	0.0		
9:05	41.50	300.00	Clear	5.40	0.033	6.66	1.24	17.05	261	0.0		
9:10	41.50	300.00	Clear	5.40	0.033	5.37	0.76	17.01	254	0.0		
9:15	41.85	300.00	Clear	5.42	0.032	4.68	1.59	16.95	247	0.0		
9:20	41.85	300.00	Clear	5.39	0.032	4.32	1.30	16.94	247	0.0		
9:25	41.90	300.00	Clear	5.15	0.032	4.48	0.98	16.72	252	0.0		
9:30	42.02	300.00	Clear	5.42	0.032	3.90	1.04	16.80	260	0.0		
9:35	_	300.00	Clear		_	_	_	_	_	_		
9:40	_	300.00	Clear	5.41	0.032	4.07	1.07	17.09	249	0.0		
9:45	_	300.00	Clear	5.57	0.033	3.88	1.29	17.20	245	0.0		
9:50	42.20	300.00	Clear	5.55	0.034	3.95	1.16	17.18	262	0.0		
9:55	42.20	300.00	Clear	5.53	0.034	4.00	0.97	17.10	245	0.0		
10:00	Collect samp	ole										
INAL PUF	RGE / SAMPLI	E DATA:										
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
8:55	10:00	65.00	4 gal	5.53	0.034	4.00	1.0	17.1	245	0.0		
	, PRESERVAT	TION AND E	-	QUIRMENT						_	I	
	alysis		Method		Preser		Number	Vol.	Bottle	•	Collecte	
	OCs		W846 8260			CL	3	40-ml		ass	yes	
1,4-L	Dioxane	ne SW846 8270D SIM				ne	2	1 L	gl	ass	yes	
					-		-	-	-		1	
DOFF	TIONS (NOT	-0										
DBSERVA	TIONS / NOTE	:S:										
								_		<u> La</u>		



Coordinates:

N

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Signature(s):

Beau Benfield

Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project No.: <u>112G08005-WE13</u>							
Sample I	D:	RE103D2-	-20181003			Sampled	Ву:	Beau Ben	field				
QA/QC D	uplicate ID:	No				Sample [Date:	10/03/18					
MS/MSD	Collected:	NO				Sample 1	Time:	1105					
ELL INF	ORMATION:												
Well ID :	RE103D2					Purge Da	ıte:	10/03/18					
Well Diar	neter (in):	4				Static Water Level (ft-BTOR): 40.18							
Top of So	creen (ft-BTOF	₹):	653			PID Moni	tor Reading	j:	0				
Bottom o	of Screen (ft-B	TOR):	673			Purge Method: Low Flow							
Total We	II Depth (ft-BT	OR):	673			Sample Method: Low Flow							
QUIPME	NT INFORMAT	TION:											
Water Qเ	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder					
Turbidity	Meter:	Lamotte 2	020										
URGE D	ATA:												
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other		
0900	Start purge												
0910	40.19	400.00	Clear	5.26	0.042	6.48	2.97	17.34	274	0.0			
0920	40.19	400.00	Clear	5.32	0.041	4.01	1.55	17.45	270	0.0			
0930	40.19	400.00	Clear	5.29	0.041	3.51	0.29	17.41	273	0.0			
0940	40.19	400.00	Clear	5.42	0.044	3.56	0.34	17.46	278	0.0			
0950	40.19	400.00	Clear	5.38	0.043	3.70	0.88	17.51	281	0.0			
1000	40.19	400.00	Clear	5.28	0.042	3.76	0.71	17.55	278	0.0			
1010	40.19	400.00	Clear	5.16	0.041	3.76	0.67	17.57	279	0.0			
1015	40.19	400.00	Clear	5.30	0.041	3.17	1.12	17.54	281	0.0			
1020	40.19	400.00	Clear	5.32	0.041	3.11	0.94	17.63	282	0.0			
1025	40.19	400.00	Clear	5.31	0.041	3.43	0.62	17.73	277	0.0			
1030	40.19	400.00	Clear	5.30	0.041	3.34	1.06	17.90	274	0.0			
1035	40.19	400.00	Clear	5.35	0.041	3.67	1.31	18.05	274	0.0			
1040	40.19	400.00	Clear	5.21	0.042	4.16	0.66	18.20	264	0.0			
1045	40.19	400.00	Clear	5.37	0.042	3.64	0.74	18.42	265	0.0			
1050	40.19	400.00	Clear	5.43	0.042	3.27	0.85	18.58	268	0.0			
1055	40.19	400.00	Clear	5.40	0.042	3.54	0.56	19.12	268	0.0			
1100	40.19	400.00	Clear	5.42	0.042	3.10	2.18	19.82	272	0.0			
1105	Collect samp	ole											
INAL PUI	RGE / SAMPLI	E DATA:											
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other		
0900	1105	125.00	9	5.42	0.042	3.10	2.18	19.82	272	0.0			
	S, PRESERVAT					5.10				J.0			
	alysis		Method		Preser	vative	Number	Vol.	Bottle '	Type	Collecte		
	OCs SW846 8260B		H	CL	3	40-ml	glass		YES				
	Dioxane					ne	1	1 L		ass	YES		
•													
	TIONS / NOTE	-							-				



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event: Project Site Name:

Project No.:

Sample ID	:	RE103D2-	20181205			Sampled By: CM					
QA/QC Du	plicate ID:	N/A				Sample Da	ate:	12/05/18			
MS/MSD C	collected:		NO			Sample Ti	me:	1620			
WELL INFO	RMATION:										
Well ID :	RE103D2					Purge Dat	e:	12/05/18			
Well Diam	eter (in):	4" PVC					er Level (ft-	BTOR):	38.7		
Top of Scr	een (ft-BTO		653				or Reading:		0		
	Screen (ft-E		673			Purge Met	thod:	Low-flow			
	Depth (ft-B7					Sample M		Low-flow			
EQUIPMEN	T INFORMA	TION:									
Water Qua	lity Instrum	ent:	Horiba U-5	2		Pump Cor	ntroller:	Centrifuga			
Turbidity I	Meter:	HACH 210	0Q								
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1540	38.7	1000	Clear	4.92	0.038	6.73	7.45	14.14	328	0.0	
1545	38.72	1000	Clear	5.01	0.038	3.97	3.21	14.41	331	0.0	
1550	38.72	1000	Clear	5.06	0.038	2.53	1.16	14.63	334	0.0	
1555	38.72	1000	Clear	5.01	0.038	2.6	0.79	14.66	336	0.0	
1600	38.72	1000	Clear	4.97	0.037	2.65	0.34	14.69	337	0.0	
1605	38.72	1000	Clear	4.97	0.037	2.71	0.25	14.68	337	0.0	
1610	38.72	1000	Clear	4.97	0.037	2.74	0.19	14.67	337	0.0	
1615	38.72	1000	Clear	4.97	0.037	2.78	0.31	14.65	337	0.0	
FINAL PUR	GE / SAMPL	E DATA:									
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1540	1615	35		4.97	0.037	2.78	0.31	14.65	337	0.0	
ANALYSIS,	PRESERVA	TION AND E	SOTTLE REG	UIRMENTS							
Ana	lysis		Method		Preserv	ative	Number	Vol.	Bottle 1	Гуре	Collected
VC)Cs	S	W846 8260)B	Н	HCI 2			G	lass	Yes
1,4-Di	oxane	SW	846 8270D	SIM	None 1			1-L	Ambe	er glass	Yes
OBSERVAT	IONS / NOT	EC.									
6.343	TONS / NOT	EJ.									
0.040											
0	in ata a .		VI.		-	Cian store /	۵۱.				
Coord	inates:		N	E		Signature(s):		Chuck	Meyer	
						l			- '	~ ,	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

Coordinates: N E					Scott Anderson						
Coord	dinates:		N		=	Signature	(s):		-		
OBSERVAT	TIONS / NOTE	S:									
									-		
1,4-0	Dioxane	SW	846 8270D	SIM	no	one	2	1 L	gl:	ass	yes
	OCs		W846 8260			CL	3	40-ml	1	ass	yes
	alysis		Method		Preser		Number	Vol.	Bottle		Collecte
	, PRESERVA	TION AND B		UIRMENTS				1			
1100	1200	60	8 gal	5.24	0.026	4.55	1.3	24.78	262	0.0	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity		ORP	Salinity	Other
INAL PUR	GE / SAMPLI	E DATA:									
						-	-		ļ		
12:00	42.50	250.00	Clear	5.24	0.026	4.55	1.3	24.78	262	0.0	
11:55	42.50	250.00	Clear	5.27	0.026	4.56	2.1	24.82	260	0.0	
11:50	42.50	250.00	Clear	5.32	0.026	4.66	3.0	24.98	258	0.0	
11:45	42.50	250.00	Clear	5.30	0.026	4.62	1.2	25.28	252	0.0	
11:40	42.50	250.00	Clear	5.37	0.027	4.59	1.7	25.33	251	0.0	
11:35	42.50	250.00	Clear	5.37	0.027	4.64	1.8	25.23	246	0.0	
11:30	42.50	250.00	Clear	5.37	0.028	4.82	2.4	25.15	240	0.0	
11:25	42.50	250.00	Clear	5.35	0.028	4.88	2.4	25.20	236	0.0	
11:20	42.50	250.00	Clear	5.48	0.028	5.07	3.7	25.12	230	0.0	
11:15	42.50	250.00	Clear	5.64	0.029	5.43	5.5	24.98	228	0.0	
11:10	42.50	250.00	Clear	5.87	0.029	5.89	7.7	24.87	224	0.0	
11:05	42.50	250.00	Clear	6.13	0.029	6.32	10.4 8.8	24.87	212	0.0	
(Hrs) 11:00	(ft-BTOR) 42.50	250.00	Clear	(S.U.) 6.26	0.029	(mg/L) 6.87	(NTU)	(C°) 24.65	(mV) 212	(ppt) 0.0	
Time	H ₂ 0 Level	Flow mL / min.	Color	pH (S.LL)	S.C. (mS/cm)	DO (mg/L)	Turbidity	Temp.	ORP	Salinity	Other
PURGE DA											
Turbidity	Meter:	Hanna HI	98703								
Water Qua	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
	IT INFORMAT										
	Depth (ft-BT		735			Sample M		Low Flow			
_	Screen (ft-B	•	730			Purge Me		Low Flow	3.2		
Well Diam	neter (in): reen (ft-BTOF	4	715				ter Level (ft		42.5 3.2		
	RE103D3	4				Purge Da		07/12/18	40.5		
	RMATION:										
MS/MSD (No				Sample T	ime:	12:10			
QA/QC Dı	uplicate ID:					Sample D	ate:	07/12/18			
Sample ID):	RE103D3-	20180712			Sampled	Ву:	Scott And	erson		
		Project N	0.:	112G08005-WE13							

Tt	TETRA TECH
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Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.:

Sample ID:	RE103D3-	20181003	Sampled By:	CS
QA/QC Duplicate ID:	No		Sample Date:	10/03/18
MS/MSD Collected:	NO		Sample Time:	1105
WELL INFORMATION:			-	

Well ID: RE103D3 Purge Date: 10/03/18 Well Diameter (in): Static Water Level (ft-BTOR): 39.48 Top of Screen (ft-BTOR): 715 PID Monitor Reading: 730 Bottom of Screen (ft-BTOR): Purge Method: Low Flow Total Well Depth (ft-BTOR): 735 Low Flow Sample Method:

EQUIPMENT INFORMATION:

Horiba U-52 Water Quality Instrument: **Pump Controller:** Bladder

Turbidity	Meter:										
PURGE DA	TA:										
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
0820	39.48	250	Clear	4.25	0.099	5.68	2.80	17.92	290	0.0	N/a
0830	39.50	250	Clear	4.51	0.060	5.05	1.12	17.78	298	0.0	N/a
0840	39.50	250	Clear	4.74	0.039	4.85	0.99	17.69	305	0.0	N/a
0850	39.50	250	Clear	4.70	0.034	3.95	1.54	17.83	299	0.0	N/a
9000	39.50	250	Clear	4.68	0.033	4.01	1.97	17.91	303	0.0	N/a
0910	39.50	250	Clear	4.71	0.033	3.85	1.80	18.11	308	0.0	N/a
0920	39.50	250	Clear	4.71	0.031	3.40	1.15	18.40	310	0.0	N/a
0930	39.50	250	Clear	4.71	0.032	3.25	0.85	18.64	311	0.0	N/a
0940	39.50	250	Clear	4.80	0.032	3.22	0.53	18.70	308	0.0	N/a
0945	39.50	250	Clear	4.81	0.032	3.20	0.61	18.75	306	0.0	N/a
0950	39.50	250	Clear	4.82	0.032	3.22	0.65	18.84	305	0.0	N/a
0955	39.50	250	Clear	4.84	0.032	3.25	0.89	18.99	302	0.0	N/a
1000	39.50	250	Clear	4.86	0.032	3.24	1.14	19.24	301	0.0	N/a
1005	39.50	250	Clear	4.88	0.032	3.24	1.25	19.46	299	0.0	N/a
1010	39.50	250	Clear	4.90	0.032	3.26	1.40	19.57	298	0.0	N/a
1015	39.50	450	Clear	4.87	0.033	3.33	1.91	18.30	302	0.0	N/a
1020	39.50	450	Clear	4.84	0.033	3.40	2.39	17.58	306	0.0	N/a
1025	39.51	450	Clear	4.76	0.033	3.61	2.87	17.84	312	0.0	N/a
1030	39.51	450	Clear	4.68	0.033	3.70	3.20	18.08	315	0.0	N/a
1035	39.51	450	Clear	4.68	0.033	3.80	3.07	18.30	321	0.0	N/a
1040	39.51	450	Clear	4.68	0.033	3.89	2.98	18.38	326	0.0	N/a
1045	39.51	450	Clear	4.69	0.033	3.90	2.81	18.50	326	0.0	N/a
1050	39.51	450	Clear	4.72	0.033	3.79	2.89	18.79	327	0.0	N/a
1055	39.51	450	Clear	4.72	0.033	3.80	3.04	18.51	328	0.0	N/a
1100	39.51	450	Clear	4.73	0.033	3.83	3.22	18.49	329	0.0	N/a
	GE / SAMPL										
Start	End	Total	Total Vol.	pH (S.LL)	S.C.	DO (mg/L)	Turbidity	Temp.	ORP	Salinity	Other
Purge 0820	Purge 1100	(min.) 160	(gal. / L.) ~12	(S.U.) 4.73	(mS/cm) 0.033	(mg/L) 3.83	(NTU) 3.22	(C°) 18.49	(mV) 329	(ppt) 0.0	N/a
	, PRESERVA					3.03	3.22	10.49	328	0.0	IN/a
ATALISIO	LOLINVA		O I ILL ILL	CONTINENT							

Analysis	Method	Preservative	Number	Vol.	Bottle Type	Collected
VOCs	SW846 8260B	HCL	2	40-ml	glass	YES
1,4-Dioxane	SW846 8270D SIM	none	1	1 L	glass	YES

OBSERVATIONS / NOTES:

730 - 39.48 = 690.52 x 0.010 g/ft = 6.91 gal to purge drop tubing volume

Switched out for more powerful compressor box @ 1015 to purge deepest well in cluster @ higher rate

Coordinates:	N	ш	Signature(s):	Chaic Cinici
N/a	N/a	N/a		Chris Sinisi



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.: Sampled By: RE103D3-20181205 Katie Gregory Sample ID: QA/QC Duplicate ID: No Sample Date: 12/05/18 MS/MSD Collected: Sample Time: 1520 WELL INFORMATION: Well ID: RE103D3 12/05/18 Purge Date: Static Water Level (ft-BTOR): Well Diameter (in): 38.84 715 Top of Screen (ft-BTOR): PID Monitor Reading: Bottom of Screen (ft-BTOR): 730 **Purge Method:** Low-flow Total Well Depth (ft-BTOR): Sample Method: Low-flow **EQUIPMENT INFORMATION:** Horiba U-52 Water Quality Instrument: **Pump Controller:** Centrifugal **HACH 2100Q Turbidity Meter:** PURGE DATA: Time H₂0 Level Flow Color S.C. DO Turbidity Temp. ORP Salinity Other pН (ft-BTOR) (S.U.) (mS/cm) (NTU) (Hrs) mL / min. (mg/L) (C°) (mV) (% or ppt) 1430 Start purge 700 0.028 1.43 13.18 329 0.0 1435 38.89 Clear 4.84 6.7 1440 700 4.85 0.028 2.05 13.6 350 0.0 38.89 Clear 3.9 1445 38.89 700 4.87 0.028 3.32 5.69 13.43 350 0.0 Clear 700 0.0 1450 38.89 Clear 4.8 0.028 3.23 4.87 13.7 360 1455 38.89 700 Clear 4.75 0.028 3.2 3.9 13.72 368 0.0 1500 38.89 700 Clear 4.71 0.028 3.26 3.08 13.75 376 0.0 700 0.028 1505 38.89 Clear 4.67 3.29 2.1 13.55 381 0.0 Clear 1510 38.89 700 4.65 0.028 3.26 1.88 13.66 385 0.0 1515 38.89 700 Clear 4.62 0.028 3.26 1.81 13.66 388 0.0 1520 Grab sample FINAL PURGE / SAMPLE DATA: Start Total Total Vol. Turbidity ORP (mg/L) Purge Purge (min.) (gal. / L.) (S.U.) (mS/cm) (NTU) (C°) (mV) (% or ppt) 4.62 0.028 1430 1515 45 10 3.26 1.81 13.66 388 0.0 ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Preservative Number Vol. **Bottle Type** Collected Method **VOCs** SW846 8260B **HCI** 2 40-mL Glass yes 1,4-Dioxane SW846 8270D SIM None 1-L 1 Amber glass yes **OBSERVATIONS / NOTES:** 6.9116 Signature(s): Coordinates: N Ε Katie Gregory



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

Coordinates: N E						• •		Vince S	snickora				
Coordinates: N E					Signature(s): Vince Shickora								
					31	-							
ORSEKAN	FIONS / NOTE		tains or od	ors observe	ed during p	ourge							
ODCEDVA	TIONS / NOTE	6.											
1,4-0	ioxane	SW8	846 8270D	SIM	no	ne	2	1 L	gla	ass	YES		
V	OCs	S	W846 8260	OB	H	CL	3	40-ml	gla	ass	YES		
An	alysis		Method		Preser	vative	Number	Vol.	Bottle '	Туре	Collected		
	PRESERVA												
8:55	10:00	65.00	7 gal	4.13	0.084	6.34	0.0	16.79	347	0.0	NA		
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Other		
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
INAL PUR	GE / SAMPLI	F DATA:											
10.00	37.11	375.00	Clear	4.13	0.084	0.34	0.0	10.79	347	0.0	INA		
9:55 10:00	37.11	375.00	Clear	4.12	0.084	6.39 6.34	0.0	16.77 16.79	346	0.0	NA NA		
9:50	37.11	375.00	Clear	4.12	0.084	6.48	0.0	16.80	345	0.0	NA NA		
9:45	37.11	375.00	Clear	4.12	0.084	6.59	0.0	16.86	344	0.0	NA		
9:40	37.11	375.00	Clear	4.11	0.085	6.74	0.0	16.97	343	0.0	NA NA		
9:35	37.11	375.00	Clear	4.11	0.085	6.86	0.0	17.04	341	0.0	NA		
9:30	37.11	375.00	Clear	4.11	0.085	6.93	0.0	17.11	338	0.0	NA		
9:25	37.11	375.00	Clear	4.13	0.087	7.19	0.0	17.09	336	0.0	NA		
9:20	37.11	375.00	Clear	4.20	0.086	7.38	0.0	17.18	331	0.0	NA		
9:15	37.11	375.00	Clear	4.28	0.086	7.62	0.0	17.29	324	0.0	NA		
9:10	37.11	375.00	Clear	4.35	0.085	7.87	0.0	17.24	318	0.0	NA		
9:05	37.11	375.00	Clear	4.44	0.086	8.16	0.0	17.41	310	0.0	NA		
9:00	37.11	375.00	Clear	4.53	0.090	8.42	0.0	18.05	301	0.0	NA		
8:55	37.11	375.00	Clear	4.55	0.099	8.90	0.0	18.89	299	0.0	NA		
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)			
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
PURGE DA		Lamoue 2	020										
Water Quarter Turbidity	ality Instrume	ent: Lamotte 2	Horiba U-5	02		Pump Co	ntroller:	Bladder					
	IT INFORMAT		The sile of the	-0				DII '					
	Depth (ft-BT		375			Sample N	lethod:	Low Flow					
	Screen (ft-B	- 1	370			Purge Me		Low Flow					
Top of Sc	reen (ft-BTOF	₹):	350			PID Moni	tor Reading	:	0.3 ppm				
Well Diam	neter (in):	4 inch				Static Water Level (ft-BTOR): 37.09							
Well ID:	RE104D1					Purge Da	te:	07/13/18					
VELL INFO	RMATION:												
MS/MSD	•	NO				Sample T		10:00					
	,. uplicate ID:	No	20100710			Sample Date: 07/13/18							
Sample ID: RE104D1-20180713						Sampled By: Vince Shikora							
						Project N	0	11260800	JJ-VV L 13				



Coordinates:

Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.:

						Project No.: 112G08005-WE13						
Sample II):		Sampled	Ву:	CM							
	uplicate ID:		-20181001			Sample D		10/01/18				
MS/MSD	Collected:					Sample T	ime:	1510				
WELL INFO	ORMATION:											
Well ID:	RE104D1					Purge Da	ite:	10/03/18				
Well Dian	neter (in):					Static Wa	ater Level (f	t-BTOR):	36.87			
Top of Sc	reen (ft-BTOF	₹):	350			PID Moni	tor Reading	0				
Bottom o	f Screen (ft-B	TOR):	370			Purge Me	ethod:	Low Flow				
Total Wel	I Depth (ft-BT	OR):	375			Sample N	/lethod:	Low Flow				
QUIPMEN	NT INFORMAT	TON:										
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity	Meter:	Lamotte 2	020									
PURGE DA												
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
13:05	Start purge											
13:15	36.88	400.00	Clear	5.10	0.082	6.91	1.8	18.43	299	0.0	NA	
13:25	36.87	400.00	Clear	4.89	0.084	5.48	1.0	17.23	316	0.0	NA	
13:35	36.88	400.00	Clear	4.80	0.085	7.43	0.6	16.85	327	0.0	NA	
13:45	36.88	400.00	Clear	4.73	0.086	7.40	0.7	16.58	338	0.0	NA	
13:55	36.88	400.00	Clear	4.78	0.086	7.34	0.6	16.65	340	0.0	NA	
14:05	36.88	400.00	Clear	4.82	0.086	7.07	0.6	16.54	343	0.0	NA	
14:10	36.89	400.00	Clear	4.83	0.086	7.03	0.5	16.33	345	0.0	NA	
14:15	36.89	400.00	Clear	4.85	0.086	7.07	0.5	16.49	344	0.0	NA	
14:20	36.89	400.00	Clear	4.84	0.086	7.15	0.5	16.39	345	0.0	NA	
14:30	36.89	400.00	Clear	4.86	0.086	7.02	0.5	16.99	340	0.0	NA	
14:35	36.89	400.00	Clear	4.88	0.086	6.87	0.4	16.84	342	0.0	NA	
14:40	36.89	400.00	Clear	4.88	0.086	6.95	0.4	17.36	339	0.0	NA	
14:45	36.89	400.00	Clear	4.90	0.086	6.80	0.4	17.65	338	0.0	NA	
14:50	36.89	400.00	Clear	4.91	0.086	6.95	0.5	17.39	341	0.0	NA	
14:55	36.89	400.00	Clear	4.90	0.086	6.71	0.4	16.94	342	0.0	NA	
15:00	36.89	400.00	Clear	4.92	0.086	6.61	0.4	17.66	340	0.0	NA	
15:05	36.89	400.00	Clear	4.93	0.086	6.67	0.4	17.76	344	0.0	NA	
	Collect sam											
	RGE / SAMPLI		1 =		I	I		_				
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
13:05	15:10	125.00	9	4.93	0.086	6.67	0.4	17.76	344	0.0		
	, PRESERVAT	IION AND E		QUIKMENT	Preser	votivo	Number	Vol.	Battle 1	Turno	Collecte	
	alysis OCs	0	Method W846 8260	nr.		CL	3	40-ml	Bottle			
	Dioxane		846 8270D			ne	1	1 L		ass ass	YES YES	
1, 4 -L	/IUAAIIC	3440	0-10 021 0D	CIIVI	TIC	// IC	1	1 L	gi.	a33	1E9	
)BSERVA	TIONS / NOTE	S:										
	eded to be r		m the tubing	g prior to 5	minut read	dings 370	- 36.87 = 3	333.13 x 0.	010 = 3.31	gallons		
			•			-				-		

Signature(s):

Chuck Meyer



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

_						Project No	o.:	112G08005-WE13					
Sample ID):	RE104D1-	-20181206			Sampled	Ву:	Katie Greg	Gregory				
•	uplicate ID:					Sample D	•	12/06/18	, ,				
MS/MSD (•		NO			Sample T	ime:	1310					
	ORMATION:												
Well ID :	RE104D1					Purge Da	te:	12/06/18					
Well Diam		4					Static Water Level (ft-BTOR): 35.02						
	reen (ft-BT0		350				or Reading		0				
	f Screen (ft-		370			Purge Me		Low-flow	•				
	I Depth (ft-B	,				Sample M		Low-flow					
QUIPMEN	IT INFORMA	ATION:				<u> </u>							
Water Qua	ality Instrun	nent:	Horiba U-5	52		Pump Co	ntroller:	Centrifuga	ıl				
Turbidity	Meter:	HACH 210	00Q										
URGE DA	TA:												
Time	H₂0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)			
1218	35.02												
1230	35.05	700	Clear	4.47	0.116	4.12	4.24	13.5	327	0.1			
1240	35.11	700	Clear	4.3	0.115	4.17	1.25	13.75	361	0.1			
1245	35.11	700	Clear	4.3	0.113	3.96	1.2	13.44	372	0.1			
1250	35.11	700	Clear	4.3	0.113	3.93	0	13.49	374	0.1			
1255	35.11	700	Clear	4.27	0.113	3.96	0	13.67	377	0.1			
1300	35.11	700	Clear	4.26	0.113	3.94	0.22	13.56	380	0.1			
1305	35.11	700	Clear	4.23	0.113	3.97	0.19	13.55	382	0.1			
1310	Grab samp	ole											
	RGE / SAMP							-		0 " "			
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (% or ppt)	Other		
1220	1310	50	9 gal	4.23	0.113	3.97	0.19	13.55	382	0.1			
			BOTTLE RI			0.01	51.15	10.00		3.			
	lysis		Method		Preser	vative	Number	Vol.	Bottle ⁻	Гуре	Collected		
)Cs	S	W846 8260)B		CI	2	40-mL		ass	yes		
	ioxane		846 8270D			ne	1	1-L	Ambe	r glass	yes		
										J	•		
BSERVA	TIONS / NO	TES:											
6.6996													
Coord	inates:		N		E	Signature	(s):		Kat	ie Gregory	,		



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

						Project N		112G08005-WE13				
Sample ID):	RE104D2-	20180713			Sampled	Ву:	Scott And	erson			
QA/QC Du	ıplicate ID:					Sample D		07/13/18				
MS/MSD C		No				Sample T	ime:	9:55				
VELL INFO	RMATION:					_						
Well ID:	RE104D2					Purge Da	te:	07/13/18				
Well Diam	eter (in):	4				Static Wa	iter Level (fi	-BTOR):	41.45			
Top of Sci	reen (ft-BTOF	₹):	710			PID Moni	tor Reading	:	0.1			
	Screen (ft-B		730			Purge Me	thod:	Low Flow				
	Depth (ft-BT		735			Sample N	lethod:	Low Flow				
QUIPMEN	T INFORMAT	ION:										
Water Qua	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity I		Hanna HI	98703									
URGE DA												
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
8:55	41.45	375.00	Clear	5.45	0.044	5.76	0.4	15.30	267	0.0		
9:00	41.45	375.00	Clear	5.09	0.031	4.82	0.3	15.20	270	0.0		
9:05	41.45	375.00	Clear	5.14	0.024	4.56	0.5	15.14	272	0.0		
9:10	41.45	375.00	Clear	5.13	0.024	4.37	0.4	15.17	278	0.0		
9:15	41.45	375.00	Clear	5.18	0.021	3.52	0.6	15.15	281	0.0		
9:20	41.45	375.00	Clear	5.19	0.019	3.50	0.7	15.09	281	0.0		
9:25	41.45	375.00	Clear	5.21	0.020	4.75	4.0	14.99	278	0.0		
9:30	41.45	375.00	Clear	5.32	0.021	5.21	1.4	15.01	288	0.0		
9:35	41.45	375.00	Clear	5.23	0.022	5.20	0.9	14.97	286	0.0		
9:40	41.45	375.00	Clear	5.13	0.023	5.21	0.9	14.93	292	0.0		
9:45	41.45	375.00	Clear	5.17	0.023	5.17	1.0	14.95	287	0.0		
9:50	41.45	375.00	Clear	5.20	0.024	5.23	0.6	14.97	289	0.0		
9:55	41.45	375.00	Clear	5.17	0.024	5.20	1.1	15.03	293	0.0		
INAL PUR	GE / SAMPLI											
Start	End	Total	Total Vol.	pH	S.C.	DO (mage/fl.)	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
0855	0955	60	8 gal	5.17	0.024	5.20	1.1	15.03	293	0.0		
	PRESERVAT	ION AND B	Method	KOINIVIENIS	Preser	vative	Number	Vol.	Bottle -	Type	Collect	
	OCs	9	W846 826	nB.		CL CL	3	40-ml		ass	yes	
	oioxane		846 8270D			one	2	1 L		ass		
1,4-0	лоханс	344	040 027 0D	SIIVI	TIC	ле		1 -	gi.	a55	yes	
BSERVAT	TIONS / NOTE	S					<u> </u>		<u> </u>			
	118 collected											
Coordinates: N E						Signature(s): Scott Anderson						



Coordinates:

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Signature(s):

Beau Benfield

Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

Project No.:

112G08005-WE13

						Project No.: 112G08005-WE13					
Sample II	D:	RE104D2	-20181003			Sampled	By:	Beau Benfield			
_	uplicate ID:	No				Sample D	ate:	10/03/18			
	Collected:	NO				Sample T		1505			
	ORMATION:										
Well ID ·	RE104D2					Purge Da	te:	10/03/18			
		4					iter Level (f		41.73		
	reen (ft-BTOF		710				tor Reading	•	0		
	f Screen (ft-B		730			Purge Me		Low Flow			
	I Depth (ft-BT		735			Sample N		Low Flow			
	NT INFORMAT		700			Ournpie ii	ictiioa.	LOW I IOW			
	ality Instrume		Horiba U-5	52		Pump Co	ntrollor:	Bladder			
Turbidity		Lamotte 2)		Fullip Co	nuoner.	Diaudei			
PURGE DA		Lamoue 2	.020								
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	Coloi	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Other
1300	Start purge										
1310	41.70	300.00	Clear	5.55	0.041	6.93	0.83	16.87	322	0.0	
1320	41.70	300.00	Clear	5.21	0.035	3.82	0.47	16.61	324	0.0	
1330	41.70	300.00	Clear	5.04	0.034	3.67	0.49	16.58	306	0.0	
1340	41.70	300.00	Clear	5.22	0.033	3.58	0.63	16.67	306	0.0	
1350	41.70	300.00	Clear	5.25	0.033	3.24	0.98	16.54	306	0.0	
1400	41.70	300.00	Clear	5.15	0.032	3.60	5.85	16.53	307	0.0	
1410	41.70	300.00	Clear	5.25	0.032	4.44	6.04	16.44	306	0.0	
1415	41.70	300.00	Clear	5.00	0.031	4.61	3.59	16.32	306	0.0	
1413	41.70	300.00	Clear	5.25	0.031	4.01	2.39	16.32	324	0.0	
1425	41.70	300.00	Clear	5.17	0.030	4.53	2.19	16.10	309	0.0	
		300.00		5.17		5.02			322	0.0	
1430	41.70		Clear		0.030		1.64	16.35		1	
1435	41.70	300.00	Clear	5.05	0.030	4.52	1.59	16.31	311	0.0	
1440	41.70	300.00	Clear	5.25	0.030	5.71	1.60	16.43	321	0.0	
1445	41.70	300.00	Clear	5.25	0.030	4.99	2.27	16.43	323	0.0	
1450	41.70	300.00	Clear	5.25	0.030	5.23	2.85	16.38	324	0.0	
1455	41.70	300.00	Clear	5.24	0.030	4.87	1.33	16.02	311	0.0	
1500	41.70	300.00	Clear	5.26	0.030	5.27	1.20	15.98	315	0.0	
1505	Collect sam	ole									
FINAL DUE	OF / CAME:	- DATA									
7	RGE / SAMPLI		Total Val	nU	8.0	DO	Turkidis	Torre	OPP	Colimiter	Other
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
1300	1505	125.00	9 gal	5.26	0.030	5.27	1.20	15.98	315	0.0	
	, PRESERVAT										<u> </u>
	alysis		Method		Preser	vative	Number	Vol.	Bottle ⁻	Туре	Collected
	OCs	S	W846 8260)B		CL	3	40-ml		ass	YES
	Dioxane		846 8270D			ne	1	1 L		ass	YES
.,	_							_			
OBSERVA	TIONS / NOTE	S:			1		1	<u> </u>			<u> </u>
	=688.27x0.0		al to purge o	drop tubing	1						



Coordinates:

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Signature(s):

Beau Benfield

Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage
112C08005 WE13

112G08005-WE13 Project No.: RE104D2-20181206 Sample ID: Sampled By: BB QA/QC Duplicate ID: DUP02-20181206 1500 Sample Date: 12/06/18 MS/MSD Collected: Sample Time: 1345 WELL INFORMATION: Well ID: RE104D2 12/06/18 Purge Date: Well Diameter (in): Static Water Level (ft-BTOR): 37.8 710 Top of Screen (ft-BTOR): PID Monitor Reading Bottom of Screen (ft-BTOR): 730 **Purge Method:** Low-flow Total Well Depth (ft-BTOR): Sample Method: Low-flow **EQUIPMENT INFORMATION:** Horiba U-52 Water Quality Instrument: **Pump Controller:** Centrifugal **HACH 2100Q Turbidity Meter:** PURGE DATA: Time H₂0 Level Flow Color S.C. DO Turbidity Temp. ORP Salinity Other pН (Hrs) (ft-BTOR) (S.U.) mL / min. (mS/cm) (mg/L) (NTU) (C°) (mV) (% or ppt) 1230 Start purge 14.24 275 0.0 1240 37.87 800 Clear 5.31 0.033 2.91 2.98 1250 5.29 1.24 14.27 283 0.0 37.9 800 Clear 0.034 4.11 800 0.031 4.34 1.00 14.28 286 0.0 1255 37.9 Clear 5.31 1300 37.9 800 Clear 5.33 0.031 4.35 1.28 14.36 287 0.0 37.9 800 0.031 4.36 1.15 14.32 288 0.0 1305 Clear 5.32 1310 37.9 800 Clear 5.33 0.031 4.35 1.19 14.36 291 0.0 1315 37.9 800 Clear 5.33 0.031 4.32 1.06 14.35 293 0.0 5.34 1320 37.9 800 0.03 4.28 1.04 14.35 296 0.0 Clear 1325 37.9 800 Clear 5.32 0.03 4.29 1.35 14.37 296 0.0 1330 37.9 800 5.32 0.03 1.02 298 0.0 Clear 4.32 14.4 1335 37.9 800 0.03 0.61 14.44 299 0.0 Clear 5.33 4.25 Clear 37.9 800 0.03 0.55 14.41 299 0.0 1340 5.32 4.3 1345 Collect sample FINAL PURGE / SAMPLE DATA: Total Total Vol. S.C. DO Turbidity ORP Start End рΗ Temp. Salinity Other Purge Purge (min.) (S.U.) (mS/cm) (NTU) (gal. / L.) (mg/L) (C°) (mV) (% or ppt) 0.030 14.41 0.0 1230 1345 75 15 5.32 4.30 0.55 299 ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Preservative Number Vol. **Bottle Type** Collected Method **VOCs** SW846 8260B HCI 2 40-mL Glass yes 1,4-Dioxane SW846 8270D SIM None 1-L 1 Amber glass yes **OBSERVATIONS / NOTES:** 730-37.8=692.2x0.010=6.9 gal to purge drop tubing



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Bottom of S Total Well E EQUIPMENT Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	olicate ID: ollected: RMATION: RE104D3 eter (in): een (ft-BTOR Screen (ft-BTO INFORMAT lity Instrume	YES 4 E): FOR): OR): ION:	760 780 785 Horiba U-5				oate: Time: te:	07/13/18 10:00 07/13/18	field					
MS/MSD Co WELL INFOR Well ID: R Well Diamet Top of Scre Bottom of S Total Well E EQUIPMENT Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	ollected: RMATION: RE104D3 eter (in): een (ft-BTOR Screen (ft-BT Depth (ft-BT) INFORMAT lity Instrume leter: 'A:	4 (:): FOR): OR): ION: nt:	780 785			Sample T Purge Da Static Wa	ime: te:	10:00						
WELL INFOR Well ID: R Well Diamet Top of Scre Bottom of S Total Well D EQUIPMENT Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	RMATION: RE104D3 eter (in): een (ft-BTOR Screen (ft-BT Depth (ft-BT INFORMAT lity Instrume feter: A:	4 (:): FOR): OR): ION: nt:	780 785			Purge Da	te:	07/13/18						
Well ID: R Well Diamet Top of Scre Bottom of S Total Well E EQUIPMENT Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	RE104D3 eter (in): een (ft-BTOR Screen (ft-BT Depth (ft-BT INFORMAT lity Instrume leter: 'A:	C): FOR): OR): ION: nt:	780 785			Static Wa								
Well Diamet Top of Scre Bottom of S Total Well D EQUIPMENT Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	eter (in): een (ft-BTOR Screen (ft-BT Depth (ft-BT INFORMAT lity Instrume leter:	C): FOR): OR): ION: nt:	780 785			Static Wa								
Top of Scree Bottom of S Total Well E EQUIPMENT Water Quali Turbidity M PURGE DATA Time (Hrs) 8:55 S 9:00	een (ft-BTOR Screen (ft-BT Depth (ft-BT TINFORMAT lity Instrume leter:	C): FOR): OR): ION: nt:	780 785				ter Level (f	DTOS'						
Bottom of S Total Well E EQUIPMENT Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	Screen (ft-B1 Depth (ft-BT0 INFORMAT lity Instrume leter: A:	TOR): OR): ION: nt:	780 785			PID Moni	Static Water Level (ft-BTOR): 41.56							
Total Well DEQUIPMENT Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	Depth (ft-BT) INFORMAT lity Instrume leter:	OR): ION: nt:	785				tor Reading	-	0.1					
Total Well DEQUIPMENT Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	Depth (ft-BT) INFORMAT lity Instrume leter:	OR): ION: nt:				Purge Me		Low Flow						
Water Quali Turbidity M PURGE DAT/ Time (Hrs) 8:55 S 9:00	lity Instrume leter: A:	nt:	Horiba II F			Sample Method: Low Flow								
Turbidity Me PURGE DAT/ Time (Hrs) 8:55 S 9:00	leter: A:		Horiba II F											
Time (Hrs) 8:55 S 9:00	A:	Hanna fas	Tioriba U-c	52		Pump Co	ntroller:	Bladder						
Time (Hrs) 8:55 S 9:00			t tracker											
(Hrs) 8:55 S 9:00	H ₂ 0 Level													
9:00	(ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp.	ORP (mV)	Salinity (ppt)	Other			
	Start purge													
0.05	41.57	300.00	Clear	5.07	0.018	6.56	6.43	18.16	301	0.0				
9:05	41.60	300.00	Clear	5.66	0.023	4.65	4.06	16.93	270	0.0				
9:10	41.62	300.00	Clear	5.26	0.018	4.20	3.79	16.58	272	0.0				
9:15	41.65	300.00	Clear	5.37	0.016	4.16	2.94	16.56	275	0.0				
9:20	41.65	300.00	Clear	4.78	0.015	4.06	2.15	16.61	287	0.0				
9:25	41.65	300.00	Clear	5.15	0.002	3.80	2.86	16.53	293	0.0				
9:30	41.65	300.00	Clear	5.15	0.014	3.69	3.26	16.68	319	0.0				
9:35	41.65	300.00	Clear	5.15	0.014	3.65	3.18	16.51	313	0.0				
9:40	41.65	300.00	Clear	5.15	0.014	3.57	2.31	13.52	302	0.0				
9:45	41.65	300.00	Clear	5.16	0.014	3.47	4.11	16.60	327	0.0				
9:50	41.65	300.00	Clear	5.13	0.014	3.62	3.72	16.65	321	0.0				
9:55	41.65	300.00	Clear	5.05	0.014	3.88	3.77	16.75	307	0.0				
10:00 C	Collect samp	ole												
INAL PURG	SE / SAMPLE	DATA:												
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other			
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)				
8:55	10:00	65.00	4	5.05	0.014	3.88	3.8	16.75	307	0.0				
,	PRESERVAT	ION AND E		QUIRMENT							-			
Analy	•		Method	\D	Preser		Number	Vol.	Bottle		Collecte			
VOC			W846 8260			CL	3	40-ml		ass	YES			
1,4-Dio	oxane	SW	846 8270D	SIM	nc	ne	2	1 L	gla	ass	YES			
DOEDVAT!	ONE / NOTE	· C.												
)BSEKVATI(ONS / NOTE	ა:												



Event:

Project No.:

Bethpage Off Property Groundwater

Project Site Name:

NWIRP Bethpage 112G08005-WE13

RE104D3-20181003 CS Sample ID: Sampled By: QA/QC Duplicate ID: TT-DUP03-20181003 @1200 10/03/18 Sample Date:

MS/MSD Collected: Sample Time: 1515

WELL INFORMATION:

Well ID: RE104D3 10/03/18 Purge Date:

Well Diameter (in): 4 Static Water Level (ft-BTOR): 42.45

760 PID Monitor Reading: Top of Screen (ft-BTOR): 0 Bottom of Screen (ft-BTOR): 780 **Purge Method:** Low Flow Total Well Depth (ft-BTOR): 785 Low Flow Sample Method:

EQUIPMENT INFORMATION:

Water Quality Instrument: Horiba U-52 **Pump Controller:** Bladder

Turbidity Meter: Lamotte 2020

PURGE DA	TA:										
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
1310	42.45	400	Clear	5.13	0.028	8.57	2.46	17.29	276	0.0	N/a
1320	42.53	400	Clear	5.12	0.026	7.67	2.10	16.88	283	0.0	N/a
1330	42.53	400	Clear	5.11	0.025	6.65	1.88	16.42	298	0.0	N/a
1340	42.53	400	Clear	5.07	0.026	6.15	1.09	16.50	302	0.0	N/a
1350	42.53	400	Clear	4.99	0.026	5.90	1.80	16.38	308	0.0	N/a
1400	42.53	400	Clear	5.02	0.026	5.71	2.39	16.30	318	0.0	N/a
1410	42.53	400	Clear	5.00	0.027	5.48	2.56	16.25	316	0.0	N/a
1420	42.53	400	Clear	4.99	0.027	5.20	3.60	16.12	315	0.0	N/a
1430	42.53	400	Clear	4.98	0.026	5.16	4.97	16.21	318	0.0	N/a
1435	42.53	400	Clear	5.00	0.026	5.14	5.45	16.18	322	0.0	N/a
1440	42.53	400	Clear	4.98	0.026	5.08	6.77	16.16	324	0.0	N/a
1445	42.53	400	Clear	5.02	0.026	5.07	7.09	16.19	325	0.0	N/a
1450	42.53	400	Clear	4.97	0.026	5.09	7.46	16.01	327	0.0	N/a
1455	42.53	400	Clear	4.96	0.026	5.08	7.90	16.03	326	0.0	N/a
1500	42.53	400	Clear	4.98	0.026	5.08	8.15	16.05	326	0.0	N/a
1505	42.53	400	Clear	4.96	0.026	5.07	7.30	16.04	325	0.0	N/a
1510	42.53	400	Clear	4.96	0.026	5.10	7.55	16.11	325	0.0	N/a
FINAL PUR	FINAL PURGE / SAMPLE DATA:										
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other

7.55 1310 1510 120 ~13 4.96 0.026 5.10 16.11 325 0.0 N/a

ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS

Analysis	Method	Preservative	Number	Vol.	Bottle Type	Collected
VOCs	SW846 8260B	HCL	4	40-ml	glass	YES
1,4-Dioxane	SW846 8270D SIM	none	2	1 L	glass	YES

OBSERVATIONS / NOTES:

780 - 42.45 = 737.55 x 0.010 g/ft = 7.38 gal to purge drop tubing volume

Coordinates: N		E	Signature(s):	Chaic Cimici		
N/a	N/a	N/a		Chris Sinisi		



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name:

Project No.:

QA/QC Duplicate ID: N/A MS/MSD Collected: NO WELL INFORMATION: Well ID: RE104D3 Well Diameter (in): 4 Top of Screen (ft-BTOR): 760 Bottom of Screen (ft-BTOR): 780 Total Well Depth (ft-BTOR): 785			Sample Date Static Water Static	me:	12/06/18 1335				
WELL INFORMATION: Well ID: RE104D3 Well Diameter (in): 4 Top of Screen (ft-BTOR): 760 Bottom of Screen (ft-BTOR): 780 Total Well Depth (ft-BTOR): 785			Purge Dat						
Well ID: RE104D3 Well Diameter (in): 4 Top of Screen (ft-BTOR): 760 Bottom of Screen (ft-BTOR): 780 Total Well Depth (ft-BTOR): 785				e.					
Well Diameter (in): 4 Top of Screen (ft-BTOR): 760 Bottom of Screen (ft-BTOR): 780 Total Well Depth (ft-BTOR): 785				е.					
Top of Screen (ft-BTOR): 760 Bottom of Screen (ft-BTOR): 780 Total Well Depth (ft-BTOR): 785					12/06/18				
Top of Screen (ft-BTOR): 760 Bottom of Screen (ft-BTOR): 780 Total Well Depth (ft-BTOR): 785			Static Water Level (ft-BTOR): 37.84						
Bottom of Screen (ft-BTOR): 780 Total Well Depth (ft-BTOR): 785				or Reading:	Í	0			
Total Well Depth (ft-BTOR): 785		Bottom of Screen (ft-BTOR): 780							
			Purge Met Sample M		Low-flow				
EQUIPMENT INFORMATION:									
Water Quality Instrument: Horiba U	Pump Controller: Centrifugal								
Turbidity Meter: HACH 2100Q									
PURGE DATA:			<u> </u>						
Time H ₂ 0 Level Flow Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs) (ft-BTOR) mL / min.	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
1230 37.84 1000 Clear	4.62	0.024	7.89	7.42	12.62	311	0.0		
1235 38 900 Clear	4.58	0.022	2.25	4.27	13.49	330	0.0		
1240 38 900 Clear	4.44	0.022	2.41	3.65	13.69	338	0.0		
1245 38 900 Clear	4.49	0.022	2.79	2.75	13.5	340	0.0		
1250 38 900 Clear	4.39	0.022	2.82	2.85	13.63	350	0.0		
1255 38 900 Clear	4.34	0.022	2.83	2.93	13.59	361	0.0		
1300 38 900 Clear	4.36	0.022	2.90	2.86	13.65	363	0.0		
1305 38 900 Clear	4.39	0.022	2.95	2.8	13.72	366	0.0		
1310 38 900 Clear	4.35	0.022	2.93	3.02	13.8	371	0.0		
1315 38 900 Clear	4.32	0.022	2.94	3.28	13.72	374	0.0		
1320 38 900 Clear	4.35	0.022	2.97	4.12	13.74	372	0.0		
1325 38 900 Clear	4.33	0.022	3.00	5.26	13.78	370	0.0		
1330 38 900 Clear	4.29	0.022	3.00	6.09	13.89	375	0.0		
FINAL PURGE / SAMPLE DATA:									
Start End Total Total Vo	. pH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge Purge (min.) (gal. / L.)		(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	-	
1230 1330 60 17	4.29	0.022	3.00	6.09	13.84	375	0.0		
ANALYSIS, PRESERVATION AND BOTTLE R	EQUIRMENTS								
Analysis Method		Preserv	ative	Number	Vol.	Bottle 1	Tyne	Collected	
VOCs SW846 82	60B		CI	2	40-mL		Glass		
	SW846 8270D SIM			1	1-L		er glass	Yes Yes	
1,1 210,4410	5 0	140	one		, _	7 111100	or glace	100	
OBSERVATIONS / NOTES:									
7.4716									
		_	l o: : : :	-1-					
Coordinates: N			Signature(s): Chuck Meyer						
			<u> </u>			- '	· ,		



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

Coordinates:			N	E		Signature(s): Scott Anderson						
Case	dinatos:		AI.	-		Signatura	(e)·					
OBSERVAT	TIONS / NOTE	I ES:					<u> </u>		<u> </u>			
									-			
1,4-Dioxane		SW846 8270D SIM		none		2	1 L	glass		yes		
VOCs		SW846 8260B		HCL		3	40-ml	glass		yes		
	alysis		Method		Preser		Number	Vol.	Bottle		Collected	
ANALYSIS,	PRESERVA	TION AND B	OTTLE REG	QUIRMENTS								
1245	1345	60	8 gal	4.86	0.109	1.96	1.7	17.28	318	0.1		
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Cilier	
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
INAL PUR	GE / SAMPLI	F DATA:					L		L			
									-			
13:45	39.32	300.00	Clear	4.86	0.109	1.96	1.7	17.28	318	0.1		
13:40	39.32	300.00	Clear	4.85	0.109	1.98	1.8	17.27	318	0.1		
13:35	39.92	300.00	Clear	4.87	0.110	2.13	2.0	17.15	317	0.1		
13:25 13:30	39.92 39.92	300.00	Clear Clear	4.96 4.85	0.110 0.110	2.31 2.13	2.2	17.16 17.15	322 315	0.1 0.1		
13:20	39.92	300.00	Clear	4.82	0.111	2.65	2.1	17.11	313	0.1		
13:15	39.92	300.00	Clear	4.96	0.112	3.08	2.6	17.02	317	0.1		
13:10	39.32	300.00	Clear	4.90	0.113	3.69	0.4	17.02	316	0.1		
13:05	39.32	300.00	Clear	4.89	0.114	3.88	0.5	16.97	312	0.1		
13:00	39.32	300.00	Clear	4.88	0.114	4.12	0.7	17.04	311	0.1		
12:55	39.32	300.00	Clear	4.89	0.114	4.94	1.1	17.34	297	0.1		
12:50	39.32	300.00	Clear	4.95	0.115	6.06	0.8	17.62	288	0.1		
12:45	39.32	300.00	Clear	5.06	0.119	8.64	1.1	18.56	275	0.1		
Time (Hrs)	H₂0 Level (ft-BTOR)	mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	(mg/L)	Turbidity (NTU)	Temp. (C°)	(mV)	Salinity (ppt)	Other	
PURGE DA		Flow	Calar	-11	6.0	DO	Totaleidie	Tamm	ORP	Calimitu	Other	
Turbidity		Hanna HI	98703									
	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder				
	T INFORMAT					•						
	Depth (ft-BT		554.9			Sample M		Low Flow				
	reen (ft-BTOF Screen (ft-B	<u> </u>	550			Purge Method: Low Flow						
Well Diam	•	4	530			Static Water Level (ft-BTOR): 39.32 PID Monitor Reading: 0.2						
	RE105D1					Purge Da		07/13/18				
VELL INFO	RMATION:					1						
MS/MSD Collected: NO						Sample T	Sample Time: 13:45					
QA/QC Duplicate ID:						Sample Date: 07/13/18						
Sample ID: RE105D1-20180713					Sampled By: Scott Anderson							
						Project N	0.:	112G0800	15-WE13			



Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.:

						o.:	112G08005-WE13				
Sample ID:	RE105D1	-20180927			Sampled	By:	Vince Shik	ora			
QA/QC Duplicate II): No				Sample D	Date:	09/27/18				
MS/MSD Collected	NO				Sample T	ime:	16:35				
WELL INFORMATIO	N:										
Well ID: RE105D	1				Purge Da	te:	09/27/18				
Well Diameter (in):	4 inch				Static Wa	Static Water Level (ft-BTOR): 38.34					
Top of Screen (ft-B	TOR):	530			PID Moni	PID Monitor Reading: 0					
Bottom of Screen (ft-BTOR):	550			Purge Me	ethod:	Low Flow				
Total Well Depth (f		554.9			Sample N	lethod:	Low Flow				
EQUIPMENT INFOR	MATION:										
Water Quality Instr		Horiba U-	52		Pump Co	ntroller:	Bladder				
Turbidity Meter:	Lamotte 2	2020									
PURGE DATA:											
Time H ₂ 0 Lev (Hrs) (ft-BTOF		Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
14:35 38.39	400.00	Clear	5.59	0.109	7.79	15.0	17.74	283	0.1	NA	
14:45 38.40		Clear	5.23	0.109	3.97	5.9	17.90	295	0.1	NA	
14:55 38.40		Clear	5.22	0.106	3.55	4.1	17.34	299	0.0	NA	
15:05 38.40		Clear	5.16	0.104	3.29	4.5	17.12	312	0.0	NA	
15:15 38.40		Clear	5.09	0.104	2.44	3.1	16.75	321	0.0	NA	
15:25 38.40		Clear	5.04	0.104	1.77	2.5	16.20	328	0.0	NA	
15:35 38.40	400.00	Clear	5.02	0.104	0.87	2.3	16.03	330	0.0	NA	
15:45 38.40	400.00	Clear	5.00	0.105	0.85	2.5	15.92	330	0.0	NA	
15:55 38.40	400.00	Clear	4.99	0.105	0.77	2.1	15.73	332	0.0	NA	
16:00 38.40	400.00	Clear	4.98	0.105	0.69	1.6	15.80	333	0.0	NA	
16:05 38.40	400.00	Clear	4.98	0.105	0.64	1.4	15.78	334	0.0	NA	
16:10 38.40	400.00	Clear	4.98	0.105	0.66	1.3	15.72	333	0.0	NA	
16:15 38.40	400.00	Clear	4.97	0.105	0.68	1.2	15.69	334	0.0	NA	
16:20 38.40	400.00	Clear	4.98	0.105	0.70	0.9	15.72	334	0.0	NA	
16:25 38.40	400.00	Clear	4.98	0.105	0.73	0.8	15.75	333	0.0	NA	
16:30 38.40	400.00	Clear	4.98	0.105	0.74	0.8	15.78	334	0.0	NA	
16:35 38.40	400.00	Clear	4.98	0.105	0.74	0.6	15.74	333	0.0	NA	
FINAL PURGE / SAM	PLE DATA:										
Start End	Total	Total Vol.	pH	S.C.	DO (man/li)	Turbidity	Temp.	ORP	Salinity	Other	
Purge Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	NIA	
14:35 16:35 ANALYSIS, PRESER		13	4.98	0.105	0.74	0.6	15.74	333	0.0	NA	
ANALYSIS, PRESER	VATION AND	Method	QUIKWEN I	S Preser	vative	Number	Vol.	Bottle ⁻	Type	Collected	
VOCs		SW846 826	nr.		CL	3	40-ml		ass	YES	
1,4-Dioxane		846 8270D			ne	1	1 L		ass ass	YES	
i, - -Dioxaile	OVV	0 +0 0Z1 0D	CIIVI	110		'	1 -	gić	400	120	
OBSERVATIONS / N	OTFS:			I							

550-38.34=511.66x0.010gpf=5.11 gallons to purge drop tubing

No stains or odors observed during purge.

Coordinates:	N	E	Signature(s):	Wines Chihana
				Vince Shikora



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event: Project Site Name:

Project No.:

Sample ID		RE105D1-	20181210			Sampled I	Rv·	CM			
		N/A	20101210			Sample D		12/10/18			
MS/MSD C		YES				Sample Ti		945			
WELL INFO		TES				Sample 11	ille.	343			
_	RE105D1					Purge Dat		12/10/18			
Well Diam		4" PVC					ter Level (ft-		36.85		
	een (ft-BTO		530				or Reading:	orokj.	0		
	Screen (ft-E		550			Purge Me		Low-flow	<u> </u>		
	Depth (ft-B)		555			Sample M		Low-flow			
	T INFORMA		000			- Cumpio in	oti iou.	LOW HOW			
	lity Instrum		Horiba U-5	2		Pump Cor	ntroller:	Centrifugal			
Turbidity I		HACH 210				i unip coi	iti oner.	Continugu			
PURGE DA											
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	55.5.	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	C
840	36.85	900	Clear	4.24	0.119	2.68	10.4	13.11	322	0.1	
845	35.86	900	Clear	4.68	0.119	2.12	6.73	13.05	311	0.1	
850	35.86	900	Clear	4.71	0.117	2.03	3.01	13.14	311	0.1	
855	35.86	900	Clear	4.73	0.116	2.00	1.18	13.18	314	0.1	
900	35.86	900	Clear	4.8	0.113	2.12	0.98	13.21	316	0.1	
905	35.86	900	Clear	4.81	0.113	2.17	0.98	13.3	319	0.1	
910	35.86	900	Clear	4.83	0.112	2.01	0.97	13.41	326	0.1	
915	35.86	900	Clear	4.83	0.112	1.98	0.84	13.31	327	0.1	
920	35.86	900	Clear	4.84	0.112	1.87	0.84	13.34	328	0.1	
925	35.86	900	Clear	4.84	0.112	1.93	0.81	13.46	331	0.1	
930	35.86	900	Clear	4.85	0.112	1.98	0.77	13.54	334	0.1	
935	35.86	900	Clear	4.87	0.112	2.03	0.89	13.54	335	0.1	
940	35.89	900	Clear	4.87	0.112	2.05	0.65	13.51	336	0.1	
FINAL PUR	GE/SAMPL	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
840	940	60	14	4.87	0.112	2.05	0.65	13.51	336	0.1	
ANALYSIS,	PRESERVA	TION AND E	BOTTLE REC	UIRMENTS							
Ana	lysis		Method		Preserv	ative	Number	Vol.	Bottle T	уре	Collected
VO)Cs		SW846 8260		Н	CI	6	40-mL	GI	ass	Yes
1,4-Di	oxane	SW	846 8270D	SIM	No	one	3	1-L	Ambe	er glass	Yes
000000	1010 (110=										
	TONS / NOT	ES:									
5.1815											
Coordinates: N E					F	Signature(s):					
COOIU			-			J.ga.a.c(-/-		Chuck	Meyer	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

						110ject No.: 112000000-WE10					
Sample II):	RE105D2-	20180713			Sampled	Ву:	Beau Ben	field		
QA/QC D	uplicate ID:	_				Sample D	ate:	07/13/18			
MS/MSD	Collected:	NO				Sample T	ime:	13:35			
WELL INFO	ORMATION:					•					
Well ID:	RE105D2					Purge Da	te:	07/13/18			
Well Diam	neter (in):	4				Static Wa	ter Level (ft	-BTOR):	40.39		
Top of Sc	reen (ft-BTOR	R):	730			PID Moni	tor Reading):	1.2		
Bottom o	f Screen (ft-B	TOR):	750			Purge Me	thod:	Low Flow			
Total Wel	l Depth (ft-BT	OR):	755.9			Sample N	lethod:	Low Flow			
EQUIPMEN	NT INFORMAT	ION:									
Water Qu	ality Instrume	nt:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Hanna fas	t tracker								
PURGE DA	NTA:										
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
12:30	Start purge			,	, ,	(0)	,	, ,	, ,	(11)	
12:35	40.36	300.00	Clear	5.02	0.067	5.75	0.77	18.91	276	0.0	
12:40	40.36	300.00	Clear	5.26	0.068	4.21	2.21	18.56	286	0.0	
12:45	40.36	300.00	Clear	5.22	0.067	3.52	0.81	18.53	293	0.0	
12:50	40.36	300.00	Clear	4.99	0.067	3.60	1.67	18.63	293	0.0	
12:55	40.36	300.00	Clear	5.25	0.067	3.26	0.62	18.51	303	0.0	
13:00	40.36	300.00	Clear	5.12	0.067	3.23	1.69	18.63	309	0.0	
13:05	40.36	300.00	Clear	5.03	0.068	2.70	0.65	18.43	296	0.0	
13:10	40.36	300.00	Clear	5.01	0.068	2.28	0.51	18.51	308	0.0	
13:15	40.36	300.00	Clear	5.29	0.068	1.82	0.59	18.24	290	0.0	
13:20	40.36	300.00	Clear	5.25	0.068	1.84	0.39	18.43	287	0.0	
13:25	40.36	300.00	Clear	4.92	0.066	1.72	0.80	18.53	308	0.0	
13:30	40.36	300.00	Clear	5.17	0.064	1.98	0.64	18.43	303	0.0	
13:35	Collect samp		Oloui	0.17	0.004	1.00	0.04	10.40	000	0.0	
10.00	Oonoot barris	710									
FINAL PUF	RGE / SAMPLE	DATA:									
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
12:30	13:35	65.00	4 gal	5.17	0.064	1.98	0.6	18.43	303	0.0	
ANALYSIS	, PRESERVAT	TON AND E	BOTTLE RE	QUIRMENT	S						
An	alysis		Method		Preser	vative	Number	Vol.	Bottle	Туре	Collected
V	OCs		W846 8260		H	CL	3	40-ml	1 -	ass	yes
1,4-0	Dioxane				no	ne	2	1 L	gl	ass	yes
OBSERVA	TIONS / NOTE	S:									
Coor	dinates:		N		E	Signature	(s):	H –			
						L			~ _/		
		-		-			-				



Bethpage Off Property Groundwater Event:

Project Site Name:

Project No.:

NWIRP Bethpage 112G08005-WE13

RE105D2-20180927 Sample ID: CM Sampled By: QA/QC Duplicate ID: 09/27/18 Sample Date: MS/MSD Collected: Sample Time: 17:10

WELL INFORMATION:

09/27/18 Well ID: RE105D2 Purge Date:

Well Diameter (in): Static Water Level (ft-BTOR): 38.92

730 **PID Monitor Reading** Top of Screen (ft-BTOR): 0 Bottom of Screen (ft-BTOR): 750 **Purge Method:** Low Flow Total Well Depth (ft-BTOR): 755.9 Low Flow Sample Method:

EQUIPMENT INFORMATION:

Water Quality Instrument: Horiba U-52 Pump Controller: Bladder

Lamotte 2020 **Turbidity Meter:**

PURGE DA	TA:										
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp.	ORP (mV)	Salinity	Other
. ,	,		-	, ,	, ,	(mg/L)	, ,	. ,	. ,	(ppt)	
15:10	38.92	400.00	Clear	5.08	0.085	9.29	10.9	23.64	282	0.0	NA
15:20	38.96	400.00	Clear	4.44	0.086	9.14	9.9	17.97	373	0.0	NA
15:30	36.96	400.00	Clear	4.41	0.083	8.98	10.1	17.79	379	0.0	NA
15:40	36:96	400.00	Clear	4.36	0.080	8.72	7.9	17.51	386	0.0	NA
15:50	36:96	400.00	Clear	4.29	0.076	8.51	6.6	17.32	381	0.0	NA
16:00	35:96	400.00	Clear	4.24	0.071	8.44	4.2	17.02	377	0.0	NA
16:05	36.96	400.00	Clear	4.26	0.079	8.09	2.9	17.10	352	0.0	NA
16:10	36.96	400.00	Clear	4.30	0.086	7.82	1.4	17.19	340	0.0	NA
16:15	36.96	400.00	Clear	4.77	0.083	7.43	1.0	17.56	320	0.0	NA
16:20	36.96	400.00	Clear	4.97	0.081	7.21	1.0	17.12	309	0.0	NA
16:25	36.96	400.00	Clear	4.97	0.077	6.86	2.2	17.26	305	0.0	NA
16:30	36.96	400.00	Clear	5.09	0.077	6.63	3.5	17.15	284	0.0	NA
16:35	36.96	400.00	Clear	5.35	0.076	6.57	4.2	17.10	267	0.0	NA
16:40	36.96	400.00	Clear	5.25	0.076	6.48	12.9	17.20	258	0.0	NA
16:45	36.96	400.00	Clear	5.03	0.076	6.48	20.1	16.55	248	0.0	NA
16:50	36.96	400.00	Clear	5.09	0.077	6.29	19.6	16.66	249	0.0	NA
16:55	36.96	400.00	Clear	5.14	0.075	6.24	19.2	16.64	251	0.0	NA
17:00	36.96	400.00	Clear	5.07	0.079	6.18	18.4	16.61	254	0.0	NA
17:05	36.96	400.00	Clear	5.11	0.079	6.15	17.1	15.54	255	0.0	NA
FINAL PUR	GE / SAMPLI	E DATA:									
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
15:10	17:05	115.00	(941. / L.)	5 11	0.079	6.15	17.1	15.54	255	0.0	

5.11 0.079 6.15 17:05 115.00 17.1 15.54 255 0.0

ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Method Preservative Number Vol. Bottle Type Collected glass VOCs SW846 8260B HCL 3 40-ml YES 1,4-Dioxane SW846 8270D SIM 1 L none 1 glass YES

OBSERVATIONS / NOTES:

Coordinates:	N	E	Signature(s):	Church Manage
				Chuck Meyer



Event: Bethpage Off Property GW Monitoring Dec '18

Project No: NWIRP Bethpage
112G08005-WF13

						Project No	0.:	112G08005-WE13						
Sample II):	RE105D2-	-20181210			Sampled	Ву:	Katie Gre	gory					
•	uplicate ID:					Sample D	•	12/10/18	<u> </u>					
	Collected:		NO			Sample T		1005						
WELL INFO	ORMATION:													
Well ID:	RE105D2					Purge Da	te:	12/10/18						
		4					ter Level (f		36.44					
	reen (ft-BT0		730				or Reading		0					
•	f Screen (ft-		750			Purge Me		Low-flow						
	I Depth (ft-E					Sample M		Low-flow						
	NT INFORMA													
Water Qu	ality Instrun	nent:	Horiba U-5	52		Pump Co	ntroller:	Centrifuga	al					
Turbidity		Hanna 98												
PURGE DA														
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other			
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)				
847	36.44													
855	36.45	700	Clear	4.15	0.085	5.54	3.89	13.39	295	0.0				
900	36.45	700	Clear	4.19	0.082	2.99	1.52	13.76	292	0.0				
910	36.45	700	Clear	4.22	0.078	1.38	2.57	13.8	281	0.0				
920	36.45	700	Clear	4.27	0.081	2.53	0.79	13.94	296	0.0				
930	36.45	700	Clear	4.38	0.081	3.67	0.3	14.04	301	0.0				
940	36.47	700	Clear	4.7	0.081	3.36	0.27	14.14	298	0.0				
950	36.49	700	Clear	4.67	0.08	3.33	0.38	14.39	309	0.0				
955	36.49	700	Clear	4.72	0.08	3.31	0.31	14.46	307	0.0				
1000	36.49	700	Clear	0.079	3.32	0.22	14.5	311	0.0					
1005	rab sample	9												
FINAL PUR	RGE / SAMP	LE DATA:												
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other			
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)				
850	1000	70	14.5	4.76	0.079	3.32	0.22	14.5	311	0.0				
	, PRESERV	ATION AND		EQUIRMEN	1				1					
	lysis	_	Method		Preserv		Number	Vol.	Bottle 1		Collected			
)Cs		W846 8260			CI	2	40-mL		ass	Yes			
1,4-D	ioxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	r glass	Yes			
	TIONS / NO	TES:												
14.2712														
Coord	linates:		N		E	Signature(s):								
55514						J. g	λ - / -		Kat	ie Gregory	,			
						Agric grayery								



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

	dinates:		N		E	Signature	<i>,</i> ,					
No	o stains or o	dors observ	ed during p	ourge								
OBSERVA [*]	TIONS / NOTI	ES:										
1,4-0	Dioxane	SW	846 8270D	SIM	no	ne	2	1 L glass				
	OCs .		W846 8260			CL	3	40-ml		ass	YES YES	
	alysis		Method	_	Preser		Number	Vol.	Bottle		Collected	
	, PRESERVA	TION AND E		QUIRMENT								
12:35	13:40	65.00	7 gal	4.60	0.099	5.06	0.0	20.82	325	0.0	NA	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
FINAL PUR	GE / SAMPL	E DATA:										
		<u> </u>					 					
		1					 					
13:40	42.27	375.00	Clear	4.60	0.099	5.06	0.0	20.82	325	0.0	NA	
13:35	42.27	375.00	Clear	4.60	0.099	5.04	0.0	20.85	326	0.0	NA NA	
13:30	42.27	375.00	Clear	4.60	0.099	5.03	0.0	20.88	326	0.0	NA	
13:25	42.27	375.00	Clear	4.59	0.099	5.01	0.0	20.92	328	0.0	NA	
13:20	42.27	375.00	Clear	4.58	0.099	5.00	0.0	20.94	326	0.0	NA	
13:15	42.27	375.00	Clear	4.58	0.099	4.99	0.0	20.98	324	0.0	NA	
13:10	42.27	375.00	Clear	4.62	0.099	5.01	0.0	20.97	319	0.0	NA	
13:05	42.27	375.00	Clear	4.75	0.100	4.99	0.0	20.99	306	0.0	NA	
13:00	42.27	375.00	Clear	4.89	0.100	5.02	0.0	21.04	293	0.0	NA	
12:55	42.27	375.00	Clear	5.07	0.100	5.50	0.0	21.17	278	0.0	NA	
12:50	42.27	375.00	Clear	5.31	0.100	6.46	0.0	21.30	263	0.0	NA	
12:45	42.27	375.00	Clear	5.52	0.100	7.52	0.0	21.85	254	0.0	NA	
12:40	42.26	375.00	Clear	5.73	0.100	8.63	0.0	22.80	244	0.0	NA	
12:35	42.26	375.00	Clear	5.93	0.106	9.91	0.0	23.77	237	0.0	NA	
(Hrs)	(ft-BTOR)	mL / min.	00101	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Julei	
PURGE DA	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Turbidity		Lamotte 2	020									
	ality Instrum		Horiba U-	52		Pump Co	ntroller:	Bladder				
EQUIPMEN	IT INFORMAT	TION:				_						
	l Depth (ft-B1		555			Sample N	lethod:	Low Flow				
Bottom of	f Screen (ft-B	TOR):	550			Purge Me	Purge Method: Low Flow					
Top of Sc	reen (ft-BTOI	R):	530			PID Moni	tor Reading	;	0			
Well Dian		4 inch					iter Level (f		42.25			
	RE108D1					Purge Da	te·	07/17/18				
	DRMATION:	NO				Sample	iirie:	13.40				
	uplicate ID: Collected:	No NO	Ī			Sample D		07/17/18 13:40				
Sample II			-20180717			Sampled		Vince Shill	cora			
	D : RE108D1-20180717					· <u> </u>						
						Project No.: 112G08005-WE13						



Coordinates:

Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

oject No.: 112G08005-WE13

						Project N	lo.:	112G08005-WE13				
Sample II): 	RE108D1-	-20181004			Sampled	Ву:	CM				
QA/QC Di	uplicate ID:					Sample [10/04/18				
MS/MSD	Collected:	NO				Sample 1	Time:	17:35				
VELL INFO	ORMATION:											
Well ID:	RE108D1					Purge Da	ite:	10/04/18				
Well Diam	neter (in):	4				Static Water Level (ft-BTOR): 41.11						
Top of Sc	reen (ft-BTOI	R):	530			PID Moni	PID Monitor Reading: 1.5 ppm					
Bottom of	f Screen (ft-B	TOR):	550			Purge Me	ethod:	Low Flow				
Total Wel	I Depth (ft-B1	OR):	555			Sample N	/lethod:	Low Flow				
EQUIPMEN	IT INFORMAT	ΓΙΟΝ:										
Water Qu	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity		Lamotte 2	020									
PURGE DA		ı				1		1	1			
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
15:30	41.11	300.00	Clear	5.59	0.116	8.44	3.4	22.08	243	0.1	NA	
15:40	41.14	300.00	Clear	5.53	0.117	7.82	2.9	21.89	248	0.1	NA	
15:50	41.14	300.00	Clear	5.48	0.117	8.36	3.1	21.98	245	0.1	NA	
16:00	41.14	300.00	Clear	5.47	0.117	7.30	2.9	21.70	249	0.1	NA	
16:10	41.14	300.00	Clear	5.22	0.116	6.23	2.6	21.09	279	0.1	NA	
16:20	41.14	300.00	Clear	5.25	0.115	7.83	2,5	21.11	280	0.1	NA	
16:30	41.14	300.00	Clear	5.12	0.115	5.74	2.2	20.99	291	0.1	NA	
16:35	41.14	300.00	Clear	5.11	0.115	5.67	2.6	20.59	305	0.1	NA	
16:40	41.14	300.00	Clear	5.09	0.115	5.84	2.0	20.47	303	0.1	NA	
16:45	41.14	300.00	Clear	5.10	0.115	5.89	1.2	20.21	308	0.1	NA	
16::50	41.14	300.00	Clear	4.95	0.115	5.92	0.7	19.68	312	0.1	NA	
16:55	41.14	300.00	Clear	5.02	0.115	5.93	8.0	19.54	314	0.1	NA	
17:00	41.14	300.00	Clear	5.03	0.115	5.89	1.1	19.51	310	0.1	NA	
17:05	41.14	300.00	Clear	5.02	0.116	5.93	1.0	19.45	313	0.1	NA	
17:10	41.14	300.00	Clear	5.03	0.116	5.97	0.8	19.00	313	0,1	NA	
17:15	41.14	300.00	Clear	5.02	0.116	5.93	1.0	19.30	312	0.1	NA	
17:20	41.14	300.00	Clear	5.03	0.116	5.87	1.5	19.56	312	0.1	NA	
17:25	41.14	300.00	Clear	5.03	0.116	5.94	1.3	19.47	311	0.1	NA	
17:30	41.14	300.00	Clear	5.03	0.116	5.86	1.2	19.40	311	0.1	NA	
	GE / SAMPL		Tatalivid		0.0	- B-0	Total 1 Ct	T	000	Callinit	6:1	
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
15:30	17:30	120.00	8gal	5.03	0.116	5.86	1.2	19.4	311	0.1	NA	
NALYSIS	, PRESERVA	TION AND E		QUIRMENT								
	alysis	_	Method		Preser		Number	Vol.	Bottle		Collecte	
	OCs .		W846 8260			CL	3	40-ml		ass	YES	
21′	19.21	SW	846 8270D	SIM	nc	ne	1	1 L	gla	ass	YES	
DCEDVA	TIONS / NOTI	-6 -										

Signature(s):

Chuck Meyer



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event: Project Site Name:

Project No.:

Sample ID:	:	RE108D1-	20181210			Sampled E	By:	CM			
		N/A				Sample Da	•	12/10/18			
MS/MSD C	•		NO			Sample Ti		1255			
WELL INFO	RMATION:										
Well ID:	RE108D1					Purge Dat	e:	12/10/18			
Well Diame	eter (in):	4"					er Level (ft-l		49.58		
Top of Scr	een (ft-BTO	R):	530				or Reading:		0		
Bottom of	Screen (ft-E	TOR):	550			Purge Met		Low-flow			
	Depth (ft-B7		555			Sample M		Low-flow			
	T INFORMA										
Water Qua	lity Instrum		Horiba U-5	2		Pump Cor	ntroller:	Centrifugal			
Turbidity N	Meter:	HACH 210	0Q					_			
PURGE DAT	TA:										
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1150	49.58	900	Clear	5.21	0.102	11.25	7.42	13.49	309	0.0	
1155	49.61	900	Clear	5.14	0.102	8.77	2.31	13.74	313	0.0	
1200	49.61	900	Clear	5.01	0.101	7.41	0.71	13.77	331	0.0	
1205	49.63	900	Clear	4.93	0.1	7.14	0.55	13.77	339	0.0	
1210	49.63	900	Clear	4.91	0.1	7.11	0.52	13.75	351	0.0	
1215	49.63	900	Clear	4.9	0.1	7.09	0.42	13.67	360	0.0	
1220	49.63	900	Clear	4.91	0.1	7.09	0.36	13.63	361	0.0	
1225	49.63	900	Clear	4.89	0.1	7.07	0.53	13.56	364	0.0	
1230	49.63	900	Clear	4.89	0.1	7.01	0.55	13.56	364	0.0	
1235	49.63	900	Clear	4.87	0.1	7.06	0.5	13.57	364	0.0	
1240	49.63	900	Clear	4.89	0.1	7.06	0.42	13.64	360	0.0	
1245	49.63	900	Clear	4.91	0.1	7.08	0.37	13.69	357	0.0	
1250	49.63	900	Clear	4.93	0.1	7.07	0.66	13.73	355	0.0	
FINAL PUR	GE/SAMPL	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1150	1250	60	15	4.93	0.1	7.07	0.66	13.73	355	0.0	
ANALYSIS,	PRESERVA	TION AND E	SOTTLE REC	UIRMENTS		<u>'</u>	<u>'</u>	<u>'</u>	<u>'</u>		<u>'</u>
Anal			Method		Preserv	ative	Number	Vol.	Bottle 1	Гуре	Collected
VO	•	S	W846 8260)B		CI	2	40-mL		lass	Yes
1,4-Di			846 8270D			ne	1	1-L		er glass	Yes
OBSERVAT	IONS / NOT	ES:									
10.1084											
10.1001											
						T = -					
Coordinates: N E				Signature(s):		Chuck	Meyer			
									Chuch	Silvyor	

TETRA TECH	ECH
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Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

			Project No.: <u>112G08005-WE13</u>										
Sample II	D:	RE108D2	-20180717			Sampled	By:	Beau Ber	ifield				
QA/QC D	uplicate ID:	_				Sample D	ate:	07/17/18					
MS/MSD	Collected:	NO				Sample T	ime:	13:40					
VELL INF	ORMATION:		<u> </u>			<u> </u>							
Well ID :	RE108D2					Purge Da	te:	07/17/18					
	neter (in):	4					iter Level (f	t-BTOR):	43.25				
	reen (ft-BTOF	R):	630			PID Monitor Reading: 3.2					-		
•	f Screen (ft-B	•	650			Purge Me		Low Flow					
	I Depth (ft-BT		655			Sample N		Low Flow					
	NT INFORMAT												
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder					
Turbidity		Hanna fas											
PURGE DA													
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)			
12:35	Start purge												
12:45	43.25	300.00	Clear	5.62	0.087	6.76	3.05	28.06	200	0.0			
12:50	43.25	300.00	Clear	5.30	0.085	5.31	1.04	26.35	228	0.0			
12:55	43.25	300.00	Clear	4.73	0.081	3.19	0.71	23.61	278	0.0			
13:00	43.25	300.00	Clear	4.56	0.080	2.28	0.87	23.62	297	0.0			
13:05	43.25	300.00	Clear	4.50	0.080	2.03	0.38	23.32	303	0.0			
13:10	43.25	300.00	Clear	4.47	0.080	2.00	0.31	22.90	312	0.0			
13:15	43.25	300.00	Clear	4.45	0.080	2.06	0.50	22.68	316	0.0			
13:20	43.25	300.00	Clear	4.46	0.080	2.05	0.24	22.55	318	0.0			
13:25	43.25	300.00	Clear	4.48	0.081	1.90	0.35	22.60	320	0.0			
13:30	43.25	300.00	Clear	4.50	0.080	2.04	0.19	22.16	323	0.0			
13:35	43.25	300.00	Clear	4.51	0.080	2.31	0.19	22.21	323	0.0			
13:40	Collect same												
	00001.00												
FINAL PUI	RGE / SAMPLI	DATA:					L						
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)			
12:35	13:40	65.00	4	4.51	0.080	2.31	0.19	22.21	323	0.0			
NALYSIS	, PRESERVAT	TION AND E	BOTTLE RE	QUIRMENT	S								
An	alysis		Method		Preser	vative	Number	Vol.	Bottle	Туре	Collecte		
V	OCs	S	W846 8260)B	H	CL	3	40-ml	gla	ass	yes		
1,4-[Dioxane	SW	846 8270D	SIM	nc	ne	2	1 L	gla	ass	yes		
OBSERVA	TIONS / NOTE	S:											
Coor	dinates:		N		E	Signature	(s):	12		601	//		
		N E				I			10. K	w []	// /		

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Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

					Project No.: <u>112G08005-WE13</u>						
Sample ID):	RE108D2-	-20181004			Sampled	Ву:	CS			
-	uplicate ID:	TT-DUP04	4-20181004	@ 1200		Sample D	Date:	10/04/18			
MS/MSD (Collected:	NO				Sample T		1655			
VELL INFO	ORMATION:										
Well ID :	RE108D2					Purge Da	ite:	10/04/18			
Well Diam	neter (in):	4				Static Water Level (ft-BTOR): 41.64					
Top of Sc	reen (ft-BTOI	R):	630			PID Monitor Reading: 6.7 ppm					
Bottom of	f Screen (ft-B	STOR):	650			Purge Me	ethod:	Low Flow			
Total Well	Depth (ft-B1	TOR):	655			Sample N	/lethod:	Low Flow			
QUIPMEN	IT INFORMAT	TION:									
Water Qua	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Lamotte 2	020								
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	_	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1450	41.64	300	Clear	5.99	0.082	8.44	2.97	23.22	303	0.0	N/a
1500	41.64	300	Clear	5.80	0.084	8.53	2.80	22.78	302	0.0	N/a
1510	41.64	300	Clear	5.67	0.087	8.62	2.88	22.31	301	0.0	N/a
1520	41.64	300	Clear	5.44	0.089	8.66	2.09	21.87	300	0.0	N/a
1530	41.64	300	Clear	5.26	0.091	8.75	1.47	21.21	298	0.0	N/a
1540	41.64	300	Clear	5.21	0.091	8.15	1.68	21.05	299	0.0	N/a
1550	41.64	300	Clear	5.20	0.091	7.81	1.52	20.80	300	0.0	N/a
1600	41.64	300	Clear	5.18	0.091	7.47	1.44	20.45	301	0.0	N/a
1610	41.64	300	Clear	5.16	0.090	7.16	1.60	20.47	302	0.0	N/a
1615	41.64	300	Clear	5.17	0.091	7.03	1.45	20.49	302	0.0	N/a
1620	41.64	300	Clear	5.19	0.090	6.88	1.51	20.34	303	0.0	N/a
1625	41.64	300	Clear	5.19	0.091	6.71	1.48	20.35	303	0.0	N/a
1630	41.64	300	Clear	5.19	0.091	6.60	1.41	20.36	303	0.0	N/a
1635	41.64	300	Clear	5.20	0.091	6.49	1.35	20.20	303	0.0	N/a
1640	41.64	300	Clear	5.18	0.090	6.40	1.27	19.97	303	0.0	N/a
1645	41.64	300	Clear	5.17	0.090	6.31	1.19	19.92	304	0.0	N/a
1650	41.64	300	Clear	5.16	0.090	6.26	1.11	19.87	304	0.0	N/a
	GE / SAMPL				_						
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
1450	1650	120	~10 gal	5.16	0.090	6.26	1.11	19.87	304	0.0	N/a
	PRESERVA		ū			0.20	1.11	13.07	J J J	0.0	TN/CI
	alysis		Method	<u> </u>	Preser	vative	Number	Vol.	Bottle '	Type	Collecte
VOCs SW846 8260B				CL	4	40-ml		ass	YES		
1,4-Dioxane SW846 8270D SIM				ne	2	1 L		ass	YES		

 $650 - 41.64 = 608.36 \times 0.010 \text{ g/ft} = 6.08 \text{ gal to purge drop tubing}$

Coordinates:	N	E	Signature(s):	Chris Sinisi
N/a	N/a	N/a		Curis Sinisi



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name:NWIRP BethpageProject No.:112G08005-WE13

						Project No	J	112G0800	70-VVL 13		
Sample II	D:	RE108D2-	20181210			Sampled	Ву:	Katie Gre	gory		
QA/QC D	uplicate ID:	DUP04-20	181210			Sample D	ate:	12/10/18			
MS/MSD	Collected:		NO			Sample Ti	ime:	1255			
WELL INFO	ORMATION:										
Well ID :	RE108D2					Purge Dat	te:	12/10/18			
Well Dian	neter (in):	4				Static Wa	ter Level (ft	-BTOR):	39.98		
	reen (ft-BTC		630			PID Monit	or Reading	:	0		
•	f Screen (ft-	•	650			Purge Me		Low-flow			
	I Depth (ft-B					Sample M		Low-flow			
	NT INFORMA										
Water Qu	ality Instrun	nent:	Horiba U-5	52		Pump Co	ntroller:	Centrifuga	al		
Turbidity		Hanna 987	703			•					
PURGE DA	ATA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1146	39.98										
1153	40.05	700	Clear	4.72	0.083	1.40	0.22	14.28	292	0.0	
1158	40.05	700	Clear	4.79	0.083	2.13	0.2	14.50	284	0.0	
1208	40.05	700	Clear	5.04	0.083	2.70	0.13	14.55	274	0.0	
1218	40.05	700	Clear	5.06	0.082	3.03	0.12	14.75	279	0.0	
1228	40.05	700	Clear	5.09	0.081	5.16	0.11	14.99	271	0.0	
1238	40.05	700	Clear	5.05	0.081	3.32	0.18	15.22	277	0.0	
1243	40.05	700	Clear	4.99	0.081	3.37	0.16	15.34	281	0.0	
1248	40.05	700	Clear	5.03	0.081	3.44	0.12	15.43	280	0.0	
1253	40.05	700	Clear	5.06	0.081	3.47	0.11	15.50	278	0.0	
1255	Grab samp	ole									
FINAL PUF	RGE/SAMP	LE DATA:									
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C)	(mV)	(% or ppt)	
1148	1253	65	12.5	5.06	0.081	3.47	0.11	15.5	278	0.0	
	, PRESERV	ATION AND		EQUIRMEN				ı			
	ilysis		Method		Preser		Number	Vol.	Bottle 1		Collected
	OCs		W846 8260			CI	2	40-mL		ass	Yes
1,4-D	ioxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	r glass	Yes
	TIONS / NO	IES:									
12.2024											
Coord	linates:		N		E	Signature	(e)·				
	mates.		•		-	Jigilature	٥).		Kati	ie Gregory	
									-		



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

	Coordinates: N E			Vince Shickora							
Coor	dinates:		N	ı	E	Signature	(s):		Vince (Chickora	
	140 3	J. G. 100	0.0 0.0001 V6	sa adiniy p	yo						
DBSERVA*	TIONS / NOTE		lors observe	ed during n	urge						
1,4 - L	Dioxane	500	040 8Z/UD	SIIVI	nc	ne		1 L	gla	ass	YES
	OCs Dioxana	SW846 8260B e SW846 8270D SIM			CL	3 2	40-ml		ass	YES	
	alysis		Method	n P	Preser		Number	Vol.	Bottle		Collecte
	, PRESERVA	TION AND E		QUIRMENT			L N			F	0-1
10:25	11:30	65.00	7 gal	5.14	0.085	2.10	0.0	21.91	270	0.0	NA
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
INAL PUR	GE / SAMPL	E DATA:									
11:30	45.92	375.00	Clear	5.14	0.085	2.10	0.0	21.91	270	0.0	NA
11:25	45.92	375.00	Clear	5.13	0.085	2.08	0.0	21.87	270	0.0	NA
11:20	45.92	375.00	Clear	5.14	0.086	2.07	0.0	21.88	270	0.0	NA
11:15	45.92	375.00	Clear	5.13	0.086	2.09	0.0	21.89	269	0.0	NA
11:10	45.92	375.00	Clear	5.13	0.087	2.11	0.0	21.90	269	0.0	NA
11:05	45.92	375.00	Clear	5.11	0.087	2.07	0.3	21.89	267	0.0	NA
11:00	45.92	375.00	Clear	5.12	0.087	2.15	1.0	22.01	265	0.0	NA
10:55	45.92	375.00	Clear	5.08	0.089	2.46	2.2	22.07	265	0.0	NA
10:50	45.93	375.00	Clear	5.06	0.091	3.99	5.3	22.15	265	0.0	NA
10:45	45.93	375.00	Clear	5.06	0.094	5.70	9.7	22.18	265	0.0	NA
10:40	45.93	375.00	Clear	5.10	0.095	7.99	14.2	22.29	262	0.0	NA
10:35	45.93	375.00	Clear	5.06	0.099	8.20	17.6	22.91	261	0.0	NA
10:30	45.93	375.00	Clear	5.05	0.099	8.42	21.5	23.61	260	0.0	NA
10:25	45.92	375.00	Clear	4.53	0.214	7.89	29.0	28.54	296	0.0	NA
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
PURGE DA		1				T		1	T		
Turbidity	Meter:	Lamotte 2	020								
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
	IT INFORMAT					oup.o					
	f Screen (ft-B I Depth (ft-BT		333			Purge Method: Low Flow Sample Method: Low Flow					
	reen (ft-BTO	<i>'</i>	515 535					: Low Flow	0		
Well Diam		4 inch	545			Static Water Level (ft-BTOR): 45.89 PID Monitor Reading: 0					
	RE109D1					Purge Da		07/16/18			
	ORMATION:										
MS/MSD (Collected:	NO				Sample T	ime:	11:30			
QA/QC D	uplicate ID:	No				Sample D	ate:	07/16/18			
Sample IE):	RE109D1	-20180716			Sampled By: Vince Shikora					
							Project No.: <u>112G08005-WE13</u>				

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Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

							o.:	112G0800			
Sample ID	١٠	RE109D1.	-20181005			Sampled	Rv:	CM			
	plicate ID:	TKE 100D I	20101000			Sample D	•	10/05/18			
MS/MSD (•					Sample T		11:35			
	ORMATION:					Gumpio :		11.00			
	RE109D1					Purge Da	te·	10/05/18			
Well Diam		4 "				Static Water Level (ft-BTOR): 45.23					
	reen (ft-BTO		515					•			
	Screen (ft-B		535			PID Monitor Reading 1.1 ppm Purge Method: Low Flow					
	Depth (ft-BT		685			Sample Method: Low Flow					
	IT INFORMAT										
Water Qua	ality Instrume	ent:	Horiba U-	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2									
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
9:15	45.23	300.00	Clear	4.85	0.101	6.45	6.7	18.42	254	0.0	NA
9:25	45.25	300.00	Clear	4.91	0.098	3.47	4.1	16.12	267	0.0	NA
9:35	45.25	300.00	Clear	4.91	0.098	3.00	2.9	15.99	271	0.0	NA
9:45	45.25	300.00	Clear	4.90	0.098	2.98	2.6	15.89	276	0.0	NA
9:55	45.25	300.00	Clear	4.89	0.098	3.07	2.4	15.96	283	0.0	NA
10:05	45.25	300.00	Clear	4.89	0.098	2.55	2.8	15.94	284	0.0	NA
10:15	45.25	300.00	Clear	4.90	0.097	2.48	2.6	16.04	285	0.0	NA
10:20	45.25	300.00	Clear	4.94	0.095	2.67	4.3	16.10	282	0.0	NA
10:25	45.25	300.00 Clear 4.95 0.094		2.86	13.1	16.04	271	0.0	NA		
10:30	45.25	300.00	Lt Grey	4.97	0.093	3.12	32.6	16.00	226	0.0	NA
10:35	45.25	300.00	Lt Grey	5.02	0.094	3.20	99.6	16.21	222	0.0	NA
10:40	45.25	300.00	Lt Grey	5.11	0.096	3.40	134.0	16.45	204	0.0	NA
10:45	45.25	300.00	Lt Grey	5.17	0.099	3.52	139.0	16.46	198	0.0	NA
10:50	45.25	300.00	Lt Grey	5.18	0.100	3.67	126.0	16.62	203	0.0	NA
10:55	45.25	300.00	Lt Grey	5.17	0.100	3.92	92.5	16.79	210	0.0	NA
11:00	45.25	300.00	Lt Grey	5.09	0.100	3.97	60.3	16.73	221	0.0	NA
11:05	45.25	300.00	Lt Grey	5.10	0.100	3.99	52.9	16.69	230	0.0	NA
11:10	45.25	300.00	Lt Grey	5.09	0.100	4.01	35.9	16.61	233	0.0	NA
11:15	45.25	300.00	Lt Grey	5.07	0.100	4.03	42.1	16.60	241	0.0	NA
11:20	45.25	300.00	Lt Grey	5.05	0.099	4.02	34.7	16.47	244	0.0	NA
11:25	45.25	300.00	Lt Grey	5.04	0.099	3.96	36.1	16.62	247	0.0	NA
11:30	45.25	300.00	Clear Clear	5.02	0.099	3.96	30.9	16.79	249	0.0	NA NA
11:35	45.25 GE / SAMPL	300.00	Clear	5.03	0.099	3.92	33.6	16.84	250	0.0	NA
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	-
9:15	11:35	140.00	11gal	5.03	0.099	3.92	33.6	16.84	250	0.0	
ANALYSIS,	, PRESERVA	TION AND E	BOTTLE RE	QUIRMENT	s						
	alysis					vative	Number	Vol.	Bottle '	Гуре	Collected
V	OCs	S	W846 826	OB	Н	CL	3	40-ml	gla	ass	YES
1,4 - D	ioxane	SW	846 8270D	SIM	no	ne	1	1 L	gla	ass	YES
											ļ
00000											
	FIONS / NOTI volume is 54		= 499.77 x ().016 = 8 g	allons						
Coord	dinates:	l	N		<u> </u>	Signature	(s):		Chuck	_, Meyer	
						I .					



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage
Project No.: 112G08005-WE13

						Project No.: <u>112G08005-WE13</u>					
Sample ID):	RE109D1	-20181206			Sampled	By:	Katie Greg	gory		
QA/QC Du	plicate ID:	No				Sample D	ate:	12/06/18	-		
MS/MSD (•		NO			Sample T		1045			
	RMATION:										
Well ID :	RE109D1					Purge Da	te:	12/06/18			
Well Diam	eter (in):	4				Static Wa	ter Level (ft	-BTOR):	43.75		
Top of Sc	reen (ft-BT0	DR):	515			PID Monitor Reading: 0					
•	Screen (ft-	•	535			Purge Me		Low-flow			
	Depth (ft-B					Sample M		Low-flow			
QUIPMEN	IT INFORMA	ATION:				•					
Water Qua	ality Instrun	nent:	Horiba U-5	2		Pump Co	ntroller:	Centrifuga	ıl		
Turbidity	Meter:	Hanna HI	98703					<u>_</u>			
URGE DA											
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
912	43.75							ļ			
919	43.8	700	Clear	4.58	0.118	3.61	24.4	11.29	297	0.1	
924	43.8	700	Clear	4.72	0.11	2.43	19	11.7	294	0.1	
929	43.8	700	Clear	4.76	0.107	2.18	16	11.71	297	0.0	
934	43.8	700	Clear	4.82	0.105	2.3	16.1	11.94	296	0.0	
944	43.8	700	Cloudy	5.27	0.109	2.67	664	12.1	157	0.1	
949	43.8	700	Cloudy	5.44	0.111	3.14	625	12.06	140	0.1	
959	43.8	700	00 Cloudy 5.39 0.11			3.53	272	12.16	165	0.1	
1009	43.8	700	ess cloud	5.29			81	12.39	194	0.1	
1014	43.8	700	Clear	5.23	· · · · · · · · · · · · · · · · · · ·		46.8	12.62	209	0.1	
1024	43.8	700	Clear	5.16	0.108	3.66 3.61	33	12.79	226	0.1	
1029	43.8	700	Clear	5.14	0.107	3.61	22.4	12.84	234	0.1	
1034	43.8	700	Clear	5.12	0.108	3.57	16	12.85	240	0.0	
1039	43.8	700	Clear	5.1	0.107	3.56	17.8	12.97	246	0.0	
INAL PUR	GE / SAMP	LE DATA:									
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
914	1039	85	16	5.1	0.107	3.56	17.8	12.97	246	0.0	
NALYSIS,	PRESERV	ATION AND	BOTTLE RE	QUIRMEN	TS						
	lysis		Method		Preserv		Number	Vol.	Bottle 1		Collected
VO	Cs	S	SW846 8260	В		CI	2	40-mL	Gl	ass	yes
1,4-Di	oxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	r glass	yes
	TIONS / NO	TES:									
15.72 Continue o	onto next sh	neet									
Coordi	inates:		N	ı	E	Signature	(s):		Kat.	ie Gream	,
						Katie Gregory					



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

00010			-	•		J.ga.a.	(- /·		Scott A	nderson	
Coord	dinates:		N	E	<u> </u>	Signature	(s):		a =		
ORPEKAVI	TIONS / NOTE	:5:									
OBSERVAT	TIONS / NOTE	6.									
1,4-D	ioxane		846 8270D		nc	ne	2	1 L		ass	yes
VC	OCs	S	W846 8260)B	H	CL	3	40-ml	gla	ass	yes
	alysis		Method		Preser	vative	Number	Vol.	Bottle 1	Гуре	Collected
	PRESERVAT		ŭ								
1025	1135	60	8 gal	5.45	0.095	2.95	24.0	26.93	201	0.0	
Start Purge	Ena Purge	(min.)	(gal. / L.)	рн (S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Otner
Start	GE / SAMPLE End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
INAL DUD	GE / SAMPLE	E DATA:									
									-		
11:35	45.61	300.00	Clear	5.45	0.095	2.95	24.0	26.93	201	0.0	
11:30	45.60	300.00	Clear	5.44	0.095	2.98	32.7	26.82	205	0.0	
11:25	45.59	300.00	Clear	5.45	0.095	3.00	38.7	26.69	209	0.0	
11:20	45.57	300.00	Clear	5.45	0.095	3.15	27.8	26.11	221	0.0	
11:15	45.54	300.00	Clear	5.43	0.095	3.32	25.5	25.66	230	0.0	
11:10	45.54	300.00	Clear	5.45	0.095	3.76	15.0	25.34	238	0.0	
11:05	45.52	300.00	Clear	5.45	0.095	3.76	16.4	24.86	239	0.0	
11:00	46.48 46.50	300.00	Clear	5.47 5.45	0.095 0.095	4.16 3.88	8.7 14.7	25.14 24.86	235 239	0.0	
10:50 10:55	46.46	300.00 300.00	Clear Clear	5.45 5.47	0.095	4.51	11.8	24.99	228	0.0	
10:45	46.46	300.00	Clear	5.44	0.095	5.10	10.0	23.97	226	0.0	
10:40	46.44	300.00	Clear	5.45	0.095	5.23	10.5	23.65	226	0.0	
10:35	46.42	300.00	Clear	5.44	0.095	5.53	9.7	23.15	216	0.0	
10:30	46.41	300.00	Clear	5.46	0.095	5.61	10.9	23.04	216	0.0	
10:25	46.40	300.00	Clear	5.61	0.095	7.10	12.4	23.24	197	0.0	
(Hrs)	(ft-BTOR)	mL / min.	01	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
PURGE DA											
Turbidity I		Hanna HI		, <u>z</u>		1 dilip co	inti Onei .	Diaddoi			
	ality Instrume		Horiba U-5	2		Pump Co	ntroller	Bladder			
	Depth (ft-BT T INFORMAT		575			Sample M	etnod:	Low Flow			
	Screen (ft-B		570			Purge Me		Low Flow			
	reen (ft-BTOF		550			PID Monitor Reading: 0					
Well Diam	` '	4				Static Water Level (ft-BTOR): 46.23					
	RE109D2					Purge Da		07/16/18			
_	RMATION:										
MS/MSD C	Collected:	No				Sample T	ime:	11:35			
QA/QC Du	plicate ID:					Sample D		07/16/18			
Sample ID):	RE109D2-	20180716			Sampled	Ву:	Scott And	erson		
						Project No.: <u>112G08005-WE13</u>					

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Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

						Project No.: 112G08005-WE13					
Sample II	٠.	DE100D2	-20181005			Sampled	Dv.	CS			
	uplicate ID:	No	-20101003			Sample D	•	10/05/18			
	Collected:	YES				Sample T		1135			
	ORMATION:	120				Campie 1	iiic.	1100			
	RE109D2					Purge Da	te·	10/05/18			
Well Diam		4				_	ter Level (ft		45.52		
	reen (ft-BTO					PID Monitor Reading: 0.3 ppm					
•	f Screen (ft-E	·				Purge Method: Low Flow					
	I Depth (ft-B		575			Sample M		Low Flow			
	NT INFORMA	-				•					
Water Qu	ality Instrum	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Lamotte 2	:020			-					
PURGE DA	ATA:										
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
0900	45.52	325	Cloudy	5.02	0.134	7.60	35.9	18.06	272	0.1	N/a
0910	45.53	325	Cloudy	5.48	0.115	3.31	34.0	17.22	232	0.1	N/a
0920	45.53	325	Cloudy	5.55	0.115	3.03	33.1	17.21	233	0.1	N/a
0930	45.53	325	Cloudy	5.61	0.115	2.72	34.6	17.20	235	0.1	N/a
0940	45.53	325	Cloudy	5.63	0.115	2.16	30.2	17.48	226	0.1	N/a
0950	45.53	325	Cloudy	5.62	0.115	1.89	26.9	17.55	225	0.1	N/a
1000	45.53	325	Cloudy	5.61	0.115	1.68	24.4	17.64	225	0.1	N/a
1010	45.53	325	Cloudy	5.61	0.115	1.66	68.8	18.01	201	0.1	N/a
1020	45.53	325	Cloudy	5.61	0.115	1.64	147	18.56	178	0.1	N/a
1025	45.53	325	Grey	5.61	0.115	1.61	356	18.36	161	0.1	N/a
1030	45.53	325	Grey	5.58	0.114	1.64	875	18.49	136	0.1	N/a
1035	45.53	325	Grey	5.52	0.114	1.40	1000+	18.70	129	0.1	N/a
1040	45.53	325	Grey	5.58	0.115	1.62	1000+	1856	121	0.1	N/a
1045	45.53	325	Grey	5.57	0.116	1.60	1000+	19.30	122	0.1	N/a
1050	45.53	325	Grey	5.57	0.117	1.55	1000+	19.27	121	0.1	N/a
1055	45.53	325	Grey	5.58	0.118	1.49	670	19.25	122	0.1	N/a
1100	45.53	325	Grey	5.58	0.116	1.50	483	19.03	126	0.1	N/a
1105	45.53	325	Grey	5.59	0.115	1.52	348	18.64	130	0.1	N/a
1110	45.53	325	Cloudy	5.40	0.115	1.53	196	18.59	134	0.1	N/a
1115	45.53	325	Cloudy	5.40	0.114	1.55	105	18.50	140	0.1	N/a
1120	45.53	325	Cloudy	5.40	0.113	1.66	83.5	18.39	142	0.1	N/a
1125	45.53	325	Cloudy	5.40	0.112	1.65	66.3	18.68	146	0.1	N/a
1130	45.53 RGE / SAMPL	325 E DATA:	Cloudy	5.41	0.112	1.64	48.2	19.61	150	0.1	N/a
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Cilici
0900	1130	150	~10 gal	5.41	0.112	1.64	48.2	19.61	150	0.1	N/a
<u>ANALYS</u> IS	, PRESERVA	TION AND I		QUIRMENT	'S						
	alysis		Method		Preser		Number	Vol.	Bottle 1	Гуре	Collected
V	OCs	S	SW846 8260B				6	40-ml	gla	ass	YES
1,4-0	Dioxane	SW846 8270D SIM r				ne	3	1 L	gla	ass	YES
	TIONS / NOT		- 0.00 1:		4, -l- t-						
5/0 - 45.5	2 = 524.48 x	0.016 g/ft	= ୪.୪9 gal t	o purge dro	op tubing						

Coordinates:	N	E	Signature(s):	Chaic Cinici
N/a	N/a	N/a		Curis Sinisi

Tt	TETRA TECH
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Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage
Project No.: 112G08005-WE13

			'
ample ID:	RE109D2-20181206	Sampled By:	CWM

 Sample ID:
 RE109D2-20181206
 Sampled By:
 CWM

 QA/QC Duplicate ID:
 No
 Sample Date:
 12/06/18

 MS/MSD Collected:
 NO
 Sample Time:
 1050

WELL INFORMATION:

Well ID: RE109D2 12/06/18 Purge Date: Well Diameter (in): 4" PVC Static Water Level (ft-BTOR): 43.96 Top of Screen (ft-BTOR): 550 PID Monitor Reading: 0 Bottom of Screen (ft-BTOR): 570 Purge Method: Low-flow Total Well Depth (ft-BTOR): 575 Sample Method: Low-flow

EQUIPMENT INFORMATION:

 Water Quality Instrument:
 Horiba U-52
 Pump Controller:
 Centrifugal

Turbidity Meter: HACH 2100Q

Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
920	43.96	1000	Clear	4.49	0.130	7.04	7.08	8.43	314	0.1	
925	44.14	1000	Light gray tint	5.03	0.099	7.50	24.9	13.04	283	0.0	
930	44.14	1000	Light gray tint	5.06	0.097	7.24	61	13.01	264	0.0	
935	44.14	1000	Light gray tint	5.36	0.097	6.72	84.3	13.64	148	0.0	
940	44.14	1000	Light gray tint	5.39	0.097	6.75	96.4	13.39	146	0.0	
945	44.14	1000	Light gray tint	5.34	0.097	7.26	95.7	13.31	170	0.0	
950	44.14	1000	Light gray tint	5.31	0.097	6.53	92.3	13.22	180	0.0	
955	44.14	1000	Light gray tint	5.26	0.096	6.28	37.9	13.24	193	0.0	
1000	44.14	1000	Light gray tint	5.2	0.096	6.03	14.3	13.39	207	0.0	
1005	44.14	1000	Clear	5.14	0.096	5.78	11.7	13.46	222	0.0	
1010	44.14	1000	Clear	5.12	0.096	5.63	9.45	13.56	227	0.0	
1015	44.14	900	Clear	5.1	0.096	5.51	7.17	13.81	232	0.0	
1020	44.14	900	Clear	5.07	0.096	5.37	5.71	13.92	247	0.0	
1025	44.14	900	Clear	5.07	0.096	5.33	4.31	13.71	246	0.0	
1030	44.14	900	Clear	5.06	0.096	5.18	6.17	13.7	254	0.0	
1035	44.14	900	Clear	5.05	0.096	5.07	4.26	13.79	260	0.0	
1040	44.14	900	Clear	5.03	0.096	4.92	3	13.84	263	0.0	
1045	44.14	900	Clear	5.04	0.095	4.87	3.06	13.17	266	0.0	
FINAL PUR	RGE / SAMP	LE DATA:	•		•	•	•	•	•	•	•
Start	End	Total	Total Vol.	На	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other

Start	End	Total	Total Vol.	На	s.c	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Culci
920	1045	85	23.5	5.06	0.095	4 87	3.06	13 27	266	0.0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS

Analysis	Method	Preservative	Number	Vol.	Bottle Type	Collected
VOCs	SW846 8260B	HCI	2	40-mL	Glass	Yes
1,4-Dioxane	SW846 8270D SIM	None	1	1-L	Amber glass	Yes

OBSERVATIONS / NOTES:

8.49664

Coordinates:	N	Е	Signature(s):	Chuch Monor
				Chuck Meyer



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

						Project N	···	11260000	70 WE10		
Sample II	D:	RE109D3-	-20180716			Sampled	Ву:	Beau Ben	field		
QA/QC D	uplicate ID:	_				Sample D	ate:	07/16/18			
MS/MSD	Collected:	NO				Sample T	ime:	11:20			
WELL INF	ORMATION:										
Well ID:	RE109D3					Purge Da	te:	07/16/18			
Well Dian	neter (in):	4				Static Water Level (ft-BTOR): 46.19					
Top of So	creen (ft-BTOF	R):				PID Moni	tor Reading	:	0		
•	of Screen (ft-B	•				Purge Me		Low Flow			
	II Depth (ft-BT		605			Sample N		Low Flow			
EQUIPME	NT INFORMAT	ION:									
Water Qu	ality Instrume	nt:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Hanna fas	t tracker			·					
PURGE DA	ATA:										
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
10:15	Start purge	<u> </u>		(- /	. , ,	(3)	(- /	(-)	()	(117	
10:15	46.20	300.00	Clear	5.61	0.088	3.07	6.42	21.80	175	0.0	
10:30	46.27	300.00	Clear	5.53	0.087	1.00	5.63	21.42	193	0.0	
10:35	46.31	300.00	Clear	5.48	0.087	0.64	4.97	21.42	201	0.0	
10:40	46.31	300.00	Clear	5.41	0.087	0.53	5.29	21.62	217	0.0	
10:45	46.31	300.00	Clear	5.32	0.087	0.48	5.45	21.02	231	0.0	
10:50	46.31	300.00	Clear	5.42	0.087	0.50	5.54	21.75	233	0.0	
10:55	46.31	300.00	Clear	5.40	0.087	0.49	6.36	21.76	240	0.0	
11:00	46.31	300.00	Clear	5.43	0.087	0.60	6.39	20.99	242	0.0	
11:05	46.31	300.00	Clear	5.26	0.087	0.68	7.59	21.77	251	0.0	
11:10	46.31	300.00	Clear	5.36	0.087	0.85	7.54	21.86	242	0.0	
11:15	46.31	300.00	Clear	5.40	0.086	1.05	8.00	21.40	240	0.0	
11:20	Collect samp		Cicai	3.40	0.000	1.00	0.00	21.40	240	0.0	
11.20	Concer same	, , , , , , , , , , , , , , , , , , ,									
FINAL PILI	RGE / SAMPLE	- ΠΑΤΑ·									<u> </u>
Start	End End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
10:15	11:20	65.00	4	5.40	0.086	1.05	8.0	21.4	240	0.0	
ANALYSIS	S, PRESERVAT	TION AND E	BOTTLE RE	QUIRMENT	S						
An	nalysis		Method		Preser	vative	Number	Vol.	Bottle '	Туре	Collected
V	'OCs	S	W846 8260)B	H	CL	3	40-ml	gl	ass	yes
1,4-[Dioxane	SW	846 8270D			ne	2	1 L	gl	ass	yes
OBSERVA	TIONS / NOTE	S:									
Coor	rdinates:		N	ı	E	Signature	(s): /_			<u> </u>	N



Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

						Project No.: 112G08005-WE13					
Sample II	D:	RE109D3	-20181005			Sampled	Ву:	Beau Bent	field		
QA/QC D	uplicate ID:	No				Sample [Date:	10/05/18			
	Collected:	NO				Sample 1		1055			
VELL INF	ORMATION:										
Well ID:	RE109D3					Purge Date: 10/05/18					
Well Dian	neter (in):	4				Static Water Level (ft-BTOR): 45.50					
Top of So	reen (ft-BTOF	₹):				PID Moni	itor Reading	j :	0.5		
Bottom o	f Screen (ft-B	TOR):				Purge Me	ethod:	Low Flow			
Total Wel	I Depth (ft-BT	OR):	605			Sample N	Method:	Low Flow			
EQUIPMEN	NT INFORMAT	ION:									
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity Meter: Lamotte 2020											
PURGE DA	NTA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
0850	Start purge										<u> </u>
0900	45.52	400.00	Cloudy	5.31	0.093	1.07	119.00	15.24	236	0.0	
0910	45.52	400.00	Cloudy	5.36	0.090	0.00	72.90	15.28	242	0.0	
0920	45.52	400.00	Cloudy	5.36	0.089	0.00	63.00	15.27	245	0.0	
0930	45.52	400.00	Cloudy	5.34	0.089	0.00	44.30	15.43	249	0.0	
0940	45.52	400.00	Cloudy	5.36	0.088	0.15	110.00	15.21	215	0.0	
0950	45.52	400.00	Cloudy	5.47	0.088	0.70	649.00	15.30	151	0.0	
1000	45.52	400.00	Cloudy	5.43	0.088	1.55	244.00	15.79	166	0.0	
1005	45.52	400.00	Clear	5.40	0.087	1.67	47.90	15.80	175	0.0	
1010	45.52	400.00	Clear	5.37	0.087	1.71	43.30	16.02	182	0.0	
1015	45.52	400.00	Clear	5.36	0.087	1.84	42.30	16.20	187	0.0	
1020	45.52	400.00	Clear	5.35	0.087	1.88	34.90	16.48	191	0.0	
1025	45.52	400.00	Clear	5.34	0.086	1.92	41.70	16.16	197	0.0	
1030	45.52	400.00	Clear	5.34	0.087	1.90	27.30	16.23	200	0.0	
1035	45.52	400.00	Clear	5.34	0.087	1.90	27.70	16.42	202	0.0	
1040	45.52	400.00	Clear	5.33	0.086	1.91	23.20	16.26	206	0.0	
1045	45.52	400.00	Clear	5.33	0.086	1.91	18.90	16.67	209	0.0	
1050	45.52	400.00	Clear	5.32	0.086	1.96	20.10	16.64	210	0.0	
1055	Collect samp										
	RGE / SAMPLI		1 1		ı		T	ı			
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
850	1055	125.00	12	5.32	0.086	1.96	20.10	16.64	210	0.0	
	, PRESERVAT					1.30	20.10	10.04	210	0.0	
	alysis	ION AND L	Method	QUINIERI	Preser	vative	Number	Vol.	Bottle ⁻	Type	Collected
	OCs	S	W846 8260)B		CL	3	40-ml		ass	YES
	Dioxane		846 8270D			ne	1	1 L		ass	YES
											1 = 5
BSEDVA	TIONS / NOTE	S:									

600-45.50=554.50x0.016=8.87 gal to purge drop tubing

Coordinates:	N	E	Signature(s):	Pagu Panfield
				Beau Benfiela



Coordinates:

N

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Signature(s):

Beau Benfield

Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.: RE109D3-20181206 Sample ID: Sampled By: BB QA/QC Duplicate ID: No Sample Date: 12/06/18 MS/MSD Collected: Sample Time: 1045 WELL INFORMATION: Well ID: RE109D3 12/06/18 Purge Date: Well Diameter (in): Static Water Level (ft-BTOR): 43.95 580 Top of Screen (ft-BTOR): PID Monitor Reading: Bottom of Screen (ft-BTOR): 600 **Purge Method:** Low-flow Total Well Depth (ft-BTOR): Sample Method: Low-flow **EQUIPMENT INFORMATION:** Water Quality Instrument: Horiba U-52 **Pump Controller:** Centrifugal **HACH 2100Q Turbidity Meter:** PURGE DATA: H₂0 Level Flow Color S.C. DO Turbidity Temp. ORP Salinity Other Time pН (ft-BTOR) (S.U.) (Hrs) mL / min. (mS/cm) (mg/L) (NTU) (C°) (mV) (% or ppt) 0915 Start purge 4.02 12.15 338 0925 44.02 800 Clear 0.121 2.78 17 0.1 0935 106 12.69 333 44.03 800 Clear 3.98 0.117 1.65 0.1 44.03 800 0.123 300 12.82 203 0.1 0945 Clear 4.63 1.96 6 gal 227 0955 44.03 800 Clear 4.55 0.12 2.13 116 13.00 0.1 44.03 800 4.46 0.117 2.22 87.5 12.97 255 0.1 1005 Clear 1010 44.03 800 Clear 4.38 0.116 2.28 44.7 13.25 269 0.1 1015 44.03 800 Clear 4.37 0.115 2.28 28.9 13.27 272 0.1 1020 44.03 800 2.26 14.7 13.29 280 Clear 4.36 0.116 0.1 1025 44.03 800 Clear 4.34 0.116 2.23 14.2 13.31 282 0.1 1030 44.03 800 4.35 0.118 12.2 283 0.1 Clear 2.2 13.33 1035 44.03 800 4.37 10.4 291 0.1 Clear 0.115 2.15 13.35 Clear 800 0.115 13.44 293 1040 44.03 4.40 2.08 8.63 0.1 Collect sample 1045 FINAL PURGE / SAMPLE DATA: Total Vol. S.C. DO Turbidity ORP Start End Total рΗ Temp. Salinity Other Purge (NTU) Purge (min.) (S.U.) (mS/cm) (gal. / L.) (mg/L) (C°) (mV) (% or ppt) 13.44 0915 1045 90 19 gal 4.40 0.115 2.08 8.63 293 0.1 ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Method Preservative Number Vol. **Bottle Type** Collected **VOCs** SW846 8260B **HCI** 2 40-mL Glass yes 1,4-Dioxane SW846 8270D SIM None 1-L 1 Amber glass yes **OBSERVATIONS / NOTES:** 600-43.95=556.05x0.016=8.9 gal to purge tubing



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project N	o.:	112G08005-WE13			
Sample II	D:	RE117D1	-20180716			Sampled	Ву:	Beau Benf	ield		
QA/QC D	uplicate ID:	_				Sample D	ate:	07/16/18			
MS/MSD	Collected:	NO				Sample T	ime:	15:05			
WELL INF	ORMATION:										
Well ID:	RE117D1					Purge Da	te:	07/16/18			
Well Dian	neter (in):	4				Static Wa	iter Level (fi	:-BTOR):	25.04		
Top of So	creen (ft-BTOI	₹):	730			PID Moni	tor Reading):	0		
	of Screen (ft-B		755			Purge Me		Low Flow			
Total We	II Depth (ft-BT	OR):	760			Sample N	lethod:	Low Flow			
EQUIPMEI	NT INFORMAT	ΓΙΟΝ:									
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Hanna fas	t tracker								
PURGE DA	ATA:										
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
14:00	Start purge										
14:10	25.09	300.00	Clear	6.54	0.079	6.52	23.10	27.96	246	0.0	
14:15	25.09	300.00	Clear	6.52	0.065	5.74	9.84	25.55	236	0.0	
14:20	25.09	300.00	Clear	6.34	0.047	5.24	5.62	26.38	230	0.0	
14:25	25.09	300.00	Clear	5.99	0.036	5.29	10.50	25.99	226	0.0	
14:30	25.09	300.00	Clear	5.82	0.029	5.00	18.60	25.15	223	0.0	
14:35	25.09	300.00	Clear	5.66	0.025	4.71	20.20	24.88	223	0.0	
14:40	25.09	300.00	Clear	5.61	0.023	4.54	6.14	25.05	227	0.0	
14:45	25.09	300.00	Clear	5.53	0.022	4.33	3.92	24.81	226	0.0	
14:50	25.09	300.00	Clear	5.40	0.021	4.15	2.45	24.56	228	0.0	
14:55	25.09	300.00	Clear	5.36	0.021	3.93	2.08	24.72	233	0.0	
15:00	25.09	300.00	Clear	5.48	0.020	3.68	4.22	24.50	234	0.0	
15:05	Collect sam	ple									
FINAL PUI	RGE / SAMPLI	E DATA:									
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
0:00	15:05	65.00	4	5.48	0.020	3.68	4.2	24.5	234	0.0	
	S, PRESERVA	FION AND E		QUIRMENT			1	I			
	nalysis	_	Method	20	Preser		Number	Vol.	Bottle		Collected
	OCs		W846 8260			CL	3	40-ml	Ž	ass	yes
1,4-[Dioxane	SW	846 8270D	SIM	nc	ne	2	1 L	gla	ass	yes
							-				-
OBSERVA	TIONS / NOT	-c.									
	TIONS / NOTE depth to wat		01 at 1225	coroon of	545 E70						
DFUVV5-4	r debiti to wat	ici was 24.	ฮาสเ เงงง;	screen at	J4J-J/U						

Coordinates:	N	E	Signature(s):	
			1900	19//

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Coordinates:

N/a

N

N/a

Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

						Project N	o.:	112G0800			
Sample ID) <u>:</u>	RF117D1	-20180926			Sampled	Bv:	CS			
-	plicate ID:	No	20100020			Sample D	-	09/26/18			
MS/MSD (NO				Sample T		1425			
	RMATION:	110				Gampio I		1120			
	RE117D1					Purge Da	te:	09/26/18			
Well Diam		4					ter Level (ft		23.85		
	reen (ft-BTO		730				tor Reading	•	0		
	Screen (ft-B		755			Purge Me		Low Flow			
	Depth (ft-BT		760			Sample M		Low Flow			
	IT INFORMAT										
	ality Instrume		Horiba U-	52		Pump Co	ntroller:	Bladder			
Turbidity	-	Lamotte 2									
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1225	23.85	400	Clear	5.92	0.039	2.72	2.13	24.76	225	0.0	N/a
1235	23.86	400	Clear	5.92	0.040	2.39	3.19	26.36	224	0.0	N/a
1245	23.86	400	Clear	5.87	0.039	2.37	2.56	26.79	224	0.0	N/a
1250	23.86	400	Clear	5.83	0.037	2.35	2.49	26.98	224	0.0	N/a
1255	23.86	400	Clear	5.71	0.034	2.01	3.09	26.40	228	0.0	N/a
1300	23.86	400	Clear	5.65	0.032	1.94	3.18	26.32	232	0.0	N/a
1305	23.86	400	Clear	5.60	0.030	1.89	3.30	25.83	235	0.0	N/a
1310	23.86	400	Clear	5.52	0.029	1.87	3.13	25.58	240	0.0	N/a
1315	23.86	400	Clear	5.47	0.029	1.84	4.37	25.07	243	0.0	N/a
1320	23.86	400	Clear	5.30	0.028	1.85	4.61	24.50	250	0.0	N/a
1325	23.86	400	Clear	5.21	0.027	1.96	5.02	23.41	258	0.0	N/a
1330	23.86	400	Clear	5.10	0.028	1.99	5.39	21.77	269	0.0	N/a
1335	23.86	400	Clear	4.95	0.029	2.05	5.87	20.36	284	0.0	N/a
1340	23.86	400	Clear	4.94	0.029	1.99	6.19	20.09	286	0.0	N/a
1345	23.86	400	Clear	4.80	0.029	1.97	4.14	19.84	295	0.0	N/a
1350	23.86	400	Clear	4.50	0.029	2.05	4.00	19.76	305	0.0	N/a
1355	23.86	400	Clear	4.46	0.029	2.10	3.67	19.81	317	0.0	N/a
1400	23.86	400	Clear	4.52	0.029	2.23	3.02	19.72	315	0.0	N/a
1405	23.86	400	Clear	4.56	0.029	2.34	3.60	19.71	318	0.0	N/a
1410	23.86	400	Clear	4.55	0.028	2.40	2.98	19.69	320	0.0	N/a
1415	23.86	400	Clear	4.43	0.027	2.51	4.76	19.48	325	0.0	N/a
1420	23.86	400	Clear	4.41	0.027	2.52	5.74	19.46	324	0.0	N/a
1425	23.86	400	Clear	4.33	0.027	2.67	3.73	19.53	332	0.0	N/a
INAL PUR	GE/SAMPL	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	N1/-
1225	1425	120.00	~13	4.30	0.027	2.67	3.73	19.53	332	0.0	N/a
	PRESERVA	HON AND E	Method	WOIKINEN I	S Preser	vative	Number	Vol.	Bottle '	Type	Collecte
	OCs	0	W846 826	nB.		CL	2	40-ml		ass	YES
	ioxane		846 8270D			ne	1	1 L	·	ass	YES
1,4-L	iovai ic	300	040 0210D	GIIVI	110	111 0	<u> </u>	1 -	gi-	200	TES
DOEDVI	FIGNO (NGT	-0.									
JBSERVA"	TIONS / NOTI	:S:									

Signature(s):

Chris Sinisi

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N/a



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name:

Project No.:

Sample ID	:	RE117D1-	20181204			Sampled I	Зу:	CM			
QA/QC Du	plicate ID:	N/A				Sample Da	ate:	12/04/18			
MS/MSD C	ollected:		NO			Sample Ti	me:	1130			
WELL INFO	RMATION:					<u> </u>					
Well ID:	RE117D1					Purge Dat	e:	12/04/18			
Well Diam		4"					er Level (ft-l		20.77		
	een (ft-BTO	R):	730				or Reading:		0		
	Screen (ft-E		755			Purge Met		Low-flow			
Total Well	Depth (ft-B	TOR):	760			Sample M		Low-flow			
	T INFORMA										
	lity Instrum		Horiba U-5	2		Pump Cor	ntroller:	Centrifuga			
Turbidity I	•	HACH 210									
PURGE DA											
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	00101	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Other
1030	20.62	1000	Clear	4.97	0.023	3.56	10.7	14.42	220	0.0	
1035	20.66	1000	Clear	5.38	0.025	3.32	8.91	14.2	221	0.0	
1040	20.66	1000	Clear	5.37	0.023	3.51	6.45	14.42	253	0.0	
1045	20.66	1000	Clear	5.28	0.024	3.74	5.63	14.41	260	0.0	
1050	20.66	1000	Clear	5.20	0.024	3.74	4.97	14.41	266	0.0	
1055	20.66	1000	Clear	5.06	0.024	3.95	3.05	14.65	277	0.0	
1100	20.66	1000	Clear	5.07	0.025	3.96	2.03	14.47	283	0.0	
1105	20.66	1000	Clear	5.09	0.025	3.97	2.8	14.47	291	0.0	
1110	20.66	1000	Clear	5.06	0.025	3.97	2.81	14.34	296	0.0	
1115	20.66	1000	Clear	5.05	0.025	3.95	2.92	14.39	300	0.0	
1113	20.66	1000	Clear	5.06	0.025	3.95	3	14.43	302	0.0	
1125	20.66	1000	Clear	5.07	0.025	3.95	3.06		305	0.0	
1125	20.00	1000	Clear	5.07	0.025	3.95	3.00	14.47	305	0.0	
EINIAL DUD	GE / SAMPL	E DATA:									
		1						_			A . I
Start	End	Total	Total Vol.	pH (C.L.)	S.C.	DO (mar/l.)	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1030	1125	55	15	5.07	0.025	3.45	3.06	14.47	305	0.0	
		TION AND E	BOTTLE REG	UIRMENTS			<u> </u>		<u> </u>		
	lysis		Method	_	Preserv		Number	Vol.	Bottle T		Collected
)Cs		SW846 8260			CI	2	40-mL		lass	Yes
1,4-Di	oxane	SW	846 8270D	SIM	No	one	1	1-L	Ambe	er glass	Yes
							ļ		ļ		
							ļ		ļ		
									ļ		
	IONS / NOT	ES:									
11.82768											
						la: : :	,				
Coord	inates:		N	Е		Signature(s):		Chuck	Meyer	
									0	(<i>)</i>	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project N	0.:	112G0800	05-WE13		
Sample ID):	RE117D2	-20180716			Sampled	Ву:	Vince Shill	cora		
QA/QC Du	uplicate ID:	No				Sample D	ate:	07/16/18			
MS/MSD (Collected:	NO				Sample T	ime:	14:50			
WELL INFO	ORMATION:										
Well ID:	RE117D2					Purge Da	te:	07/16/18			
Well Diam	neter (in):	4 inch				Static Wa	iter Level (fi	-BTOR):	24.41		
Top of Sc	reen (ft-BTO	₹):	780			PID Moni	tor Reading	:	0		
Bottom of	Screen (ft-B	TOR):	805			Purge Me	thod:	Low Flow			
Total Well	I Depth (ft-BT	OR):	810			Sample M	lethod:	Low Flow			
QUIPMEN	IT INFORMAT	ΓΙΟΝ:									
Water Qua	ality Instrume	ent:	Horiba U-	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2	020								
URGE DA						•			-		•
Time	H ₂ 0 Level	Flow	Color	pH	S.C.	DO (*** **(!)	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	Ol	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	A 1 A
13:45	24.42	375.00	Clear	5.15	0.030	6.22	8.2	28.46	252	0.0	NA
13:50	24.42	375.00	Clear	5.86	0.037	2.49	2.0	26.33	258	0.0	NA
13:50	24.42	375.00	Clear	5.91	0.037	1.90	0.6	24.19	257	0.0	NA
13:55	24.42	375.00	Clear	5.95	0.038	1.19	0.0	23.72	256	0.0	NA
14:00	24.42	375.00	Clear	5.80	0.034	0.87	0.0	23?02	257	0?0	NA
14:05	24.42	375.00	Clear	5.64 5.45	0.030	0.59	0.0	22.60	257	0.0	NA
14:10	15 24.42 375.00 Clear				0.028	0.53	0.0	22.65	257	0.0	NA
14:15					0.027	0.50	0.0	22.63	264	0.0	NA
14:20	20 24.42 375.00 Clear 5				0.027	0.47	0.0	22.58	266	0.0	NA
14:25	:25 24.42 375.00 Clear 5.				0.028	0.45	0.0	22.57	269	0.0	NA
14:30	24.42	375.00	Clear	5.46	0.029	0.43	0.0	22.55	271	0.0	NA
14:35	24.42	375.00	Clear	5.51	0.032	0.40	0.0	22.49	273	0.0	NA
14:40	24.42	375.00	Clear	5.50	0.031	0.40	0.0	22.48	274	0.0	NA
14:45	24.42	375.00	Clear	5.50	0.031	0.39	0.0	22.46	276	0.0	NA
14:50	24.42	375.00	Clear	5.49	0.031	0.39	0.0	22.44	277	0.0	NA
INAL PUR	GE / SAMPL	E DATA:									
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp.	ORP (mV)	Salinity (ppt)	Other
13:45	14:50	65.00	7 gal	5.49	0.031	0.39	0.0	22.44	277	0.0	NA
NALYSIS, PRESERVATION AND BOTTLE REQUIRME											
Analysis Method					Preser		Number	Vol.	Bottle	Туре	Collecte
	VOCs SW846 8260B				H	CL	3	40-ml	gla	ass	YES
1,4-0	ioxane	SW	846 8270D	SIM	nc	ne	2	1 L	gla	ass	YES
DBSERVA ⁻	TIONS / NOTE No s		lors observe	ed during p	ourge						
Coore	dinates:		N		=	Signature(s):					
Coordinates: N E						J.g.14ta16	\ - /·		Vince S	hickora	

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Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

Sample ID: RE117D2-20180926								11200000			
Sample ID);	RE117D2-	-20180926			Sampled	Ву:	CM			
QA/QC Du	ıplicate ID:	NO				Sample D	ate:	09/26/18			
MS/MSD (Collected:	NO				Sample T	ime:	15:00			
WELL INFO	RMATION:										
Well ID:	RE117D2					Purge Da	te:	09/26/18			
Well Diam	eter (in):	4				Static Wa	ter Level (ft	-BTOR):	22.87		
Top of Sc	reen (ft-BTO	R):	780			PID Moni	tor Reading	0			
	Screen (ft-B		805			Purge Me	thod:	Low Flow			
	Depth (ft-BT		810			Sample N	lethod:	Low Flow			
EQUIPMEN	IT INFORMAT	TION:									
Water Qua	ality Instrume	ent:	Horiba U-	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Lamotte 2	020								
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
13:00	22.87	400.00	Clear	4.83	0.028	1.49	10.5	22.76	274	0.0	NA
13:05	22.95	400.00	Clear	4.78	0.028	1.08	7.7	22.50	283	0.0	NA
13:10	22.95	400.00	Clear	4.70	0.028	0.85	5.4	22.41	289	0.0	NA
13:15	22.95	400.00	Clear	4.70	0.028	0.08	8.2	22.39	292	0.0	NA
13:20	22.95	400.00	Clear	4.74	0.028	0.75	10.4	20.32	295	0.0	NA
13:25	22.95	400.00	Clear	4.74	0.028	0.64	11.7	22.37	301	0.0	NA
13.30	22.95	400.00	Clear	4.60	0.029	0.59	12.8	22.52	307	0.0	NA
13:35	22.95	400.00	Clear	4.48	0.031	0.05	10.2	22.27	317	0.0	NA
13:40	22.97	400.00	Clear	4.47	0.031	0.04	1.0	22.20	313	0.0	NA
13:45	22.97	400.00	Clear	4.49	0.030	0.04	-	22.01	311	0.0	NA
13:50	22.97	400.00	Clear	4.60	0.029	1.29	11.6	22.14	211	0.0	NA
13:55	22.97	400.00	Clear	4.65	0.028	1.21	11.3	22.06	84	0.0	NA
14:00	22.97	400.00	Lt Grey	4.69	0.028	1.05	176.0	21.98	77	0.0	NA
14:05	22.97	400.00	Lt Grey	4.63	0.028	1.02	488.0	21.95	68	0.0	NA
14:10	22.97	400.00	Lt Grey	4.67	0.028	0.99	531.0	21.89	64	0.0	N
14:15	22.97	400.00	Lt Grey	4.69	0.028	0.95	425.0	21.81	61	0.0	NA
14:20	22.96	400.00	Lt Grey	4.87	0.028	0.72	179.0	21.73	68	0.0	NA
14:25	22.97	400.00	Lt Grey	4.69	0.028	0.65	241.0	21.49	64	0.0	NA
14:30	22.98	400.00	Lt Grey	4.68	0.028	0.58	208.0	21.49	87	0.0	NA
14:35	22.98	400.00	Lt Grey	4.69	0.028	0.49	210.0	21.76	86	0.0	NA
14:40	22.98	400.00	Lt Grey	4.69	0.028	0.68	162.0	21.52	87	0.0	NA
14:45	22.98	400.00	Lt Grey	4.59	0.029	0.43	87.6	21.28	94	0.0	NA
14:50	22.98	400.00	Lt Grey	4.56	0.029	0.38	84.4	21.13	100	0.0	NA
14:55	22.98	400.00	Lt Grey	4.54	0.029	0.33	56.6	21.15	106	0.0	NA
15:00	22.98	400.00	Lt Grey	4.52	0.030	0.29	43.3	21.05	110	0.0	NA
	GE/SAMPL	E DATA:									
Start	End	Total	Total Vol.	pH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	21.05	(mV)	(ppt)	NIA
13:00	15:00 PRESERVA	120.00	13.5	4.52	0.030	0.29	43.3	21.05	110	0.0	NA
	alysis	WOIKIVIEN I	Preser	vative	Number	Vol.	1010 Bottle	Type	Collected		
	Analysis Method VOCs SW846 8260B					CL CL	2	40-ml		ass	Conected
	oos Oioxane		846 8270D			ne	1	40-IIII 1 L		ass ass	
1,4-L	1,4-bloxane evvoto 0210b diw					/1 IC	'	1 -	gi.	uJJ	-
OBSERVA [*]	DBSERVATIONS / NOTES:										
<u> </u>											
Coordinates: N E						Signature	(s):				
5001						J.g.iataie	(-).		Chuck	Meyer	
Octionates: N E											



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name:NWIRP BethpageProject No.:112G08005-WE13

						Projective	J.,	11200000	O WEIG			
Sample II) :	RE117D2-	-20181204			Sampled	Ву:	Katie Greg	gory			
QA/QC D	uplicate ID:	No				Sample D	ate:	12/04/18				
	Collected:		NO			Sample T		1035				
	ORMATION:											
	RE117D2					Purge Da	to:	12/04/18				
	neter (in):	1					ter Level (ft		19.72			
	` '		700				•	•				
•	reen (ft-BT0	-	780				or Reading		0			
	f Screen (ft-	•	805			Purge Me		Low-flow				
	I Depth (ft-E		810			Sample M	lethod:	Low-flow				
	NT INFORM					ī						
	ality Instrun		Horiba U-	52		Pump Co	ntroller:	Centrifuga	ıl			
Turbidity		HACH 210	00Q									
PURGE DA	1					1				<u> </u>		
Time	H ₂ 0 Level	Flow	Color	pH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
859	19.72		-									
951	19.84	600	Clear	3.23	0.033	0.77	1.97	12.85	280	0.0		
956	19.92	700	Clear	3.30	0.032	0.00	1.06	13.11	291	0.0		
1001	1006 19.85 700 Clear 3.40 0.032 0.00 5.87 12.99 209 0.0 1011 19.91 700 Clear 3.44 0.031 0.00 48.5 12.87 203 0.0											
1006	19.85	700	Clear	3.40	0.032	0.00	5.87	12.99	209	0.0		
1011	19.91	700	Clear	3.44	0.031	0.00	48.5	12.87	203	0.0		
1016	19.91	700	Clear	102	13.59	191	0.0					
	1									0.0		
	1									0.0		
1035	Grab sam	ļ	Oloui	0.10	0.001	0.00	01.0	10.10	100	0.0		
1000	Orab Sam											
FINAL PLIE	RGE / SAMP	Ι F DΔTΔ·										
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	•	
946	1031	45	11	6.40	0.031	0.00	81.6	13.43	193	0.0		
ANALYSIS	, PRESERV	ATION AND	BOTTLE R									
	lysis		Method		Preser	vative	Number	Vol.	Bottle 1	Гуре	Collected	
)Cs	S	W846 8260)B		CI	2	40-mL		ass	yes	
	ioxane		846 8270D			ne	1	1-L		r glass	yes	
.,. =			0.002.02						7	. g.ass	yee	
								1	1			
								1	1			
									1			
									1	-		
	TIONS / NO	TES:										
7.9028												
Coord	linates:		N	ı	Ξ	Signature	(s):		<i>a</i> .			
									<u>'Kat</u>	ie Gregory	<i>y</i>	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project N	0.:	112G0800	05-WE13		
Sample ID:	:	RE120D1-	-20180711			Sampled	Ву:	Vince Shil	kora		
QA/QC Dup	olicate ID:	GW-02-07	'1118.	1600		Sample D	ate:	07/11/18			
MS/MSD C	ollected:		No			Sample T	ime:	14:20			
WELL INFO	RMATION:										
Well ID: F	RE120D1					Purge Da	te:	07/11/18			
Well Diame	eter (in):	4 inch				Static Wa	iter Level (f	t-BTOR):	38.04		
Top of Scr	een (ft-BTOF	₹):	630			PID Moni	tor Reading	:	2.9 ppm		
Bottom of	Screen (ft-B	TOR):	650			Purge Me	thod:	Low Flow			
Total Well	Depth (ft-BT	OR):	655			Sample N	lethod:	Low Flow			
QUIPMENT	INFORMAT	TION:									
Water Qua	lity Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity N	leter:	Lamotte 2	020								
PURGE DAT	Γ A :										
Time	H ₂ 0 Level	Flow	Color	pH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	0.	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
13:10	37.07	350.00	Clear	6.04	0.119	8.66	0.0	21.49	255	0.0	NA
13:15	37.07	350.00	Clear	6.07	0.121	8.57	0.0	20.69	258	0.0	NA
13:20	37.07	350.00	Clear	5.71	0.120	6.11	0.0	20.19	270	0.0	NA
13:25	37.07	350.00	Clear	5.41	0.120	4.43	0.0	19.82	279	0.0	NA
13:30	37.07	350.00	Clear	5.25	0.119	3.49	0.0	19.56	285	0.0	NA
13:35	37.07	350.00	Clear	5.12	0.119	2.80	0.0	19.34	289	0.0	NA
13:40					0.118	2.51	0.0	19.32	295	0.0	NA
13:45					0.117	2.39	0.0	19.27	301	0.0	NA
13:50	50 37.07 350.00 Clear 4.85				0.117	2.32	0.0	19.19	305	0.0	NA
13:55	5 37.07 350.00 Clear 4.74				0.116	2.37	0.0	19.16	313	0.0	NA
14:00	37.07	350.00	Clear	4.63	0.116	2.41	0.0	19.22	318	0.0	NA
14:05	37.07	350.00	Clear	4.65	0.116	2.43	0.0	19.24	321	0.0	NA
14:10	37.07	350.00	Clear	4.64	0.116	2.47	0.0	19.25	323	0.0	NA
14:15	37.07	350.00	Clear	4.65	0.116	2.49	0.0	19.23	325	0.0	NA
14:20	37.07	350.00	Clear	4.65	0.116	2.50	0.0	19.21	326	0.0	NA
INAL PURC	GE / SAMPLI	E DATA:									
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C.	DO (mg/L)	Turbidity (NTU)	Temp.	ORP	Salinity (ppt)	Other
13:10	14:20	70.00	6.5 gal	4.65	0.116	2.50	0.0	19.21	326	0.0	NA
NALYSIS,	PRESERVA	TION AND E		QUIRMENT							
	lysis		Method		Preser		Number	Vol.	Bottle	Туре	Collecte
	VOCs SW846 8260B					CL	3	40-ml	gla	ass	YES
1,4-Di	oxane	SW	846 8270D	SIM	nc	ne	2	1 L	gla	ass	YES
DBSERVAT	IONS / NOTE	ES:									
			No s	tains or od	ors observ	ed during p	ourge				
Coordinates: N E						Signature	(s):		Vince S	hickora	



Coordinates:

Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

(Hrs) (f-BTOR) mL / min. (s.U.) (mS/cm) (mg/L) (NTU) (C°) (mV) (ppt) 11:35 37.69 400.00 Clear 5.50 0.145 8.90 8.6 23.84 222 0.1 11:45 37.90 400.00 Clear 5.52 0.140 4.97 5.5 22.04 241 0.1 11:55 37.99 400.00 Clear 5.52 0.138 3.62 3.1 21.79 249 0.1 12:15 37.99 400.00 Clear 5.31 0.136 2.49 2.9 21.16 266 0.1 12:25 37.99 400.00 Clear 5.30 0.136 2.49 3.4 21.19 268 0.1 12:35 37.99 400.00 Clear 5.22 0.136 2.49 3.4 21.19 268 0.1 12:45 37.99 400.00 Clear 5.13 0.135 2.69 3.5							Project N	lo.:	112G0800)5-WE13		
MS/MSD Collected: Sample Time: 13:35	Sample IE):	RE120D1-	-20181002			Sampled	Ву:	CM			
New	QA/QC Di	uplicate ID:					Sample [Date:	10/02/18			
Note Purge Date: 10/02/18	MS/MSD (Collected:					Sample 1	Time:	13:35			
Static Water Level (ft-BTOR): 37.69 Static Water Level (ft-BTOR): 37.69 Static Water Level (ft-BTOR): 37.69 Static Water Level (ft-BTOR): 650 Purge Method: Low Flow Flow Flow Flow Flow Flow Flow Fl	VELL INFO	ORMATION:										
Static Water Level (ft-BTOR): 37.69	Well ID :	RE120D1					Purge Da	ite:	10/02/18			
PID Monitor Reading: Bottom of Screen (ft-BTOR): 650	Well Dian	neter (in):								37.69		
Purge Method: Low Flow Color C	Top of Sc	reen (ft-BTO	R):	630								
Name				650								
Name Color	Total Well	Depth (ft-B1	OR):	655			Sample N	/lethod:	Low Flow			
Turbidity Meter: Lamotte 2020 PURGE DATA: Color PH	QUIPMEN	IT INFORMAT	ΓΙΟΝ:									
Time (H-5) (Water Qua	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Time (Hrs) H ₂ 0 Level (H-BTOR) Flow (H-BTOR) ML / min. Color (S.U.) MB / (mS/cm) (mg/L.) (mS/cm) (mg/L.) (mTU) (c°) (mV) (ppt) (ppt) (mS/cm) (mg/L.) (mS/cm) (m	Turbidity	Meter:	Lamotte 2	020								
(Hrs) (F-BTOR) mL / min. (S.U.) (mS/cm) (mg/L) (NTU) (C°) (mV) (ppt) 11:35 37.69 400.00 Clear 5.50 0.145 8.90 8.6 23.84 222 0.1 11:45 37.90 400.00 Clear 5.52 0.140 4.97 5.5 22.04 241 0.1 11:55 37.99 400.00 Clear 5.52 0.138 3.62 3.1 21.79 249 0.1 12:05 37.99 400.00 Clear 5.31 0.136 2.49 2.9 21.16 266 0.1 12:25 37.99 400.00 Clear 5.30 0.136 2.49 3.4 21.19 268 0.1 12:35 37.99 400.00 Clear 5.13 0.136 2.49 3.4 21.19 268 0.1 12:45 37.99 400.00 Clear 5.13 0.136 2.51 3.3	URGE DA	TA:										
11:45				Color	•		_				_	Other
11:55	11:35	37.69	400.00	Clear	5.50	0.145	8.90	8.6	23.84	222	0.1	NA
12:05 37.99 400.00 Clear 5.44 1.380 2.94 3.5 21.66 252 0.1 12:15 37.99 400.00 Clear 5.31 0.136 2.49 2.9 21.16 266 0.1 12:25 37.99 400.00 Clear 5.30 0.136 2.49 3.4 21.19 268 0.1 12:35 37.99 400.00 Clear 5.22 0.136 2.51 3.3 20.76 279 0.1 12:45 37.99 400.00 Clear 5.13 0.135 2.69 3.5 20.49 288 0.1 12:55 37.99 400.00 Clear 5.02 0.135 2.77 2.6 20.56 295 0.1 13:05 37.99 400.00 Clear 5.02 0.135 2.75 2.5 20.59 300 0.1 13:10 37:99 400.00 Clear 5.02 0.135 2.73 2.2 20.49 304 0.1 13:15 37.99 400.00 Clear 5.00 0.134 2.70 2.5 20.58 305 1.0 13:20 37.99 400.00 Clear 5.00 0.134 2.64 2.3 20.49 305 0.1 13:25 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:30 37.99 400.00 Clear 5.03 0.134 2.65 2.3 20.00 307 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.65 2.3 2.00 307 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.65 2.3 2.6 19.90 308 0.1 INAL PURGE / SAMPLE DATA:	11:45	37.90	400.00	Clear	5.52	0.140	4.97	5.5	22.04	241	0.1	NA
12:15 37.99 400.00 Clear 5.31 0.136 2.49 2.9 21.16 266 0.1 12:25 37.99 400.00 Clear 5.30 0.136 2.49 3.4 21.19 268 0.1 12:35 37.99 400.00 Clear 5.22 0.136 2.51 3.3 20.76 279 0.1 12:45 37.99 400.00 Clear 5.13 0.135 2.69 3.5 20.49 288 0.1 12:55 37.99 400.00 Clear 5.02 0.135 2.77 2.6 20.56 295 0.1 13:05 37.99 400.00 Clear 5.02 0.135 2.75 2.5 20.59 300 0.1 13:10 37:99 400.00 Clear 5.02 0.135 2.73 2.2 20.49 304 0.1 13:20 37.99 400.00 Clear 5.00 0.134 2.64 2.3	11:55	37.99	400.00	Clear	5.52	0.138	3.62	3.1	21.79	249	0.1	NA
12:25 37.99 400.00 Clear 5.30 0.136 2.49 3.4 21.19 268 0.1 12:35 37.99 400.00 Clear 5.22 0.136 2.51 3.3 20.76 279 0.1 12:45 37.99 400.00 Clear 5.13 0.135 2.69 3.5 20.49 288 0.1 12:55 37.99 400.00 Clear 5.02 0.135 2.77 2.6 20.56 295 0.1 13:05 37.99 400.00 Clear 5.02 0.135 2.75 2.5 20.59 300 0.1 13:10 37:99 400.00 Clear 5.02 0.135 2.73 2.2 20.49 304 0.1 13:15 37.99 400.00 Clear 5.00 0.134 2.70 2.5 20.58 305 1.0 13:26 37.99 400.00 Clear 5.01 0.135 2.67 2.1	12:05	37.99	400.00	Clear	5.44	1.380	2.94	3.5	21.66	252	0.1	NA
12:35 37.99 400.00 Clear 5.22 0.136 2.51 3.3 20.76 279 0.1 12:45 37.99 400.00 Clear 5.13 0.135 2.69 3.5 20.49 288 0.1 12:55 37.99 400.00 Clear 5.02 0.135 2.77 2.6 20.56 295 0.1 13:05 37.99 400.00 Clear 5.02 0.135 2.75 2.5 20.59 300 0.1 13:10 37:99 400.00 Clear 5.02 0.135 2.73 2.2 20.49 304 0.1 13:15 37.99 400.00 Clear 5.00 0.134 2.70 2.5 20.58 305 1.0 13:20 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:30 37.99 400.00 Clear 5.01 0.134 2.65 2.3	12:15	37.99	400.00	Clear	5.31	0.136	2.49	2.9	21.16	266	0.1	NA
12:45 37.99 400.00 Clear 5.13 0.135 2.69 3.5 20.49 288 0.1 12:55 37.99 400.00 Clear 5.02 0.135 2.77 2.6 20.56 295 0.1 13:05 37.99 400.00 Clear 5.02 0.135 2.75 2.5 20.59 300 0.1 13:10 37:99 400.00 Clear 5.02 0.135 2.73 2.2 20.49 304 0.1 13:15 37.99 400.00 Clear 5.00 0.134 2.70 2.5 20.58 305 1.0 13:20 37.99 400.00 Clear 5.00 0.134 2.64 2.3 20.49 305 0.1 13:30 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.65 2.3	12:25	37.99	400.00	Clear	5.30	0.136	2.49	3.4	21.19	268	0.1	NA
12:55 37.99 400.00 Clear 5.02 0.135 2.77 2.6 20.56 295 0.1 13:05 37.99 400.00 Clear 5.02 0.135 2.75 2.5 20.59 300 0.1 13:10 37.99 400.00 Clear 5.02 0.135 2.73 2.2 20.49 304 0.1 13:15 37.99 400.00 Clear 5.00 0.134 2.70 2.5 20.58 305 1.0 13:20 37.99 400.00 Clear 5.00 0.134 2.64 2.3 20.49 305 0.1 13:30 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:35 37.99 400.00 Clear 5.03 0.134 2.65 2.3 20.00 307 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.63 2.6	12:35	37.99	400.00	Clear	5.22	0.136	2.51	3.3	20.76	279	0.1	NA
13:05 37.99 400.00 Clear 5.02 0.135 2.75 2.5 20.59 300 0.1 13:10 37:99 400.00 Clear 5.02 0.135 2.73 2.2 20.49 304 0.1 13:15 37.99 400.00 Clear 5.00 0.134 2.70 2.5 20.58 305 1.0 13:20 37.99 400.00 Clear 5.00 0.134 2.64 2.3 20.49 305 0.1 13:25 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:30 37.99 400.00 Clear 5.03 0.134 2.65 2.3 20.00 307 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.63 2.6 19.90 308 0.1 INAL PURGE / SAMPLE DATA: Start End Total Total Vol.	12:45	37.99	400.00	Clear	5.13	0.135	2.69	3.5	20.49	288	0.1	NA
13:10 37:99 400.00 Clear 5.02 0.135 2.73 2.2 20.49 304 0.1 13:15 37.99 400.00 Clear 5.00 0.134 2.70 2.5 20.58 305 1.0 13:20 37.99 400.00 Clear 5.00 0.134 2.64 2.3 20.49 305 0.1 13:25 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:30 37.99 400.00 Clear 5.03 0.134 2.65 2.3 20.00 307 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.63 2.6 19.90 308 0.1 18:35 37.99 400.00 Clear 5.01 0.134 2.63 2.6 19.90 308 0.1 18:40 10:40 10:40 10:40 10:40 10:40 10:40 10:40 </td <td>12:55</td> <td>37.99</td> <td>400.00</td> <td>Clear</td> <td>5.02</td> <td>0.135</td> <td>2.77</td> <td>2.6</td> <td>20.56</td> <td>295</td> <td>0.1</td> <td>NA</td>	12:55	37.99	400.00	Clear	5.02	0.135	2.77	2.6	20.56	295	0.1	NA
13:15 37.99 400.00 Clear 5.00 0.134 2.70 2.5 20.58 305 1.0 13:20 37.99 400.00 Clear 5.00 0.134 2.64 2.3 20.49 305 0.1 13:25 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:30 37.99 400.00 Clear 5.03 0.134 2.65 2.3 20.00 307 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.63 2.6 19.90 308 0.1 INAL PURGE / SAMPLE DATA: Start End Total Total Vol. pH S.C. DO Turbidity Temp. ORP Salinity 0	13:05	37.99	400.00	Clear	5.02	0.135	2.75	2.5	20.59	300	0.1	NA
13:20 37.99 400.00 Clear 5.00 0.134 2.64 2.3 20.49 305 0.1 13:25 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:30 37.99 400.00 Clear 5.03 0.134 2.65 2.3 20.00 307 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.63 2.6 19.90 308 0.1 INAL PURGE / SAMPLE DATA: Start End Total Total Vol. pH S.C. DO Turbidity Temp. ORP Salinity 0	13:10	37:99	400.00	Clear	5.02	0.135	2.73	2.2	20.49	304	0.1	NA
13:25 37.99 400.00 Clear 5.01 0.135 2.67 2.1 20.32 306 0.1 13:30 37.99 400.00 Clear 5.03 0.134 2.65 2.3 20.00 307 0.1 13:35 37.99 400.00 Clear 5.01 0.134 2.63 2.6 19.90 308 0.1 INAL PURGE / SAMPLE DATA: Start End Total Total Vol. pH S.C. DO Turbidity Temp. ORP Salinity Columnity	13:15	37.99	400.00	Clear	5.00	0.134	2.70	2.5	20.58	305	1.0	NA
13:30	13:20	37.99	400.00	Clear	5.00	0.134	2.64	2.3	20.49	305	0.1	NA
13:35	13:25	37.99	400.00	Clear	5.01	0.135	2.67	2.1	20.32	306	0.1	NA
START END TOTAL TOTAL VOI. PH S.C. DO Turbidity Temp. ORP Salinity ORP	13:30	37.99	400.00	Clear	5.03	0.134	2.65	2.3	20.00	307	0.1	NA
Start End Total Total Vol. pH S.C. DO Turbidity Temp. ORP Salinity (13:35	37.99	400.00	Clear	5.01	0.134	2.63	2.6	19.90	308	0.1	NA
Start End Total Total Vol. pH S.C. DO Turbidity Temp. ORP Salinity (
Start End Total Total Vol. pH S.C. DO Turbidity Temp. ORP Salinity (INAL PUR	GE / SAMPL	E DATA:					<u> </u>				
			1	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
5 () () () () () () () () () (Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
11:35 13:35 120.00 13.5 5.01 0.134 2.63 2.6 19.90 308 0.1							2.63	2.6	19.90	308	0.1	NA
NALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS	NALYSIS,	, PRESERVA	TION AND E		QUIRMENT							
		_		Method		Preser	vative	Number	Vol.	Bottle 7	Гуре	Collecte
						H	CL	t				YES
1,4-Dioxane	1,4-D	ioxane	SW	846 8270D	SIM	nc	ne	1	1 L	gla	ass	YES
Volume to be purged from tubing 665 + 37.69 = 627.31 x 0.010 = 6.27 gallons												

Signature(s):

Chuck Meyer



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

Sample II	D:	RE120D1-	20181205			Sampled	Ву:	CM			
QA/QC D	uplicate ID:	N/A				Sample D	ate:	12/05/18			
MS/MSD	Collected:		NO			Sample T	ime:	1445			
WELL INFO	ORMATION:										
Well ID:	RE120D1					Purge Da	te:	12/05/18			
Well Diam	neter (in):	4"				Static Wa	ter Level (f	t-BTOR):	35.07		
	reen (ft-BTC		630				tor Reading		0		
	f Screen (ft-	•	650			Purge Me	•	Low-flow	-		
	I Depth (ft-B					Sample M		Low-flow			
	NT INFORMA										
Water Qu	ality Instrun	nent:	Horiba U-5	52		Pump Co	ntroller:	Centrifuga	ıl		
Turbidity		HACH 210	00Q								
PURGE DA											
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp.	ORP (mV)	Salinity (% or ppt)	Other
1400	35.07	1000	Clear	4.97	0.103	7.84	2.41	14.19	345	0.0	
1405	35.07	1000	Clear	4.8	0.129	3.51	0.63	14.06	343	0.0	
1410	35.07	1000	Clear	4.71	0.133	2.54	0.51	14.13	343	0.0	
1415	35.07	1000	Clear	4.54	0.132	2.04	0.44	14.37	343	0.0	
1420	35.07	1000	Clear	4.40	0.132	1.97	0.45	14.50	353	0.0	
1425	35.07	1000	Clear	4.37	0.132	1.87	0.46	14.56	357	0.0	
1430	35.07	1000	Clear	4.35	0.132	1.89	0.23	14.64	359	0.0	
1435	35.07	1000	Clear	4.36	0.132	1.9	0.23	14.65	361	0.0	
1440	35.07	1000	Clear	4.36	0.132	1.95	0.21	14.79	363	0.0	
1440	00.07	1000	Olcai	4.00	0.102	1.55	0.21	14.73	000	0.0	
FINAL PUR	RGE / SAMP	I F DATA									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1400	1440	40	11	4.36	0.132	1.95	0.21	14.79	363	0.0	
ANALYSIS	, PRESERV	ATION AND	BOTTLE R	EQUIRMEN	ITS						
Ana	lysis		Method		Preser	vative	Number	Vol.	Bottle 1	Гуре	Collected
VC	OCs	S	W846 8260)B	Н	CI	2	40-mL	GI	ass	Yes
1,4-D	ioxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	r glass	Yes
OBSERVA [*]	TIONS / NO	ΓES:									
6.1493											
Coord	linates:		N		E	Signature	(s):		25	(a (
							. ,		Chi	ick Meyei	r
						-					



Coordinates:

N/a

N

N/a

Event:

Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.:

112G08005-WE13

									50 WE10		
Sample II):	RE120D2	-20181002			Sampled	Ву:	CS			
QA/QC Di	uplicate ID:	N/a				Sample D	Date:	10/02/18			
MS/MSD	Collected:	NO				Sample T	Time:	1255			
WELL INFO	ORMATION:					<u> </u>					
Well ID:	RE120D2					Purge Da	ite:	10/02/18			
Well Dian		4				_	ater Level (f		37.48		
	reen (ft-BTO	₹):	690				tor Reading		0		
	f Screen (ft-B		710			Purge Me		Low Flow			
	Depth (ft-B1		713			Sample N		Low Flow			
	IT INFORMAT		-								
	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2						2.0.0.0.			
PURGE DA											
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1050	37.48	350	Clear	5.48	0.107	8.15	3.57	23.09	261	0.0	N/a
1100	37.60	350	Clear	5.38	0.092	3.24	2.96	21.39	267	0.0	N/a
1110	37.60	350	Clear	5.29	0.090	2.11	1.45	20.89	261	0.0	N/a
1120	37.60	350	Clear	5.20	0.088	1.58	0.79	20.35	256	0.0	N/a
1130	37.60	350	Clear	5.22	0.088	0.76	0.70	20.20	253	0.0	N/a
1140	37.60	350	Clear	5.16	0.088	0.69	0.57	20.38	252	0.0	N/a
1150	37.60	350	Clear	5.09	0.089	0.65	0.51	20.55	252	0.0	N/a
1200	37.60	350	Clear	5.20	0.089	0.56	0.60	20.74	251	0.0	N/a
1210	37.60	350	Clear	5.20	0.088	0.51	0.68	20.50	251	0.0	N/a
1215	37.60	350	Clear	5.20	0.088	0.75	0.80	20.45	253	0.0	N/a
1220	37.60	350	Clear	5.20	0.087	0.88	0.78	20.41	256	0.0	N/a
1225	37.60	350	Clear	5.20	0.086	1.04	0.69	20.36	258	0.0	N/a
1230	37.60	350	Clear	5.21	0.086	1.16	0.74	20.30	261	0.0	N/a
1235	37.60	350	Clear	5.18	0.086	1.28	0.70	20.01	263	0.0	N/a
1240	37.60	350	Clear	5.16	0.086	1.40	0.67	19.99	266	0.0	N/a
1245	37.60	350	Clear	5.13	0.086	1.46	0.75	19.96	268	0.0	N/a
1250	37.60	350	Clear	5.09	0.086	1.55	0.81	19.94	273	0.0	N/a
INAL PUR	RGE / SAMPL	E DATA:									
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	.
1050	1250	120	~10	5.09	0.086	1.55	0.81	19.94	273	0.0	N/a
	, PRESERVA	HON AND I	Method	QUIRMENT	S Preser	votivo	Number	Vol.	Pattle 1		Collecte
	<mark>alysis</mark> OCs	c	Wethod W846 8260	np.			Number 2	40-ml	Bottle		
						CL ne				ass	YES
1,4-L	ioxane	500	846 8270D	SIIVI	nc	ne	1	1 L	gi	ass	YES
							1				
JBSEDI/A	TIONS / NOTI	- C-									
	$8 = 672.5 \times 0$		- 6 72 ~~!	To pures d	ron tubin-	volume					

Signature(s):

Chris Sinisi

Е

N/a



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event: Project Site Name:

Project No.:

Sample ID		RE120D2-	20181205			Sampled I	Bv.	CM			
•		N/A	20101203			Sample D	•	12/05/18			
MS/MSD C	•	11//	NO			Sample Ti		1305			
	RMATION:		NO			Sample 11	iiic.	1303			
	RE120D2					Purge Dat	e:	12/05/18			
Well Diam		4" PVC					ter Level (ft-		34.72		
	reen (ft-BTO		690				or Reading:	•	0		
•	Screen (ft-B		710			Purge Me		Low-flow			
	Depth (ft-B1		715			Sample M	ethod:	Low-flow			
	T INFORMA										
Water Qua	lity Instrume	ent:	Horiba U-5	2		Pump Cor	ntroller:	Centrifugal			
Turbidity		HACH 210	0Q								
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1205	34.72	1000	Clear	5.50	0.086	3.16	9.43	14.41	266	0.0	
1210	34.74	1000	Clear	5.45	0.086	1.49	4.21	14.97	261 258	0.0	
1215 34.83 1000 Clear 5.42 0.085 0.69 1.77 15.22 1220 34.82 1000 Clear 5.42 0.085 0.51 1.45 15.02 1225 34.82 1000 Clear 5.42 0.085 0.99 1.47 14.96 1230 34.82 1000 Clear 5.41 0.086 1.23 1.35 15.04 1235 34.82 1000 Clear 5.41 0.085 1.38 1.33 15.04										0.0	
									260	0.0	
									262	0.0	
									266	0.0	
								268	0.0		
									272	0.0	
					0.086 0.087	1.62	1.34	14.97	274	0.0	
	1235 34.82 1000 Clear 5.4					1.71	1.68 0.89	14.98 15.04	276 279	0.0	
					0.087 0.087	1.82 1.97	0.89	15.04	281	0.0	
1300	34.02	1000	Clear	5.57	0.067	1.97	0.79	15.05	201	0.0	
FINAL PUR	GE / SAMPL	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1205	1300	55	14	5.37	0.087	1.97	0.79	15.05	281	0.0	
ANALYSIS,	PRESERVA	TION AND E	OTTLE REC	UIRMENTS							
Ana	lysis		Method		Preserv	ative	Number	Vol.	Bottle T	уре	Collected
VC)Cs	S	W846 8260)B	Н	CI	2	40-mL	GI	ass	Yes
1,4-D	oxane	SW	846 8270D	SIM	No	one	1	1-L	Ambe	r glass	Yes
							ļ				
							-				
OBSERVAT	IONS / NOT	EC.									
6.8028		ES:									
	8" ID tubing										
Coord	inates:	I	N	I	E	Signature(s):		Chuck	Meyer	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

Sample ID:	Coordinates: N E						Signature(s): Scott Anderson					
Sample ID:	Coor	dinates		M.	-		Signatura	(e)·				
Sample ID:												
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson	OBSERVAT	TIONS / NOTE	S:									
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson										-		
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson	1,4-0	ioxane	SW	846 8270D	SIM	nc	ne	2	1 L	gli	ass	YES
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson												
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson												
Sample ID:	ANALYSIS,	, PRESERVAT	TION AND B	OTTLE REG	QUIRMENTS							
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson		1425	60			0.077				!	i e	
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson											-	Other
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson				Total Vol	н	S.C	DO	Turbidity	Temp	ORP	Salinity	Other
Sample ID: RE120D2-20180711 Sample By: Scott Anderson	FINAL PLIR	GF / SAMPLI	I F DATA:							L	L	
Sample ID: RE120D2-20180711 Sample By: Scott Anderson												
Sample ID: RE120D2-20180711 Sample By: Scott Anderson												
Sample ID: RE120D2-20180711 Sample By: Scott Anderson												
Sample ID: RE120D2-20180711 Sample By: Scott Anderson												
Sample ID: RE120D2-20180711 Sample By: Scott Anderson		200		2.22					120			
Sample ID: RE120D2-20180711 Sample By: Scott Anderson												
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson												
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson		4:10 37.90 350.00 Clear 5.26								1		
Sample ID: RE120D2-20180711 Sample By: Scott Anderson		4:05 37.90 350.00 Clear 5.22										
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson										1		
Sample ID: RE120D2-20180711 Sample By: Scott Anderson		00 37.90 350.00 Clear 5.31								1	1	
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson											t	
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson	13:45						0.14	0.3	18.70	265	0.0	
Sample ID:	13:40	37.90	350.00	Clear	5.38	0.075	0.17	0.5	18.95	258	0.0	
Sample ID: RE120D2-20180711 Sample By: Scott Anderson								0.5		1	0.0	
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson										1		
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson				Clear								
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25 WELL INFORMATION: Well ID: RE120D2 Purge Date: 07/11/18 Well Diameter (in): 4 Static Water Level (ft-BTOR): 37.9 Top of Screen (ft-BTOR): 690 PID Monitor Reading: 4 Bottom of Screen (ft-BTOR): 710 Purge Method: Low Flow Total Well Depth (ft-BTOR): 713 Sample Method: Low Flow EQUIPMENT INFORMATION: Water Quality Instrument: Horiba U-52 Pump Controller: Bladder Turbidity Meter: Hanna HI 98703 PURGE DATA:		_		Color	-				-		-	Other
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25 WELL INFORMATION: Well ID: RE120D2 Purge Date: 07/11/18 Well Diameter (in): 4 Static Water Level (ft-BTOR): 37.9 Top of Screen (ft-BTOR): 690 PID Monitor Reading: 4 Bottom of Screen (ft-BTOR): 710 Purge Method: Low Flow Total Well Depth (ft-BTOR): 713 Sample Method: Low Flow EQUIPMENT INFORMATION: Water Quality Instrument: Horiba U-52 Pump Controller: Bladder Turbidity Meter: Hanna HI 98703			1				1	1	1			
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25 WELL INFORMATION: Well ID: RE120D2 Purge Date: 07/11/18 Well Diameter (in): 4 Static Water Level (ft-BTOR): 37.9 Top of Screen (ft-BTOR): 690 PID Monitor Reading: 4 Bottom of Screen (ft-BTOR): 710 Purge Method: Low Flow Total Well Depth (ft-BTOR): 713 Sample Method: Low Flow EQUIPMENT INFORMATION:	Turbidity	Meter:	Hanna HI	98703								
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25 WELL INFORMATION: Well ID: RE120D2 Purge Date: 07/11/18 Well Diameter (in): 4 Static Water Level (ft-BTOR): 37.9 Top of Screen (ft-BTOR): 690 PID Monitor Reading: 4 Bottom of Screen (ft-BTOR): 710 Purge Method: Low Flow Total Well Depth (ft-BTOR): 713 Sample Method: Low Flow				Horiba U-5	52		Pump Co	ntroller:	Bladder			
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25 WELL INFORMATION: Well ID: RE120D2 Purge Date: 07/11/18 Well Diameter (in): 4 Static Water Level (ft-BTOR): 37.9 Top of Screen (ft-BTOR): 690 PID Monitor Reading: 4 Bottom of Screen (ft-BTOR): 710 Purge Method: Low Flow		<u>`</u>		713			Sample IV	ietiiou.	LOW I IOW			
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25 WELL INFORMATION: Well ID: RE120D2 Purge Date: 07/11/18 Well Diameter (in): 4 Static Water Level (ft-BTOR): 37.9 Top of Screen (ft-BTOR): 690 PID Monitor Reading: 4		•	•									
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25 WELL INFORMATION: Well ID: RE120D2 Purge Date: 07/11/18 Well Diameter (in): 4 Static Water Level (ft-BTOR): 37.9	•	•	<i>'</i>							4		
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25 WELL INFORMATION: Text of the control of the		` '										
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18 MS/MSD Collected: No Sample Time: 14:25	Well ID:	RE120D2					Purge Da	te:	07/11/18			
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson QA/QC Duplicate ID: Sample Date: 07/11/18	WELL INFO	RMATION:										
Sample ID: RE120D2-20180711 Sampled By: Scott Anderson		•	No									
	•			20100711				•		615011		
Project No.: 112G08005-WE13	0 1 15		DE400D0	00400744			Project N					

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Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

						Project N	o.:	112G0800	05-WE13	-WE13			
Sample II):	RE120D3-	-20180711		Sampled	ed By: Beau Benfield							
QA/QC D	uplicate ID:	_				Sample D	ate:	07/11/18					
MS/MSD	Collected:	NO				Sample T	ime:	14:15					
WELL INFO	ORMATION:												
Well ID:	RE120D3					Purge Da	te:	07/11/18					
Well Dian	neter (in):	4				Static Wa	Static Water Level (ft-BTOR): 38.48						
Top of So	reen (ft-BTOF	R):	740			PID Monitor Reading: 0							
Bottom o	f Screen (ft-B	TOR):	760			Purge Method: Low Flow							
Total Wel	I Depth (ft-BT	OR):	765			Sample N	lethod:	Low Flow					
EQUIPMEN	NT INFORMAT	ION:											
Water Qu	ality Instrume	nt:	Horiba U-5	52		Pump Co	ntroller:	Bladder					
Turbidity	Meter:	Hanna fas	t tracker										
PURGE DA	ATA:												
Time	H ₂ 0 Level	Flow	Color	pH (S.L.)	S.C.	DO (mg/L)	Turbidity	Temp.	ORP	Salinity	Other		
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)			
13:10	Start purge	200.00	Clear	4.04	0.006	0.04	0.00	22.50	202	0.0			
13:20	38.55	300.00	Clear	4.94	0.026	9.94	0.99	23.58	293	0.0	1		
13:30	38.55	300.00	Clear	4.66	0.016	7.21	0.73	20.35	335	0.0			
13:35	38.55	300.00	Clear	4.40	0.017	3.34	0.53	19.91	353	0.0			
13:40	38.55	300.00	Clear	4.60	0.016	2.49	0.44	19.83	350	0.0	-		
13:45	38.55	300.00	Clear	4.60	0.016	1.75	0.33	19.29	350	0.0			
13:50	38.55	300.00	Clear	4.55	0.016	1.39	0.27	19.49	357	0.0			
13:55	38.55	300.00	Clear	4.51	0.015	1.07	0.35	19.64	357	0.0			
14:00	38.55	300.00	Clear	4.83	0.015	1.00	0.94	19.44	335	0.0			
14:05	38.55	300.00	Clear	4.81	0.015	1.04	1.23	19.43	338	0.0			
14:10	38.55	300.00	Clear	4.81	0.015	1.39	1.81	19.24	343	0.0			
14:15	Collect samp	ole											
INAL PUF	RGE / SAMPLE	E DATA:											
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other		
13:10	14:15	65.00	3.5 gal	4.81	0.015	1.39	1.8	19.24	343	0.0			
	, PRESERVAT	ION AND E		QUIRMENT									
	alysis	_	Method				Number	Vol.	Bottle Type		Collecte		
	OCs		W846 8260			HCL 3		40-ml	glass		YES		
1,4-L	Dioxane	SW	846 8270D	SIM	nc	one	2	1 L	gl	ass	YES		
BSERVA	TIONS / NOTE	S:											
Coor	dinates:		N		E	Signature	(s):	2/2	. /	12	//		
								La de		De			



Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						112G00003-WE13						
Sample II	D:	RE120D3-	-20181002		Sampled By: Beau Benfield							
QA/QC D		No			Sample Date: 10/02/18							
MS/MSD	Collected:	NO				Sample 1	Time:	1215				
WELL INF	ORMATION:											
Well ID:	RE120D3					Purge Da	ite:	10/02/18				
Well Dian	neter (in):	4				Static Water Level (ft-BTOR): 37.58						
Top of So	reen (ft-BTOF	₹):	740			PID Monitor Reading: 0						
Bottom o	f Screen (ft-B	TOR):	760			Purge Method: Low Flow						
Total Wel	I Depth (ft-BT	OR):	765			Sample N	/lethod:	Low Flow				
EQUIPMEN	NT INFORMAT	ION:										
	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity		Lamotte 2	020									
PURGE DA			1		ı	1		•	1			
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
1020	Start purge											
1030	37.88	400.00	Clear	4.73	0.029	4.57	0.73	19.36	320	0.0		
1040	37.90	400.00	Clear	4.65	0.027	2.43	2.92	19.49	335	0.0		
1050	37.92	400.00	Clear	4.62	0.026	0.59	1.23	19.51	346	0.0		
1100	37.96	400.00	Clear	4.58	0.025	0.14	0.77	19.04	356	0.0		
1110	38.04	400.00	Clear	4.65	0.025	0.00	0.58	18.97	349	0.0		
1120	38.06	400.00	Clear	4.74	0.024	0.00	1.42	19.04	341	0.0		
1130	38.10	400.00	Clear	4.68	0.024	0.07	2.27	18.85	350	0.0		
1135	38.10	400.00	Clear	4.65	0.024	0.49	1.58	18.89	353	0.0		
1140	38.14	400.00	Clear	4.63	0.025	0.81	2.05	19.07	358	0.0		
1145	38.15	400.00	Clear	4.61	0.025	0.74	1.61	19.08	360	0.0		
1150	38.17	400.00	Clear	4.60	0.026	1.15	1.35	19.34	363	0.0		
1155	38.18	400.00	Clear	4.59	0.026	1.30	1.47	19.26	364	0.0		
1200	38.18	400.00	Clear	4.58	0.026	1.52	1.63	19.27	365	0.0		
1205	38.18	400.00	Clear	4.58	0.027	1.50	1.84	19.25	367	0.0		
1210	38.18	400.00	Clear	4.61	0.026	1.62	1.19	19.21	368	0.0		
1215	Collect samp	ole										
FINAL PUF	RGE / SAMPLI	E DATA:										
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
1020	1215	115.00	12	4.61	0.026	1.62	1.19	19.21	368	0.0		
	, PRESERVAT	TION AND E		QUIRMENT				•	1		•	
	alysis	_	Method		Preser		Number	Vol.	Bottle		Collecte	
	OCs		W846 8260			CL	3	40-ml		ass	YES	
1,4-[Dioxane	SW	846 8270D	SIM	nc	ne	1	1 L	gl	ass	YES	
ORSERVA	TIONS / NOTE	:S·										
			al to purge o									

Coordinates:	N	E	Signature(s):	Page Portiold
				Beau Benfield



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name:NWIRP BethpageProject No.:112G08005-WE13

						Project N	U. .	112G0800)3-VVE13			
Sample II) :	RE120D3-	-20181205			Sampled	Sampled By: BB					
QA/QC D	uplicate ID:	DUP01-20	181205			Sample D	ate:	12/05/18				
	Collected:	YES	NO			Sample T		1250				
WELL INFO	ORMATION:											
Well ID:	RE120D3					Purge Da	te:	12/05/18				
Well Dian	neter (in):	4				Static Water Level (ft-BTOR): 35.14						
	reen (ft-BTC		740				or Reading					
•	f Screen (ft-	•	760			Purge Me		Low-flow				
	I Depth (ft-B		700			Sample M		Low-flow				
	NT INFORMA					Campic ii	ictilou.	LOW HOW				
	ality Instrun		Horiba U-5	52		Pump Co	ntroller:	Centrifuga	al .			
Turbidity		Hanna	TIOTIDA O-C	<i>,</i>		i unip co	introller.	Ochunage	41			
PURGE DA		Паппа				<u> </u>						
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.	00101	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Other	
1200	Start purge			, ,	,	, ,	,	, ,	, ,			
1205	35.2	700	Clear	3.72	0.033	3.46	5.06	14	391	0.0		
1210	35.2	700	Clear	3.78	0.033	2.49	1.14	14.31	401	0.0		
1215	35.2	700	Clear	3.82	0.033	1.21	1.14	14.43	405	0.0		
1220	35.2	700	Clear	3.82	0.033	1.13	2.22	14.43	405	0.0		
	1						1.7		405	0.0		
1225	35.2	700	Clear	3.83	0.033	1.14		14.33	†	0.0		
1230	35.2	700	Clear	3.81	0.032	1.39	1.15	14.48	411	 		
1235	35.2	700	Clear	3.8	0.032	1.43	0.66	14.47	414	0.0		
1240	35.2	700	Clear	3.79	0.032	1.51	0.83	14.43	418	0.0		
1245	35.2	700	Clear	3.79	0.032	1.53	8.0	14.41	420	0.0		
1250	Collect sar	nple										
	RGE / SAMP											
Start	End	Total	Total Vol.	pH (S.L.)	S.C.	DO (mg/L)	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
1200	1250 , PRESERV	50	9 gal	3.79	0.032	1.53	0.80	14.41	420	0.0		
		ATION AND	Method	EQUIRMEN			Nemakan	Val	Dattle 3	Euro I	Callage	
	i <mark>lysis</mark> DCs	C	W846 8260)D	Preser		Number	Vol. Bottle Type			Collected Yes	
						Cl	2	40-mL		Glass		
1,4-D	ioxane	500	846 8270D	SIM	INC	one	1	1-L	Ambe	r glass	Yes	
								ļ				
	TIONS / NOT											
'60-35.14	=724.86x0.	010=7.24 (gal									
Coord	linates:		N		=	Signature	(s):			- 4.4	<u></u>	
30010	mates.		•		_	Signature(s): Beau Benfield						
760-35.14	TIONS / NOT =724.86x0.	010=7.24 <u>(</u>	gal			Signature	(s):		0		<i>C</i>	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

	I Depth (ft-BT	OR):	545			Sample Method: Low Flow					
EQUIPMEN	NT INFORMAT		040			Cumple II	ictiica.	LOW FIOW			
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2									
PURGE DA	NTA:										
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO (man(la)	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR) 43.98	mL / min.	Class	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	NIA
13:20 13:25	43.98	375.00 400.00	Clear Clear	5.93 5.71	0.103 0.096	8.21 6.85	0.0	24.18 22.28	228 243	0.0	NA NA
13:30	43.98	400.00	Clear	5.71	0.090	5.96	0.0	20.74	259	0.0	NA
13:35	43.98	400.00	Clear	5.43	0.102	4.57	0.0	20.18	270	0.0	NA NA
13:40	43.98	400.00	Clear	5.30	0.099	3.96	0.0	19.85	281	0.0	NA
13:45	43.98	400.00	Clear	5.22	0.098	3.75	0.0	19.76	288	0.0	NA
13:50	43.98	375.00	Clear	5.06	0.097	3.59	0.0	19.44	297	0.0	NA
13:55	43.98	375.00	Clear	5.00	0.097	3.49	0.0	19.30	303	0.0	NA
14:00	43.98	375.00	Clear	4.94	0.096	3.51	0.0	19.22	309	0.0	NA
14:05	43.98	375.00	Clear	4.89	0.096	3.54	0.0	19.26	313	0.0	NA
14:10	43.98	375.00	Clear	4.88	0.096	3.56	0.0	19.22	315	0.0	NA
14:15	43.98	375.00	Clear	4.88	0.095	3.58	0.0	19.23	316	0.0	NA
14:20	43.98	375.00	Clear	4.87	0.096	3.56	0.0	19.24	316	0.0	NA
INAL PUR	RGE / SAMPLI	E DATA:									
Start Purge	End Purge	Total (min.)	Total Vol.	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp.	ORP (m)()	Salinity	Other
13:20	14:20	60.00	(gal. / L.) 7.0 gal	4.87	0.096	(mg/L) 3.56	0.0	(C°) 19.24	(mV) 316	(ppt) 0.0	NA
	, PRESERVA					0.00	0.0	10.27	0.10	0.0	
	alysis		Method		Preser	vative	Number	Vol.	Bottle ⁻	Гуре	Collected
V	OCs	S	W846 8260)B	H	CL	3	40-ml	gla	ass	YES
1,4-	Dioxane	SW	846 8270D	SIM	no	ne	2	1 L	glass YE		YES
							ļ				
									<u> </u>		



Coordinates:

Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project N	lo.:	112G0800	05-WE13		
Sample II):	RE122D1-	-20181004			Sampled	Ву:	CM			
QA/QC Di	uplicate ID:					Sample [Date:	10/04/18			
MS/MSD	Collected:	No				Sample 1	Time:	12:15			
VELL INFO	ORMATION:										
Well ID :	RE122D1					Purge Da	ite:	10/04/18			
Well Dian	neter (in):	4					ater Level (f	t-BTOR):	42.73		
Top of Sc	reen (ft-BTO	R):	520			PID Moni	tor Reading	6.7			
Bottom of	f Screen (ft-B	TOR):	540			Purge Me		Low Flow			
Total Wel	I Depth (ft-B1	TOR):	545			Sample N		Low Flow			
QUIPMEN	NT INFORMAT	TION:									
Water Qu	ality Instrum	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Lamotte 2	020								
URGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	_	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
10:10	42.73	250.00	Cear	5.33	0.126	8.74	2.7	20.63	243	0.1	NA
10:20	42.79	250.00	Cear	5.38	0.120	6.34	3.1	20.46	253	0.1	NA
10:30	42.79	250.00	Cear	5.41	0.117	4,89	2.3	21.10	258	0.1	NA
10:40	42.79	250.00	Cear	5.40	0.117	4.25	2.0	21.70	258	0.1	NA
10:50	42.79	250.00	Cear	5.38	0.117	4.05	1.5	21.49	261	0.1	NA
11;00	42.79	250.00	Cear	5.39	0.115	4.22	1.5	20.33	264	0.1	NA
11:10	42.79	250.00	Cear	5.31	0.114	4.17	2.9	19.61	274	0.1	NA
11:15	42.79	250.00	Cear	5.27	0.113	4.09	2.1	19.09	281	0.1	NA
11:20	42.79	250.00	Cear	5.25	0.112	4.00	1.8	18.79	285	0.1	NA
11:25	42.79	250.00	Cear	5.24	0.112	4.17	2.5	18.75	295	0.1	NA
11:30	42.79	250.00	Clear	5.23	0.112	4.24	2.1	18.74	285	0.1	NA
11:35	42.79	250.00	Clear	5.15	0.112	4.19	1.5	18.64	287	0.1	NA
11:40	42.70	250.00	Clear	5.16	0.111	4.15	1.2	18.60	291	0.1	NA
11:45	42.79	250.00	Clear	5.17	0.111	4.19	2.5	18.57	294	0.1	NA
11:50	42.79	250.00	Clear	5.19	0.111	3.50	3.4	18.64	290	0.1	NA
11:55	42.79	250.00	Clear	5.20	0.111	3.65	2.9	18.72	289	0.1	NA
12:00	42.79	250.00	Clear	5.21	0.111	3.58	2.5	18.78	292	0.1	NA
12:05	42.79	250.00	Clear	5.19	0.111	3.54	2.2	18.82	290	0.1	NA
12:10	42.79	250.00	Clear	5.18	0.111	3.58	2.0	18.87	289	0.1	NA
	RGE / SAMPL										
Start	End	Total	Total Vol.	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity	Temp.	ORP (m)/)	Salinity	Other
Purge	Purge 12:10	(min.) 120.00	(gal. / L.) 7.5	5.18	0.111	(mg/L)	(NTU) 2.0	(C°)	(mV) 289	(ppt) 0.1	NA
10:10	, PRESERVA					3.58	2.0	18.87	209	U. I	INA
	alysis	I ON AND E	Method	COULINIEM	Preser	vative	Number	Vol.	Bottle '	Type	Collecte
	OCs	.5	W846 8260)B		CL	3	40-ml		ass	YES
	oos Oioxane		846 8270D			ne	1	1 L	_	ass	YES
1,7-6	JOAGIO	5771	0 10 021 00	CIIVI	110	,,,,,		, -	gi-	400	11.5
DCEDVA	TIONS / NOTI	E6.									

Signature(s):

Chuck Meyer



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project N	0.:	112G0800)5-VVE13		
Sample I	D:	RE122D1	-20181004			Sampled	Ву:	Beau Ben	field		
QA/QC D	uplicate ID:	No				Sample D	Date:	10/04/18			
MS/MSD	Collected:	NO				Sample T	ime:	1630			
WELL INF	ORMATION:										
Well ID :	RE122D1					Purge Da	te:	10/04/18			
Well Dia	meter (in):	4				Static Wa	ter Level (f	t-BTOR):	42.79		
Top of So	creen (ft-BTOF	R):	520			PID Moni	tor Reading	g:	0		
Bottom o	of Screen (ft-B	TOR):	540			Purge Me	ethod:	Low Flow			
Total We	II Depth (ft-BT	TOR):	545			Sample N	fethod:	Low Flow			
EQUIPME	NT INFORMAT	ΓΙΟΝ:									
Water Qu	uality Instrume	ent:	Horiba U-	52		Pump Co	ntroller:	Centrifuga	ıl		
Turbidity		Lamotte 2	2020								
PURGE D											
Time	H ₂ 0 Level	Flow	Color	pH	S.C.	DO (**** **/*)	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1540	Start purge		Class	F 00	0.005	2.50	4.70	40.05	045	0.0	
1545	42.87	500.00	Clear	5.22	0.095	3.50	1.70	16.35	245	0.0	
1550	42.87	500.00	Clear	5.21	0.095	3.38	1.90	16.23	246	0.0	
1555	42.87	500.00	Clear	5.20	0.095	3.31	2.35	16.12	247	0.0	
1600	42.87	500.00	Clear	5.20	0.095	3.25	1.85	16.08	247	0.0	
1605	42.87	500.00	Clear	5.19	0.095	3.23	1.42	16.14	248	0.0	
1610	42.87	500.00	Clear	5.20	0.095	3.16	1.10	16.08	248	0.0	
1615	42.87	500.00	Clear	5.20	0.096	3.18	1.23	16.02	248	0.0	
1620	42.87	500.00	Clear	5.21	0.010	3.12	1.33	16.01	248	0.0	
1625	42.87	500.00	Clear	5.21	0.096	3.04	1.25	16.00	248	0.0	
1630	Collect sam	pie I									
	1										
	1										
	1										
	1										
	1										
FINAL DIT	RGE / SAMPLI	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	O tillo!
1540	1630	50.00	6	5.21	0.096	3.04	1.25	16.00	248	0.0	
ANALYSIS	, PRESERVA	TION AND	BOTTLE RE	QUIRMENT	S						
	nalysis		Method		Preser	vative	Number	Vol.	Bottle '	Туре	Collected
V	'OCs	5	SW846 826	0B	H	CL	3	40-ml	gl	ass	YES
1,4-l	Dioxane	SW	846 8270D	SIM	nc	ne	1	1 L	gl	ass	YES
								<u> </u>			
OBSERVA	TIONS / NOTE	ES:									
Cool	rdinates:		N		E	Signature	(s):		Pagas C	Donfield	
									ъеаи Т	Benfield	



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name:

Project No.:

Sample ID		RE122D1-	20181206			Sampled I	3v·	Katie Greg	orv		
•		No	20101200			Sample D		12/06/18	Ol y		
MS/MSD C		110	NO			Sample Ti		1542			
	RMATION:		NO			Sample 11	ille.	1042			
	RE122D1					Purge Dat	Α.	12/06/18			
Well Diam		4					er Level (ft-		41.45		
	reen (ft-BTO		520				or Reading:	5. O. ().	0		
	Screen (ft-B		540			Purge Me		Low-flow			
	Depth (ft-B1					Sample M		Low-flow			
	T INFORMA										
	lity Instrume		Horiba U-5	2		Pump Cor	ntroller:	Centrifuga			
Turbidity I		HACH 210	0Q								
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1451	41.45										
1458	41.51	700	Clear	4.55	0.133	3.23	0	13.32	338	0.1	
1503	41.51	700	Clear	4.53	0.130	3.04	0	13.14	342	0.1	
1508	41.52	700	Clear	4.45	0.129	3.07	0	13.3	349	0.1	
1513	41.52	700	Clear	4.46	0.128	3.1	0.89	13.29	351	0.1	
1518	41.52	700	Clear	4.43	0.127	3.06	1.03	13.7	354	0.1	
1523	41.52	700	Clear	4.45	0.127	3.05	0.71	13.72	356	0.1	
1528	41.52	700	Clear	4.45	0.126	3.06	0.64	13.85	357	0.1	
1533	41.52	700	Clear	4.45	0.126	3.05	0.79	13.75	358	0.1	
1538	41.52	700	Clear	4.44	0.126	3.06	0.6	13.8	359	0.1	
1542	Frab Sample	е									
FINAL PUR	GE/SAMPL	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1453	1538	45	11	4.44	0.126	3.06	0.6	13.8	359	0.1	
ANALYSIS,	PRESERVA	TION AND E	BOTTLE REC	QUIRMENTS							
	lysis		Method		Preserv		Number	Vol.	Bottle T		Collected
)Cs		W846 8260			Cl	2	40-mL		ass	Yes
1,4-Di	oxane	SW	846 8270D	SIM	No	one	1	1-L	Ambe	er glass	Yes
	TONS / NOT	ES:									
9.971											
	l1		\-		_	Ciam - time t	-1-				
Coord	inates:		N		E	Signature(s):		Katie	Gregory	
				1		•			0	., 0 - 2	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

COOR	umates.		•			Jigilature((~)·		Scott A	nderson	
Coor	dinates:		N	ı	E	Signature	(s):				
OBSERVA	HONS/NOTE										
OBSEDWAT	TIONS / NOTE	e									
1,4-0	ioxane		846 8270D		nc	ne	2	1 L	•	ass	yes
	OCs	S	W846 8260)B	H	CL	3	40-ml		ass	yes
	alysis		Method		Preser	vative	Number	Vol.	Bottle 1	Гуре	Collected
	, PRESERVA		Ŭ								
1315	1415	60	8 gal	4.96	0.095	2.03	0.8	21.26	329	0.0	
Start Purge	End Purge	Total (min.)	(gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	(mV)	Salinity (ppt)	Other
		_	Total Vol.	n⊔	8.0	DO	Turbidity	Tomn	ORP	Salinity	Othor
FINAL DUD	GE / SAMPLI	E DATA:									
										-	
				_							
14:15	44.42	300.00	Clear	4.96	0.095	2.03	0.8	21.26	329	0.0	
14:10	44.42	300.00	Clear	4.97	0.095	1.96	0.5	21.28	329	0.0	
14:05	44.42	300.00	Clear	4.96	0.096	1.86	0.6	21.29	330	0.0	
14:00	44.42	300.00	Clear	4.93	0.096	1.36	0.4	22.21	325	0.0	
13:55	44.42	300.00	Clear	4.93	0.099	1.11	0.3	23.45	329	0.0	
13:50	44.42	300.00	Clear	4.89	0.101	1.11	0.4	24.23	329	0.0	
13:45	44.42	300.00	Clear	4.90	0.101	1.11	0.3	24.23	312	0.0	
13:35 13:40	44.42	300.00	Clear	4.93	0.101	0.76 0.83	0.3	23.96	315 312	0.0	
13:30	44.42 44.42	300.00 300.00	Clear Clear	4.96 4.93	0.100 0.101	0.76	0.2	24.09 23.96	306	0.0	
13:25	44.42	300.00	Clear	4.99	0.100	0.78	0.2	24.21	305	0.0	
13:20	44.42	300.00	Clear	5.10	0.098	2.13	0.4	24.97	289	0.0	
13:15	44.42	300.00	Clear	5.35	0.094	5.31	0.6	28.69	262	0.0	
(Hrs)	(ft-BTOR)	mL / min.	01	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
PURGE DA											
Turbidity		Hanna HI) <u>Z</u>		Fullip Col	ili Oliei .	Diaddei			
	IT INFORMAT		Horiba U-5	52		Pump Co	ntroller:	Bladder			
	Depth (ft-BT		615			Sample M	lethod:	Low Flow			
	Screen (ft-B	•	610			Purge Me		Low Flow			
	reen (ft-BTOF	<i>'</i>	590				or Reading		3.3		
Well Diam	neter (in):	4				Static Wa	ter Level (ft	-BTOR):	44.42		
Well ID:	RE122D2					Purge Da	te:	07/12/18			
WELL INFO	RMATION:										
MS/MSD (•	No				Sample T		14:15			
•	iplicate ID:					Sample D		07/12/18			
Sample ID):	RE122D2-	20180712			Sampled	Bv:	Scott And	erson		
						Project No	0.:	112G0800)5-WE13		



Coordinates:

N/a

N

N/a

Event:

Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.:

112G08005-WE13

									00 11 10		
Sample II):	RE122D2-	-20181002			Sampled	Ву:	CS			
	uplicate ID:	No		·		Sample [10/04/18			
	Collected:	NO				Sample 1	Γime:	1220			
WELL INFO	ORMATION:					<u> </u>					
Well ID :	RE122D2					Purge Da	ite:	10/04/18			
Well Dian		4					ater Level (f		42.96		
	reen (ft-BTO	R):	590				itor Reading		21.9 ppm		
	f Screen (ft-B		610			Purge Me		Low Flow			
	I Depth (ft-B1		615			Sample N		Low Flow			
	IT INFORMA										
Water Qu	ality Instrum	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2		<u>- </u>							
PURGE DA											
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1015	42.96	300	Clear	5.06	0.115	4.08	2.05	22.17	267	0.0	N/a
1025	42.98	300	Clear	5.04	0.113	2.65	1.73	21.63	273	0.0	N/a
1035	42.98	300	Clear	5.01	0.113	1.90	1.12	21.87	279	0.0	N/a
1045	42.98	300	Clear	4.98	0.112	1.14	0.78	22.08	286	0.0	N/a
1055	42.98	300	Clear	4.97	0.111	1.30	0.67	22.19	290	0.0	N/a
1105	42.98	300	Clear	4.96	0.110	1.41	0.89	22.31	294	0.0	N/a
1115	42.98	300	Clear	4.98	0.111	1.67	0.77	22.98	296	0.0	N/a
1125	42.98	300	Clear	5.00	0.111	1.96	0.84	23.55	299	0.0	N/a
1135	42.98	300	Clear	5.02	0.111	2.10	_	23.53	301	0.0	N/a
1140	42.98	300	Clear		_	_	_	_	_	0.0	N/a
1145	42.98	300	Clear		_	_	_	_	_	0.0	N/a
1150	42.98	300	Clear	4.95	0.111	2.66	1.13	23.34	306	0.0	N/a
1155	42.98	300	Clear	4.98	0.111	2.61	0.98	23.62	305	0.0	N/a
1200	42.98	300	Clear	4.99	0.111	3.07	0.97	24.07	309	0.0	N/a
1205	42.98	300	Clear	4.98	0.111	3.04	0.80	24.12	307	0.0	N/a
1210	42.98	300	Clear	5.00	0.111	2.68	0.97	24.29	307	0.0	N/a
1215	42.98	300	Clear	5.00	0.110	2.91	0.71	24.55	306	0.0	N/a
1220	Collect sam	•	0.12.11								,
	0011001										
INAL PUR	RGE / SAMPL	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1015	1220	125	~10 gal	5.00	0.110	2.91	0.71	24.55	306	0.0	N/a
NALYSIS	, PRESERVA	TION AND E		QUIRMENT					•		
	alysis		Method		Preser		Number	Vol.	Bottle		Collected
	OCs		W846 8260			CL	2	40-ml		ass	YES
1,4-0	Dioxane	SW	846 8270D	SIM	no	ne	1	1 L	gla	ass	YES
	TIONS / NOTI 6 = 567.04 x										

Signature(s):

Chris Sinisi

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Coordinates:

Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

						Project N		112G0800			
Sample II	D:	RE122D2	-20181004			Sampled	By:	Beau Bent	field		
		No				Sample D		10/04/18			
MS/MSD	Collected:	NO				Sample T	ime:	1345			
ELL INF	ORMATION:										
Well ID :	RE122D2					Purge Da	ite:	10/04/18			
Well Dian	neter (in):	4				Static Wa	ater Level (f	t-BTOR):	43.10		
Top of So	reen (ft-BTOF	₹):	590			PID Moni	tor Reading	j :	0		
Bottom o	f Screen (ft-B	TOR):	610			Purge Me	ethod:	Low Flow			
Total Wel	I Depth (ft-BT	OR):	615			Sample N	/lethod:	Low Flow			
QUIPME	NT INFORMAT	TON:									
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Centrifuga	l		
Turbidity		Lamotte 2	020								
URGE DA											
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
1255	Start purge										
1300	43.10	500.00	Clear	4.94	0.100	3.28	3.14	16.52	214	0.0	
1305	43.10	500.00	Clear	4.83	0.101	3.01	2.45	16.29	216	0.0	
1310	43.10	500.00	Clear	4.77	0.101	3.45	1.56	16.23	218	0.0	
1315	43.10	500.00	Clear	4.73	0.102	4.02	1.70	16.10	219	0.0	
1320	43.10	500.00	Clear	4.73	0.103	4.30	1.75	16.10	220	0.0	
1325	43.10	500.00	Clear	4.74	0.105	4.31	1.50	17.11	218	0.0	
1330	43.10	500.00	Clear	4.38	0.104	4.44	1.29	17.17	212	0.0	
1335	43.10	500.00	Clear	4.85	0.105	5.15	2.12	17.02	215	0.0	
1340	43.10	500.00	Clear	4.92	0.104	4.92	2.10	16.90	216	0.0	
1345	Collect samp										
					,						
INAL DUI	OF / CAMPI	DATA.									
Start	RGE / SAMPLE End	Total	Total Vol.	pH	s.c.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Jule
1255	1345	50.00	6	4.92	0.104	4.92	2.10	16.90	216	0.0	
NALYSIS	, PRESERVAT	TION AND E	BOTTLE RE	QUIRMENT	S						
An	alysis		Method		Preser	vative	Number	Vol.	Bottle ⁻	Гуре	Collect
V	OCs	S	W846 8260)B	H	CL	3	40-ml	gla	ass	YES
1,4-0	Dioxane	SW	846 8270D	SIM	no	ne	1	1 L	gla	ass	YES
BSFRVA	TIONS / NOTE	·s·									
Centrifuga											
	on surface o	of purge wa	ater								

Signature(s):

Beau Benfield



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event: Project Site Name:

Project No.:

Camarla ID		RE122D2-2	20191206			Commissi	D	BB			
Sample ID			20101200			Sampled I	•				
		No	NO			Sample Da		12/06/18 1605			
MS/MSD C	RMATION:		NO			Sample Ti	me:	000			
								40/00/40			
	RE122D2					Purge Dat		12/06/18	44.60		
Well Diam		D).	590				er Level (ft-lor Reading:	BTOR):	41.62 0		
	reen (ft-BTO		610			Purge Met		Low-flow	U		
	Depth (ft-B1		010			Sample M		Low-flow			
	T INFORMA					Sample W	etilou.	LOW-HOW			
		-	Horiba U-5	2		Pump Cor	atrollor.	Centrifuga			
Turbidity I	ality Instrume	HACH 210				Fullip Col	itroller:	Centinuga			
PURGE DA		TIACITZIO	UQ								
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	Color	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Other
1500	Start purge			(5.5.)	(5/5/11)	(g/L)	(0)	(3)	((70 St ppt)	
1510	41.68	800	Clear	4.47	0.106	1.10	1.22	14.08	358	0	
1520	41.68	800	Clear	4.54	0.104	0.93	0.46	14.04	364	0	
1525	41.68	800	Clear	4.55	0.104	1.00	0.43	13.87	367	0	
1530	41.68	800	Clear	4.53	0.104	1.10	0.36	13.87	370	0	
1535	41.68	800	Clear	4.39	0.105	1.79	0.3	14.25	360	0	
1540	41.68	800	Clear	4.43	0.105	1.34	1.72	14.04	369	0	
1545	41.68	800	Clear	4.42	0.105	1.38	0.33	13.96	379	0	
1550	41.68	800	Clear	4.40	0.106	1.58	0.35	14.18	385	0	
1555	41.68	800	Clear	4.63	0.107	1.57	0.33	14.13	373	0	
1600	41.68	800	Clear	4.58	0.107	1.83	0.24	14.03	376	0	
1605	Collect san	nple									
FINAL PUR	GE/SAMPL	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1500	1605	65	13	4.58	0.107	1.83	0.24	14.03	376	0	
	PRESERVA	TION AND E		UIRMENTS			1	1	1		
	lysis		Method		Preserv		Number	Vol.	Bottle 1		Collected
)Cs		W846 8260			CI	2	40-mL		lass	Yes
1,4-Di	ioxane	SW	846 8270D	SIM	No	one	1	1-L	Ambe	er glass	Yes
							-				
							1				
							1				
OBSERVAT	TIONS / NOT	ES:									
5.6838											
0.0000											
Coord	inates:		N		E	Signature(s):		Rogar (Benfield	
									Деаи Ч	эенј ши	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project N	lo.:	112G0800	5-WE13		
Sample II	D:	RE122D3	-20180712			Sampled	Ву:	Beau Ben	field		
QA/QC D	uplicate ID:	_				Sample D	Date:	07/12/18			
MS/MSD	Collected:	NO				Sample T	ime:	14:20			
VELL INFO	ORMATION:										
Well ID:	RE122D3					Purge Da	ite:	07/12/18			
Well Dian	neter (in):	4				Static Wa	ater Level (f	t-BTOR):	45.32		
Top of Sc	reen (ft-BTOF	₹):	715			PID Moni	tor Reading	<u>;</u>	0		
Bottom o	f Screen (ft-B	TOR):	735			Purge Me	ethod:	Low Flow			
Total Wel	I Depth (ft-BT	OR):	740			Sample N	/lethod:	Low Flow			
QUIPMEN	NT INFORMAT	ION:									
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Hanna fas	t tracker								
PURGE DA	ATA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
13:15	Start purge										
13:25	45.35	300.00	Clear	5.03	0.024	3.48	4.00	25.11	290	0.0	
13:30	45.35	300.00	Clear	4.90	0.022	1.70	3.74	24.17	276	0.0	
13:35	45.35	300.00	Clear	4.98	0.021	0.92	3.58	24.05	205	0.0	
13:40	45.35	300.00	Clear	5.04	0.021	0.94	4.00	24.14	146	0.0	
13:45	45.35	300.00	Clear	5.12	0.021	0.77	5.51	24.63	147	0.0	
13:50	45.35	300.00	Clear	5.06	0.022	0.75	4.44	23.92	121	0.0	
13:55	45.35	300.00	Clear	5.10	0.022	0.65	4.24	23.57	120	0.0	
14:00	45.35	300.00	Clear	5.04	0.022	0.50	4.23	23.02	102	0.0	
14:05	45.35	300.00	Clear	5.09	0.022	0.42	4.39	23.57	110	0.0	
14:10	45.35	300.00	Clear	4.56	0.022	0.35	4.81	23.52	106	0.0	
14:15	45.35	300.00	Clear	5.09	0.022	0.33	4.57	23.35	110	0.0	
14:20	Collect samp	ole									
INAL PUR	RGE / SAMPLE	E DATA:									
Start	End	Total	Total Vol.	pH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
13:15	14:20	65.00	4 gal	5.09	0.022	0.33	4.6	23.35	110	0.0	
	, PRESERVAT	ION AND E	Method	WOIKINEN I	S Preser	vativo	Number	Vol.	Bottle '	Type	Collected
	oCs	C	W846 826	nr.		CL	3	40-ml		ass	
V			846 8270D				2	40-IIII 1 L		ass ass	yes
111	Joxane	377	040 02700	SIIVI	TIC	one		1 -	yı.	a55	yes
1,4-0											
1,4-0											
·	TIONS / NOTE	S:						l			
·	TIONS / NOTE	ES:									
·	TIONS / NOTE	ES:									
DBSERVA	TIONS / NOTE		N			Signature	(s):	5 <i>8</i>			



Coordinates:

N/a

N

N/a

Event:

Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.:

112G08005-WE13

									00 11 10		
Sample ID	D:	RE122D3	-20181004			Sampled	By:	CS			
•	uplicate ID:	No				Sample [10/04/18			
	Collected:	YES				Sample 1		1215			
	ORMATION:										
Well ID:	RE122D3					Purge Da	ite:	10/04/18			
Well Diam		4				_	ater Level (f		43.64		
	reen (ft-BTO	R):	715				tor Reading	•	0.5 ppm		
	f Screen (ft-B		735			Purge Me		Low Flow			
	I Depth (ft-B1		740			Sample N		Low Flow			
EQUIPMEN	IT INFORMA	ΓΙΟΝ:									
Water Qu	ality Instrum	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2				•					
PURGE DA											
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1010	43.64	400	Clear	4.89	0.032	5.08	5.11	18.99	281	0.0	N/a
1020	43.65	400	Clear	4.95	0.023	0.00	4.68	18.69	270	0.0	N/a
1030	43.65	400	Clear	4.94	0.022	0.00	4.02	18.73	274	0.0	N/a
1040	43.65	400	Clear	4.94	0.022	0.00	3.64	18.75	278	0.0	N/a
1050	43.65	400	Clear	5.00	0.023	0.00	3.26	19.28	286	0.0	N/a
1100	43.65	400	Clear	4.94	0.022	0.00	2.55	19.34	298	0.0	N/a
1110	43.65	400	Clear	4.90	0.022	0.00	2.29	19.48	310	0.0	N/a
1120	43.65	400	Clear	4.89	0.022	0.00	1.90	20.07	315	0.0	N/a
1130	43.65	400	Clear	4.89	0.022	0.00	1.99	20.22	318	0.0	N/a
1135	43.65	400	Clear	4.89	0.022	0.00	2.45	20.20	319	0.0	N/a
1140	43.65	400	Clear	4.89	0.022	0.00	2.80	20.14	320	0.0	N/a
1145	43.65	400	Clear	4.89	0.022	0.00	2.57	20.09	321	0.0	N/a
1150	43.65	400	Clear	4.89	0.022	0.00	2.55	20.08	322	0.0	N/a
1155	43.65	400	Clear	4.89	0.022	0.00	2.61	20.06	323	0.0	N/a
1200	43.65	400	Clear	4.88	0.022	0.00	2.40	20.14	324	0.0	N/a
1205	43.65	400	Clear	4.88	0.022	0.00	2.89	20.22	323	0.0	N/a
1210	43.65	400	Clear	4.88	0.022	0.00	3.08	20.38	323	0.0	N/a
INAL PUR	RGE / SAMPL	E DATA:									
Start	End	Total	Total Vol.	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp.	ORP (m\/)	Salinity	Other
Purge 1010	Purge 1210	(min.)	(gal. / L.)			(mg/L)		(C°)	(mV)	(ppt)	NI/o
1010	, PRESERVA	120	~13 gal	4.88	0.022	0.00	3.08	20.38	323	0.0	N/a
-	alysis	I TON AND I	Method	WOIN WENT	Preser	vative	Number	Vol.	Bottle '	Tyne	Collecte
	OCs	9	W846 826	nB.		CL	6	40-ml		ass	YES
	oos Oioxane		846 8270D			ne	2	1 L		ass ass	YES
1,4-1	/IOAAI IG	377	0-10 0210D	CIIVI	110	116		'L	gi.	u J J	153
							 				
		1			I		1	1			

Signature(s):

Chris Sinisi

Ε

N/a



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project N	lo.:	112G0800)5-WE13		
Sample I	D:	RE122D3-	-20181004			Sampled	Ву:	Beau Ben	field		
QA/QC D	uplicate ID:	No				Sample D	Date:	10/04/18			
MS/MSD	Collected:	NO				Sample T	Time:	1500			
WELL INF	ORMATION:										
Well ID :	RE122D3					Purge Da	ite:	10/04/18			
Well Diar	neter (in):	4					ater Level (f	t-BTOR):	43.60		
	creen (ft-BTOF	₹):	715				tor Reading		0		
	of Screen (ft-B	•	735			Purge Me		Low Flow			
	II Depth (ft-BT		740			Sample N		Low Flow			
EQUIPME	NT INFORMAT	TION:									
Water Qu	ality Instrume	ent:	Horiba U-	52		Pump Co	ntroller:	Centrifuga	ı		
Turbidity	Meter:	Lamotte 2									
PURGE DA	ATA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1410	Start purge										
1415	43.65	500.00	Clear	4.91	0.022	1.67	4.16	18.08	244	0.0	
1420	43.65	500.00	Clear	4.90	0.022	1.60	3.79	17.58	245	0.0	
1425	43.65	500.00	Clear	4.89	0.022	1.46	4.41	17.09	245	0.0	
1430	43.65	500.00	Clear	4.89	0.022	1.37	3.97	16.98	248	0.0	
1435	43.65	500.00	Clear	4.87	0.022	1.35	4.31	16.75	250	0.0	
1440	43.65	500.00	Clear	4.87	0.022	1.44	3.82	16.71	252	0.0	
1445	43.65	500.00	Clear	4.85	0.022	1.46	3.36	16.51	254	0.0	
1450	43.65	500.00	Clear	4.84	0.022	1.50	3.28	16.47	255	0.0	
1455	43.65	500.00	Clear	4.83	0.022	1.49	3.13	16.41	256	0.0	
1500	Collect sam	ole									
FINAL PUI	RGE / SAMPL	E DATA:				•	•				
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1410	1500	50.00	6 gal	4.83	0.022	1.49	3.13	16.41	256	0.0	
	, PRESERVA	TION AND E		QUIRMENT							
	alysis		Method		Preser		Number	Vol.	Bottle	••	Collected
	OCs		W846 826		H	CL	3	40-ml		ass	YES
1,4-[Dioxane	SW	846 8270D	SIM	nc	ne	1	1 L	gl	ass	YES
00000	TIONS (
	TIONS / NOTE	:5:									
Centrifuga	я ритр										
Coor	dinates:		N	E	=	Signature	e(s):		Beau I	Benfield	
										2	



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name:

Project No.:

Sample ID	:	RE122D3-	20181206			Sampled E	Зу:	CM			
QA/QC Du	plicate ID:	N/A				Sample Da	ate:	12/06/18			
MS/MSD C	ollected:		NO			Sample Ti	me:	1605			
WELL INFO	RMATION:										
Well ID :	RE122D3					Purge Dat	e:	12/06/18			
Well Diam		4" PVC					er Level (ft-l		42.11		
	een (ft-BTO		715				or Reading:		0		
	Screen (ft-E		735			Purge Met		Low-flow			
	Depth (ft-B7		740			Sample M		Low-flow			
	T INFORMA					<u> </u>					
	lity Instrum		Horiba U-5	2		Pump Cor	troller:	Centrifuga	1		
Turbidity I		HACH 210						o o i i i i i i i i i i i i i i i i i i	•		
PURGE DA											
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	00101	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Outer
1500	42.11	1000	Clear	5.06	0.026	1.94	7.46	13.57	295	0.0	
1505	42.15	1000	Clear	5.06	0.026	1.33	3.92	13.77	301	0.0	
1510	42.16	1000	Clear	5.06	0.026	1.09	2.58	13.77	286	0.0	
1515	42.16	1000	Clear	5.06	0.026	1.09	2.65	13.84	294	0.0	
1520	42.16	1000	Clear	5.06	0.020	1.22	2.14	13.04	305	0.0	
1525	42.16	1000	Clear	5.04	0.027	1.63	1.73	13.95	313	0.0	
1530	42.16	1000	Clear	5.03	0.027	1.79	1.63	13.97	319	0.0	
1535	42.16	1000	Clear	5.01	0.020	1.79	1.87	13.91	324	0.0	
1540	42.16	1000	Clear	5.01	0.027	1.00	1.95	14	329	0.0	
1545	42.16	1000	Clear	5.01	0.026	1.95	1.78	13.81	332	0.0	
1550	42.16	1000	Clear		0.026	1.95	1.76	13.76	335	0.0	
1555		1000		5 5	0.026	1.95	1.04	13.76	337	0.0	
1600	42.16 42.16	1000	Clear Clear	5	0.026	1.96	1.91	13.4	339	0.0	
			Clear	3	0.020	1.90	1.90	13.97	339	0.0	
	GE / SAMPL										
Start	End	Total	Total Vol.	pH (C.L.)	S.C.	DO (72.7/L)	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1500	1600	60	16	5	0.026	1.96	1.98	13.97	339	0.0	
·		TION AND E	BOTTLE REG	UIRMENTS			1	1			
	lysis		Method	_	Preserv		Number	Vol.	Bottle T		Collected
VO			SW846 8260			CI	2	40-mL		ass	yes
1,4-Di	oxane	SW	846 8270D	SIM	No	one	1	1-L	Ambe	er glass	yes
	IONS / NOT	ES:									
6.9789											
İ											
Coord	inates:		N	E		Signature(s):		Chuck	Meyer	
									Cinci	32,20,701	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

11:10 48.13 350.00 Clear 5.77 0.111 6.17 1.0 16.39 11:15 48.14 350.00 Clear 5.66 0.111 5.59 0.5 16.49 11:20 48.15 350.00 Clear 5.65 0.111 5.57 1.1 16.44 11:25 48.15 350.00 Clear 5.59 0.116 5.56 1.7 16.53 11:30 48.16 350.00 Clear 5.20 0.122 6.23 1.3 16.52 11:35 48.16 350.00 Clear 5.07 0.124 6.98 1.1 16.55 11:40 48.17 350.00 Clear 5.05 0.126 6.83 1.2 16.84 11:45 48.17 350.00 Clear 5.06 0.126 6.82 1.3 16.74 11:50 48.17 350.00 Clear 5.06 0.126 6.87 1.3 16.83 11:55	212 226 240 240 251 279 308 310 313 316	226 240 240 251 279 308	0.1 0.1 0.1 0.1 0.1 0.1	
11:15 48.14 350.00 Clear 5.66 0.111 5.59 0.5 16.49 11:20 48.15 350.00 Clear 5.65 0.111 5.57 1.1 16.44 11:25 48.15 350.00 Clear 5.59 0.116 5.56 1.7 16.53 11:30 48.16 350.00 Clear 5.20 0.122 6.23 1.3 16.52 11:35 48.16 350.00 Clear 5.07 0.124 6.98 1.1 16.55 11:40 48.17 350.00 Clear 5.05 0.126 6.83 1.2 16.84 11:45 48.17 350.00 Clear 5.04 0.126 6.82 1.3 16.74 11:50 48.17 350.00 Clear 5.06 0.126 6.87 1.3 16.83 11:55 48.17 350.00 Clear 5.03 0.127 6.86 1.7 16.95	240 240 251 279 308 310 313	240 240 251 279 308	0.1 0.1 0.1 0.1	
11:20 48.15 350.00 Clear 5.65 0.111 5.57 1.1 16.44 11:25 48.15 350.00 Clear 5.59 0.116 5.56 1.7 16.53 11:30 48.16 350.00 Clear 5.20 0.122 6.23 1.3 16.52 11:35 48.16 350.00 Clear 5.07 0.124 6.98 1.1 16.55 11:40 48.17 350.00 Clear 5.05 0.126 6.83 1.2 16.84 11:45 48.17 350.00 Clear 5.04 0.126 6.82 1.3 16.74 11:50 48.17 350.00 Clear 5.06 0.126 6.87 1.3 16.83 11:55 48.17 350.00 Clear 5.03 0.127 6.86 1.7 16.95	240 251 279 308 310 313	240 251 279 308	0.1 0.1 0.1	
11:25 48.15 350.00 Clear 5.59 0.116 5.56 1.7 16.53 11:30 48.16 350.00 Clear 5.20 0.122 6.23 1.3 16.52 11:35 48.16 350.00 Clear 5.07 0.124 6.98 1.1 16.55 11:40 48.17 350.00 Clear 5.05 0.126 6.83 1.2 16.84 11:45 48.17 350.00 Clear 5.04 0.126 6.82 1.3 16.74 11:50 48.17 350.00 Clear 5.06 0.126 6.87 1.3 16.83 11:55 48.17 350.00 Clear 5.03 0.127 6.86 1.7 16.95	251 279 308 310 313	251 279 308	0.1 0.1	
11:30 48.16 350.00 Clear 5.20 0.122 6.23 1.3 16.52 11:35 48.16 350.00 Clear 5.07 0.124 6.98 1.1 16.55 11:40 48.17 350.00 Clear 5.05 0.126 6.83 1.2 16.84 11:45 48.17 350.00 Clear 5.04 0.126 6.82 1.3 16.74 11:50 48.17 350.00 Clear 5.06 0.126 6.87 1.3 16.83 11:55 48.17 350.00 Clear 5.03 0.127 6.86 1.7 16.95	279 308 310 313	279 308	0.1	
11:35 48.16 350.00 Clear 5.07 0.124 6.98 1.1 16.55 11:40 48.17 350.00 Clear 5.05 0.126 6.83 1.2 16.84 11:45 48.17 350.00 Clear 5.04 0.126 6.82 1.3 16.74 11:50 48.17 350.00 Clear 5.06 0.126 6.87 1.3 16.83 11:55 48.17 350.00 Clear 5.03 0.127 6.86 1.7 16.95	308 310 313	308		
11:45 48.17 350.00 Clear 5.04 0.126 6.82 1.3 16.74 11:50 48.17 350.00 Clear 5.06 0.126 6.87 1.3 16.83 11:55 48.17 350.00 Clear 5.03 0.127 6.86 1.7 16.95	313	310	0.1	
11:50 48.17 350.00 Clear 5.06 0.126 6.87 1.3 16.83 11:55 48.17 350.00 Clear 5.03 0.127 6.86 1.7 16.95			0.1	
11:55 48.17 350.00 Clear 5.03 0.127 6.86 1.7 16.95	316	313	0.1	
		316	0.1	
12:00 48.17 350.00 Clear 5.06 0.127 6.88 1.1 16.98	317		0.1	
	318	310	0.1	
FINAL PURGE / SAMPLE DATA:				
Purge Purge (min.) (gal. / L.) (S.U.) (mS/cm) (mg/L) (NTU) (C°)	ORP (mV) 318	(mV)	Salinity (ppt)	Other
ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS	310	010	U. I	
Analysis Method Preservative Number Vol.	Bottle Ty	Bottle Typ	ре	Collected
VOCs SW846 8260B HCL 3 40-ml		glass		yes
1,4-Dioxane SW846 8270D SIM none 2 1 L	glas	glass	s	yes
,		<u> </u>		



Coordinates:

N/a

N

N/a

Event:

Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.:

112G08005-WE13

Sample ID):	RE123D1-	-20181009			Sampled	Ву:	CS				
	uplicate ID:	No		·		Sample D		10/09/18				
MS/MSD (NO				Sample T		1045				
VELL INFO	ORMATION:											
Well ID :	RE123D1					Purge Da	ıte:	10/09/18				
Well Diam	neter (in):	4					ater Level (f	t-BTOR):	48.20			
Top of Sc	reen (ft-BTO	R):	480			PID Monitor Reading:			0.3 ppm			
-	f Screen (ft-B		500			Purge Me		Low Flow				
	Depth (ft-B1		505			Sample N	/lethod:	Low Flow				
QUIPMEN	IT INFORMAT	ΓΙΟΝ:										
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity		Lamotte 2										
PURGE DA												
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
0840	48.20	300	Clear	5.09	0.204	8.34	1.32	19.55	212	0.0	N/a	
0850	48.20	300	Clear	5.46	0.183	6.98	1.09	18.99	214	0.0	N/a	
0900	48.20	300	Clear	5.77	0.140	5.26	0.77	18.43	218	0.0	N/a	
0910	48.20	300	Clear	5.70	0.137	4.62	0.80	18.38	229	0.0	N/a	
0920	48.20	300	Clear	5.65	0.134	4.60	0.76	18.33	242	0.0	N/a	
0930	48.20	300	Clear	5.29	0.137	4.65	0.79	18.27	268	0.0	N/a	
0940	48.20	300	Clear	5.04	0.140	4.71	0.76	18.23	280	0.0	N/a	
0950	48.20	300	Clear	4.99	0.147	4.82	0.64	18.28	294	0.0	N/a	
1000	48.20	300	Clear	4.90	0.152	4.90	0.59	18.32	305	0.0	N/a	
1005	48.20	300	Clear	4.90	0.154	5.24	0.56	18.36	308	0.0	N/a	
1010	48.20	300	Clear	4.91	0.153	5.62	0.70	18.38	310	0.0	N/a	
1015	48.20	300	Clear	4.89	0.154	5.60	0.79	18.46	313	0.0	N/a	
1020	48.20	300	Clear	4.88	0.154	5.66	0.88	18.43	315	0.0	N/a	
1025	48.20	300	Clear	4.88	0.154	5.70	0.92	18.40	316	0.0	N/a	
1030	48.20	300	Clear	4.87	0.154	5.64	0.90	18.42	318	0.0	N/a	
1035	48.20	300	Clear	4.86	0.154	5.55	0.89	18.40	320	0.0	N/a	
1040	48.20	300	Clear	4.86	0.154	5.51	0.94	18.46	319	0.0	N/a	
INAL PUR	GE/SAMPL	E DATA:										
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	N1/	
0840	1040	120	~10 gal	4.86	0.154	5.51	0.94	18.46	319	0.0	N/a	
•	, PRESERVA alysis	HON AND E	Method	QUIKMENT	Preser	votivo	Number	Vol.	Detti-	Tuno	Collecte	
	OCs	c	W846 826	n R		CL	2	40-ml	Bottle			
	oioxane		846 8270D				1	40-mii 1 L		ass	YES	
1,4-D	noxane	300	040 02/UD	JIIVI	nc	ne		I IL	gi	ass	YES	
											\vdash	
					I		1		1		I	

Signature(s):

Chris Sinisi

Ε

N/a



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event: Project Site Name:

Project No.:

_						_					
Sample ID:		RE123D1-2	20181207			Sampled B	•	CM			
QA/QC Dup		No				Sample Da		12/07/18			
MS/MSD Co	ollected:		NO			Sample Ti	me:	1255			
WELL INFOR											
Well ID:						Purge Dat		12/07/18			
Well Diamet	ter (in):	4" PVC				Static Wat	er Level (ft-l	BTOR):	47.12		
Top of Scre	en (ft-BTO	R):	480			PID Monit	or Reading:		0		
Bottom of S	Screen (ft-B	STOR):	500			Purge Met	hod:	Low-flow			
Total Well D	Depth (ft-B1	ΓOR):	505			Sample M	ethod:	Low-flow			
EQUIPMENT	INFORMA	TION:									
Water Quali			Horiba U-5	2		Pump Cor	ntroller:	Centrifuga			
Turbidity M	eter:	HACH 210	0Q								
PURGE DAT	A:										
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1150	47.12	800	Clear	5.00	0.154	12.18	7.92	12.3	334	0.0	
1155	47.12	800	Clear	5.27	0.145	6.23	4.67	13.17	312	0.0	
1200	47.12	800	Clear	5.21	0.145	5.14	2.39	13.32	304	0.0	
1205	47.15	800	Clear	4.91	0.151	5.91	2.09	13.27	316	0.0	
1210	47.15	800	Clear	4.59	0.157	6.29	1.47	13.54	349	0.0	
1215	47.14	800	Clear	4.44	0.161	6.58	1.18	13.62	359	0.0	
1220	47.14	800	Clear	4.42	0.162	6.61	1.09	13.61	368	0.0	
1225	47.14	800	Clear	4.44	0.162	6.61	1.03	13.54	369	0.0	
1230	47.14	800	Clear	4.43	0.161	6.61	0.99	13.49	374	0.0	
1235	47.14	800	Clear	4.44	0.162	6.59	0.93	13.59	377	0.0	
1240	47.14	800	Clear	4.45	0.162	6.57	0.89	13.67	379	0.0	
1245	47.14	800	Clear	4.46	0.162	6.53	0.73	13.66	381	0.0	
1250	47.14	800	Clear	4.46	0.162	6.53	0.67	13.67	383	0.0	
FINAL PURG			U 11111			0.00		10101			
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Other
1150	1250	60	16	4.46	0.162	6.53	0.67	13.67	383	0.0	
ANALYSIS, F						0.00	0.01	10.01	000	0.0	
		HON AND L	Method	KONKINENTO	1	otivo.	Number	Vol.	Bottle T		Collected
Analy VO			W846 8260	ND.	Preserv	Cl	Number 2	40-mL		lass	
1,4-Dio			846 8270D			ne	1	1-L			Yes
1,4-010	жапе	300	040 02700	SIIVI	INC	пе	l l	1-L	Allibe	er glass	Yes
OBSERVATION	ONS / NOT	E6.									
4.5788	UNO/NUII	LJ.									
4.3700											
.					_	Ciama-1 1	-1-				
Coordin	nates:		N		E	Signature(s):		Chuck	Meyer	
									J	U ,)	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.:

NWIRP Bethpage 112G08005-WE13

 Sample ID:
 RE123D2-20180718
 Sampled By:
 Beau Benfield

 QA/QC Duplicate ID:
 —
 Sample Date:
 07/18/18

 MS/MSD Collected:
 NO
 Sample Time:
 11:45

WELL INFORMATION:

 Well ID:
 RE123D2
 Purge Date:
 07/18/18

 Well Diameter (in):
 4
 Static Water Level (ft-BTOR):
 49.25

 Top of Screen (ft-BTOR):
 635
 PID Monitor Reading:
 0

Bottom of Screen (ft-BTOR):655Purge Method:Low FlowTotal Well Depth (ft-BTOR):660Sample Method:Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument: Horiba U-52 Pump Controller: Bladder

Turbidity Meter: Hanna fast tracker

PURGE DA	ATA:										
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
10:40	Start purge										
10:50	49.25	300.00	Clear	5.02	0.022	7.82	1.15	21.40	243	0.0	
10:55	49.25	300.00	Clear	5.45	0.022	6.88	2.86	20.95	251	0.0	
11:00	49.25	300.00	Clear	5.38	0.020	5.82	0.53	19.76	267	0.0	
11:05	49.25	300.00	Clear	5.05	0.020	4.95	0.74	19.83	275	0.0	
11:10	49.25	300.00	Clear	4.63	0.021	4.53	0.78	20.01	294	0.0	
11:15	49.25	300.00	Clear	4.56	0.021	4.17	0.31	20.50	294	0.0	
11:20	49.25	300.00	Clear	4.62	0.021	3.86	0.47	20.92	299	0.0	
11:25	49.25	300.00	Clear	4.68	0.021	3.74	0.40	20.72	294	0.0	
11:30	49.25	300.00	Clear	5.11	0.022	3.54	0.49	20.98	270	0.0	
11:35	49.25	300.00	Clear	5.43	0.024	3.80	2.75	21.46	286	0.0	
11:40	49.25	300.00	Clear	5.29	0.025	4.18	0.97	21.53	281	0.0	
11:45	Collect samp	ole									
FINAL PUI	RGE / SAMPLE	E DATA:									
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
10:40	11:45	65.00	4	5.29	0.025	4.18	0.97	21.53	281	0.0	
ANALYSIS	, PRESERVAT	TION AND E	SOTTLE RE	QUIRMENT	s						

ANAL 1313, PRESERVA	NAL 1313, FRESERVATION AND BOTTLE REQUIRIMENTS											
Analysis	Method	Preservative	Number	Vol.	Bottle Type	Collected						
VOCs	SW846 8260B	HCL	3	40-ml	glass	YES						
1,4-Dioxane	SW846 8270D SIM	none	2	1 L	glass	YES						

OBSERVATIONS / NOTES:

Coordinates:	N	E	Signature(s):	Bow Benfield
				The Samuel Fact Shill Live and



Coordinates:

Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

						Project N		112G08005-WE13			
Sample II	٦٠	RE123D2	20181010			Sampled		Beau Benfield			
		No	20101010			Sample I		10/10/18	ileiu		
	Collected:	NO				Sample 1		1705			
	ORMATION:	NO				Gampie	iiiic.	1700			
	RE123D2					Purge Da	ite:	10/10/18			
Well Dian		4					ater Level (f		49.55		
	reen (ft-BTOF		635				tor Reading		0		
•	f Screen (ft-B	<i>'</i>	655			Purge Me	•	Low Flow			
	I Depth (ft-BT		660			Sample M		Low Flow			
	NT INFORMAT										
	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	•	Lamotte 2		<u>-</u>				2.0.0.0			
PURGE DA											
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1500	Start purge										
1510	49.50	400.00	Clear	5.52	0.032	8.05	1.67	17.17	270	0.0	
1520	49.50	400.00	Clear	5.44	0.031	8.07	0.53	16.30	270	0.0	
1530	49.50	400.00	Clear	5.40	0.031	6.69	0.50	16.07	277	0.0	
1540	49.50	400.00	Clear	5.37	0.031	5.97	0.39	15.92	282	0.0	
1550	49.50	400.00	Clear	5.50	0.033	5.78	0.85	15.80	288	0.0	
1600	49.50	400.00	Clear	5.50	0.033	8.09	0.85	15.78	290	0.0	
1610	49.50	400.00	Clear	5.38	0.032	9.65	0.86	15.71	293	0.0	
1615	49.50	400.00	Clear	5.36	0.031	8.98	0.77	15.69	294	0.0	
1620	49.50	400.00	Clear	5.35	0.031	10.51	0.80	15.72	294	0.0	
1625	49.50	400.00	Clear	5.34	0.031	10.22	0.85	15.74	295	0.0	
1630	49.50	400.00	Clear	5.33	0.031	9.74	0.66	15.76	296	0.0	
1635	49.50	400.00	Clear	5.33	0.031	10.76	0.63	15.79	296	0.0	
1640	49.50	400.00	Clear	5.32	0.031	9.79	0.50	15.76	297	0.0	
1645	49.50	400.00	Clear	5.32	0.031	9.80	0.63	15.71	298	0.0	
1650	49.50	400.00	Clear	5.32	0.031	10.83	0.44	15.63	299	0.0	
1655	49.50	400.00	Clear	5.32	0.031	10.85	0.58	15.58	301	0.0	
1700	49.50	400.00	Clear	5.32	0.031	10.52	0.51	15.56	302	0.0	
1705	Collect samp	ole									
INAL PUF	RGE / SAMPLI	E DATA:									
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
1500	1705	125.00	13 gal	5.32	0.031	10.52	0.51	15.56	302	0.0	
NALYSIS	, PRESERVAT	TION AND E	BOTTLE RE	QUIRMENT	S						
	alysis		Method		Preser	vative	Number	Vol.	Bottle	Гуре	Collecte
V	OCs		W846 8260		H	CL	3	40-ml	gl	ass	YES
1,4-[Dioxane SW846 8270D SIM				nc	ne	1	1 L	gl	ass	YES
OBSERVA	TIONS / NOTE =605.45x0.0										

Signature(s):

Beau Benfield



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

						Project No		112G08005-WE13				
Sample ID);	RE123D2				Sampled	Bv:	Katie Gre	gorv			
	plicate ID:					Sample D		12/07/18	<u>, , , , , , , , , , , , , , , , , , , </u>			
MS/MSD (•		NO			Sample T		1250				
	RMATION:											
	RE123D2					Purge Dat	te:	12/07/18				
	eter (in):	4					ter Level (ft		48.3			
	reen (ft-BTC		635				or Reading		0			
	Screen (ft-		655			Purge Me		Low-flow	-			
	Depth (ft-B					Sample M		Low-flow				
	IT INFORMA											
	ality Instrum		Horiba U-5	52		Pump Co	ntroller:	Centrifuga	al			
Turbidity	Meter:	Hanna 987										
URGE DA												
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
1143	48.3											
1150	48.33	700	Clear	4.58	0.036	6.01	8.0	13.11	312	0.0		
1155	48.33	700	Clear	4.44	0.035	4.17	0.9	13.15	326	0.0		
1205	48.33	700	Clear	4.46	0.035	4.37	0.66	13.23	331	0.0	-	
1215	48.33	700	Clear	4.71	0.036	5.53	0.78	13.47	311	0.0		
1225	48.33	700	Clear	4.86	0.035	5.00	0.67	13.30	311	0.0		
1235	48.34	700	Clear	4.91	0.036	4.87	0.61	13.62	311	0.0		
1240	48.34	700	Clear	4.91	0.035	4.81	0.6	13.63	312	0.0		
1245	48.34	700	Clear	4.96	0.035	4.91	0.6	13.56	312	0.0		
1250	Grab samp											
1200	Orab carri	510										
INAL PUR	GE / SAMP	LE DATA:										
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
1145	1245	60	12.5	4.96	0.035	4.91	0.6	13.56	312	0.0		
NALYSIS,	PRESERVA	ATION AND	BOTTLE R	EQUIRMEN	TS							
Anal			Method		Preserv		Number	Vol.	Bottle 7		Collected	
VO			W846 8260		Н	Cl	2	40-mL	GI	ass	Yes	
1,4-Di	oxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	r glass	Yes	
	TIONS / NOT	TES:										
12.134												
Coordinates: N E					E	Signature((s):		Kat	ie Gregory	,	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

Coordinates: N E						Signature(s): Vince Shickora					
Coord	linatos:		N		-	Signature	(e)·		•	4. 6	
		INO S	iaiiis 01 000	JIS ODSEIVE	a during p	uige					
OBSERVAT	IONS / NOTE	-	tains or od:	ors observe	ad during a	urge					
1,7-0	IOAGIIO	377	0 10 021 00	CIIVI	110			, -	gio		120
	ioxane		846 8270D			ne	2	1 L		ass ass	YES
	<mark>ilysis</mark> DCs	9	Method W846 826	nB.	Preser	vative CL	Number 3	Vol. 40-ml	Bottle di	Type ass	Collected YES
	PRESERVAT	TION AND E		QUIRMENTS		tiv.a	No. are to a se	M-1	D-111	F. m. a	Callege
10:50	12:00	70.00	7.5 gal	5.42	0.033	1.98	0.3	20.09	-60	0.0	NA
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
FINAL PUR	GE / SAMPLI	E DATA:									
12:00	49.58	375.00	Clear	5.42	0.033	1.98	0.3	20.09	-60	0.0	NA
11:55	49.58	375.00	Clear	5.42	0.033	1.99	0.4	20.10	-58	0.0	NA
11:50	49.58	375.00	Clear	5.42	0.033	2.01	0.3	20.09	-56	0.0	NA
11:45	49.58	375.00	Clear	5.41	0.033	2.05	0.3	20.11	-54	0.0	NA
11:40	49.58	375.00	Clear	5.41	0.033	2.07	0.5	20.10	-52	0.0	NA
11:35	49.58	375.00	Clear	5.40	0.033	2.12	0.7	20.08	-49	0.0	NA
11:30	49.58	375.00	Clear	5.40	0.034	1.98	0.6	20.04	-41	0.0	NA
11:25	49.58	375.00	Clear	5.44	0.034	1.78	0.0	20.01	-36	0.0	NA
11:20	49.58	375.00	Clear	5.47	0.034	1.89	0.0	20.02	-23	0.0	NA
11:15	49.58	375.00	Clear	5.61	0.034	1.16	0.0	20.04	12	0.0	NA
11:10	49.57	375.00	Clear	5.63	0.033	1.66	0.0	20.08	85	0.0	NA NA
11:00 11:05	49.57 49.57	375.00 375.00	Clear Clear	5.71 5.63	0.032	3.31 2.35	0.0	20.05	238 188	0.0	NA NA
10:55	49.57	375.00	Clear	5.43	0.035	4.09	0.0	20.54	254	0.0	NA
10:50	49.57	375.00	Clear	4.80	0.048	7.29	0.0	22.85	274	0.0	NA
(Hrs)	(ft-BTOR)	mL / min.	_	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
PURGE DA											
Turbidity N	ality Instrume Meter	Lamotte 2		02		Pump Co	ntroller:	biaudei			
	T INFORMAT		Horiba U-5	50		Dumm Co	mtuallau.	Bladder			
	Depth (ft-BT		840			Sample N	lethod:	Low Flow			
	Screen (ft-B		835			Purge Me		Low Flow			
Top of Scr	een (ft-BTOF	₹):	815			PID Moni	tor Reading	:	0.0 ppm		
Well Diam	eter (in):	4 inch				•	iter Level (fi	-BTOR):	49.55		
_	RE123D3					Purge Da	te:	07/18/18			
	RMATION:	TES				Sample	ime:	12.00			
QA/QC Du MS/MSD C	•	No YES				Sample D		07/18/18 12:00			
Sample ID		RE123D3	-20180718				Sampled By: Vince Shikora				
						Project No.: 112G08005-WE13					



Event:

Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.:

112G08005-WE13

Sample II	D:	RE123D3	-20181008			Sampled By:		CS			
QA/QC D	uplicate ID:	NO				Sample D	Date:	10/08/18			
MS/MSD	Collected:	NO				Sample T	ime:	1705			
WELL INFO	ORMATION:										
Well ID:	RE123D3					Purge Da	ite:	10/08/18			
Well Dian		4					ater Level (f	t-BTOR):	49.43		
	reen (ft-BTO	R):	815				tor Reading		0.5 ppm		
-	f Screen (ft-B	•	835			Purge Method: Low					
	I Depth (ft-B1		840			Sample N		Low Flow			
EQUIPMEN	NT INFORMAT	ΓΙΟΝ:									
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2				•					
PURGE DA											
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
1500	49.43	400	Clear	5.41	0.045	8.56	10.7	18.22	240	0.0	N/a
1510	49.44	400	Clear	5.60	0.045	5.43	10.1	17.38	107	0.0	N/a
1520	49.44	400	Clear	5.74	0.045	3.24	9.64	16.21	-20	0.0	N/a
1530	49.44	400	Clear	5.72	0.044	2.72	16.7	16.06	-47	0.0	N/a
1540	49.44	400	Clear	5.72	0.044	2.33	16.2	15.94	-48	0.0	N/a
1550	49.44	400	Clear	5.72	0.044	1.01	16.0	15.91	-49	0.0	N/a
1600	49.44	400	Clear	5.72	0.044	1.78	15.2	15.87	-49	0.0	N/a
1610	49.44	400	Clear	5.72	0.046	1.48	15.9	15.84	-50	0.0	N/a
1620	49.44	400	Clear	5.74	0.046	1.50	15.7	15.75	-52	0.0	N/a
1625	49.44	400	Clear	5.73	0.046	1.46	14.9	15.73	-52	0.0	N/a
1630	49.44	400	Clear	5.71	0.046	1.41	15.0	15.71	-52	0.0	N/a
1635	49.44	400	Clear	5.72	0.046	1.34	14.8	15.73	-52	0.0	N/a
1640	49.44	400	Clear	5.72	0.046	1.26	15.4	15.74	-54	0.0	N/a
1645	49.44	400	Clear	5.73	0.046	1.32	15.2	15.70	-54	0.0	N/a
1650	49.44	400	Clear	5.72	0.045	1.22	14.8	15.68	-53	0.0	N/a
1655	49.44	400	Clear	5.72	0.045	1.16	14.9	15.63	-51	0.0	N/a
1700	49.44	400	Clear	5.72	0.045	1.13	14.6	15.59	-52	0.0	N/a
FINAL PUR	RGE / SAMPL	E DATA:									
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1500	1700	120	~13 gal	5.72	0.045	1.13	14.6	15.59	-52	0.0	N/a
	, PRESERVA	TION AND E		QUIRMENT							
	alysis	-	Method		Preser		Number	Vol.	Bottle 1		Collected
	VOCs SW846 8260B					CL	2	40-ml		ass	YES
1,4-Dioxane SW846 8270D SIM				no	ne	1	1 L	gla	ass	YES	
ODCEDYA	TIONS (NOT										
	3 = 785.57 x		- 7 96 acl	to purae d	ron tubina						
■ ∪JU - 49.4	J - 100.01 X	U.U IU U/II.	- <i>i</i> .oo uai	io pulae a	roo woma						

835 - 49.43 = 785.57 x 0.010 g/ft. = 7.86 gal to purge drop tubing

Coordinates:	N	E	Signature(s):	Chric Sinici
N/a	N/a	N/a		Chris Sinisi



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage 112G08005-WE13

 Sample ID:
 RE123D3-20181207
 Sampled By:
 BB

 QA/QC Duplicate ID:
 No
 Sample Date:
 12/07/18

 MS/MSD Collected:
 No
 Sample Time:
 1310

WELL INFORMATION:

 Well ID :
 RE123D3
 Purge Date:
 12/07/18

 Well Diameter (in):
 4
 Static Water Level (ft-BTOR):
 48.12

 Top of Screen (ft-BTOR):
 815
 PID Monitor Reading:
 0

 Bottom of Screen (ft-BTOR):
 835
 Purge Method:
 Low-flow

 Total Well Depth (ft-BTOR):
 Sample Method:
 Low-flow

EQUIPMENT INFORMATION:

Water Quality Instrument: Horiba U-52 Pump Controller: Centrifugal

Turbidity Meter: Hanna 98703

PURGE DA	ATA:										
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (% or ppt)	Other
1145	Start purge)									
1155	48.26	800	Clear	5.77	0.041	0.66	18.8	11.92	27	0.0	
1205	48.26	800	Clear	5.77	0.042	0.6	18.8	11.81	26	0.0	
1215	48.26	800	Clear	5.77	0.043	0.53	17.7	12.17	24	0.0	
1225	48.26	800	Clear	5.78	0.043	0.46	15.7	12.05	25	0.0	
1230	48.26	800	Clear	5.77	0.042	0.46	14.8	11.91	27	0.0	
1235	48.26	800	Clear	5.76	0.042	0.42	16.1	12.3	28	0.0	
1240	48.26	800	Clear	5.75	0.041	0.42	15.6	12.48	30	0.0	
1245	48.26	800	Clear	5.77	0.041	0.39	15.4	12.56	30	0.0	
1250	48.26	800	Clear	5.74	0.04	0.38	14.5	12.31	35	0.0	
1255	48.26	800	Clear	5.73	0.039	0.37	13.6	12.19	36	0.0	
1300	48.26	800	Clear	5.72	0.039	0.37	14	12.49	38	0.0	
1305	48.26	800	Clear	5.70	0.038	0.35	9.2	12.45	41	0.0	·
1310	Collect sar	nple									
FINAL PU	RGE / SAMP	LE DATA:									

Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1145	1310	85	18 gal	5.70	0.038	0.35	9.2	12.45	41	0.0	

ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS

Analysis	Method	Preservative	Number	Vol.	Bottle Type	Collected
VOCs	SW846 8260B	HCI	2	40-mL	Glass	yes
1,4-Dioxane	SW846 8270D SIM	None	1	1-L	Amber glass	yes

OBSERVATIONS / NOTES:

835-48.12=786.88x0.010=7.8 gal to purge drop tubing

Coordinates:	N	Е	Signature(s):	Pagu Pantiald
				ъеаи Бепјина



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

Coor	ordinates: N E				Signature(s): Scott Anderson						
Carr	dinates:		AI .			Signatura	(e)·				
OBSERVA [*]	TIONS / NOTE	S:									
1,4-0	Dioxane	SW	846 8270D	SIM	nc	ne	2	1 L	gla	ass	yes
	OCs		W846 8260			CL	3	40-ml		ass	yes
	alysis		Method		Preser		Number	Vol.	Bottle		Collected
ANALYSIS	, PRESERVA	TION AND B	OTTLE REG	QUIRMENTS							
0930	1030	60	8 gal	4.80	0.144	2.35	5.6	17.48	307	0.1	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Other
Start	GE / SAMPLI	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
INAL DUD	GE / SAMPLI	E DATA:									
-											
10.30	33.00	323.00	Cical	4.00	0.144	2.30	5.0	17.40	301	0.1	
10:25 10:30	35.08 35.08	325.00 325.00	Clear Clear	4.79 4.80	0.145 0.144	2.31 2.35	8.0 5.6	17.47 17.48	307 307	0.1	
10:20	35.08	325.00	Clear	4.80	0.144	2.35	8.5	17.38	308	0.1	
10:15	35.08	325.00	Clear	4.81	0.144	2.39	9.2	17.37	313	0.1	
10:10	35.08	325.00	Clear	4.83	0.144	2.40	9.3	17.37	308	0.1	
10:05	35.08	325.00	Clear	4.85	0.145	2.41	9.3	17.38	303	0.1	
10:00	35.08	325.00	Clear	4.85	0.143	2.46	10.5	17.48	301	0.1	
9:55	35.08	325.00	Clear	4.84	0.143	2.52	10.4	17.43	301	0.1	
9:50	35.08	325.00	Clear	4.84	0.143	2.63	10.1	17.36	300	0.1	
9:45	35.08	325.00	Clear	4.71	0.143	2.86	10.3	17.41	301	0.1	
9:40	35.08	325.00	Clear	4.87	0.142	4.17	2.3	17.57	292	0.1	
9:35	35.08 35.08	325.00 325.00	Clear Clear	4.96 4.90	0.144 0.142	7.01 5.37	1.5 1.5	18.06 17.62	269 285	0.1	
(Hrs) 9:30	(ft-BTOR)	mL / min.	Class	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
PURGE DA											
Turbidity		Hanna HI) <u>Z</u>		Fullip Co	initioner.	Diaddei			
	ality Instrume	-	Horiba U-5	:2		Pump Co	ntrollor	Bladder			
	I Depth (ft-BT IT INFORMAT		345			Sample M	lethod:	Low Flow			
	Screen (ft-B	•	340			Purge Me		Low Flow			
Top of Sc	reen (ft-BTOF	R):	320			PID Monit	tor Reading		2		
Well Diam	neter (in):	4				Static Wa	ter Level (ft	-BTOR):	35.08		
Well ID :	RE125D1					Purge Da	te:	07/11/18			
	ORMATION:	140				Oample 1	iiie.	10.00			
	uplicate ID: Collected:	No				Sample D Sample T		07/11/18 10:30			
Sample II		RE125D1-	20180711				Sampled By: Scott Anderson				
						Project N	0.:	112G0800	13-VVE 13		



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project No.: <u>112G08005-WE13</u>						
Sample II):	RE125D1-	-20181001			Sampled	By:	CS	OS .			
QA/QC Du	uplicate ID:	NO				Sample D	•	10/01/18				
	Collected:	NO				Sample T		1325				
WELL INFO	ORMATION:											
Well ID :	RE125D1					Purge Da	Purge Date: 10/01/18					
Well Diam		4				Static Water Level (ft-BTOR): 34.87						
	reen (ft-BTO		320				tor Reading					
	f Screen (ft-B		340			Purge Me		Low Flow				
	I Depth (ft-B1		345			Sample N		Low Flow				
	IT INFORMAT											
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity		Lamotte 2				T think of						
PURGE DA												
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
1110	34.87	400	Clear	5.43	0.175	14.22	3.24	18.63	245	0.1	N/a	
1120	34.89	400	Clear	5.02	0.160	5.97	2.80	18.68	288	0.1	N/a	
1130	34.89	400	Clear	4.74	0.149	2.38	1.43	18.72	311	0.1	N/a	
1140	34.89	400	Clear	4.74	0.149	1.46	1.39	18.39	318	0.1	N/a	
1150	34.89	400	Clear	4.74	0.149	1.23	1.63	18.45	323	0.1	N/a	
1200	34.89	400	Clear	4.75	0.149	1.17	2.03	18.64	325	0.1	N/a	
1210	34.89	400	Clear	4.76	0.149	1.13	1.86	18.70	326	0.1	N/a	
1220	34.89	400	Clear	4.77	0.149	1.07	1.78	18.79	328	0.1	N/a	
1230	34.89	400	Clear	4.79	0.149	1.03	1.99	18.87	329	0.1	N/a	
1235	34.89	400	Clear	4.80	0.149	0.99	2.34	19.91	330	0.1	N/a	
1240	34.89	400	Clear	4.80	0.148	1.00	2.19	19.82	331	0.1	N/a	
1245	34.89	400	Clear	4.80	0.148	1.02	2.07	19.67	332	0.1	N/a	
1250	34.89	400	Clear	4.80	0.148	0.97	2.27	19.53	332	0.1	N/a	
1255	34.89	400	Clear	4.80	0.148	0.95	2.22	19.44	332	0.1	N/a	
1300	34.89	400	Clear	4.79	0.148	0.94	2.09	19.40	331	0.1	N/a	
1305	34.89	400	Clear	4.79	0.148	0.92	1.87	19.55	331	0.1	N/a	
1310	34.89	400	Clear	4.79	0.148	0.90	1.60	19.60	330	0.1	N/a	
1315	34.89	400	Clear	4.79	0.148	0.87	1.67	19.89	330	0.1	N/a	
1320	34.89	400	Clear	4.79	0.148	0.85	1.52	19.74	330	0.1	N/a	
FINAL PUR	GE / SAMPL	E DATA:					•					
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
1110	1320	130	~13 g	4.79	0.148	0.85	1.52	19.74	330	0.1	N/a	
	, PRESERVA	TION AND E		QUIRMENT								
	alysis	_	Method		Preser		Number	Vol.	Bottle 1	•	Collected	
	OCs		W846 8260			CL	2	40-ml		ass	YES	
1,4-0	Dioxane	SW	846 8270D	SIM	no	ne	1	1 L	gla	ass	YES	
		-										
ODOEDVA	TIONIO (NOT											
OBSERVA	TIONS / NOTI											

340 - 34.87 = 305.13 x 0.010 g/ft. = 3.05 gal to purge drop tubing volume

Coordinates:	N	E	Signature(s):	Chris Sinisi
N/a	N/a	N/a		Curis Sinisi



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

					Project No		112G08005-WE13						
Sample ID:	RE125D1				Sampled	Bv:	BB						
QA/QC Duplicate II					Sample D		12/04/18						
MS/MSD Collected		NO			Sample T		1435						
WELL INFORMATIO		110			Cumple 1		1400						
Well ID: RE125D					Purge Da	te.	12/04/18						
Well Diameter (in):						Static Water Level (ft-BTOR): 33.4							
Top of Screen (ft-B		320				PID Monitor Reading 0							
Bottom of Screen (340			Purge Me		Low-flow						
Total Well Depth (f		340			Sample M		Low-flow						
QUIPMENT INFOR					Sample W	etilou.	LOW-HOW						
Water Quality Instr		Horiba U-5	52		Pump Co	ntroller:	Centrifuga	l					
Turbidity Meter:	HACH 210)		rump co	iili Ollei .	Centinuga	!					
PURGE DATA:	TIACITZI	<i>5</i> 0Q											
Time H ₂ 0 Leve	l Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other			
(Hrs) (ft-BTOR		00101	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Other			
1345 Start pui	_												
1350 33.42	800	Clear	4.87	0.159	7.65	7.27	12.95	302	0.1				
1355 33.42	800	Clear	4.79	0.159	7.04	4.94	13.08	312	0.1				
1400 33.42	800	Clear	4.80	0.159	6.63	5.89	13.11	320	0.1				
1405 33.42	800	Clear	4.80	0.159	5.93	4.26	13.08	322	0.1	6 gal			
1410 33.42	800	Clear	4.80	0.159	5.43	4.30	13.12	319	0.1	o gai			
1415 33.42	800	Clear	4.79	0.159	5.13	4.61	13.10	321	0.1				
1420 33.42	800	Clear	4.80	0.159	4.76	4.25	13.08	324	0.1				
1425 33.42	800	Clear	4.80	0.158	4.76	2.87	13.06	325	0.1				
	800						1		1				
1430 33.42	- 1	Clear	4.81	0.158	4.03	3.86	13.04	326	0.1				
1435 Collect s	ampie												
INAL PURGE / SAN	DI E DATA:												
Start End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other			
Purge Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)				
1345 1435	50	13 gal	4.81	0.158	4.03	3.86	13.04	326	0.1				
NALYSIS, PRESER	VATION AND	BOTTLE R	EQUIRMEN	ITS									
Analysis		Method		Preserv	vative	Number	Vol.	Bottle 1	Гуре	Collected			
VOCs	5	W846 8260)B	Н	CI	2	40-mL	Gl	ass	Yes			
1,4-Dioxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	r glass	Yes			
BSERVATIONS / N													
40-33.40=306.60x	0.010=3 gal	to purge tul	oing										
Coordinates:		N		E	Signature	(s):		Веа	u Benfield	ſ			



Event:

Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

						Project N	o.:	112G0800	5-WE13		
Sample II	D:	RE125D2-	-20180711			Sampled	Ву:	Beau Ben	field		
QA/QC Du	uplicate ID:	GW01-07	1118	120	00	Sample D	ate:	07/11/18			
MS/MSD (Collected:	NO				Sample T	ime:	10:00			
WELL INFO	ORMATION:										
Well ID:	RE125D2					Purge Da	te:	07/11/18			
Well Dian	neter (in):	4				Static Wa	iter Level (f	t-BTOR):	38		
Top of Sc	reen (ft-BTOI	R):				PID Moni	tor Reading	j:	2.5		
Bottom of	f Screen (ft-B	TOR):	0			Purge Me	thod:	Low Flow			
Total Wel	I Depth (ft-BT	OR):	605			Sample N	lethod:	Low Flow			
EQUIPMEN	NT INFORMAT	TION:									
Water Qu	ality Instrume		Horiba U-	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Lamotte 2	020								
PURGE DA											
Time	H ₂ 0 Level	Flow	Color	pH	S.C.	DO (******	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
8:55	Start purge		01	- 10				10 =0			
9:10	37.97	300.00	Clear	5.42	0.092	7.57	0.99	18.79	248	0.0	
9:20	37.97	300.00	Clear	5.58	0.087	9.41	1.83	19.11	238	0.0	
9:25	37.97	300.00	Clear	5.43	0.085	8.95	0.91	18.01	236	0.0	
9:30	38.00	300.00	Clear	5.48	0.085	8.67	0.81	17.98	236	0.0	
9:35	38.00	300.00	Clear	5.52	0.084	8.13	0.57	17.67	239	0.0	
9:40	38.00	300.00	Clear	5.49	0.084	7.85	0.95	17.73	243	0.0	
9:45	38.00	300.00	Clear	5.46	0.082	7.56	1.20	17.63	246	0.0	
9:50	38.00	300.00	Clear	5.41	0.081	7.41	1.30	17.62	249	0.0	
9:55	38.00	300.00	Clear	5.33	0.080	7.15	1.30	17.68	257	0.0	
10:00	Collect sam	ole									
	RGE / SAMPL	1	1		1	_	I		T	1	
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
8:55	10:00	65.00	4 gal	5.33	0.080	7.15	1.3	17.68	257	0.0	
	, PRESERVA					7.10	1.0	17.00	201	0.0	
	alysis		Method		Preser	vative	Number	Vol.	Bottle	Туре	Collecte
	OCs	S	W846 8260	0B	H	CL	3	40-ml	al	ass	yes
	Dioxane		846 8270D			ne	2	1 L		ass	yes
-									Ŭ		
DBSERVA [*]	TIONS / NOTI	ES:									
	dinatos:		N		E	Signature	(s):	7		14	7
Coord			-			J.g.,a.a.	(~).	<u>~ 1</u>	_		
Coord	umates.									1	



Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage Project No.:

112G08005-WE13

Coor	dinates:		N		E	Signature	e(s):						
OBSERVA	TIONS / NOTE	ES:											
An	alysis		Method		Preser	vative	Number	Vol.	Bottle	Гуре	Collected		
ANALYSIS	, PRESERVA	TION AND I	BOTTLE RE	QUIRMENT	s								
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)			
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
FINAL DUE	RGE / SAMPL	F DATA:											
										ļ			
				DI									
				DI	A	M1,							
				_	1	VIK							
						1	,						
										<u> </u>			
(1113)	(IL-DTOIN)	IIIC / IIIIII.		(0.0.)	(1110/0111)	(1119/12)	(1410)	(0)	(1117)	(ppt)			
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other		
PURGE DA													
Turbidity	Meter:												
Water Qu	ality Instrume	ent:				Pump Co	ntroller:						
	NT INFORMAT	•											
	I Depth (ft-BT					Sample N							
	f Screen (ft-B					Purge Me		j.					
Well Dian	neter (in): :reen (ft-BTOI	B)·					ater Level (fi						
	RE125D2					Purge Da		PTOD):					
	ORMATION:												
	Collected:	No				Sample T	Time:						
	uplicate ID:	No	<u>r</u>			Sample D							
Sample II	D:	RE125D2	-20181001			Sampled By:							



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

_						Project N	o.:	112G08005-WE13				
Sample ID	:	RE125D2-	20181204			Sampled	Sampled By: Katie Gregory					
	plicate ID:					Sample D		12/04/18	<u> </u>			
MS/MSD C	•		NO			Sample T		1353				
	RMATION:											
	RE125D2					Purge Da	te:	12/04/18				
Well Diam		4					ter Level (f		35.2			
	reen (ft-BTC		580				or Reading		0			
	Screen (ft-		600			Purge Me		Low-flow				
	Depth (ft-B		000			Sample M		Low-flow				
	T INFORMA											
	ality Instrun		Horiba U-5	52		Pump Co	ntroller:	Centrifuga	al			
Turbidity		HACH 210										
PURGE DA												
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
1300	35.2											
1307	35.21	700	Clear	5.43	0.094	113	9.43	12.79	257	0.0		
1312	35.21	700	Clear	5.37	0.092	90	3.72	12.75	267	0.0		
1317	35.21	700	Clear	5.20	0.091	81.3	2.32	12.8	280	0.0		
1322	35.21	700	Clear	5.10	0.09	73.8	1.54	12.87	294	0.0		
1327	35.22	700	Clear	5.03	0.09	68	0.97	12.87	305	0.0		
1332	35.22	700	Clear	5.01	0.09	64.1	0.6	12.93	309	0.0		
1337	35.22	700	Clear	5.02	0.09	59.9	0.34	12.89	316	0.0		
1342	35.22	700	Clear	4.97	0.091	66.7	0.52	12.9	312	0.0		
1347	35.22	700	Clear	4.96	0.091	54.4	0.35	12.94	317	0.0		
	Grab sample		Olcai	4.50	0.001	04.4	0.00	12.54	017	0.0		
1000	JIAD Sample	C										
INAL PUR	GE / SAMP	LE DATA:							<u> </u>	<u> </u>		
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
1302	1347	45	10	4.96	0.091	54.4	0.35	12.94	317	0.0		
NALYSIS,	PRESERVA	ATION AND	BOTTLE R	EQUIRMEN	TS							
Anal	ysis		Method		Preser	vative	Number	Vol.	Bottle 1	Гуре	Collected	
VO	Cs	S	W846 8260)B	Н	CI	2	40-mL	Gl	ass	Yes	
1,4-Di	oxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	r glass	Yes	
-	TIONS / NOT	TES:										
5.648												
Coordinates: N E					Signature(s): Katie Gregory							



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

	Coordinates: N E					Vince Shickora						
Coordinates: N E					Signature	(s):		Vinco (Shickora			
OBJERVAI		-	lors observe	ed during p	ourge							
ORSEDVAT	TIONS / NOTE											
1,4-D	-Dioxane SW846 8270D SIM				no	ne	2	1 L	glagla	ass	Yes	
VC	OCs SW846 8260B				H	CL	3	40-ml	gla	ass	Yes	
	alysis		Method		Preser	vative	Number	Vol.	Bottle ¹	Туре	Collected	
	PRESERVA					,			, <u> </u>		,	
9:15	4:48	65.00	7 gal	4.65	0.052	4.94	0.0	21.21	312	0.0	NA	
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
-	GE / SAMPLI		Total Val	ъU	8.0	DC	Turkidis	Tomin	OBB	Calinity	Other	
EINAL DUD	CE / CAMP!	E DATA:										
10:20	38.23	375.00	Clear	4.65	0.052	4.94	0.0	21.21	312	0.0	NA	
10:15	38.23	375.00	Clear	4.65	0.052	4.93	0.0	21.22	311	0.0	NA	
10:10	38.23	375.00	Clear	4.65	0.052	4.94	0.0	21.23	310	0.0	NA	
10:05	38.23	376.00	Clear	4.66	0.052	4.95	0.0	21.21	308	0.0	NA	
10:00	38.23	375.00	Clear	4.66	0.053	4.92	0.0	21.22	307	0.0	NA	
9:55	38.23	375.00	Clear	4.65	0.053	4.94	0.0	21.20	306	0.0	NA	
9:50	38.23	375.00	Clear	4.68	0.053	4.93	0.0	21.25	303	0.0	NA	
9:45	38.23	375.00	Clear	4.70	0.053	4.92	0.0	21.77	301	0.0	NA NA	
9:40	38.23	375.00	Clear	4.83	0.055	4.93	0.0	21.77	294	0.0	NA NA	
9:35	38.23	375.00	Clear	4.83	0.057	4.93	0.0	22.18	290	0.0	NA NA	
9:25	38.23	375.00	Clear	4.83	0.058	5.26	0.0	22.53	287	0.0	NA NA	
9:20 9:25	38.23 38.23	375.00 375.00	Clear Clear	4.82 4.83	0.059 0.058	6.41 5.26	0.0	23.88 22.53	283 286	0.0	NA NA	
9:15	38.23	400.00	Clear	4.82	0.064	8.15	0.0	24.23	280	0.0	NA NA	
(Hrs)	(ft-BTOR)	mL / min.	Clear	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	NΙΔ	
Time	H ₂ 0 Level	Flow	Color	pH	S.C.	DO (mg/L)	Turbidity	Temp.	ORP (m)()	Salinity	Other	
PURGE DA												
Turbidity I	Meter:	Lamotte 2										
	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder				
	T INFORMAT		030			Sample IV	ietilou.	LOW I IOW				
	Screen (ft-B Depth (ft-BT		690			Purge Me Sample M		Low Flow				
•	reen (ft-BTO	<i>'</i>	670 690				tor Reading		1.5 ppm			
Well Diam	• • •	4 inch	670				iter Level (f		38.21			
	RE125D3	4 : 1				Purge Da		07/11/18	20.04			
-	RMATION:							07/4:/:5				
MS/MSD C			No			Sample T	ime:	10:20				
	ıplicate ID:	No	T			Sample D		07/11/18				
Sample ID):	RE125D3	-20180711			Sampled	Ву:	Vince Shi	nikora			
						Project No.: <u>112G08005-WE13</u>						



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

						Project No.: <u>112G08005-WE13</u>					
Sample ID):	RE125D3-	-20181001			Sampled	Sampled By: CM				
	plicate ID:					Sample D		10/01/18			
MS/MSD (Sample T		16:10			
WELL INFO	RMATION:										
	RE125D3					Purge Da	te:	10/01/18			
Well Diam		4"					iter Level (f		38.14		
	reen (ft-BTOF		670				tor Reading				
	Screen (ft-B	•	690				Purge Method: Low Flow				
	Depth (ft-BT		695			Sample N		Low Flow			
	T INFORMAT	· ·									
Water Qua	ality Instrume	ent:	Horiba U-	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2									
PURGE DA											
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
13:55	38.14	400.00	Clear	5.47	0.061	6.78	17.9	20.36	233	0.0	NA
14:05	38.48	400.00	Clear	5.45	0.061	6.23	-	20.04	237	0.0	NA
14:15	38.57	400.00	Clear	5.43	.0.060	5.86	9.5	19.91	240	0.0	NA
14:25	38.60	400.00	Clear	536	0.060	5.27	11.6	19.77	249	0.0	NA
14:35	38.60	400.00	Clear	5.33	0.058	4.93	12.5	19.69	254	0.0	NA
14:45	38.60	400.00	Clear	5.26	0.057	5.04	14.5	19.41	254	0.0	NA
14:55	38.60	400.00	Clear	5.28	0.056	5.01	17.1	19.35	256	0.0	NA
15:05	38.60	400.00	Clear	5.16	0.055	5.29	15.9	18.46	274	0.0	NA
15:15	38:60	400.00	Clear	5.15	0.055	5.27	13.4	18.53	275	0.0	NA
15:20	38.60	400.00	Clear	5.15	0.054	5.20	10.6	18.60	277	0.0	NA
15:25	38.60	400.00	Clear	5.14	0.055	5.24	9.8	18.63	277	0.0	NA
15:30	38.61	400.00	Clear	5.15	0.055	5.28	7.1	18.70	277	0.0	NA
15:35	36.62	400.00	Clear	5.14	0.055	5.25	6.2	18.83	277	0.0	NA
15:40	26.63	400.00	Clear	5.14	0.550	5.21	5.9	18.85	277	0.0	NA
15:45	38.62	400.00	Clear	5.14	0.055	5.19	5.7	18.87	277	0.0	NA
15:50	38.63	400.00	Clear	5.15	0.055	5.23	5.5	18.73	276	0.0	NA
15:55	38.62	400.00	Clear	5.15	0.055	5.18	4.6	18.69	278	0.0	NA
16:00	38.61	400.00	Clear	5.13	0.055	5.21	5.2	18.61	279	0.0	NA
16:05	38.61	400.00	Clear	5.15	0.054	5.17	4.9	18.57	279	0.0	NA
FINAL PUR	GE / SAMPL	E DATA:						•			
Start	End	Total	Total Vol.	pH	S.C.	DO (===/l)	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	NΙΔ
14:05	1:12 PRESERVA	120.00	11 gal	5.15	0.054	5.17	4.9	18.57	279	0.0	NA
	llysis	I ION AND E	Method	WOIL IN I	S Preser	vative	Number	Vol.	Bottle 1	Type	Collected
)Cs	.5	W846 826	0B		CL	3	40-ml		ass	YES
	ioxane		846 8270D			ne	1	1 L		ass	YES
1,420	4-DIOXAITE SVV040 021 0D OIIVI						<u>'</u>	, _	gic		120
OBSERVAT	TIONS / NOTE	ES:									
Coord	Coordinates: N E					Signature(s): Chuck Meyer					



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.: Sampled By: RE125D3-20181204 Katie Gregory Sample ID: QA/QC Duplicate ID: No Sample Date: 12/04/18 MS/MSD Collected: Sample Time: 1525 WELL INFORMATION: Well ID: RE125D3 12/04/18 Purge Date: Static Water Level (ft-BTOR): 35.41 Well Diameter (in): 670 Top of Screen (ft-BTOR): PID Monitor Reading: Bottom of Screen (ft-BTOR): 690 **Purge Method:** Low-flow Total Well Depth (ft-BTOR): Sample Method: Low-flow **EQUIPMENT INFORMATION:** Horiba U-52 Water Quality Instrument: **Pump Controller:** Centrifugal **HACH 2100Q Turbidity Meter:** PURGE DATA: Time H₂0 Level Flow Color S.C. DO Turbidity Temp. ORP Salinity Other pН (ft-BTOR) (S.U.) (mS/cm) (NTU) (Hrs) mL / min. (mg/L) (C°) (mV) (% or ppt) 1435 35.41 0.059 62.5 1441 700 Clear 5.44 0.35 12.16 271 0.0 35.42 1446 700 5.31 0.057 2.77 12.57 290 0.0 35.42 Clear 48.3 1451 700 0.056 46.7 4.34 12.62 299 0.0 35.42 Clear 5.2 700 0.0 1456 35.42 Clear 5.21 0.055 49.2 4.72 12.63 299 1501 35.43 700 Clear 5.13 0.055 50.4 3.8 12.7 304 0.0 1506 35.43 700 Clear 5.04 0.054 50.7 1.84 12.68 313 0.0 700 0.054 1511 35.43 Clear 4.87 52 0.91 12.84 328 0.0 1516 35.43 700 0.054 5.32 0.49 12.88 321 0.0 Clear 4.81 1521 35.43 700 Clear 4.97 0.054 5.33 0.36 12.89 331 0.0 1525 Grab sample FINAL PURGE / SAMPLE DATA: Start Total Total Vol. Turbidity ORP Purge Purge (min.) (gal. / L.) (S.U.) (mS/cm) (NTU) (C°) (mV) (% or ppt) (mg/L) 4.97 0.054 12.89 1436 1521 45 10 5.33 0.36 331 0.0 ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Preservative Number Vol. **Bottle Type** Collected Method **VOCs** SW846 8260B **HCI** 2 40-mL Glass yes 1,4-Dioxane SW846 8270D SIM None 1-L 1 Amber glass yes **OBSERVATIONS / NOTES:** 6.5459 Coordinates: Signature(s): N Ε Katie Gregory



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

Coord	oordinates: N E					Signature(s): Scott Anderson					
Coor	dinates		N	-		Signatura	(e)·				
											
OBSERVAT	TIONS / NOTE	S:									
1,4-0	ioxane	SW	846 8270D	SIM	nc	ne	2	1 L	gla	ass	yes
	OCs 		W846 8260			CL	3	40-ml		ass	yes
	alysis		Method		Preser		Number	Vol.	Bottle 1		Collected
ANALYSIS,	PRESERVA	TION AND B	OTTLE REG	QUIRMENTS							
0900	1000	60	8 gal	5.30	0.096	5.29	0.8	19.84	278	0.0	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Other
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
FINAL PLIP	GE / SAMPLI	Ι Ε ΝΑΤΔ·									
10:00	46.27	375.00	Clear	5.30	0.096	5.29	0.8	19.84	278	0.0	
9:55	46.27	375.00	Clear	5.29	0.096	5.30	0.9	19.94	276	0.0	
9:50	46.27	375.00	Clear	5.28	0.097	5.32	1.3	19.73	274	0.0	
9:40 9:45	46.27 46.27	375.00 375.00	Clear Clear	5.29 5.28	0.097 0.097	5.31 5.30	1.6 1.8	19.85 19.90	269 270	0.0	
9:35	46.27	375.00	Clear	5.30	0.097	5.31	1.5	19.76	269	0.0	
9:30	46.27	375.00	Clear	5.30	0.097	5.33	1.8	19.73	266	0.0	
9:25	46.27	375.00	Clear	5.31	0.097	5.36	1.6	19.83	267	0.0	
9:20	46.27	375.00	Clear	5.34	0.097	5.34	0.5	19.94	268	0.0	
9:15	46.27	375.00	Clear	5.32	0.098	5.38	0.5	19.63	257	0.0	
9:10	46.27	375.00	Clear	5.34	0.098	5.43	0.6	19.64	244	0.0	
9:05	46.27	375.00	Clear	5.40	0.099	6.02	0.9	19.50	237	0.0	
9:00	46.27	375.00	Clear	5.50	0.100	6.46	0.9	19.60	230	0.0	
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
PURGE DA		Flour	Calar	-11	6.0	l po	Totaleidie	T	OPP	Calimitu	Other
Turbidity		Hanna HI	98703								
Water Qua	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder			
EQUIPMEN	IT INFORMAT	ION:				•					
	Depth (ft-BT		525			Sample M		Low Flow			
	reen (ft-BTOF Screen (ft-B	<i>'</i>	520			Purge Me	tor Reading	Low Flow	U		
Well Diam	` '	4	500				ter Level (ft		46.27 0		
	RE126D1					Purge Da		07/17/18			
WELL INFO	RMATION:					1					
MS/MSD (Collected:	No				Sample T	ime:	10:00			
•	iplicate ID:					Sample D	•	07/17/18			
Sample ID)•	RE126D1-	-20180717			Sampled By: Scott Anderson					
						Project N	0.:	112G0800	5-WE13		



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.: RE126D1-20181008 Sample ID: Sampled By: QA/QC Duplicate ID: No Sample Date: MS/MSD Collected: Sample Time: WELL INFORMATION: Well ID: RE126D1 Purge Date: Well Diameter (in): Static Water Level (ft-BTOR): **PID Monitor Reading:** Top of Screen (ft-BTOR): Bottom of Screen (ft-BTOR): **Purge Method:** Total Well Depth (ft-BTOR): Sample Method: **EQUIPMENT INFORMATION: Water Quality Instrument: Pump Controller: Turbidity Meter:** PURGE DATA: Time H₂0 Level Flow Color рН S.C. DO Turbidity Temp. ORP Salinity Other (Hrs) (ft-BTOR) mL / min. (S.U.) (mS/cm) (mg/L) (NTU) (C°) (mV) (ppt) SLANK FINAL PURGE / SAMPLE DATA: Total ORP Salinity Total Vol. pН S.C. DO Turbidity Temp. Other (min.) (gal. / L.) (S.U.) (mS/cm) (NTU) (C°) (mV) Purge Purge (mg/L) (ppt) ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS **Bottle Type Analysis** Method Preservative Number Vol. Collected **OBSERVATIONS / NOTES:** N Signature(s): Coordinates: Ε



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

							Project No.: <u>112G08005-WE13</u>					
Sample ID: RE126D1-20181207							Sampled By: BB					
QA/QC Duplicate ID: No							ate:	12/07/18				
MS/MSD Collected: NO							ime:					
	ORMATION:											
Well ID :	RE126D1					Purge Da	te:					
		4					ter Level (ft	-BTOR):	44.75			
	creen (ft-BT0	OR):	500				or Reading					
Bottom o	of Screen (ft-	BTOR):	520			Purge Me		Low-flow				
Total Wel	II Depth (ft-E	BTOR):				Sample M		Low-flow				
EQUIPME	NT INFORMA	ATION:										
Water Qu	ality Instrun	nent:	Horiba U-5	52		Pump Co	ntroller:	Centrifuga	ıl			
Turbidity	Meter:	HACH 210	00Q									
PURGE DA	ATA:											
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
0845	Start purge				_	_	_					
0855	44.75	800	Clear	4.07	0.121	5.86	3.52	13.08	348	0.1		
0905	44.75	800	Clear	4.08	0.119	5.76	1.19	13.06	361	0.1		
0910	44.75	800	Clear	4.12	0.119	5.76	0.87	13.25	365	0.1	5 gal	
0915	44.75	800	Clear	4.14	0.119	5.75	0.9	13.38	366	0.1		
0920	44.75	800	Clear	4.18	0.119	5.78	0.65	13.33	368	0.1		
0925	44.75	800	Clear	4.21	0.119	5.83	0.58	13.40	370	0.1		
0930	44.75	800	Clear	4.26	0.119	5.85	0.58	13.41	372	0.1		
0935	44.75	800	Clear	4.31	0.119	5.87	0.57	13.25	373	0.1		
0940	44.75	800	Clear	4.33	0.119	5.85	0.51	13.23	373	0.1		
0945	44.75	800	Clear	4.36	0.119	5.88	0.73	13.03	373	0.1		
0950	Collect sar	mple										
	RGE / SAMP		1		1	1	1	1	1			
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (% or ppt)	Other	
0845	0950	65	14 gal	4.36	0.119	5.88	0.73	13.03	373	0.1		
	S, PRESERV					3.00	0.73	10.00	373	0.1		
	alysis	ATTOR AIRD	Method	LGOIRMEN	Preser	vative	Number	Vol.	Bottle 1	Γvne	Collected	
	OCs	S	W846 8260)B		CI	2	40-mL		ass	yes	
	ioxane		846 8270D		None 1			1-L		r glass	yes	
1,10	ТОХСТТО	011	010 027 02	<u> </u>	140	7110		' -	7 111100	i giaco	you	
								1	1			
								1	1			
							l	l	l			
OBSERVA	TIONS / NO	TES:										
	TIONS / NO		gal to purge	drop tubin	a							
	TIONS / NO 5=475.25x0.		gal to purge	drop tubin	g							
520-44.75		010=4.75 ς	gal to purge	·	g	Signature	(s):		Roa	u Benfield	ſ	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

30010						Signature(s): Vince Shickora					
Coore	dinates:		N		E	Signature	(s):		- 1·		
. 10			g P	· 3 -							
	rions / note stains or od		ed durina n	urae							
000000	FIGNIO () CO										
•											
	ioxane	i	846 8270D			ne	2	1 L	glass		YES
	OCs .	S	W846 8260)B		CL	3	40-ml		ass	YES
	alysis		Method	CONTRICTOR	Preser	vative	Number	Vol.	Bottle '	Туре	Collected
	10:25 PRESERVA		8 gal			1.4δ	0.2	∠1.35	206	0.0	INO
Purge 9:05	Purge 10:25	(min.) 80.00	(gal. / L.)	(S.U.) 6.49	(mS/cm) 0.178	(mg/L) 1.48	(NTU) 0.2	(C°) 21.35	(mV) 206	(ppt) 0.0	No
Start	End	Total	Total Vol.	pH	S.C.	DO (mar/l)	Turbidity	Temp.	ORP	Salinity	Other
FINAL PUR	GE / SAMPLI	E DATA:									
10:25	46.82	375.00	Clear	6.49	0.178	1.48	0.2	21.35	206	0.0	NA
10:20	46.82	375.00	Clear	6.50	0.179	1.50	0.6	21.36	208	0.0	NA
10:15	46.82	375.00	Clear	6.51	0.178	1.52	1.9	21.34	211	0.0	NA
10:10	46.82	375.00	Clear	6.51	0.177	1.69	3.9	21.32	220	0.0	NA
10:05	46.82	375.00	Clear	6.33	0.123	2.53	2.8	21.33	234	0.0	NA NA
9:55 10:00	46.82 46.82	375.00 375.00	Clear Clear	5.77 6.04	0.111 0.123	2.70 2.53	0.5 1.5	21.29 21.31	268 252	0.0	NA NA
9:50	46.82	375.00	Clear	5.36	0.105	2.78	0.0	21.33	270	0.0	NA NA
9:45	46.82	375.00	Clear	5.33	0.105	2.76	0.0	21.31	273	0.0	NA NA
9:40	46.82	375.00	Clear	5.27	0.105	2.72	0.0	21.30	275	0.0	NA
9:35	46.82	375.00	Clear	5.24	0.105	2.81	0.0	21.28	277	0.0	NA NA
9:30	46.82	375.00	Clear	5.32	0.105	2.91	0.0	21.26	274	0.0	NA NA
9:25	46.82	375.00	Clear	5.40	0.105	3.10	0.0	21.30	270	0.0	NA NA
9:20	46.82	375.00	Clear	5.45	0.105	3.18	0.0	21.31	266	0.0	NA
9:15	46.82	375.00	Clear	5.52	0.105	3.78	0.0	21.29	262	0.0	NA
9:10	46.82	375.00	Clear	5.57	0.106	5.45	0.0	21.70	260	0.0	NA
9:05	46.82	375.00	Clear	4.52	0.128	8.08	0.0	22.49	295	0.0	NA
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
PURGE DA											
Turbidity	ality Instrume Meter	ent: Lamotte 2	Horiba U-5)_		Pump Co	ntroner:	Bladder			
	IT INFORMAT		Hariba II (-0				Disables			
	Depth (ft-BT		580			Sample M	lethod:	Low Flow			
	Screen (ft-B		575			Purge Me		Low Flow			
Top of Sc	reen (ft-BTOF	₹):	555			PID Moni	tor Reading		13.4 ppm		
Well Diam	neter (in):	4 inch				Static Wa	iter Level (f	t-BTOR):	46.81		
Well ID:	RE126D2					Purge Da	te:	07/17/18			
	RMATION:										
MS/MSD (•	NO NO	<u></u>				Sample Time: 10:25				
Sample ID							Sampled By: Vince Shikora Sample Date: 07/17/18				
							·				
						Project No.: 112G08005-WE13					



Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.:

Sample ID: RE126D2 S						Sampled By: Beau Benfield						
QA/QC Duplicate ID: TT-DUP05-20181008. 1310						Sample Date: 10/08/18						
MS/MSD Collected: No							Sample Time: 1210					
WELL INFO	ORMATION:											
Well ID:	RE126D2					Purge Da	te:	10/08/18				
Well Dian	neter (in):					Static Wa	iter Level (f	t-BTOR):	46.72			
Top of So	reen (ft-BTOR	R):	555			PID Monit	tor Reading		13.6			
Bottom o	f Screen (ft-B	TOR):	575			Purge Me	thod:	Low Flow				
Total Wel	I Depth (ft-BT	OR):	580			Sample N	lethod:	Low Flow				
EQUIPMEN	NT INFORMAT	ION:										
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity		Lamotte 2	020									
PURGE DA												
Time	H ₂ 0 Level	Flow	Color	pH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
1005	Start purge	400.00	01	F.00	4.000	7.00	F 00	40.54	0.15	0.1		
1015	46.80	400.00	Clear	5.68	1.390	7.39	5.26	16.51	215	0.1		
1025	46.80	400.00	Clear	5.57	0.126	4.10	1.88	15.94	230	0.1		
1035	46.80	400.00	Clear	5.56	0.123	3.43	1.79	15.68	234	0.1		
1045	46.80	400.00	Clear	5.40	0.121	3.48	1.99	15.59	245	0.1		
1055	46.80	400.00	Clear	5.34	0.118	3.53	4.16	15.52	247	0.1		
1105	46.80	400.00	Clear	5.26	0.116	4.14	2.86	15.62	267	0.1		
1115	46.80	400.00	Clear	5.09	0.116	4.13	2.64	15.54	263	0.1		
1120	46.80	400.00	Clear	5.21	0.116	4.11	2.76	15.54	264	0.1		
1125	46.80	400.00	Clear	5.25	0.116	3.84	2.31	15.48	266	0.1		
1130	46.80	400.00	Clear	5.22	0.116	3.94	2.20	15.59	270	0.1		
1135	46.80	400.00	Clear	5.09	0.116	4.06	2.41	15.53	269	0.1		
1140	46.80	400.00	Clear	5.12	0.116	3.95	2.52	15.56	272	0.1		
1145	46.80	400.00	Clear	5.25	0.116	3.76	2.34	15.49	271	0.1		
1150	46.80	400.00	Clear	5.24	0.116	3.87	1.81	15.57	276	0.1		
1155	46.80	400.00	Clear	5.26	0.116	3.74	1.93	15.56	275	0.1		
1200	46.80	400.00	Clear	5.25	0.116	3.75	1.84	15.55	275	0.1		
1205	46.80	400.00	Clear	5.26	0.116	3.67	1.80	15.57	279	0.1		
1210	collect sample											
FINAL PUF	RGE / SAMPLE	DATA:										
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
1005	1210	125.00	13 gal	5.26	0.116	3.67	1.80	15.57	279	0.1		
	, PRESERVAT	ION AND E		A OIKMEN I		n satir sa	No. or 1	W-1	D-m	Tuna	Callestad	
	alysis OCs	0	Method W846 8260)D	Preser	CL	Number 3	Vol. 40-ml	Bottle Type		Collected	
-			846 8270D				1	40-mi		ass		
1,4-L	Dioxane	344	040 02/UD	SIIVI	nc	ne	l I		gi	ass		

OBSERVATIONS / NOTES:

575-46.72=528.28x0.010=5.28 gal to purge drop tubing

Coordinates:	N	E	Signature(s):	Page Ponfield
				Beau Benfield



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name:

Project No.:

							Зу:	CM				
QA/QC Du	QA/QC Duplicate ID: N/A							Sample Date: 12/07/18				
MS/MSD Collected: NO							me:	1010				
WELL INFO	RMATION:											
Well ID:	RE126D2					Purge Dat	e:	12/07/18				
Well Diame	eter (in):	4" PVC				Static Wat	Static Water Level (ft-BTOR): 45.23					
Top of Scr	een (ft-BTO	R):	555			PID Monite	or Reading:	-	0			
Bottom of	Screen (ft-E	STOR):	575			Purge Met		Low-flow				
	Depth (ft-B7		580			Sample M		Low-flow				
EQUIPMEN	T INFORMA	TION:										
Water Qua	lity Instrum	ent:	Horiba U-5	2		Pump Cor	ntroller:	Centrifuga				
Turbidity N		HACH 210										
PURGE DA												
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.	00101	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Other	
845	45.23	800	Clear	5.08	0.115	5.86	14.7	13.17	279	0.1		
850	45.4	800	Clear	5.15	0.115	4.47	45.6	13.22	272	0.1		
855	45.4	800	Light gray	5.89	0.113	2.54	300	13.22	97	0.1		
900	45.4	800	Light gray	6.13	0.137	1.93	500	13.29	35	0.1		
900	45.4 45.4	800		6.22	0.149	1.93	600	13.35	45	0.1		
			Light gray									
910	45.4	800	Clear	6.17	0.152	1.38	14.8	13.49	50	0.1		
915	45.39	800	Clear	6.06	0.139	2.35	8.7	13.59	84	0.1		
920	45.39	800	Clear	5.85	0.127	3.28	4.59	13.64	125	0.1		
925	45.39	800	Clear	5.70	0.124	3.62	2.43	13.52	143	0.1		
930	45.39	800	Clear	5.58	0.118	4.13	2.45	13.65	179	0.1		
935	45.39	800	Clear	5.50	0.117	4.24	2.48	13.68	194	0.1		
940	45.39	800	Clear	5.43	0.115	4.36	1.74	13.7	214	0.1		
945	45.39	800	Clear	5.39	0.115	4.40	1.18	13.69	228	0.1		
950	45.39	800	Clear	5.37	0.115	4.45	1.12	13.65	238	0.1		
955	45.39	800	Clear	5.35	0.115	4.51	1.18	13.76	250	0.1		
1000	45.39	800	Clear	5.36	0.115	4.51	1.21	13.65	252	0.1		
1005	45.39	800	Clear	5.36	0.115	4.51	1.2	13.65	254	0.1		
1010	45.39	800	Clear	5.36	0.115	4.51	1.18	13.72	256	0.1		
FINAL PUR	GE/SAMPL	E DATA:										
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
845	1010	85		5.36	0.115	4.51	1.18	13.72	256	0.1		
ANALYSIS,	PRESERVA	TION AND E	BOTTLE REC	UIRMENTS								
	lysis		Method		Preserv	ative	Number	Vol.	Bottle T	vpe	Collected	
VO		ç	SW846 8260	B	HCI 2			40-mL		ass	Yes	
	oxane		846 8270D			None 1				r glass	Yes	
.,. 2.	5,101.15		0.002.02		None			1-L	7	. 9.2.2		
ODSEDVAT	IONS / NOT	EC.										
5.3477	IONS/NOT	LJ:										
	d pump up	2 feet due t	o turbidity- c	leared up i	mmediately							
Coordi	inates:		N			Signature(e).					
Coord	mates.		V .			Signature(oj.		Chuck	Meyer		
									- (<i>y</i>		

Tt	TETRA	TECH
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Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage
Project No.: 112G08005-WE13

					Project N	o.:	112G08005-WE13				
Sample ID: RE126D3-20180717							Sampled By: Beau Benfield				
QA/QC Duplicate ID: —							ate:	07/17/08			
·					Sample T	Sample Time: 10:15					
VELL INFO	ORMATION:										
Well ID :	RE126D3					Purge Da	te:	07/17/08			
Well Dian	neter (in):	4				Static Wa	ter Level (f	t-BTOR):	46.49		
	reen (ft-BTOF	₹):	640				tor Reading	•	0		
•	f Screen (ft-B	•	660			Purge Me		Low Flow			
	I Depth (ft-BT		665			Sample N		Low Flow			
	NT INFORMAT										
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity	Meter:	Hanna fas	t tracker								
PURGE DA	NTA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
9:00	Start purge										
9:10		300.00	Clear	5.38	0.034	7.23	19.10	23.71	273	0.0	
9:15	46.45	300.00	Clear	5.22	0.034	7.09	5.86	23.47	262	0.0	
9:20	46.45	300.00	Clear	5.38	0.034	6.92	2.92	23.19	256	0.0	
9:25	46.45	300.00	Clear	5.39	0.034	6.61	2.84	23.33	270	0.0	
9:30	46.45	300.00	Clear	5.39	0.034	6.40	2.74	23.05	259	0.0	
9:35	46.45	300.00	Clear	5.18	0.034	6.13	2.61	23.28	256	0.0	
9:40	46.45	300.00	Clear	5.21	0.034	5.95	2.21	23.25	257	0.0	
9:45	46.45	300.00	Clear	5.38	0.034	5.75	1.68	23.39	268	0.0	
9:50	46.45	300.00	Clear	5.37	0.033	5.61	6.59	23.38	262	0.0	
9:55	46.45	300.00	Clear	5.39	0.032	5.41	12.00	23.10	262	0.0	
10:00	46.45	300.00	Clear	5.34	0.033	5.31	10.90	23.07	263	0.0	
10:05	46.45	300.00	Clear	5.26	0.036	5.24	5.09	23.46	266	0.0	
10:10	46.45	300.00	Clear	5.16	0.036	5.24	3.24	23.30	271	0.0	
10:15	Collect samp	ole									
INAL PUF	RGE / SAMPLE	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
9:00	10:15	75.00	4 gal	5.16	0.036	5.24	3.2	23.3	271	0.0	
NALYSIS	, PRESERVAT	TION AND E		QUIRMENT	S						
	alysis		Method		Preser		Number	Vol.	Bottle	Туре	Collecte
V	OCs		W846 8260		H	CL	3	40-ml	glass		yes
1,4-0	Dioxane	SW	846 8270D	SIM	nc	none 2		1 L	glass		yes
BSERVA	TIONS / NOTE	S:									
OBSERVA	TIONS / NOTE	S:									
Coor	dinates:		N		E	Signature	(s):	as		2 -	



Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage Project No.:

112G08005-WE13

Sample II	D:	RE126D3	-20181008			Sampled By:							
QA/QC D	uplicate ID:	No				Sample D	Date:						
	Collected:	No				Sample T	ime:						
WELL INFO	ORMATION:												
Well ID:	RE126D3					Purge Da	ite:						
Well Dian	neter (in):					Static Wa	ater Level (ft	-BTOR):					
Top of So	reen (ft-BTOI	R):				PID Moni	tor Reading	:					
Bottom o	f Screen (ft-B	TOR):				Purge Me	ethod:						
	I Depth (ft-BT					Sample N							
EQUIPMEN	NT INFORMAT	ΓΙΟΝ:											
Water Qu	ality Instrume	ent:				Pump Controller:							
Turbidity													
PURGE DA	ATA:												
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other		
						N							
					Λ	M							
				KI	A								
				レ									
FINAL PUF	RGE / SAMPL	E DATA:				•							
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other		

	, PRESERVA	TION AND E		QUIRMENT	1		No.		D. III. 3		0.11		
An	alysis		Method		Preser	vative	Number	Vol.	Bottle 1	Гуре	Collected		
OBSERVA	TIONS / NOTI	ES:											
OBOLITA													
Coor	Coordinates: N E					Signature(s):							
1		1		1		Orginature(3).							



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage

112G08005-WE13 Project No.: RE126D3-20181207 Katie Gregory Sample ID: Sampled By: QA/QC Duplicate ID: No Sample Date: 12/07/18 MS/MSD Collected: Sample Time: 955 WELL INFORMATION: Well ID: RE126D3 12/07/18 Purge Date: Static Water Level (ft-BTOR): 45.01 Well Diameter (in): 640 Top of Screen (ft-BTOR): PID Monitor Reading: Bottom of Screen (ft-BTOR): 660 **Purge Method:** Low-flow Total Well Depth (ft-BTOR): Sample Method: Low-flow **EQUIPMENT INFORMATION:** Horiba U-52 Water Quality Instrument: **Pump Controller:** Centrifugal Hanna 98703 **Turbidity Meter:** PURGE DATA: Time H₂0 Level Flow Color S.C. DO Turbidity Temp. ORP Salinity Other pН (ft-BTOR) mL / min. (S.U.) (NTU) (Hrs) (mS/cm) (mg/L) (C°) (mV) (% or ppt) 839 45.01 700 0.07 7.87 1.88 12.10 336 0.0 847 45.01 Cear 3.74 852 44.91 700 4.02 0.05 0.77 13.28 323 0.0 Clear 5.48 857 44.91 700 4.08 0.048 0.54 312 0.0 Clear 3.45 13.34 700 0.0 902 44.91 Clear 4.12 0.047 2.58 1.39 13.39 316 907 44.91 700 Cear 4.17 0.046 2.63 3.08 13.31 322 0.0 912 44.91 700 Clear 4.44 0.046 2.8 2.13 13.44 312 0.0 700 0.047 922 44.91 Clear 4.55 3.22 1.38 13.67 311 0.0 932 44.91 700 0.046 3.82 1.09 13.96 312 0.0 Clear 4.69 942 44.91 700 Cear 4.84 0.046 7.53 0.54 14.22 305 0.0 947 44.91 700 4.82 0.046 4.26 0.43 312 0.0 Cear 14.24 952 44.91 700 4.82 0.046 1.25 14.27 316 0.0 Clear 4.14 Grab sample 955 FINAL PURGE / SAMPLE DATA: Total Total Vol. S.C. Turbidity ORP Purge Purge (min.) (gal. / L.) (S.U.) (mS/cm) (mg/L) (NTU) (C°) (mV) (% or ppt) 952 70 12.5 4.82 0.046 1.23 14.27 842 4.24 316 0.0 ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Preservative Number Vol. **Bottle Type** Collected Method **VOCs** SW846 8260B **HCI** 2 40-mL Glass Yes 1,4-Dioxane SW846 8270D SIM None 1-L 1 Amber glass Yes **OBSERVATIONS / NOTES:** 12.2998 Coordinates: Signature(s): N Ε Katie Gregory



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project No.: 112G08005-WE13								
Sample II):	RE131D1-	-20180710			Sampled	Ву:	Beau Benfield						
QA/QC D	uplicate ID:	_				Sample [Sample Date: 07/10			7/10/18				
MS/MSD	Collected:	NO				Sample 1	ime:	14:40						
VELL INFO	ORMATION:													
Well ID:	RE131D1					Purge Da	ite:	07/10/18						
Well Dian	neter (in):	4				Static Wa	ter Level (f	t-BTOR):	38.29					
Top of Sc	reen (ft-BTOF	₹):	430			PID Moni	tor Reading	 ;	0					
Bottom of	f Screen (ft-B	TOR):	450			Purge Me	ethod:	Low Flow						
Total Wel	l Depth (ft-BT	OR):	455			Sample N	/lethod:	Low Flow						
QUIPMEN	NT INFORMAT	TON:												
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder						
Turbidity	Meter:	Hanna fas	t tracker											
PURGE DA	TA:													
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other			
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)				
13:35	Start purge													
13:40	38.40	250.00	Clear	5.87	0.152	6.18	2.84	32.36	219	0.1				
13:45	38.40	250.00	Clear	5.75	0.120	6.07	0.94	30.34	233	0.1				
13:50	38.40	250.00	Clear	5.31	0.117	5.69	1.66	29.18	251	0.1				
13:55	38.40	250.00	Clear	5.30	0.115	5.37	1.18	28.26	266	0.1				
14:00	38.44	250.00	Clear	5.13	0.114	4.89	0.91	27.48	286	0.1				
14:05	38.44	250.00	Clear	4.86	0.114	4.81	1.26	27.42	308	0.1				
14:10	38.44	250.00	Clear	4.88	0.114	4.72	1.01	26.74	316	0.1				
14:15	38.44	300.00	Clear	4.77	0.113	4.75	1.02	26.37	331	0.1				
14:20	38.44	300.00	Clear	4.72	0.114	4.71	0.92	26.24	338	0.1				
14:25	38.44	300.00	Clear	4.73	0.113	4.72	1.28	26.22	340	0.1				
14:30	38.44	300.00	Clear	4.64	0.111	4.79	0.96	23.60	345	0.1				
14:35	38.44	300.00	Clear	4.68	0.112	4.84	1.23	22.93	350	0.1				
14:40	Collect samp	ole												
INAL PUR	RGE / SAMPLI													
Start	End		Total Vol.	-	S.C.	DO (mag/L)	Turbidity		ORP	Salinity	Other			
Purge	Purge	(min.)	(gal. / L.)		(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)				
13:35	14:40	65.00	4 POTTLE DE	4.68	0.112	4.84	1.23	22.93	350	0.1				
	, PRESERVA ⁻ alysis	I ION AND I	Method	CUIKIVIEN	Preser	rvative	Number	Vol.	Bottle	Type	Collected			
	-	0		nr.		CL	3	40-ml		ass				
	VOCs SW846 8260B 1,4-Dioxane SW846 8270D SIM					one	2	40-IIII 1 L		ass ass	yes			
1,4-L	/IUNAIIE	3000	J-10 02/0D	JIIVI	110	7110			gi.	uss	yes			
											1			
)BSFRVA	TIONS / NOTE	S:												
	dinates:		N		E	Signature	(a). A	, .		-				
C			_											



Missing 2 bolts

Coordinates:

N/a

N

N/a

Event:

Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.:

112G08005-WE13

						112G000003-WE13						
Sample II	D:	RE131D1	-20180927			Sampled	Ву:	CS				
QA/QC Du	uplicate ID:	NO				Sample D	Date:	09/27/18				
MS/MSD	Collected:	NO				Sample T	ime:	1130				
WELL INFO	ORMATION:											
Well ID:	RE131D1					Purge Da	te:	09/27/18				
Well Diam	neter (in):	4				Static Water Level (ft-BTOR):			36.99			
Top of Sc	reen (ft-BTOF	₹):	430			PID Moni	tor Reading	j:	0			
Bottom of	f Screen (ft-B	TOR):	450		Purge Method: Low Flo			Low Flow				
	I Depth (ft-BT		455			Sample N	flethod:	Low Flow				
EQUIPMEN	NT INFORMAT	ΓΙΟΝ:										
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity		Lamotte 2	020									
PURGE DA												
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
0925	36.99	400	Clear	4.99	0.141	7.27	3.58	16.77	283	0.1	N/a	
0935	36.99	400	Clear	4.67	0.136	3.37	1.01	16.44	322	0.1	N/a	
0945	36.99	400	Clear	4.33	0.137	3.32	1.56	16.37	365	0.1	N/a	
0955	36.99	400	Clear	4.37	0.138	3.32	2.01	16.55	364	0.1	N/a	
1005	36.99	400	Clear	4.38	0.138	3.16	1.69	16.53	372	0.1	N/a	
1015	36.99	400	Clear	4.40	0.138	3.18	1.41	16.38	377	0.1	N/a	
1025	36.99	400	Clear	4.42	0.138	3.22	1.28	16.38	378	0.1	N/a	
1035	36.99	400	Clear	4.41	0.138	3.20	1.42	16.32	380	0.1	N/a	
1045	36.99	400	Clear	4.42	0.138	3.18	1.38	16.94	381	0.1	N/a	
1050	36.99	400	Clear	4.44	0.138	3.17	1.59	16.99	381	0.1	N/a	
1055	36.99	400	Clear	4.45	0.138	3.15	1.48	17.06	382	0.1	N/a	
1100	36.99	400	Clear	4.45	0.138	3.15	1.28	17.42	383	0.1	N/a	
1105	36.99	400	Clear	4.46	0.138	3.13	1.11	17.51	383	0.1	N/a	
1110	36.99	400	Clear	4.48	0.138	3.09	0.73	17.57	386	0.1	N/a	
1115	36.99	400	Clear	4.47	0.138	3.07	0.80	17.36	385	0.1	N/a	
1120	36.99	400	Clear	4.46	0.137	3.12	0.78	17.12	383	0.1	N/a	
1125	36.99	400	Clear	4.44	0.137	3.10	0.67	17.46	384	0.1	N/a	
FINAL PUR	RGE / SAMPL	E DATA:										
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
0925	1125	120.00	~13	4.44	0.137	3.10	0.67	17.46	384	0.1	N/a	
	, PRESERVA	TION AND E		QUIRMENT								
	alysis	_	Method	0.00	Preser		Number	Vol.	Bottle 1	•	Collected	
	VOCs SW846 8260B					CL	2	40-ml	Ĭ	ass	YES	
1,4-0	1,4-Dioxane SW846 8270D SIM				no	one	1	1 L	gla	ass	YES	
OBSERVA ⁻	TIONS / NOTE	S:										
	99 = 418.01 >		= 4.18 G to	o purge dro	p tubing v	olume						

Signature(s):

Chris Sinisi

Ε

N/a



Event: Bethpage Off Property GW Monitoring Dec '18

Project Site Name: NWIRP Bethpage 112G08005-WE13

Sampled By: RE131D1-20181205 BB Sample ID: QA/QC Duplicate ID: Sample Date: 12/05/18 MS/MSD Collected: Sample Time: 1010 WELL INFORMATION: Well ID: RE131D1 12/05/18 Purge Date: Static Water Level (ft-BTOR): 34.92 Well Diameter (in): 430 Top of Screen (ft-BTOR): PID Monitor Reading: Bottom of Screen (ft-BTOR): 450 **Purge Method:** Low-flow Total Well Depth (ft-BTOR): Sample Method: Low-flow **EQUIPMENT INFORMATION:** Horiba U-52 Water Quality Instrument: **Pump Controller:** Centrifugal **HACH 2100Q Turbidity Meter:** PURGE DATA: Time H₂0 Level Flow Color S.C. DO Turbidity Temp. ORP Salinity Other pН (ft-BTOR) mL / min. (S.U.) (mS/cm) (NTU) (Hrs) (mg/L) (C°) (mV) (% or ppt) 0920 Start purge 34.95 700 Clear 4.07 2.98 1.09 13.00 338 0.1 0925 0.118 0930 700 4.08 0.119 4.82 13.04 340 0.1 34.95 Clear 3.00 0935 34.95 700 4.28 0.119 2.86 6.77 13.10 349 0.1 Clear 700 351 0940 34.95 Clear 4.32 0.119 2.73 4.88 13.13 0.1 5 gal 0945 34.95 700 Clear 4.38 0.119 2.6 6.59 13.25 354 0.1 0950 34.95 700 Clear 4.44 0.119 4.28 6.26 13.23 351 0.1 700 0955 34.95 Clear 4.42 0.119 2.59 7.46 13.20 355 0.1 Clear 1000 34.95 700 4.43 0.118 2.46 5.87 13.40 358 0.1 1005 34.95 700 Clear 4.41 0.118 2.35 5.06 13.53 362 0.1 1010 Collect sample FINAL PURGE / SAMPLE DATA: Start Total Total Vol. Turbidity ORP Purge Purge (min.) (gal. / L.) (S.U.) (mS/cm) (NTU) (C°) (mV) (% or ppt) (mg/L) 13.53 0920 1010 50 9 gal 4.41 0.118 2.35 5.06 362 0.1 ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Preservative Number Vol. **Bottle Type** Collected Method **VOCs** SW846 8260B **HCI** 6 40-mL Glass Yes 1,4-Dioxane SW846 8270D SIM None 1-L 3 Amber glass Yes

OBSERVATIONS / NOTES:

450-34.92=415.08x0.010=4.15 gal to purge drop tubing

Coordinates:	N	E	Signature(s):	Pagu Ponfield
				Beau Benfield



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

Coordinates: N E				Vince Shickora								
Coordinates: N E S					Signature	(s):		Vinco (Shickora			
OBSERVAT	No s	-	lors observe	ed during p	ourge							
1,		577	5 10 0Z10D		110			<u> </u>	910		703	
	1,4-Dioxane SW846 8270D SIM					ne	2	1 L		ass	Yes	
	OCs	.5	W846 826	OB.		CL CL	3	40-ml		ass	Yes	
	alysis	HON AND E	Method	WOILINE IN I	S Preser	vative	Number	Vol.	Bottle '	Type	Collected	
13:40	14:50 , PRESERVA	70.00	7.0 gal	4.66	0.079	4.61	0.2	18.65	325	0.0	NA	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	N I A	
Start	End	Total	Total Vol.	pH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
FINAL PUR	GE / SAMPL	E DATA:										
14:50	39.40	375.00	Clear	4.66	0.079	4.61	0.2	18.65	325	0.0	NA	
14:45	39.40	375.00	Clear	4.66	0.079	4.63	0.2	18.69	325	0.0	NA	
14:40	39.40	375.00	Clear	4.65	0.079	4.64	0.3	18.71	324	0.0	NA	
14:35	39.40	375.00	Clear	4.65	0.079	4.63	0.2	18.74	324	0.0	NA	
14:30	39.40	375.00	Clear	4.64	0.079	4.65	0.7	18.72	324	0.0	NA	
14:25	39.40	375.00	Clear	4.63	0.079	4.67	1.2	18.76	324	0.0	NA	
14:20	39.40	375.00	Clear	4.62	0.079	4.68	3.3	18.81	325	0.0	NA	
14:15	39.40	375.00	Clear	4.63	0.079	4.66	7.4	18.97	327	0.0	NA	
14:10	39.40	375.00	Clear	4.62	0.079	4.64	11.5	19.01	324	0.0	NA	
14:05	39.40	400.00	Clear	4.85	0.079	4.67	8.7	19.02	318	0.0	NA	
14:00	39.40	400.00	Clear	5.15	0.079	4.72	1.1	19.04	294	0.0	NA	
13:55	39.40	400.00	Clear	5.30	0.080	4.94	0.6	19.13	272	0.0	NA	
13:50	39.40	400.00	Clear	5.41	0.080	5.56	0.0	19.45	260	0.0	NA	
13:45	39.40	420.00	Clear	5.62	0.080	6.95	0.0	19.81	244	0.0	NA	
13:40	39.40	420.00	Clear	6.25	0.083	7.58	0.0	20.85	228	0.0	NA	
(Hrs)	H₂U Level (ft-BTOR)	mL / min.	COIOF	pH (S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Other	
PURGE DA Time	TA: H₂0 Level	Flow	Color	nΗ	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Turbidity		Lamotte 2	020									
	ality Instrum		Horiba U-	52		Pump Co	ntroller:	Bladder				
EQUIPMEN	IT INFORMAT	ΓΙΟΝ:										
	Depth (ft-BT		595			Sample N	lethod:	Low Flow				
	Screen (ft-B	<i>'</i>	590			Purge Me		Low Flow				
	reen (ft-BTOI		565				tor Reading		0.9 ppm			
Well Diam		4 inch				T T	iter Level (f		39.38			
	RE131D2					Purge Da	te:	07/10/18				
	Collected: DRMATION:	No				Sample T	iiile:	14:50				
	uplicate ID:	No No	1			Sample D		07/10/18				
Sample ID			-20180710			Sampled	-	Vince Shi				
						Project No.: 112G08			005-WE13			



Event: Bethpage Off Property Groundwater

Project Site Name: NWI

Project No.:

NWIRP Bethpage 112G08005-WE13

 Sample ID:
 RE131D2-20180927
 Sampled By:
 Vince Shikora

 QA/QC Duplicate ID:
 NO
 Sample Date:
 09/27/18

 QA/QC Duplicate ID:
 NO
 Sample Date:
 09/27/20

 MS/MSD Collected:
 NO
 Sample Time:
 11:25

WELL INFORMATION:

Well Diameter (in): 4 inch Static Water Level (ft-BTOR): 37.68

 Top of Screen (ft-BTOR):
 565
 PID Monitor Reading
 0

 Bottom of Screen (ft-BTOR):
 590
 Purge Method:
 Low Flow

 Total Well Depth (ft-BTOR):
 595
 Sample Method:
 Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument: Horiba U-52 Pump Controller: Bladder

Turbidity Meter: Lamotte 2020

PURGE DA	NTA:										
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
9:25	37.71	400.00	Clear	5.29	0.147	8.63	17.2	16.68	270	0.0	NA
9:35	37.72	400.00	Tan tint	5.59	0.085	9.96	38.8	16.25	245	0.0	NA
9:45	37.72	400.00	Clear	5.32	0.076	7.21	5.4	15.46	271	0.0	NA
9:55	37.72	400.00	Clear	5.17	0.075	5.89	3.1	15.38	291	0.0	NA
10:05	37.72	400.00	Clear	5.09	0.075	5.80	3.8	15.04	303	0.0	NA
10:15	37.72	400.00	Clear	5.09	0.075	5.68	2.7	14.76	308	0.0	NA
10:25	37.72	400.00	Clear	5.04	0.076	5.21	1.7	14.63	302	0.0	NA
10:35	37.72	400.00	Clear	5.04	0.076	4.95	1.3	14.64	313	0.0	NA
10:45	37.72	400.00	Clear	5.05	0.076	4.82	1.4	14.61	317	0.0	NA
10:50	37.72	400.00	Clear	5.04	0.076	4.86	1.3	14.63	319	0.0	NA
10:55	37.72	400.00	Clear	5.04	0.076	4.78	1.2	14.64	322	0.0	NA
11:00	37.72	400.00	Clear	5.04	0.076	4.60	1.2	14.68	324	0.0	NA
11:05	37.72	400.00	Clear	5.04	0.075	4.49	1.2	14.70	324	0.0	NA
11:10	37.72	400.00	Clear	5.05	0.076	4.53	1.3	14.72	326	0.0	NA
11:15	37.72	400.00	Clear	5.04	0.076	4.53	1.1	14.73	327	0.0	NA
11:20	37.72	400.00	Clear	5.05	0.076	4.56	1.1	14.74	327	0.0	NA
11:25	37.72	400.00	Clear	5.05	0.076	4.55	1.0	14.72	328	0.0	NA
FINAL PUR	RGE / SAMPL	E DATA:									
Start	End	Total	Total Vol.	pH (S.II.)	S.C.	DO (mg/L)	Turbidity	Temp.	ORP (m\/)	Salinity (ppt)	Other

(mS/cm) (mg/L) (NTU) Purge Purge (min.) (mV) (ppt) 9:25 11:25 120.00 13 gal 5.05 0.076 4.55 1.0 14.72 328 0.0 NA

ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS

Analysis	Method	Preservative	Number	Vol.	Bottle Type	Collected
VOCs	SW846 8260B	HCL	3	40-ml	glass	YES
1,4-Dioxane	SW846 8270D SIM	none	1	1 L	glass	YES

OBSERVATIONS / NOTES:

590-37.68=552.32x0.010gpf=5.52 gallons to purge drop tubing.

No stains or odors observed during purge.

Coordinates:	N	Е	Signature(s):	Wines Chiebons
				Vince Shickora



Event: Bethpage Off Property GW Monitoring Dec '18

Project No: NWIRP Bethpage
112G08005-WF13

						Project No	0.:	112G08005-WE13				
Sample II):	RE131D2-	-20181205			Sampled	By:	Katie Gregory				
	uplicate ID:					Sample D	-	12/05/18	<i>,</i>			
	Collected:		NO			Sample T		1000				
WELL INFO	ORMATION:											
Well ID :	RE131D2					Purge Da	te:	12/05/18				
		4					ter Level (f		35.4			
	reen (ft-BT0		565				or Reading					
•	f Screen (ft-		590			Purge Me		Low-flow	0			
	I Depth (ft-E		-			Sample M		Low-flow				
	NT INFORMA											
Water Qu	ality Instrun	nent:	Horiba U-5	52		Pump Co	ntroller:	Centrifuga	al			
Turbidity		HACH 210										
PURGE DA												
Time	H₂0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
908	35.5											
916	35.5	700	Clear	4.63	0.091	6.29	5.48	13.23	297	0.0		
921	35.5	700	Clear	4.79	0.086	4.62	5.06	13.45	308	0.0		
926	35.5	700	Clear	4.85	0.086	4.47	3.84	13.50	306	0.0		
931	35.5	700	Clear	4.95	0.085	4.36	2.76	13.64	306	0.0		
936	35.5	700	Clear	4.97	0.085	4.29	2.38	13.61	309	0.0		
941	35.5	700	Clear	5.01	0.085	4.23	1.76	13.81	310	0.0		
946	35.5	700	Clear	5.00	0.086	4.12	2.14	13.85	314	0.0		
951	35.5	700	Clear	5.00	0.086	4.04	1.26	13.93	318	0.0		
956	35.5	700	Clear	4.99	0.086	4.05	1.07	14.00	321	0.0		
1000	Grab sam	ole										
FINAL PUF	RGE / SAMP	LE DATA:										
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)		
911	956	45	10	4.99	0.086	4.05	1.07	14.00	321	0.0		
	, PRESERV	ATION AND		EQUIRMEN	1							
	lysis	_	Method		Preser		Number	Vol.	Bottle 7		Collected	
)Cs		W846 8260			CI	2	40-mL		ass		
1,4-D	ioxane	SW	846 8270D	SIM	No	ne	1	1-L	Ambe	er glass		
	TIONS / NO	TES:										
5.545												
Coord	linates:		N		E	Signature	(s):					
50010			•			J.g.iataici	(-).		Kat	ie Gregory	•	
		l .				Ruite Gregory						



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

	Coordinates: N E					Scott Anderson					
Coord	Coordinates: N E					Signature((s):		0		
OBSEKVAI	IONS / NOTE	:0:									
ODSEDVAT	TIONS / NOTE	e.									
1,4-D	,4-Dioxane SW846 8270D SIM				nc	ne	2	1 L		ass	yes
	OCs	SW846 8260B				CL	3	40-ml		ass	yes
	alysis		Method		Preser	vative	Number	Vol.	Bottle 1	Гуре	Collected
	PRESERVAT					-7.00	0.7	27.00	211	0.0	
1335	1435	60	8 gal	5.26	0.041	4.68	0.7	24.09	277	0.0	
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
	GE / SAMPLE	_								1 0 11 11	0
	05/0:::5										
17.00	00.00	+00.00	Oleai	0.20	0.041	7.00	0.7	27.00	211	0.0	
14:35	39.98	400.00	Clear	5.26	0.040	4.74	0.7	24.09	276	0.0	
14:25 14:30	39.98 39.98	400.00 400.00	Clear Clear	5.27 5.26	0.040 0.040	4.78 4.74	1.3 1.9	24.07 23.98	275 276	0.0	
14:20	39.97	400.00	Clear	5.26	0.039	4.90	1.5	23.70	275	0.0	
14:15	39.97	400.00	Clear	5.28	0.039	4.87	1.4	23.83	274	0.0	
14:10	39.97	400.00	Clear	5.33	0.039	4.91	1.5	23.63	273	0.0	
14:05	39.97	400.00	Clear	5.36	0.039	4.99	1.9	23.22	267	0.0	
14:00	39.96	400.00	Clear	5.34	0.039	5.14	2.5	22.83	262	0.0	
13:55	39.96	400.00	Clear	5.44	0.040	5.22	2.7	22.74	256	0.0	
13:50	39.96	400.00	Clear	5.42	0.042	5.38	2.8	22.46	246	0.0	
13:45	39.96	400.00	Clear	5.46	0.043	5.88	2.7	22.13	239	0.0	
13:40	39.96	400.00	Clear	5.63	0.046	6.19	3.1	21.97	232	0.0	
13:35	39.93	400.00	Clear	5.62	0.047	7.07	0.6	21.97	225	0.0	
(Hrs)	(ft-BTOR)	mL / min.	00101	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Juliel
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Turbidity I		Hanna HI	98703								
	ality Instrume		Horiba U-5	2		Pump Cor	ntroller:	Bladder			
EQUIPMEN	T INFORMAT	ION:									
Total Well	Depth (ft-BT	OR):	685			Sample M	lethod:	Low Flow			
Bottom of	Screen (ft-B	TOR):	680			Purge Me	thod:	Low Flow			
	reen (ft-BTOF		660				or Reading		0		
Well Diam		4				_	ter Level (ft		39.93		
	RE131D3					Purge Dat	· · ·	07/10/18			
MS/MSD C	RMATION:	No				Sample T	ime:	14:35			
	plicate ID:	 I	I			Sample D		07/10/18			
Sample ID		RE131D3-	-20180710			Sampled By: Scott Anderson					
						Project No.: <u>112G08005-WE13</u>					



Coordinates:

Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

te ID: tted: TION: B1D3 in): 4 ft-BTOR en (ft-BT h (ft-BTC	4"): FOR): DR):	660 680 685 Horiba U-5				Date: Time: Ite: Iter Level (for Reading		38.11		
ted: TION: 31D3 in): 4 ft-BTOR en (ft-BT ORMATI): FOR): OR): ION: nt:	680 685 Horiba U-5			Purge Da Static Wa	ime: ite: ater Level (f	11:30 09/27/18 t-BTOR):	38.11		
TION: s1D3 in): 4 ft-BTOR en (ft-BT h (ft-BTO ORMATI): FOR): OR): ION: nt:	680 685 Horiba U-5			Purge Da Static Wa	ite: ater Level (f tor Reading	09/27/18 t-BTOR):	38.11		
in): 4 ft-BTOR en (ft-BT h (ft-BTC ORMATI): FOR): OR): ION: nt:	680 685 Horiba U-5			Static Wa	ater Level (f	t-BTOR):	38.11		
in): 4 ft-BTOR en (ft-BT h (ft-BTC ORMATI nstrumer): FOR): OR): ION: nt:	680 685 Horiba U-5			Static Wa	ater Level (f	t-BTOR):	38.11		
ft-BTOR en (ft-BT h (ft-BTC ORMATI nstrumei): FOR): OR): ION: nt:	680 685 Horiba U-5			PID Mon	tor Reading		38.11		
en (ft-BT h (ft-BTC ORMATI nstrumer	OR): OR): ION: nt:	680 685 Horiba U-5					0			
h (ft-BTC ORMATI nstrumei	OR): ION: nt:	685 Horiba U-5			Purge Me	d d				
ORMATI nstrumei : l	ION: nt:	Horiba U-5				etnoa:	Low Flow			
nstrumei : l	nt:				Sample I	/lethod:	Low Flow			
: l										
	Lamotte 2	020	52		Pump Co	ntroller:	Bladder			
Lovel		020								
Laval						•				
STOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
3.11	400.00	Clear	5.18	0.082	7.79	5.4	17.86	240	0.0	NA
3.13	400.00	Clear	5.37	0.053	5.76	1.5	16.44	249	0.0	NA
3.13	400.00	Clear	5.33	0.051	5.49	1.6	16.42	261	0.0	NA
3.15	400.00	Clear	5.25	0.049	5.55	1.3	16.24	277	0.0	NA
3.16	400.00	Clear	5.18	0.048	5.47	1.4	16.17	281	0.0	NA
3.16	400.00	Clear	5.14	0.048	5.56	0.8	16.24	289	0.0	NA
3.16	400.00	Clear	5.12	0.049	5.16	0.8	16.83	290	0.0	NA
3.16	400.00	Clear	5.15	0.049	5.43	0.5	16.80	291	0.0	NA
3.16	400.00	Clear	5.13	0.049	5.34	0.7	17.43	293	0.0	NA
3.16	400.00	Clear	5.13	0.050	5.24	0.6	17.39	295	0.0	NA
3.16	400.00	Clear	5.17	0.500	5.20	0.5	17.72	296	0.0	NA
3.26	400.00	Clear	5.13	0.050	5.15	0.5	17.84	295	0.0	NA
3.16	400.00	Clear	5.13	0.050	5.65	0.5	17.81	207	0.0	NA
3.16	400.00	Clear	5.12	0.050	5.65	0.3	17.37	300	0.0	NA
3.16	400.00	Clear	5.13	0.050	5.52	0.5	17.40	300	0.0	NA
3.16	400.00	Clear	5.15			0.4	17.58	300	0.0	NA
3.16	400.00	Clear	5.14	0.050	5.52	0.5	17.65	300	0.0	NA
SAMPLE	DATA:									
ind irge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
					5.52	0.5	17.65	300	0.0	
SERVATI	ION AND E		QUIRMENT							
			0.0							Collecte
										YES
ie	SW	846 82/0D	SIM	no	ne	1	1 L	gla	ass	YES
/ NOTE	S·									
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	10R) 11 13 13 15 16 16 16 16 16 16 16 16 16 16 16 16 16	TOR) mL / min. .11	ML / min. 11	TOR) mL / min. (S.U.) .11 400.00 Clear 5.18 .13 400.00 Clear 5.37 .13 400.00 Clear 5.25 .15 400.00 Clear 5.25 .16 400.00 Clear 5.18 .16 400.00 Clear 5.14 .16 400.00 Clear 5.15 .16 400.00 Clear 5.15 .16 400.00 Clear 5.13 .16 400.00 Clear 5.15 .16 400.00 Clear 5.14 .16 400.00 Clear 5.14 .16 SERVATION AND BOTTLE REQUIRMENT Method SW846 8260B E SW846 8270D SIM MOTES:	Mathematical Process Mathematical Process	TOR mL / min. (S.U.) (mS/cm) (mg/L)	NTU NTU NTU NTU NTU NTU NTU NTU	TOR) mL / min. (S.U.) (mS/cm) (mg/L) (NTU) (C°)	Notest	TOR) mL / min (S.U.) (mS/cm) (mg/L) (NTU) (C°) (mV) (ppt)

Signature(s):

Chuck Meyer



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name:

Project No.:

Sample ID	:	RE131D3-	20181205			Sampled By: CM					
QA/QC Du	plicate ID:					Sample Da	ate:	12/05/18			
MS/MSD C	collected:	YES	NO			Sample Ti	me:	1035			
WELL INFO	RMATION:										
Well ID:	RE131D3					Purge Dat	e:	12/05/18			
Well Diam		4"					er Level (ft-		35.82		
	reen (ft-BTO	R):	660				or Reading:	,	0		
	Screen (ft-E		680			Purge Met		Low-flow			
	Depth (ft-B		685			Sample M		Low-flow			
	T INFORMA										
	lity Instrum		Horiba U-5	2		Pump Cor	troller:	Centrifuga			
Turbidity I	•	HACH 210		_		i ump coi	0.1.0	Continuga	•		
PURGE DA		11/10/11/210	<u> </u>								
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.	Color	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	Other
940	35.82	1000	Clear	4.13	0.066	5.57	7.49	12.75	289	0.0	
945	35.84	1000		4.10	0.061	4.32		12.73	314	0.0	
945	35.85	1000	Clear Clear	4.10	0.061	3.87	4.56 2.17	12.62	339	0.0	
955		1000	Clear							0.0	
1000	35.85 35.85	1000		4.06 4.08	0.056 0.056	3.90 3.93	1.39 1.01	12.58 12.6	343 346	0.0	
1005	35.85	1000	Clear Clear	4.08	0.056	4.04	0.82	12.84	348	0.0	
1010	35.86	1000	Clear	4.10	0.054	4.17	0.67	13.02	345	0.0	
1015	35.86	1000	Clear	4.12	0.054	4.00	0.67	13.00	350	0.0	
1020	35.86	1000	Clear	4.14	0.054	3.86	0.68	12.96	353	0.0	
1025	35.86	1000	Clear	4.15	0.054	3.79	0.72	12.87	356	0.0	
1030	35.86	1000	Clear	4.17	0.054	3.75	0.68	12.81	357	0.0	
	GE / SAMPL	E DATA:						1		•	
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
940	1030	12	50	12	0.054	3.75	0.68	12.81	357	0.0	
ANALYSIS,	PRESERVA	TION AND E	BOTTLE REG	UIRMENTS							
	lysis		Method		Preserv	ative	Number	Vol.	Bottle 1	уре	Collected
VC)Cs	9	SW846 8260)B	Н	CI	2	40-mL	Gl	ass	Yes
1,4-Di	oxane	SW	846 8270D	SIM	No	one	1	1-L	Ambe	er glass	Yes
OBSERVAT	IONS / NOT	ES:									
6.4918											
	tubing vol	ume									
		-									
Coord	inates:		N	E	•	Signature(s):		00 0	. 41	
17]	•		Chuck	Meyer	



Event:

Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.:

112G08005-WE13

Sample I	D:	RE137-20	181009			Sampled	Ву:	Beau Benf	ield		
QA/QC D	uplicate ID:					Sample D	ate:	10/09/18			
MS/MSD	Collected:	NO				Sample T	ime:	1605			
WELL INF	ORMATION:										
Well ID:	RE137					Purge Da	te:	10/09/18			
Well Diar	neter (in):	12					ter Level (f	t-BTOR):	36.77		
Top of So	creen (ft-BTOF	₹):				PID Moni	tor Reading	g:	4.1 ppm		
Bottom o	of Screen (ft-B	TOR):	0			Purge Me	thod:	Low Flow			
Total We	II Depth (ft-BT	OR):	750			Sample N	lethod:	Low Flow			
EQUIPME	NT INFORMAT	TION:									
Water Qu	ality Instrume	ent:	Horiba U-	52		Pump Co	ntroller:	Centrifuga	l		
Turbidity	Meter:	Lamotte 2	020								
PURGE DA	ATA:										
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
1350	Start purge										
1400	36.79	800.00	Brown	8.23	0.130	0.71	_	15.77	-51	0.1	
1410	36.79	800.00	Brown	5.34	0.124	1.40	_	15.69	80	0.1	
1420	36.79	800.00	Brown	4.62	0.117	1.94	_	15.53	150	0.1	15 gal
1430	36.79	800.00	Brown	4.47	0.117	1.97	_	15.58	159	0.1	J
1440	36.79	800.00	Brown	5.12	0.113	2.17	_	15.45	152	0.1	
1450	36.79	800.00	Brown	5.01	0.114	2.62	_	15.56	161	0.1	
1500	36.79	800.00	Brown	5.09	0.113	2.21	_	15.55	164	0.1	
1510	36.79	800.00	Brown	5.24	0.114	1.79	_	16.67	157	0.1	
1520	36.79	800.00	Brown	5.22	0.113	1.81	_	16.81	160	0.1	
1530	36.79	800.00	Brown	5.23	0.114	1.70	_	17.53	158	0.1	
1540	36.79	800.00	Clear	5.23	0.113	2.08	72.7	16.62	160		ubing up 5'
1550	36.79	800.00	Clear	5.20	0.113	2.03	61.2	15.78	166		30 gal
1600	36.79	800.00	Clear	4.99	0.109	2.40	49.5	15.77	207	0.1	- 00 ga
1605	Collect same		0.00		01100					<u> </u>	
1000	Comoct carri										
FINAL PILI	RGE / SAMPLI	Ε ΠΔΤΔ-									
Start	End	Total	Total Vol.	рH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	23
1350	1605	135.00	30 gal	4.99	0.109	2.40	49.5	15.77	207	0.1	
ANALYSIS	, PRESERVA	TION AND E	BOTTLE RE	QUIRMENT	s						
An	alysis		Method		Preser	vative	Number	Vol.	Bottle '	Гуре	Collected
V	OCs	S	W846 826	0B	H	CL	3	40-ml	gla	ass	YES
1,4-[,4-Dioxane SW846 8270D SIM					ne	1	1 L	gla	ass	YES
ODSERVA	TIONS / NOTE	6.									
	7=713.23x0.0		al to purge	1 tubing vo	lume						
Bottom of	well appears	to be very	silty								
Coordinates: N E				Signature(s): Beau Benfield							
Deau Deng ieu											



Event: Bethpage Off Property Groundwater

Project Site Name: N

NWIRP Bethpage

 Sample ID:
 RE137-20181009
 Sampled By:
 Beau Benfield

 QA/QC Duplicate ID:
 - Sample Date:
 10/09/18

 QA/QC Duplicate ID:
 - Sample Date:
 10/09

 MS/MSD Collected:
 No
 Sample Time:
 1640

WELL INFORMATION:

 Well ID:
 RE137
 Purge Date:
 10/09/18

Well Diameter (in): 12 Static Water Level (ft-BTOR): 36.68

Top of Screen (ft-BTOR):

Bottom of Screen (ft-BTOR):

0

Purge Method:

Low Flow

Total Well Depth (ft-BTOR): 750 Sample Method: Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument: Horiba U-52 Pump Controller: Centrifugal

Turbidity Meter: Lamotte 2020

PURGE DA	PURGE DATA:											
Time (Hrs)	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
1610	Start purge											
1620	36.68	900.00	Clear	4.89	0.110	2.81	41.8	15.27	228	0.1		
1630	36.68	900.00	Clear	4.87	0.109	2.55	18.3	15.34	242	0.1		
1635	36.68	900.00	Clear	4.72	0.109	2.68	10.7	15.30	263	0.1		
1640	Collect samp	ole										
FINAL PUR	RGE / SAMPLI											
Start	End	Total	Total Vol.	pH	S.C.	DO (*****	Turbidity	Temp.	ORP	Salinity	Other	
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
1610	1640	30.00	7 gal	4.72	0.109	2.68	10.7	15.30	263	0.1		

ANALYSIS. PRESERVATION AND BOTTLE REQUIRMENTS

ANAL 1313, I KLSEKVA	HON AND BOTTLE REQUIRMENT	3				
Analysis	Method	Preservative	Number	Vol.	Bottle Type	Collected
VOCs	SW846 8260B	HCL	3	40-ml	glass	YES
1,4-Dioxane	SW846 8270D SIM	none	1	1 L	glass	YES

OBSERVATIONS / NOTES:

700-36.68=663.32x0.010x2=13.26 gal to purge 2 drop tube volumes

Coordinates:	N	E	Signature(s):	Reau Ronfield
				Deau Denjieia



Event: Bethpage Off Property Groundwater

Project Site Name: N

Project No.:

NWIRP Bethpage 112G08005-WE13

 Sample ID:
 RE137-20181009
 Sampled By:
 Beau Benfield

 QA/QC Duplicate ID:
 - Sample Date:
 10/09/18

 MS/MSD Collected:
 No
 Sample Time:
 1755

WELL INFORMATION:

Well Diameter (in): 12 Static Water Level (ft-BTOR): 36.61

 Top of Screen (ft-BTOR):
 PID Monitor Reading:

 Bottom of Screen (ft-BTOR):
 0
 Purge Method:
 Low Flow

 Total Well Depth (ft-BTOR):
 750
 Sample Method:
 Low Flow

EQUIPMENT INFORMATION:

Water Quality Instrument: Horiba U-52 Pump Controller: Bladder

Turbidity Meter: Lamotte 2020

PURGE DA	ATA:										
Time (Hrs)	H₂0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
1720	Start purge										
1730	36.61	900.00	Clear	8.89	0.131	0.06	59.2	15.44	-157	0.1	
1735	36.61	900.00	Clear	6.03	0.110	2.22	24.2	15.46	134	0.1	
1740	36.61	900.00	Clear	4.72	0.106	2.28	21.3	15.40	205	0.0	
1745	36.61	900.00	Clear	4.83	0.106	2.25	21.2	15.41	211	0.0	
1750	36.61	900.00	Clear	4.75	0.106	2.26	19.9	15.42	220	0.0	
1755	Collect samp	ole									
FINAL PUI	RGE / SAMPLI	E DATA:									
Start	End	Total	Total Vol.	pH	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
1720	1755	35.00	8 gal	4.75	0.106	2.26	19.9	15.42	220	0.0	

1/20 1/55 35.00 8 gal 4./5

ANAL 1313, PRESERVA	HON AND BUTTLE REQUIRMENT	<u>ა</u>				
Analysis	Method	Preservative	Number	Vol.	Bottle Type	Collected
VOCs	SW846 8260B	HCL	3	40-ml	glass	YES
1,4-Dioxane	SW846 8270D SIM	none	1	1 L	glass	YES

OBSERVATIONS / NOTES:

640-36.61=603.39x0.010x2=12.06 gal to purge 2 drop tube volumes

Coordinates:	N	E	Signature(s):	Page Partial
				Beau Benfiela

Tŧ	TETRA	TECH
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Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

			ı									
Coor	dinates:		N		E	Signature	(s):	40				
											1	
OBSERVA	HONS/NOTE											
ORSEDVA	TIONS / NOTE	:Q.										
1,4-0	Dioxane	SW	846 8270D	SIM	nc	ne	2	1 L	gla	ass	yes	
V	OCs	S	W846 8260	OB	H	CL	3	40-ml	gla	ass	yes	
An	alysis		Method		Preser	vative	Number	Vol.	Bottle	Гуре	Collecte	
ANALYSIS	, PRESERVAT	TION AND E										
9:10	10:12	62.00	8 gal	4.89	0.101	0.00	2.8	16.2	271	0.0		
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
	RGE / SAMPLE											
10:12	Collect samp	ole										
10:10	33.62	450.00	Clear	4.89	0.101	0.00	2.84	16.20	271	0.0		
10:05	33.62	450.00	Clear	4.64	0.103	0.00	3.06	16.10	262	0.0		
10:00	33.62	450.00	Clear	4.77	0.103	0.00	5.33	16.02	264	0.0		
9:50	33.62	450.00	Clear	4.85	0.103	0.00	5.62	16.20	278	0.0		
9:45	33.62	450.00	Clear	4.72	0.106	0.00	4.80	16.24	264	0.1		
9:40	33.62	450.00	Clear	4.75	0.109	0.03	6.25	16.14	268	0.1		
9:35	33.62	450.00	Clear	4.62	0.106	0.05	6.54	16.24	274	0.0		
9:30	33.62	450.00	Clear	4.62	0.107	0.07	5.24	16.19	289	0.0		
9:25	33.62	450.00	Clear	4.67	0.107	0.13	2.92	16.37	319	0.1		
9:20	33.62	450.00	Clear	4.76	0.108	0.20	1.09	16.48	310	0.0		
9:15	33.62	450.00	Clear	4.85	0.104	0.57	0.37	16.45	282	0.0		
9:10	Start purge											
(Hrs)	(ft-BTOR)	mL / min.	Coloi	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	Other	
PURGE DA	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
Turbidity		Hanna fas	t tracker									
	ality Instrume		Horiba U-5	52		Pump Co	ntroller:	Bladder				
QUIPMEN	NT INFORMAT	TON:				_						
	I Depth (ft-BT		363			Sample N	lethod:	Low Flow				
Bottom o	f Screen (ft-B	TOR):	345			Purge Me	thod:	Low Flow				
Top of So	reen (ft-BTOF	₹):	325			PID Moni	tor Reading	j:	0.9			
Well Dian	neter (in):	4				Static Water Level (ft-BTOR): 33.6						
Well ID :	TT-101D					Purge Da	te:	07/10/18				
VELL INFO	ORMATION:											
	Collected:	NO				Sample T		10:12				
•	uplicate ID:		20100710			Sample D	-	07/10/18				
Sample II	mple ID: TT-101D-20180710					Sampled		Beau Benfield				
						Project N	o.:	112G08005-WE13				



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

Sample D: TT-101D-20180928 Sample Brit: 09/28/18 Sample Date: 09/28/18							Project No.: <u>112G08005-WE13</u>					
Sample Time: 1120	Sample II	D:	TT-101D-2	20180928			Sampled	Ву:	Beau Ben	field		
Purge Date:	QA/QC D	uplicate ID:	TT-DUP0	1-20180928	3		Sample D	Date:	09/28/18			
Veli D : TT-101D		-	NO						1120			
Static Water Level (H-BTOR): 33.33 33.33 33.33 34.0 45.00 Clear 4.65 0.098 0.00 5.91 14.88 277 0.0	WELL INF	ORMATION:										
Section of Screen (ft-BTOR): 325	Well ID:	TT-101D					Purge Da	ite:	09/28/18			
Specific Well Dian	neter (in):	4				Static Water Level (ft-BTOR): 33.33						
Section of Screen (ft-BTOR): 345 Purge Method: Low Flow	Top of So	reen (ft-BTOF	₹):	325			` '					
Sample Method: Low Flow				345								
Nater Quality Instrument: Horiba U-52 Pump Controller: Bladder	Total Wel	II Depth (ft-BT	OR):	363			Sample N	Method:	Low Flow			
Turbidity Meter: Lamotte 2020 TIRGE DATA: Time	EQUIPME	NT INFORMAT	ION:									
Time	Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Time	Turbidity	Meter:	Lamotte 2	020								
Section	PURGE DA	ATA:										
O915 Start purge O925 33.40 450.00 Clear 4.53 0.102 0.00 1.33 15.04 366 0.0 0.0 0.00		_		Color	-				_			Other
0925 33.40 450.00 Clear 4.53 0.102 0.00 1.33 15.04 366 0.0 0935 33.40 450.00 Clear 4.57 0.099 0.00 5.18 15.04 280 0.0 0945 33.40 450.00 Clear 4.66 0.098 0.00 8.07 14.92 276 0.0 1005 33.40 450.00 Clear 4.66 0.098 0.00 5.91 14.88 277 0.0 1015 33.40 450.00 Clear 4.66 0.098 0.00 5.39 14.86 276 0.0 1015 33.40 450.00 Clear 4.66 0.098 0.00 5.39 14.80 276 0.0 1015 33.40 450.00 Clear 4.67 0.099 0.00 4.01 14.79 275 0.0 1025 33.40 450.00 Clear 4.67 0.099 0.00 4.01 14.79 275 0.0 1030 33.40 450.00 Clear 4.67 0.099 0.00 2.00 14.77 273 0.0 1031 33.40 450.00 Clear 4.67 0.099 0.00 1.74 14.77 275 0.0 1040 33.40 450.00 Clear 4.67 0.099 0.00 1.38 14.74 273 0.0 1045 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.17 14.73 276 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 0.60 14.72 274 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 0.57 14.72 276 0.0 1100 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1115 33.40 450.00 Clear 4.69 0.00 0.00 0.87 14.71 276 0.0 1116 33.40 450.00 Clear 4.69 0.00 0.00 0.87 14.71 276 0.0 1115 33.40 450.00 Clear 4.69 0.00 0.00 0.87 14.71 276 0.0 1116 33.40 450.00 Clear 4.69 0.00 0.00 0.			mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
0935 33.40 450.00 Clear 4.57 0.099 0.00 5.18 15.04 280 0.0 0945 33.40 450.00 Clear 4.65 0.098 0.00 8.07 14.92 276 0.0 0955 33.40 450.00 Clear 4.66 0.098 0.00 5.91 14.88 277 0.0 1005 33.40 450.00 Clear 4.66 0.098 0.00 5.39 14.86 276 0.0 1015 33.40 450.00 Clear 4.66 0.098 0.00 4.19 14.80 276 0.0 1025 33.40 450.00 Clear 4.67 0.099 0.00 4.01 14.79 275 0.0 1030 33.40 450.00 Clear 4.65 0.099 0.00 2.00 14.77 273 0.0 1035 33.40 450.00 Clear 4.67 0.099 0.00 1.74 14.77 275 0.0 1040 33.40 450.00 Clear 4.67 0.099 0.00 1.74 14.77 275 0.0 1040 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.17 14.73 276 0.0 1055 33.40 450.00 Clear 4.67 0.099 0.00 1.17 14.73 276 0.0 1055 33.40 450.00 Clear 4.67 0.099 0.00 0.57 14.72 274 0.0 1100 33.40 450.00 Clear 4.67 0.099 0.00 0.57 14.72 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1120 Collect sample												
0945 33.40 450.00 Clear 4.65 0.098 0.00 8.07 14.92 276 0.0 0955 33.40 450.00 Clear 4.66 0.098 0.00 5.91 14.88 277 0.0 1005 33.40 450.00 Clear 4.66 0.098 0.00 5.39 14.86 276 0.0 1015 33.40 450.00 Clear 4.66 0.098 0.00 5.39 14.86 276 0.0 1015 33.40 450.00 Clear 4.66 0.098 0.00 4.19 14.80 276 0.0 1025 33.40 450.00 Clear 4.67 0.099 0.00 4.01 14.77 275 0.0 1030 33.40 450.00 Clear 4.65 0.099 0.00 2.00 14.77 273 0.0 1035 33.40 450.00 Clear 4.67 0.099 0.00 1.74 14.77 275 0.0 1040 33.40 450.00 Clear 4.67 0.099 0.00 1.38 14.74 273 0.0 1045 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.17 14.73 276 0.0 1051 33.40 450.00 Clear 4.67 0.099 0.00 0.66 14.72 274 0.0 1100 33.40 450.00 Clear 4.67 0.099 0.00 0.67 14.72 276 0.0 1105 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.71 276 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1116 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1116 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1116 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1116 33.40 450.00 5.50 5.50 5.50 5.50		33.40		Clear	4.53	0.102	0.00	1.33	15.04	366	0.0	
0955 33.40 450.00 Clear 4.66 0.098 0.00 5.91 14.88 277 0.0 0.0 0.005 33.40 450.00 Clear 4.64 0.098 0.00 5.39 14.86 276 0.0 0.0 0.005 33.40 450.00 Clear 4.66 0.098 0.00 4.19 14.80 276 0.0 0.0 0.005		33.40		Clear	4.57			5.18		280		
1005 33.40 450.00 Clear 4.64 0.098 0.00 5.39 14.86 276 0.0 1015 33.40 450.00 Clear 4.66 0.098 0.00 4.19 14.80 276 0.0 1025 33.40 450.00 Clear 4.67 0.099 0.00 4.01 14.79 275 0.0 1030 33.40 450.00 Clear 4.67 0.099 0.00 2.00 14.77 273 0.0 1035 33.40 450.00 Clear 4.67 0.099 0.00 1.74 14.77 275 0.0 1040 33.40 450.00 Clear 4.67 0.099 0.00 1.74 14.77 275 0.0 1045 33.40 450.00 Clear 4.67 0.099 0.00 1.38 14.74 273 0.0 1045 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.17 14.73 276 0.0 1055 33.40 450.00 Clear 4.67 0.099 0.00 0.60 14.72 274 0.0 1055 33.40 450.00 Clear 4.67 0.099 0.00 0.60 14.72 274 0.0 1100 33.40 450.00 Clear 4.67 0.099 0.00 0.57 14.72 276 0.0 1105 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1115 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.71 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1120 Collect sample				Clear			0.00	8.07			0.0	
1015		33.40									0.0	
1025	1005	33.40	450.00	Clear	4.64	0.098	0.00	5.39	14.86	276	0.0	
1030	1015	33.40	450.00	Clear	4.66	0.098	0.00	4.19	14.80	276	0.0	
1035	1025	33.40	450.00	Clear	4.67	0.099	0.00	4.01	14.79	275	0.0	
1040 33.40 450.00 Clear 4.68 0.099 0.00 1.38 14.74 273 0.0 1045 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.17 14.73 276 0.0 1055 33.40 450.00 Clear 4.67 0.099 0.00 0.60 14.72 274 0.0 1100 33.40 450.00 Clear 4.65 0.099 0.00 0.57 14.72 276 0.0 1105 33.40 450.00 Clear 4.67 0.099 0.00 0.57 14.72 276 0.0 1105 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1120 Collect sample	1030	33.40	450.00	Clear	4.65	0.099	0.00	2.00	14.77	273	0.0	
1045 33.40 450.00 Clear 4.67 0.099 0.00 1.14 14.75 273 0.0 1050 33.40 450.00 Clear 4.67 0.099 0.00 1.17 14.73 276 0.0 1055 33.40 450.00 Clear 4.67 0.099 0.00 0.60 14.72 274 0.0 1100 33.40 450.00 Clear 4.65 0.099 0.00 0.57 14.72 276 0.0 1105 33.40 450.00 Clear 4.67 0.099 0.00 0.57 14.72 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1120 Collect sample	1035	33.40	450.00	Clear	4.67	0.099	0.00	1.74	14.77	275	0.0	
1050 33.40 450.00 Clear 4.67 0.099 0.00 1.17 14.73 276 0.0 1055 33.40 450.00 Clear 4.67 0.099 0.00 0.60 14.72 274 0.0 1100 33.40 450.00 Clear 4.65 0.099 0.00 0.57 14.72 276 0.0 1105 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1120 Collect sample	1040	33.40	450.00	Clear	4.68	0.099	0.00	1.38	14.74	273	0.0	
1055 33.40 450.00 Clear 4.67 0.099 0.00 0.60 14.72 274 0.0 1100 33.40 450.00 Clear 4.65 0.099 0.00 0.57 14.72 276 0.0 1105 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1120 Collect sample	1045	33.40	450.00	Clear	4.67	0.099	0.00	1.14	14.75	273	0.0	
1100	1050	33.40	450.00	Clear	4.67	0.099	0.00	1.17	14.73	276	0.0	
1105 33.40 450.00 Clear 4.67 0.099 0.00 0.78 14.73 276 0.0 1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1120 Collect sample	1055	33.40	450.00	Clear	4.67	0.099	0.00	0.60	14.72	274	0.0	
1110 33.40 450.00 Clear 4.67 0.099 0.00 0.72 14.72 275 0.0 1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0 1120 Collect sample	1100	33.40	450.00	Clear	4.65	0.099	0.00	0.57	14.72	276	0.0	
1115 33.40 450.00 Clear 4.69 0.100 0.00 0.87 14.71 276 0.0	1105	33.40	450.00	Clear	4.67	0.099	0.00	0.78	14.73	276	0.0	
1120 Collect sample	1110	33.40	450.00	Clear	4.67	0.099	0.00	0.72	14.72	275	0.0	
Start End Total Total vol. pH S.C. DO (mg/L) (NTU) (C°) (mV) (ppt) Other (ppt) (1115	33.40	450.00	Clear	4.69	0.100	0.00	0.87	14.71	276	0.0	
Start End Total Total (gal. / L.)												
Purge Purge (min.) (gal. / L.) (S.U.) (ms/cm) (mg/L) (NTU) (C°) (mV) (ppt) 0915 1120 125.00 15 gal 4.69 0.100 0.00 0.87 14.71 276 0.0 NALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Method Preservative Number Vol. Bottle Type Collected VOCs SW846 8260B HCL 3 40-ml glass YES 1,4-Dioxane SW846 8270D SIM none 1 1 L glass YES BSERVATIONS / NOTES:	FINAL PUF	RGE / SAMPLI	DATA:									
1120					•		_				_	Other
NALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Method Preservative Number Vol. Bottle Type Collected VOCs SW846 8260B HCL 3 40-ml glass YES 1,4-Dioxane SW846 8270D SIM none 1 1 L glass YES BSERVATIONS / NOTES:								<u> </u>				
Analysis Method Preservative Number Vol. Bottle Type Collected VOCs SW846 8260B HCL 3 40-ml glass YES 1,4-Dioxane SW846 8270D SIM none 1 1 L glass YES BSERVATIONS / NOTES:							0.00	0.87	14.71	2/6	0.0	
VOCs SW846 8260B HCL 3 40-ml glass YES 1,4-Dioxane SW846 8270D SIM none 1 1 L glass YES BSERVATIONS / NOTES:		•	ION AND E		QUIKWENT	1	votivo	Number	Vol	Pottle :	Tuno	Callagtas
1,4-Dioxane SW846 8270D SIM none 1 1 L glass YES BSERVATIONS / NOTES:		-	9		n P							
BSERVATIONS / NOTES:												
	1,4-L	Jiuxane	344	040 02/UD	JIIVI	no	nie	I	I IL	gi	ass	YES
										 		
	OBSERVA	TIONS / NOTE	s.									
				al to nur	ne drop tuk	ning						

363-33.33=329.67x0.010gpf=3.29 gal to purge drop tubing

Coordinates:	N	E	Signature(s):	Page Partial
				Beau Benfiela



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name:

Project No.:

Sample ID	Sample ID: TT101D-20181212						By:	BB			
		N/A				Sample Da	ate:	12/12/18			
MS/MSD C	Collected:		NO			Sample Ti	me:	1320			
WELL INFO	ORMATION:										
Well ID:						Purge Date	e:	12/12/18			
Well Diam	eter (in):	4" PVC					er Level (ft-	BTOR):	32.48		
Top of Sc	reen (ft-BTO	R):	325			PID Monite	PID Monitor Reading: 0				
Bottom of	f Screen (ft-B	TOR):	345			Purge Met	hod:	Low-flow			
Total Well	Depth (ft-B1	ΓOR):	363			Sample Mo	ethod:	Low-flow			
EQUIPMEN	IT INFORMA	TION:									
Water Qua	ality Instrume		Horiba U-5	2		Pump Cor	troller:	Centrifugal			
Turbidity	Meter:	HACH 210	0Q								
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1230	Start Purge	÷									
1235	31.47	900	Clear	4.14	0.111	1.97	13.6	14.59	322	0.1	
1240	31.47	900	Clear	4.25	0.111	1.76	13.3	14.83	316	0.1	
1245	31.47	900	Clear	4.28	0.111	1.47	12.5	14.37	313	0.1	
1250	31.47	900	Clear	4.17	0.111	1.30	21.2	14.52	314	0.1	
1255	31.47	900	Clear	4.17	0.110	1.19	15.7	15.06	316	0.1	
1300	31.47	900	Clear	4.14	0.110	1.01	11.2	15.17	315	0.1	
1305	31.47	900	Clear	4.22	0.110	0.94	10.3	15.21	307	0.1	
1310	31.47	900	Clear	4.21	0.110	0.87	9.65	15.14	312	0.1	
1315	31.47	900	Clear	4.24	0.110	0.84	8.40	15.17	308	0.1	
1320	Collect Sar	nple									
FINAL PUR	GE / SAMPL	E DATA:									
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1230	1320	50	12 gal	4.24	0.110	0.84	8.40	15.17	308	0.1	
	, PRESERVA	TION AND E	BOTTLE REC	UIRMENTS							
	alysis		Method		Preserv		Number	Vol.	Bottle T		Collected
	OCs		SW846 8260			CI	2	40-mL		ass	Yes
	ioxane	SW	846 8270D	SIM		ne	1	1-L		r glass	Yes
	ioxane		8260 SIM			CI	1	1-L	Ambe	r glass	Yes
1,4-D	ioxane		EPA 522		Н	CI	2	40-mL	GI	ass	Yes
		<u> </u>									
		<u> </u>									
		<u> </u>									
	TIONS / NOTI										
345-31.45=	=313.55x0.0	16=5x2=10	gal to purg	e drop tubir	ng						
Coordinates: N E				E	Signature(s): Beau Benfield						
		<u> </u>							Down 1		



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

Coordinates: N E						Signature(s): Vince Shickora							
Coore	dinates:		N	ı		Signature	(s):		- 1·	~ C : C			
			and sampli		ed thru ded	dicated pur	np installe	d in well					
OBSERVAT	TIONS / NOTE		s or stains o	observed									
, . <u>-</u>													
)ioxane		846 8270D			ne	2	1 L		ass	Yes		
	OCs	S	W846 826	OB		CL	3	40-ml		ass	Yes		
	alysis	HON AND E	Method	QUIKWEN I	Preser	vative	Number	Vol.	Bottle '	Tyne	Collected		
9:15	10:25 , PRESERVA	70.00	8 gal	4.74	0.107	0.33	0.0	16.8	312	0.0	NA		
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)			
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
FINAL PUR	GE / SAMPLI	E DATA:											
							-	1		-			
10:25	36.14	400.00	Clear	4.74	0.107	0.33	0.0	16.80	312	0.0	NA		
10:20	36.14	400.00	Clear	4.74	0.107	0.34	0.0	16.84	311	0.0	NA		
10:15	36.14	400.00	Clear	4.75	0.106	0.33	0.0	16.80	310	0.0	NA		
10:10	36.14	400.00	Clear	4.76	0.106	0.32	0.0	16.74	309	0.0	NA		
10:05	36.14	400.00	Clear	4.77	0.106	0.30	0.0	16.81	306	0.0	NA		
10:00	36.14	400.00	Clear	4.77	0.105	0.30 0.0		16.74	304	0.0	NA		
9:55	36.14	400.00	Clear	4.76	0.105	0.31	0.0	16.80	304	0.0	NA		
9:50	36.14	400.00	Clear	4.75	0.105	0.32	0.0	16.75	304	0.0	NA		
9:45	36.14	400.00	Clear	4.74	0.105	0.44	0.0	16.68	303	0.0	NA NA		
9:35 9:40	36.14 36.14	400.00 400.00	Clear Clear	4.74 4.74	0.106	0.54 0.44	0.0	16.61 16.56	299 301	0.0	NA NA		
9:30	36.14	400.00	Clear	4.71	0.106 0.106	0.71	0.0	16.80	298	0.0	NA NA		
9:25	36.14	400.00	Clear	4.68	0.108	0.89	0.0	16.88	298	0.0	NA NA		
9:20	36.14	400.00	Clear	4.67	0.108	1.23	0.0	16.78	298	0.0	NA		
9:15	36.14	400.00	Clear	4.64	0.124	3.65	0.0	17.78	297	NA 0.0	NA		
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)			
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
PURGE DA		Lamotto 2	020										
Turbidity	ality Instrume	ent: Lamotte 2	Horiba U-5	02		Pump Controller: Bladder							
	IT INFORMAT			-0				DI II					
	Depth (ft-BT		603			Sample N	lethod:	Low Flow					
Bottom of	Screen (ft-B	TOR):	590			Purge Me	thod:	Low Flow					
Top of Sci	reen (ft-BTOF	₹):	570				tor Reading		3.6				
Well Diam		4 inch				T T	iter Level (f		36.12				
	TT-101D1					Purge Da	te.	07/10/18					
MS/MSD (ORMATION:		No			Sample T	ime:	10:25					
	iplicate ID:	No	Τ			Sample D		07/10/18					
Sample ID):	TT-101D1	-20180710			Sampled	Ву:	Vince Shikora					
						Project N							



Bethpage Off Property Groundwater Event:

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

						Project N	<u>112G08005-WE13</u>				
Sample IE):	TT-101D1	-20180928			Sampled	Ву:	Vince Shil	cora		
QA/QC Du	uplicate ID:	No				Sample D	Date:	09/28/18			
MS/MSD (Collected:	NO				Sample T	Time:	11:15			
VELL INFO	ORMATION:										
Well ID :	TT-101D1					Purge Da	ite:	09/28/18			
Well Dian	neter (in):	4					ater Level (f		35.03		
	reen (ft-BTO	₹):	570				tor Reading		0		
	f Screen (ft-B		590			Purge Me		Low Flow			
Total Wel	Depth (ft-BT	OR):	603			Sample N	/lethod:	Low Flow			
QUIPMEN	IT INFORMAT	TION:									
Water Qua	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder			
Turbidity		Lamotte 2				•					
PURGE DA	TA:										
Time	H ₂ 0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)	
9:15	35.08	450.00	Clear	4.95	0.130	6.26	2.1	16.75	307	0.1	NA
9:25	35.07	450.00	Clear	4.91	0.119	1.23	1.7	16.07	321	0.1	NA
9:35	35.07	450.00	Clear	5.09	0.119	0.34	1.5	15.98	305	0.1	NA
9:45	35.07	450.00	Clear	5.04	0.120	0.35	0.9	15.99	320	0.1	NA
9:55	35.07	450.00	Clear	4.99	0.119	0.27 0.7		15.92	325	0.1	NA
10:05	35.07	450.00	Clear	4.94	0.120	0.19	0.6	15.90	332	0.1	NA
10:15	35.07	450.00	Clear	4.95	0.120	0.11	0.7	15.85	340	0.1	NA
10:25	35.07	450.00	Clear	4.96	0.119	0.11	0.8	15.83	348	0.1	NA
10:30	35.07	450.00	Clear	4.96	0.119	0.10	0.7	15.80	352	0.1	NA
10:35	35.07	450.00	Clear	4.96	0.119	0.08	0.7	15.78	360	0.1	NA
10:40	35.07	450.00	Clear	4.96	0.119	0.06	0.6	15.76	368	0.1	NA
10:45	35.07	450.00	Clear	4.97	0.120	0.04	0.6	15.75	363	0.1	NA
10:50	35.07	450.00	Clear	4.99	0.119	0.02	0.5	15.74	356	0.1	NA
10:55	35.07	450.00	Clear	4.99	0.120	0.02	0.5	15.73	357	0.1	NA
11:00	35.07	450.00	Clear	4.99	0.119	0.01	0.5	15.71	358	0.1	NA
11:05	35.07	450.00	Clear	5.00	0.119	0.00	0.4	15.72	358	0.1	NA
11:10	35.07	450.00	Clear	5.00	0.119	0.00	0.4	15.73	359	0.1	NA
11:15	35.07	450.00	Clear	5.00	0.119	0.00	0.4	15.72	360	0.1	NA
INAL PUR	GE / SAMPL	E DATA:					<u>'</u>				
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other
9:15	11:15	120.00	15 gal	5.00	0.119	0.00	0.4	15.72	360	0.1	NA
NALYSIS,	, PRESERVA	TION AND E	BOTTLE RE	QUIRMENT	S						
Ana	alysis		Method		Preser	vative	Number	Vol.	Bottle '	Туре	Collecte
V	OCs	S	W846 8260)B	H	CL	3	40-ml	gla	ass	YES
1,4-0	ioxane	SW	846 8270D	SIM	no	ne	1	1 L	gla	ass	YES
DCEDVA	TIONS / NOTE	-c.									

No stains or odors observed during purge.

Coordinates:	N	E	Signature(s):	Wines Chichen
				Vince Shickora



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name: Project No.:

Sample ID:		TT101D1-2	20181212			Sampled I	Ву:	CM			
QA/QC Du		N/A				Sample D	ate:	12/12/18			
MS/MSD C			NO			Sample Ti		1335			
WELL INFO	RMATION:					<u> </u>					
Well ID:	TT101D1					Purge Dat	e:	12/12/18			
Well Diame	eter (in):	4" PVC				Static Wat	ter Level (ft-l	BTOR):	32.48		
Top of Scr	een (ft-BTO	R):	570			PID Monit	or Reading:	-	0		
Bottom of	Screen (ft-B	TOR):	590			Purge Me	thod:	Low-flow			
Total Well	Depth (ft-BT	OR):	595			Sample M	ethod:	Low-flow			
EQUIPMEN	T INFORMA	ΓΙΟΝ:									
Water Qua	lity Instrume	ent:	Horiba U-5	2		Pump Cor	ntroller:				
Turbidity N	/leter:	HACH 210	0Q								
PURGE DAT	ГА:										
Time	H ₂ 0 Level	Flow	Color	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1230	32.51	900	Clear	4.90	0.105	0.56	10.4	14.26	271	0.0	
1235	32.57	900	Clear	4.90	0.105	0.00	8.73	14.23	296	0.0	
1240	32.57	900	Clear	4.96	0.104	0.00	6.17	14.19	300	0.0	
1245	32.57	900	Clear	4.88	0.104	0.17	4.62	14.14	313	0.0	
1250	32.57	900	Clear	4.86	0.104	3.57	4.17	13.9	313	0.0	
1255	32.57	900	Clear	4.85	0.103	4.01	3.71	13.84	312	0.0	
1300	32.57	900	Clear	4.84	0.103	4.39	3.19	13.76	311	0.0	
1305	32.57	900	Clear	4.85	0.103	4.45	2.93	13.93	309	0.0	
1310	32.57	900	Clear	4.85	0.102	4.57	2.65	14.04	307	0.0	
1315	32.57	900	Clear	4.83	0.102	4.03	2.47	14.11	311	0.0	
1320	32.57	900	Clear	4.83	0.103	4.71	2.52	14.17	311	0.0	
1325	32.57	900	Clear	4.83	0.103	4.75	2.48	14.21	312	0.0	
1330	32.57	900	Clear	4.82	0.104	4.79	2.46	14.20	312	0.0	
FINAL PUR	GE/SAMPL	E DATA:									
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)	
1230	1330	60	14 gal	4.82	0.104	4.79	2.46	14.20	312	0.0	
ANALYSIS,	PRESERVA [®]	TION AND E	BOTTLE REC	UIRMENTS	}						
Anal			Method		Preserv		Number	Vol.	Bottle 1		Collected
VO			SW846 8260			CI	2	40-mL		lass	Yes
	oxane	SW	846 8270D	SIM		one	1	1-L		er glass	Yes
1,4-Di			8260 SIM			CI	1	1-L		er glass	Yes
1,4-Di	oxane		EPA 522		H	CI	2	40-mL	G	ass	Yes
					1						
					1				1		
OBSERVAT	IONS / NOTI	-c.									
ODSERVAL	IONS / NOTI	- 3:									
		mount II-l									
5.6252	ا - باک مناط	THE THEFT IS NOT A STATE OF									
5.6252	olt in flush ı	mount na									
5.6252			N		E	Signature(s):			Meyer	



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: 112G08005-WE13

					Scott Anderson								
Coord	linates:		N	E	E	Signature	(s):	Scott Anderson					
OBSERVAT	IONS / NOTE	S:											
1,4-D	ioxane	SW	846 8270D	SIM	no	ne	2	1 L	gla	ass	yes		
VC	OCs	S	W846 8260)B	H	CL	3	gla	ass	yes			
	alysis		Method		Preser		Number	Vol.	Bottle 7	Гуре	Collected		
ANALYSIS,	PRESERVAT	TION AND B	OTTLE REC	UIRMENTS									
0940	1040	60	8 gal	5.02	0.047	2.48	0.6	16.07	312	0			
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)			
Start	End	Total	Total Vol.	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
INAL PUR	GE / SAMPLE	E DATA:											
									 				
10:40	37.17	450.00	Clear	5.02	0.047	2.48	0.6	16.07	312	0.0			
10:35	37.16	450.00	Clear	5.01	0.048	2.46	0.7	16.06	309	0.0			
10:30	37.14	450.00	Clear	5.01	0.047	2.43 0.6		16.08	305	0.0			
10:25	37.13	450.00	Clear	5.03	0.047	2.41	0.5	16.05	312	0.0			
10:20	37.10	450.00	Clear	5.07	0.049	2.35	0.5	16.03	316	0.0			
10:15	37.09	450.00	Clear	5.05	0.046	2.31	0.4	16.01	313	0.0			
10:10	37.08	450.00	Clear	5.06	0.045	2.26	0.3	16.02	305	0.0			
10:05	37.07	450.00	Clear	5.05	0.046	1.46	0.3	16.02	305	0.0			
10:00	37.05	450.00	Clear	5.03	0.049	0.99	0.5	16.03	292	0.0			
9:55	37.05	450.00	Clear	5.04	0.047	0.87	0.5	15.95	282	0.0			
9:50	37.03	450.00	Clear	5.05	0.049	0.49	0.6	15.96	280	0.0			
9:40	36.95 37.03	450.00	Clear Clear	5.06	0.043	0.50	1.5 0.7	16.09	285	0.0			
(Hrs) 9:40	(ft-BTOR)	mL / min. 800.00	Clear	(S.U.) 4.84	(mS/cm) 0.043	(mg/L) 0.50	(NTU)	(C°) 16.30	(mV) 262	(ppt) 0.0			
Time	H ₂ 0 Level	Flow	Color	pH (S.LL)	S.C.	DO (mg/L)	Turbidity	Temp.	ORP	Salinity	Other		
PURGE DA													
Turbidity N	Meter:	Hanna HI	98703										
Water Qua	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder					
	T INFORMAT												
	Depth (ft-BT		777			Sample M		Low Flow					
	Screen (ft-B		760			Purge Me		Low Flow	J				
Well Diam	eter (in): reen (ft-BTOR		740				ter Level (ft tor Reading		5				
	TT-101D2	4				Purge Date		07/10/18	36.95				
	RMATION:					I n	-	07/40/40					
MS/MSD C		No				Sample T	ime:	10:40					
QA/QC Du	•					Sample D		07/10/18					
Sample ID	:	TT-101D2	-20180710			Sampled	Ву:	Scott And	erson				
						Project N	0.:	112G08005-WE13					



Event: Bethpage Off Property Groundwater

Project Site Name: NWIRP Bethpage

Project No.: <u>112G08005-WE13</u>

						Project N	t No.: 112G08005-WE13					
Sample II):	TT-101D2	-20180928			Sampled	Ву:	CM				
QA/QC Di	uplicate ID:					Sample D	ate:	09/28/18				
MS/MSD	Collected:	NO				Sample T	ime:	1110				
WELL INFO	ORMATION:											
Well ID:	TT-101D2					Purge Da	te:	09/28/18				
Well Dian	neter (in):	4					ter Level (f	t-BTOR):	35.61			
Top of Sc	reen (ft-BTO	R):	740				tor Reading					
Bottom o	f Screen (ft-B	TOR):	760			Purge Me	thod:	Low Flow				
Total Wel	I Depth (ft-BT	OR):	777			Sample N	lethod:	Low Flow				
EQUIPMEN	EQUIPMENT INFORMATION:											
Water Qu	ality Instrume	ent:	Horiba U-5	52		Pump Co	ntroller:	Bladder				
Turbidity	Meter:	Lamotte 2	020									
PURGE DA	NTA:											
Time	H₂0 Level	Flow	Color	рН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other	
(Hrs)	(ft-BTOR)	mL / min.		(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(ppt)		
9:10	36.60	450.00	Clear	4.97	0.055	1.01	9.6	15.27	257	0.0	NA	
9:20	36.63	450.00	Clear	5.06	0.054	0.64	7.3	15.21	254	0.0	NA	
9:30	36.63	450.00	Clear	5.07	0.054	0.57	5.2	15.21	260	0.0	NA	
9:40	36.63	450.00	Clear	4.97	0.054	1.12	2.8	15.13	275	0.0	NA	
9:50	36.63	450.00	Clear	5.01	0.054	1.87	1.7	15.12	283	0.0	NA	
,10:00	36.63	450.00	Clear	5.05	0.054	2.74	1.4	15.12	290	0.0	NA	
10:10	36.63	450.00	Clear	4.98	0.054	4.14	1.9	15.06	304	0.0	NA	
10:15	36.63	450.00	Clear	5.04	0.054	4.63	1.5	15.06	311	0.0	NA	
10:20	36.63	450.00	Clear	5.04	0.054	4.96	1.6	15.02	316	0.0	NA	
10:25	36.63	450.00	Clear	5.06	0.052	5.41	1.4	14.98	321	0.0	NA	
10:30	36.63	450.00	Clear	5.05	0.052	5.43	1.7	14.97	323	0.0	NA	
10:35	36.63	450.00	Clear	5.04	0.052	5.65	2.2	14.96	329	0.0	NA	
10:40	36.63	450.00	Clear	5.05	0.052	5.61	1.6	14.95	331	0.0	NA	
10:45	36.63	450.00	Clear	5.05	0.051	5.76	1.6	14.94	330	0.0	NA	
10:50	36.63	450.00	Clear	5.04	0.051	5.87	1.4	14.92	335	0.0	NA	
10:55	36.63	450.00	Clear	5.04	0.051	5.96	1.8	14.92	339	0.0	NA	
11:00	36.63	450.00	Clear	5.03	0.051	6.01	2.0	14.91	341	0.0	NA	
11:05	36.63	450.00	Clear	5.04	0.051	6.07	1.8	14.91	344	0.0	NA	
11:10	36.63	450.00	Clear	5.03	0.051	6.15	1.4	14.91	343	0.0	NA	
FINAL PUR	RGE / SAMPL	E DATA:				1	1	1				
Start Purge	End Purge	Total (min.)	Total Vol. (gal. / L.)	pH (S.U.)	S.C. (mS/cm)	DO (mg/L)	Turbidity (NTU)	Temp. (C°)	ORP (mV)	Salinity (ppt)	Other	
9:10	11:10	12.00	15	5.03	0.050	6.15	1.4	14.91	343	0.0	NA	
		<u> </u>				0.10	1.4	ו ש.דיו	J -1 J	0.0	11/7	
	ANALYSIS, PRESERVATION AND BOTTLE REQUIRMENTS Analysis Method Preserva				eservative Number Vol.			Bottle 1	Гуре	Collected		
	OCs	S	W846 8260)B		CL	3	40-ml		ass	YES	
	Dioxane		846 8270D			ne	1	1 L		ass	YES	
٠,, ٠		2,,,	0 02,00		110	··· ·		· -	3"	-		

OBSERVATIONS / NOTES:

760-35.60=724.4 x0.010=7.24 gallons in the tubing

Coordinates:	N	E	Signature(s):	Chuck Mover
				Chuck Meyer



Bethpage Off Property GW Monitoring Dec '1 NWIRP Bethpage 112G08005-WE13 Event:

Project Site Name:

Project No.:

Sample ID	:	TT101D2-2	20181212			Sampled I	Ву:	BB					
QA/QC Du	plicate ID:	No				Sample Da	ate:	12/12/18					
MS/MSD C			NO			Sample Ti		1350					
WELL INFO	RMATION:												
Well ID :	TT101D2					Purge Dat	e:	12/12/18					
Well Diame		4					ter Level (ft-l		33.19				
	een (ft-BTO		740				or Reading:	/-	0				
•	Screen (ft-E	•	760			Purge Met		Low-flow					
	Depth (ft-B7		765			Sample M		Low-flow					
	T INFORMA		100			- Cumpio in	otiliou.	LOW HOW					
	lity Instrum		Horiba U-5	2		Pump Cor	atroller:	Centrifuga	ı				
Turbidity N		HACH 210				1 unip coi	Fullip Collitoller. Cellullugai						
PURGE DA		TIACITZIO	UQ										
		Florin	0-1	11	0.0		To code Collider	T	ODD	0 - 11 - 14 -	Other		
Time	H ₂ 0 Level (ft-BTOR)	Flow mL / min.	Color	pH (S.U.)	S.C.	DO (mg/L)	Turbidity (NTU)	Temp.	ORP (m)()	Salinity (% or ppt)	Other		
(Hrs)			Class		(mS/cm)	(mg/L)		(C°)	(mV)	(% or ppt)			
1220	33.17	900	Clear	5.22	0.055	0.62	0.69	13.56	313	0.0			
1230	33.18	900	Clear	5.32	0.066	0.55	0.72	14.46	316	0.0			
1240	33.18	900	Clear	5.66	0.046	0.56	0.85	14.69	319	0.0			
1250	33.19	900	Clear	5.22	0.046	0.88	1.46	14.35	335	0.0			
1300	33.19	900	Clear	4.23	0.033	3.46	1.52	14.26	340	0.0			
1310	33.19	900	Clear	4.65	0.033	4.69	1.89	14.15	345	0.0			
1320	33.19	900	Clear	4.65	0.033	4.88	2.15	14.16	345	0.0			
1325	33.19	900	Clear	4.65	0.033	4.78	2.36	14.15	340	0.0			
1330	33.19	900	Clear	4.65	0.033	5.32	1.15	14.25	342	0.0			
1335	33.19	900	Clear	4.65	0.033	5.01	1.12	14.09	344	0.0			
1340	33.19	900	Clear	4.65	0.033	5.44	1.32	14.12	341	0.0			
1345	33.19	900	Clear	4.65	0.033	5.69	1.42	14.09	344	0.0			
1350	33.20	900	Clear	4.65	0.033	6.08	1.23	14.08	345	0.0			
FINAL PUR	GE / SAMPL	E DATA:											
Start	End	Total	Total Vol.	pН	S.C.	DO	Turbidity	Temp.	ORP	Salinity	Other		
Purge	Purge	(min.)	(gal. / L.)	(S.U.)	(mS/cm)	(mg/L)	(NTU)	(C°)	(mV)	(% or ppt)			
1220	1350	90	21 gal	4.65	0.033	6.08	1.23	14.08	345	0.0			
ANALYSIS,	PRESERVA	TION AND E	OTTLE REC	QUIRMENTS									
Anal	lysis		Method		Preserv	ative	Number	Vol.	Bottle T	ype	Collected		
VO	-	S	W846 8260)B		CI	2	40-mL		ass	Yes		
	oxane		846 8270D			one	1	1-L	_	r glass	Yes		
1,4-Di			8260 SIM			CI	1	1-L		er glass	Yes		
	oxane		EPA 522			CI	2	40-mL		ass	Yes		
,													
OBSERVAT	IONS / NOT	ES:											
7.3183													
Coordi	inates:	ı	N		E	Signature(s):		Beau I	Benfield			
						<u> </u>							

APPENDIX C CHAIN OF CUSTODY RECORDS

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COC Number

	CLIENT INFORMATION	PROJECT NAME: BETHALL OFFS. 4C										CLIEN	IT BILL	ING INF	FORMATION
COMPANY:	Tetra Tech	PROJECT NAM	IE: B	ethrar	2 (A)	s,te		BILL T	O. E	Ern.				PO#.CTO WE13
ADDRESS:	661 Andersed Drive	PROJECT NO.						NY	ADDD	ECC.	661	1	2001	50	Drive 1
CITY: Pit	tobugh STATE: PA ZIP: 15220	PROJECT MAN	AGER:	Ernie	W.	4	1/1	701	CITY	P.F.	bv	ah ah	-(0 ()		TE: PAT ZIP: S/OF
ATTENTION:		e-mail: Eへ					· E ON	1	ATTEN	JTION:	Er:	1:01	Nu		DNE: 757-466-4901
PHONE: 75	7-466-4901 FAX: 412-94-4046	PHONE: 757	-466-	4901	AV.					THOIL.	CONTRACTOR OF THE PARTY OF THE		-	ALYSIS	The same of the sa
	DATA TURNAROUND INFORMATION			ERABLE IN	NFORM	ATION			1	MeOH	extracti	ion req	uires ar	additio	onal 4 oz jar for percent solid.
FAX: HARD COPY: EDD: PREAPPRO STANDARD	DAIO	☐ RESULTS ON ☐ RESULTS + (☐ New Jersey F☐ New Jersey C☐ EDD FORMA	EDUCED LP	USEPA C New York New York Other	State A		10/2	10	LOTO C	170.7	/6	//	//8	//9	
CHEMTECH	PRO IFOT	SAMP		AMPLE	LES				PRES	ERVA	TIVES				COMMENTS
SAMPLE	PROJECT SAMPLE IDENTIFICATION	SAMPLE TYPI	DAT	E TIME	# OF BOTTLES	A	E 2	3	4	5	6	7	8	9	← Specify Preservatives A-HCI B-HNO₃ C-H₂SO₄ D-NaOH E-ICE F-Other
1.	TT101D-071018	GW)	67/10	1012	5	3	2								The Tourist
2.	TT101D1-071018			1025	5	3	2								
3.	TT 101 D2-071018			1040	5	3	2								
4.	RE13103-071018			1435	5	3	2								
5.	RE131 DI - 071018			1440	5	3	2								
6.	RE131D2-071018		1	1450	5	3	2	1	- 1						
7.	RE125DI-071118		7/11	1030	5	3	2		3						
8.	RE12002-071118			1425	5	3	2								
9.	RE125D2-071118			1000	5	3	2	5							
10.	GW01-071118	V	V	1200	5	3	a						Į.		1000
RELINQUISHED BY: 2. RELINQUISHED BY: 3.	SAMPLE CUSTODY MUST BE DOC SAMPLE: DATE/TIME: 72 RECEIVED BY: 1. DATE/TIME: 72 RECEIVED BY 2. DATE/TIME: RECEIVED FOR LAB 3.	A		TIME SAMP	LES C	HANG	E POSS	ESSION	INCL			-	#1	- L	Shipment Complete: Yes No By Client:



284 Sheffield Street, Mountainside, NJ 07092

	CLIENT INFORMATION			CLIENT	PROJECTI	NFORM	MATION		PAR				CLIE	NT RILL	ING IN	FORMATION
COMPANY:	Tetra Tech	PROJE	CT NAM		hpage			le l		BILL		FCA		the state of the s		PO#:CTO WE13
ADDRESS: 6	261 Anderses Drive				13 600				Aly		ГО:	[[]	A	doce	4. 1	Drive
	tsbugh STATE: PA ZIP 15221	· /			CAIR L		Delay	T	101							ATE: PA ZIP 15 220
ATTENTION:	Ernie Wa (Norfloll)				Jue		tech	L. COA	1	CITY:	NTION:	F	1401	Wu		CONTRACTOR OF THE PROPERTY OF
	1-466-4901 FAX: 412-921-404 C			465-4						ALIE	NIION:		ul	-	PHO	ONE: 757-466-4901
	DATA TURNAROUND INFORMATION	FHONE			ERABLE IN	AX:	IATION				MeOH	extracti	ion req	- C-		onal 4 oz jar for percent solic
	DAYS * DAYS * DAYS * DAYS * TURNAROUND TIME IS 10 BUSINESS DAYS	RESU	JLTS + C Jersey Ri Jersey Cl	EDUCED C	USEPA C New York New York Other	State A		Jd.	40.6 40.6	1 4 A	2007	//	//	//8		
CHEMTECH	PROJECT	CAMPLE	SAMPL		MPLE	TLES	1	1		PRES	SERVA	TIVES				COMMENTS
SAMPLE	SAMPLE IDENTIFICATION	SAMPLE MATRIX	COMP			# OF BOTTLES	A	E 2	3	4	5	6	7	8	9	← Specify Preservatives A - HCI B - HNO₃ C - H₂SO₄ D - NaOH E - ICE F - Other
1.	RE120 D3-071118	GW	>	(7/11	1415	5	3	2						U	9	E-ICE F-Other
2.	RE125D3-071118				1020	5	3	2								
3.	RE12001-071118				1420	5	3	2			-			8		Affairback y
4.	GW02-071118	1	d	1	1600	5	3	2								1
5.	TBOI	_	-	7/3		2	_	2								100000
6.																
7.																
9.		_														
10.																
10.	SAMPLE CUSTODY MUST BE DO	CUMENTED	PELOI	VEACUE	MEGAMO			1-01								
RELINQUISHED BY:	11 7/1/8 1700 1. DATESTIME: Q: 35 RECEIVED BY: 7-12-18 2.	les-	BELOV		ments:		-	-1	ESSION		JDING Z-G 3.1		-		-6	Cooler Temp.: 1/2 5 Shipment Complete: 1 Yes 1 No
ELINQUISHED BY:	DATE/TIME: RECEIVED FOR LA	AB BY:	the party of the same of the s												— В	By Client:



COC Number

	CLIENT INFORMATION		CLIENT PROJECT I	-	Mr.		-	T BILLING IN			
COMPANY:	Tetra Tech	PROJECT NAME:	Bethlage	ofts	ite	BILL TO: E	raise l	Un	PO#: CTO WE13		
ADDRESS:	61 Andersen Drive	PROJECT NO.:CT			Loage, NY	ADDRESS:	661 F	ta de ger	Drive		
CITY: Put	tsbugh STATE: PAZIP: 1524	PROJECT MANAG	ER: Graiel	vy/Par	2 Brayak	CITY: P.F.	fsbugh	ST	ATE: PA ZIP: 15220		
ATTENTION:	Erkie Wu (Norfolk)	e-mail: ECA:R		ratech, c	on'	ATTENTION:	Grave 1	WU PH	ONE:717-466-4901		
PHONE 157	-466-4901 FAX: 412-971-4040	PHONE: 757-	166-4901	AX:	_			ANALYS	IS		
	DATA TURNAROUND INFORMATION	DATA	DELIVERABLE IN	NFORMATION	THE S	MeOH	extraction req	uires an addi	tional 4 oz jar for percent solid.		
	DAYS * DAYS * DAYS * DAYS * DAYS * DAYS *	☐ RESULTS ONLY ☐ RESULTS + QC ☐ New Jersey REDI ☐ New Jersey CLP ☐ EDD FORMAT		State ASP "B"	16.5 UN	10 10 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6/7	//	9		
		SAMPLE	SAMPLE	8		PRESERVA	TIVES		COMMENTS		
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE TYPE MATRIX SO S S	DATE TIME	# OF BOTTLES	E 2 3	4 5	6 7	8 9	← Specify Preservatives A-HCI B-HNO₃ C-H₂SO₄ D-NaOH E-ICE F-Other		
1.	RE103 DI - 071218	GW X	7/12 10:05	553	2			1			
2.	RG12201-071218		7/12/14/21		2						
3.	RE104D1-071318	1	7/13 10:00		a /		/				
4.	RB01-071218	Mater X	7/12 7:00		2						
5.	RE122 D3-071218	GW X	7/12 14:21		2						
6.	RE103 D2-071218	GW X	7/12 10:01) AN 3	2/				1		
7.	RE104 D3-071318	GW X	7/13 1/20	9	6	15 30	1705	MSM	PARTON SA		
8.	RE105D2-671318	CM X	7/13 1335	5 3	31		1	1			
9.	FB01-071318	mater X	713 9:15	5 3	2						
10.	TB02-070318	Water X	7/3 -	2 2	2		1				
	SAMPLE CUSTODY MUST BE DO	CUMENTED BELOW	EACH TIME SAM	PLES CHANG	E POSSESSI	ON INCLUDING	COURIER D	ELIVERY			
1. 1/1/1	DATE/TIME: 7/3 RECEIVED BY: DATE/TIME: 7/3 RECEIVED BY: DATE/TIME: RECEIVED BY:		Comments: _	40	alers	re ce ive	d (FEDA	*)	Cooler Temp.: 2.5°C		
RELINQUISHED BY:	DATE/TIME/ RECEIVED BY:		-				N. Comments		Complete: ►Yes □ No		
RELINQUISHED BY: 3.	DATE/TIME (PRECEIVED FOR LA 3.	B BY:							By Client:		



284 Sheffield Street, Mountainside, NJ 07092

COC Number

	CLIENT IN	The state of the s			30		LIENT F	ROJECT IN	IFORMA	TION			14	CANE		CLIEN	T BILLI	NG INF	ORMATION
COMPANY: ADDRESS:	1	Dage	0	PROJE			.00	Paga	ЩQN:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			BILL T	1	5	00	P	Pag	PO#: /
CITY:		STATE:	ZIP:	PROJE				1.	1		4.10		CITY:			7.7		STAT	
ATTENTION:				e-mail:				'					ATTEN	ITION:				РНО	NE:
PHONE:		FAX:		PHONE	:			F.	AX:			14		M-OLL	a		The state of the s	ALYSIS	
FAX: HARD COPY: _ EDD: PREAPPROV	ZED TAT: U YES	DAYS* DAYS*	RES New EDD	ULTS C ULTS + Jersey Jersey	ONLY QC REDI	UCED [USEPA CI New York New York Other	_P State A	SP "B"	1005 2	3	of che	5	//	on requ	lires an	//		
CHEMTECH SAMPLE ID	SAMI	PROJECT PLE IDENTIFICA	ATION	SAMPLE MATRIX	CONTRACTOR OF THE PARTY OF THE			MPLE ECTION TIME	# OF BOTTLES	A	6	3	PRES	SERVA.	TIVES 6	7	8	9	COMMENTS ← Specify Preservatives A-HCI B-HNO₃ C-H₂SO₄ D-NaOH E-ICE F-Other
1.	GW63-	07121	8	GW		X	7/12	1200	5	3	2								
2.	RE103D	3-071	218	1		X	7/12	1210	1	1	1				12.1	920)=		
3.		D2-07				X	7/12	1415											5888
4.	REIDY					X.	113	9:55	1	1									
5.	RFIDS	D1-07	1318	V		X	7/13	1345	1	V	V								
6.	11-1-00		(20				10	1310							1				
7.																			
8.		——————————————————————————————————————																	
9.										7-9-17									
10.			- 1																market 1
RELINQUISHED BY: 2. RELINQUISHED BY: 3.	D.	ATE/TIME: 13	RECEIVED BY: 1. RECEIVED BY: 2. RECEIVED FOR LA 3.)	D BEL	.ow		ments:	- /	- 0	Poss		N INCL	7	FE	DEX,)	(Cooler Temp.: 2.5°C Shipment Complete: 4 Yes No By Client: 7 By Chemtech: 7

10+2 0

COC Number $\frac{17}{2022448}$

	CLIENT INFORMATION	CLIENT PROJECT INFORMATION CLIENT BILLING	CLIENT BILLING INFORMATION										
COMPANY:	Tera lech	PROJECT NAME: BETARIE OFFSITE BILL TO: ETAR WY	PO# CO WE 13										
ADDRESS:	661 Andersen Drive	PROJECT NO. 070 13 LOCATION: Bethpage NY ADDRESS: 661 Andress	Drug										
CITY: PLT	Thursday STAJE: PAZIP: 15220		STATE: PA ZIP: 15 220										
	Braile Wy (Nerfolk)		PHONE: 7574664901										
	-466-4901 FAX: 412-921-4040	PHONE: 757 466-490 FAX: ANAL											
	DATA TURNAROUND INFORMATION	DATA DELIVERABLE INFORMATION MeOH extraction requires an additional desired in the second se	dditional 4 oz jar for percent solid.										
	DAYS * DAYS * DAYS * DAYS * TED TAT: DYES DINO TURNAROUND TIME IS 10 BUSINESS DAYS	RESULTS ONLY USEPA CLP RESULTS + QC New York State ASP "B" New Jersey REDUCED New York State ASP "A" New Jersey CLP Other EDD FORMAT											
Section Section Section 1		SAMPLE SAMPLE & PRESERVATIVES	COMMENTS										
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE TYPE COLLECTION MATRIX SAMPLE TYPE COLLECTION	← Specify Preservatives A-HCI B-HNO₃ C-H₂SO₄ D-NaOH E-ICE F-Other										
1.	TB03-070318	Water X 7/3 - 2 X											
2.	FB02-071718	Water X 7/17 1245 5 3 2											
3.	EB02-071718	Water X 7/17 730 5 3 2											
4.	RE10902-071618	GW X 7/16 1135 5 3 2											
5.	RE126D1 = 071718	CW X717 1000 5 3 2											
6.	RE123D1-071818	GW X 7/18 1200 5 3 2											
7.	GW04-071718	GW X 7/17 1200 5 3 2											
8.	RE109D3-071618	GW X7/16 1120 5 3 2											
9.	RE11701-071618	GW X7/16 1505 5 32											
10.	RE126 D3-071718	GW X717 1015 5 3 2											
RELINDUS HELLY		UMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY											
1.	MW 7/18 1500 1.	Comments: # # Sun # 1	Cooler Temp.: 2-8										
RELINQUISHED BY:	7-19-78 2.	- FEDEX # 78/9 159/ 7/69	Shipment Complete: Ū∕Yes □ No										
RELINQUISHED BY:	DATE/TIME: RECEIVED FON LA	BY:	By Client:										
3.	3.		By Chemtech:										

SAMPLERS (SIGNATURE) FABILITY PAGE SAMPLERS (SIGNATURE)	FIELD	OPER	YBILL	LEADER USU UMBER		CONT	MGC = JMBER G 21	- 970 - 860	1 2 2 2	ADDRES	ATE (sh of	ND DA	PA	1522
STANDARD TAT DRUSH TAT DAY DAY DAY DAY TIME SAMPLE ID 1/17 1340 RE108D2-071718 — 1/16 1130 RE109D1-071618 — 1/17 1025 RE126 D2-071718 — 1/17 1340 RE108 DAI-671718 — 1/17 1340 RE108 DAI-671718 — 1/17 1340 RE108 DAI-671718 —	() () 1 TOP DEPTH (FT)	BOTTOM DEPTH (FT)	ESSEE ETC.)	COLLE GRAB (COMP (TTTTTT NO. OF CONTAINERS	170	ERVAT	als /	S (G)	He la	A STATE OF THE STA			Ms/	MSD
RELINQUISHED BY RELINQUISHED BY COMMENTS DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE)	DATE DATE	_	TI	ME ME ME	2. RE	CEIVED CEIVED	ВҮ	Cd 7	169	C (FILE C	20 DV	IR	DATE	# 1	TIME 9:00 TIME TIME 2:3



COC Number	2018839
QUOTE NO.	0109
CHEMTECH P	ROJECT NO. TE 199

CLIENT INFORMATION							CLIENT P	ROJECT IN	IFORM.	ATION			CLIENT BILLING INFORMATION								
COMPANY:	Tetra	TECH		PROJEC	CT NA	ME:	Beth	n page	- G	-W			BILL T	O:					PO#:		
ADDRESS: 3	5700 La	ke Wrigh	at Drive	PROJEC	T NO	112	60 800	WEL.	3 TION:	Betl	pasa	e NV	ADDR	ESS:					1		
			1 ZIP: 23502					UL B					CITY:					STAT	ΓΕ: ZIP:		
ATTENTION:	Dave 1	Brayack						ackat				00	ATTEN	ITION:				PHON	NE:		
PHONE:		FAX:		PHONE:										STATE OF THE PARTY.			ANA	ALYSIS			
THE RESERVE OF THE PERSON NAMED IN	DATA TURNAR	ROUND INFORMA	TION	THONE	DATA DELIVERABLE INCORNATION MeOH extraction requires an a												additional 4 oz jar for percent solid				
FAX: DAYS * HARD COPY: DAYS * EDD: DAYS * PREAPPROVED TAT: □ YES □ NO STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS				RESU	ILTS + lersey lersey	QC RED CLP	UCED [USEPA CL New York New York Other	State A		10.40 2	10AV		/5	/6	//	/8	/9			
OUENTEON			SAME	PLE		IPLE	ES					ERVA	TIVES				COMMENTS				
SAMPLE	CHEMTECH PROJECT SAMPLE SAMPLE IDENTIFICATION			SAMPLE MATRIX	TYF		DATE	TIME	FBOTTLES	A	E				¥				← Specify Preservatives A-HCI B-HNO₃ C-H₂SO₄ D-NaOH		
					COMP	GRAB	DATE	LIMIC	# OF	1	2	3	4	5	6	7	8	9	E-ICE F-Other		
1.	BP-TT-	TB01-2018	0926	Aq		V	9/26/18	0800	2	2											
2.	REIITE	11-201809	26	GW		V	9/26/18	1425	3	2	1										
3.	RE1170	2-201809	126	GW	- 1	1	9/26/18	1505	3	2	1										
4.	REISID	2-201809	27	6-W		1	9/27/18	1125	3	2	1										
5.	REBID	1 - 20180	927	GW		V	9/27/18	1130	3	2	1										
6.	RE 1316	3 - 201800	927	GW	1	1	9/27/18	1130	3	2	i										
7.	RE 105	DI - 20180	927	6W	1	1	9/27/18	1635	3	2	1										
8.	RE 105	02 - 20180	927	ow	1	19	1/27/18	1710	3	2	1			3							
9.	TTHOID	2-201809	28	GW	V	1	1/28/18	1110	3	2	1			1000							
10.	TTIOID	- 201809	The same of the sa	6 W			9/28/18		3	2	1								221		
RELINQUISHED BY: 2. RELINQUISHED BY: 2. RELINQUISHED BY:	My M	DATE/TIME: 1410 9/28/18 DATE/TIME: DATE/TIME: 9/28/8	RECEIVED BY: 1. IGULA RECEIVED BY: 2. RECEIVED FOR LAB 3.	R.	, ·	OW I	- >	ME SAMP	LES C	HANGE	POSS	ESSIO	N INCL	UDING	COUR	IER DE	LIVER	— Co	Shipment Shipment Complete: Des No y Client: y Chemtech:		



	45 200
CHEMTECH PROJECT NO	15/29
QUOTE NO.	00101

COC Number

2018840

*		ORT TO BE SENT TO:		-			CLIENT F	PROJECT	NFORM	ATION						CLIEN	T BILL	ING INF	ORMATION			
	Tetra	Tech	4t Drive	PROJE PROJE	CT N	IAME	: Bcti 126080	hpag · WE	C ATION:	GW	history	. niv	BILL		d ni		1=0]		PO#:			
			VA ZIP: 23502				GER: Du					- 101		Oltra (
ATTENTION:	Dave 1	Brayacle					bra					1. 101	-		A a 7 i	STATE: ZIP: PHONE:						
PHONE:		FAX:		PHONE					AX:				,,,,,,				AN	MALYSIS				
	DATA TURNA	ROUND INFORM	ATION		DATA DELIVERABLE INFORMATION MeOH extraction requires an additional desired in the second se												additio	nal 4 oz jar for percent s				
PREAPPROV	VED TAT: 🗆 Y		DAYS *	☐ RES ☐ RES ☐ New ☐ New ☐ EDD	ULTS Jerse Jerse	+ QC y REI y CLP	DUCED	USEPA C New York New York Other	State A	SP "B" SP "A"	HO MI	18 kg 18 kg 1 kg 1 kg 1 kg 1 kg 1 kg 1 kg 1 kg 1	AMOUT AMOUT Diotal	16/5	/	//	//8	//9				
CHEMTECH		PDO IFO		SAMPLE	The second of	APLE		APLE	ES				PRES	SERVA	TIVES				COMMENTS			
SAMPLE	S	PROJECT SAMPLE IDENTIFICATION				GRAB TO	DATE	TIME	# OF BOTTLES	A 1	E 2	3	4	5	6	7	8	9	← Specify Preservative A-HCI B-HNO₃ C-H₂SO₄ D-NaOH E-ICE F-Other			
1.	TTIOID	11-20180	928	6W		V	9/28/18	1120	3	2	1						ave -		E-ICE F-Other			
2.	TT-DUI	201-20180	GW		V	9/28/18	1200	3	2	1						Bucht -						
	BP-TT	- EB01-201	180928	in la		V	9 [28] 18	1300	3	2	1											
	-	***																				
																		-				
			-																7			
		75 2 - 50															-					
).	-	CAMPI E CUCT	ODV MICE DE DOOR																			
LINQUISHED BY SA		DATE/TIME:	RECEIVED BY: 16 1. DILLIN RECEIVED BY:	UMENTED	BEL	.ow	Comm	101	LES CI	HANGE	POSS	ESSIO	INCLU	JDING	COURI	ER DE	LIVERY		poler Temp.: 31°C			
INQUISHED BY		DATE/TIME:	2. RECEIVED FOR LAB E	4		7		ieilis					1-		2 PT			- Co	Shipment Omplete: Yes \(\text{No} \)			
WULLY		100100	3.		/		11												Chemtech: 4 48			



QUOTI

	CLIENT INFORMATION		CLIENT PROJECT INFORMATION												
	REPORT TO BE SENT TO:		1								I				
COMPANY:	Tetra Tach		PROJEC	CT N	AME:	Betl			W			BILL T	O:		
ADDRESS: 4	5700 Lake Wright D	INVE	PROJEC	CT N	0.11	260800	S LOCAT	I 3 FION:	Beth	2946	NY	ADDR	ESS:		
CITY: Nov	FOLIC STATE: VA ZIF	: 23502	PROJEC	T M.	ANAC	BER: Ua	Ve B	ra	440	E		CITY:			
ATTENTION:	Dave Brayack		e-mail:	da	ve.	braye	ackat	tet	rut	ec4.	LON	ATTEN	ITION:		
PHONE:	FAX:		PHONE: FAX:												
	DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION MeOH extract												on re
FAX: HARD COPY: EDD: PREAPPROV STANDARD	☐ RESU ☐ RESU ☐ New U	ILTS Jerse Jerse	+ QC y REC y CLP	DUCED [USEPA CL New York S New York S Other	State AS		200	3	KELL A	5	6	///		
CHEMTECH				APLE		IPLE	LES				PHES	SERVAT	IVES		
SAMPLE	PROJECT SAMPLE IDENTIFICATION		SAMPLE MATRIX	COMP	GRAB III	DATE	TIME	OF BOTTLES	A	12					
				8	8	DATE	TIME	0	1	2	3	4	5	6	7
1.	BP.TT-TBOZ-2018	1001	Aq		V	10/1/18	0800	2	2						
2.	RE125D 2 - 2018 1001		GW		V	10/1/18	1320	9	6	3					
3.	AF 125 NI - 2018 1001		GW		V	10/1/18	1325	3	2	1					
1.	RE 125 D3-20181001		GW		V	10/1/18	1610	3	Z	_1_					
5.	RE120 D3 - 2018 100 2		G-W		V	10/2/18	1215	3	2	l					
5.	RE 120 DZ-2018 100.	2_	GW		~	10/2/13	1255	3	2	ì					
' .	RE 120 DI - 2018 100	2	6-W		v	10/2/18	1335	3	2)					
1.	RE10303-2018100	7.3	6-W		V	10/3/18	1105	3	2	1				120	
k	RE 103 DZ - 2018 10	03	GW		V	10/3/18	1105	3	Z	1					
0.	RE103D3-2018 100		GW		V	10/3/18		3	2	1					
	SAMPLE CUSTODY MI	Programme and the second second	UMENTE	BE	LOW	EACH TII	ME SAMP	LES C	HANGE	POSS	ESSIO	N INCL	UDING	COUR	IER I
RELINQUISHED BY	Mean 1014/18 1.	EIVED BY:	yf-		4	Comr	ments:								
RELINQUISHED BY	(10.30)					1									
Molley	16/4/18 3.														



Revision 7/2014

284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax (908) 789-8922 www.chemtech.net

QUOTI COC N

PINK - SAMPLER COPY

YELLOW - CHEMTECH COPY

	CLIENT INFORMATION					CLIENT PI	ROJECT IN	FORM	NOITA						CLIE
COMBINE	REPORT TO BE SENT TO:		I DOO UE			p . 11		,			I				
COMPANY:	Tetra Tach		PHOJEC	JI N	AME:	Betl	WE		w			BILL T	O:	2 - 5	-
ADDRESS:	5700 Lake Wright	DIIVE	PROJEC	CT N	0.11	260800	S LOCA	TION:	Beth	Dage	NY	ADDR	ESS:		
CITY: Nov	FOLIC STATE: VA	ZIP: 23502	PROJEC	CT M	ANA	SER: Da	ve B	ra	440	E		CITY:			
ATTENTION:	Dave Brayack		e-mail:	de	ve	braye	acket	te	tru #	ec4.	LON	ATTEN	TION:		
PHONE:	FAX:		PHONE				FA	AX:							
	DATA DELIVERABLE INFORMATION MeOH extraction												on re		
FAX: HARD COPY: EDD: PREAPPRO' STANDARD	☐ RESU	JLTS Jerse Jerse	+ QC y REI y CLP	DUCED [USEPA CL New York S New York S Other	State A		HOM!	30000	Trotal Diotal	/5	/6	///		
CHEMTECH					WPLE		IPLE	LES		-		PRES	SERVA	TIVES	\Box
SAMPLE	PROJECT SAMPLE IDENTIFICATION		SAMPLE MATRIX		/PE	-1212	CTION	OF BOTTLES	A	13					
10	State Sunday Services			COMP	GRAB	DATE	TIME	0	_1	2	3	4	5	6	7
1.	BP-TT- TB02-201	80001	Aq		V	10/1/18	0800	2	2					ĭ, 51	
2.	RE125D 2-2018100	1	GW		V	10/1/18	1320	9	6	3				_	
3.	AE 125 DI - 2018100	1	GW	Ě	V	10/1/18	1325	3	2	1					
4.	RE 125 D3 - 201810 L	01	GW		V	10/1/18	1610	3	Z	1			127		440
5.	RE120 D3 - 2018 10	02	G-W		V	10/2/18	1215	3	2	1					
5.	RE 120 DZ-201816	002	GW		2	10/2/13	1255	3	2	1					
	RE 120 DI - 2018 1	200	6-W		v	10/2/18	1335	3	2	1					
3.	RE103 03 - 20181	003	6-W		V	10/3/18	1105	3	2	1					7
, RD	RE 103 DZ - 2018	1003	6-W		V	1013/18	1105	3	2	1					
0. CORRECTED 0. 08/15/2019	RE1030\$1-2018		GW		V	10/3/18		3	2	1					
	SAMPLE CUSTOD		UMENTE	D BE	LOW	EACH TI	ME SAMP	LES C	HANGE	POSS	ESSIO	N INCL	UDING	COUR	IER I
ELINOUISHED BY	Meen 2014/18	1. 19100 RECEIVED BY:	uf-	-	6	Comr	nents:								_
ELINQUISHED BY:	DATE/TIME:		_		-								-		
ELINQUISHED BY	DATE/TIME: 18:30	RECEIVED FOR LAB	BY:										-		_
Molley	10/4/18	3.													_

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT



CHEM QUOTI COC

	CLIENT	INFORMATION					CLIENT PF	ROJECT INI	FORMA	TION						CLIE
COMPANY:		Tech		BBO IE	T N	A A A E -	BIL	la ain		1-	,1		BILL T	0.		
COMPANT.	IETTA	IECH		FROJE	J 1 14/	HIVIE.	BCH	- WE	13							
ADDRESS: 5	700 La	ike Wrie	ght Drive	PROJEC	CT NO	0.112	1.60800	5 LOCAT	ION:	Beth	page	NY	ADDRI	ESS:		
CITY: No	FOLK	STATE: \	/ A ZIP:23502	PROJEC	CT M	ANAC	BER: Da	VC 13	ra	yuc	1		CITY:			
ATTENTION:	Dave .	Brayac	-14	e-mail:	cla	Ve	brag	Jacks	it to	etra l	cch.	Long	ATTEN	ITION:		
PHONE:		FAX:		PHONE: FAX:												
	DATA TURNAR	OUND INFORMA	ATION	DATA DELIVERABLE INFORMATION MeOH extra												on re
FAX: DAYS * HARD COPY: DAYS * EDD: DAYS * PREAPPROVED TAT: Q YES Q NO STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS					JLTS Jerse Jerse	ONLY + QC y RED y CLP MAT _	OUCED [USEPA CLI New York S New York S Other	State AS		2	101.2 P	PRES PRES	y/ 5 GERVAT	6 TIVES	/
CHEMTECH		PROJECT		CAMPLE	-	/IPLE		IPLE CTION	TLES		-		FNES	LIVA	IVES	
SAMPLE ID	SAMPLE IDENTIFICATION		SAMPLE MATRIX	COMP	GRAB	DATE	TIME	OF BOTTLES	A 1	£ 2	3	4	5	6	7	
1,	REIOU	DZ - 2018	21003	GW		v	10/3/18	1305	3	z	1					
2.		DI - 201		o-w		V		1310	3	2	ı					
3.		403-20		GW		v	10/3/18	1315	3	2	1					
4.	TT-00	102-20	181003	GW		V	10/3/18	1600	3	2	ı					
5.	TT-00	1003-20	181003	6w		v	10/3/18	1200	3	2	1					
6.				•												
7.				k												
8.																
9.																
10.																
	The same of the sa	SAMPLE CUST	ODY MUST BE DOC	UMENTE	D BE	LOW	EACH TI	ME SAMP	LES C	HANGE	POSS	ESSIO	N INCL	UDING	COUP	IIER
RELINQUISHED BY S	SAMPLER:	DATE/TIME: 0/9/17/150	a 1. HOULD	yf.	1	9	Comr	ments:								
2.			2.				- -									_
RELINQUISHED BY	2.5	LOUIS	3.	BY:							100					



CHEMTECH P	ROJECT NO.
QUOTE NO.	553/7
COC Number	2018844

	Marine Williams	NFORMATION			CLIENT I	PROJECT II	NFORM	IATION					T T	CLIEN	T BILLI	NG INF	ORMATION
COMPANY:	Tetra 1	TO BE SENT TO:	PROJEC	CT NAM	E: Bet	hjoa.	j e_	G- L	و		BILL	го:					PO#:
ADDRESS:	5700 La	ke Wright Drive	PROJEC	T NO.:	126.08	005 LOCA	E 13	Bet	hpag	c Ny	ADDR	ESS:					11
CITY: Nor	Folk	STATE: VA ZIP: 2 3502			AGER: D						CITY:					STA	TE: ZIP:
ATTENTION:	Dave B	rayack	e-mail:	dau	co bro	Jack	aty	tetre	tech	, Con	ATTE	NTION:				РНО	NE:
PHONE:		FAX:	PHONE:				AX:								ANA	LYSIS	
	DATA TURNARO	UND INFORMATION			TA DELIVE	Control Control Control	-	IATION				MeOH	extracti	on requ	ires an	additio	onal 4 oz jar for percent solid
EDD: PREAPPROV	VED TAT: □ YES	DAYS * DAYS * DAYS * DAYS * DAYS *	RESU	ILTS + C lersey R lersey C	EDUCED	USEPA C New York New York Other	State A		2	1000	A 10 + C	5	/6	//	//8	/9	
CHEMTECH				SAMP		MPLE	ES		Ť		PRES	SERVA	TIVES				COMMENTS
SAMPLE ID	SAM	PROJECT IPLE IDENTIFICATION	SAMPLE MATRIX	TYPE	The second second	ECTION	# OF BOTTLES	A	E			c					← Specify Preservatives A - HCI B - HNO₃ C - H₂SO₄ D - NaOH
1.	1310- 17-	TB03.20181004	Ag	8		0800	2	2	2	3	4	5	6	7	8	9	E-ICE F-Other
2.	C. Although V	3-20181004	6w	í	-	1215	9	6	3			====					DO MS/MSO
3.		1 - 2018 1004	6W	-	10/4/18	-	3	2	i		-	1120					DC 713 [W/ 3 ()
4.	REIZZ	02-20181004	6-W	L	10/4/18	1220	3	2	1				Nove to				1 34
5.	RE 1220	2-IMP-20181004	LW	ı	101418	1345	3	2.	-1							Alle	
6.	RE 1220	3-EMP-20181004	GW	L	1014/18	1500	3	2	1								
7.	RE 1226	1- EMP-20181004	6W	V	10 14/18	1630	3	2	1								
8.	13E 1081	02-20181004	GW	V	10/4/18	1655	3	2.	1								
9.	RE 1081	01-20181004	GW	v	100.00	-	3	2	1								
10.		1204-20181004	GW	L		9	3	2	1			0					
RELINQUISHED BY S		AMPLE CUSTODY MUST BE DOC	UMENTED	BELO	W EACH TI	ME SAMP	LES C	HANGE	POSS	ESSIO	N INCL	UDING	COUR	IER DE	LIVER	Y	P Total
1. RELINQUISHED BY: 2. RELINQUISHED BY:		ATE/TIME: RECEIVED BY: ATE/TIME: RECEIVED BY: 2. RECEIVED FOR LAB	y ~		Com	ments:								, . 4		_ _ c	Shipment Complete: Pres D No y Client:
3. 01. 01. 01. 01. 01. 01. 01. 01. 01. 01	1	10 [S[18 3.					- Citaria										y Chemtech: $\checkmark \checkmark 5$



Revision 7/201

284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax (908) 789-8922 www.chemtech.net

CHEMTECH PROJECT NO. 553/4

QUOTE NO. 2018847

	CLIENT	INFORMATION					CLIENT PI	ROJECT IN	FORM	ATION						CLIEN	r BILLI	NG INF	ORMATION
	Tetra 1		ght Drive	PROJECT PROJECT	OT NA	ME:	Bc+4 26.080	-WEI	Z TION:	Beth	2016	NV	BILL T				PO#:		
CITY: NO		,	A ZIP: 23502				BER: Da				,		CITY:				TE: ZIP:		
ATTENTION:	Dave B	Bragack		e-mail:	das	c.	braya	rck at	tet	ra tec	4,20	m	ATTEN	ITION:				РНО	NE:
PHONE:		FAX:		PHONE:		-			AX:					MeOH	extractio	on regi	onal 4 oz jar for percent solid.		
FAX: HARD COPY: _ EDD: PREAPPROV	VED TAT: Q YE	ES ONO TIME IS 10 BUSIN	_ DAYS* _ DAYS*	RESU	JLTS (JLTS + Jersey Jersey	ONLY QC RED	OUCED [USEPA CL	P State A	SP "B"	2	10 h	Am to	5	/6	//	//8	//9	
СНЕМТЕСН			and the same of the same		SAM			APLE	LES		ng mgm,		PRES	ERVA	TIVES				COMMENTS ← Specify Preservatives
SAMPLE	SA	PROJECT AMPLE IDENTIFIC	CATION	SAMPLE MATRIX	COMP	GRAB IT	DATE	TIME	# OF BOTTLES	A 1	E 2	3	4	5	6	7	A-HCI B-HNO₃ C-H₂SO₄ D-NaOH E-ICE F-Other		
1.	REID9.	D3-20181	1005	GW		V	10/5/18	1055	3	2	1							3/1	
2.	REIDA	02-2018	1005	GW		u	10/5/18	1135	9	6	3								DO MS/MSD
3.	REIDA	D1-2018	1005	OW		V	10/5/18	1135	3	2	i								5204545
4.	BP.TT-	ERB02-2	20181005	AQ		4	10/5/18	1300	3	2									
5.																			
6.						V													
7.																			
8.		Will and the board and		4							1								
9.				T. A		No.													
10.																			-alie
RELINQUISHED BY: 1. ARELINQUISHED BY: 2. RELINQUISHED BY: 3. NAMMA		DATE/TIME: DATE/TIME: DATE/TIME: DATE/TIME: DATE/TIME: DATE/TIME: DATE/TIME: DATE/TIME: DATE/TIME:	RECEIVED BY:	11.	D BEL	LOW	Comr		LES C	HANGI	POSS	SESSIC	N INCL	UDING	COUR	IER DE	LIVER	— (Shipment Complete: DYes No By Client: By Chemtech: YCS



J5393n 7/2017

284 Sheffield Street, Mountainside, NJ 07092 (908) 789-8900 Fax (908) 789-8922 www.chemtech.net

CHEMTECH P	ROJECT NO. TE	10
QUOTE NO.	0039	5
COC Number	2018846	2011

	CLIENT INFORMATION			CLIENT	PROJECT IN	VFORM	ATION						CLIENT	r BILLIN	IG INFO	ORMATION		
COMPANY:	Tetra Tech	PROJEC	T NAM	E: Beth	page G	W				BILL T	0:					PO#:		
ADDRESS:	5700 Lake Wright Drive	The second secon			5 Wel3		Behna	age, 1	VY.	ADDRI	ESS:							
	FOIK STATE: VA ZIP: 23502				ave Bro			0		CITY:					STAT	ΓE: ZIP:		
ATTENTION:	Dave Brayack	e-mail:	dave	.braya	ck@teta	atech.	com			ATTEN	ITION:				PHONE:			
PHONE:	/ FAX:	PHONE:			-01 F	AX:			4	ANA						ALYSIS		
	DATA TURNAROUND INFORMATION		DA	TA DELIV	RABLE IN	FORM	ATION				MeOH	extraction	on requ	ires an	additio	onal 4 oz jar for percent solid.		
EDD:	DAYS * DAYS * DAYS * DAYS * DAYS * TURNAROUND TIME IS 10 BUSINESS DAYS	RESU	LTS + C ersey R ersey C	C [EDUCED [LP [USEPA C New York New York Other	State A		HO MY	OLANA OLANA ALA ALA ALA ALA ALA ALA ALA ALA ALA	of Order	Sinss Whole	Double Control	White me	8	/9			
			SAMP	F S/	MPLE	1 83				PRES	SERVA	TIVES				COMMENTS		
CHEMTECH SAMPLE	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	TYPI	COL	ECTION	BOTTLES	A,E	E								← Specify Preservatives A - HCI B - HNO₃		
ID	SAMPLE IDENTIFICATION	MATRIA	COMP	DATE	TIME	# OF	1	2	3	4	5	6	7	9	C-H₂SO₄ D-NaOH E-ICE F-Other			
1.	BP-TT-TB04-20181008	QA/QC	,	10/08/1	8 0800	2	2							111		Trip Blank		
2.	RE-12602-20181008	GW	1	10/08/1	8 1210	3	2	1										
3.	TT- DUP05-20181008	GW	- 1	10/08/1	1310	3	2	1						1		Dyplicate		
4.	RE126D1-20181008	GW	,	1 10/08/1	8 1235	3	2	1							1 4			
5.	RE126D3-20181009	GW	1	10/08/	18 1215	3	2	工										
6.	RE123D2-20181008	GW	10	19/08/	8 1705	3	2	1										
7.	RE123 D3-2018/008	GW	1	10/08/	18 1705	3	2	1										
8.	RE123D1-20181009	GW	V	10/09/	8 104	3	2	1										
9.	RE137-745FT-2018109	GW	V	10/09/	18 1605	3	2	1										
10.	RE137-700FT-20181009	GW	V	10/09/	18/540	3	2	1								10000		
	SAMPLE CUSTODY MUST BE DOO	CUMENTED	BELC	W EACH	TIME SAMI	N		- divine				COUF	IER DI	ELIVER				
RELINQUISHED BY	y SAMPLER: DATE/TIME: RECEIVED BY:	1/	. 0	& Con	nments: _		PAC	E	1	OF	2				_	Cooler Temp.: 2.0		
RELINQUISHED BY		y	12-3	3 -											_ ,	Shipment Complete: Yes No		
2. RELINDUISHED BY			1	<u> </u>			7						-			By Client:		
	3 what 5:24 3. ()	(XI)	W II												E	By Chemtech:		

WHITE - CHEMTECH COPY FOR RETURN TO CLIENTE OF THE CHEMTECH COPY

PINK - SAMPLER COPY



HEMTECH P	ROJECT	NO. PT	200	40
NUOTE NO.		5	1745	10
OC Number	201	88/8		2 011

	CLIENT INFORMATION				CLIENT PR	OJECT IN	FORM.	ATION						CLIEN	T BILLI	NG INFO	ORMATION
	Tetra Tech				Beth						BILL T	го:					PO#:
ADDRESS:	5700 Lake Wright Drive	PROJEC	CT N	0:11	260800	LOCA	3 TION:	Beth	page	NY	ADDR	ESS:					100
CITY: Nor	FOIK STATE: VA ZIP: 23502				GER: Da						CITY:					STAT	TE: ZIP:
	Dave Brayack				bra yack				n			NTION:		-		PHON	AND AS TO SEE THE SEE
ATTENTION.	ouve ist gate.				Dist Juice		,,,,,,				ALIE	THOIN.		-	ANA	ALYSIS	
PHONE:	FAX: DATA TURNAROUND INFORMATION	PHONE	Contract of the last	DAT	A DELIVER		X:	ATION		- 20	No. of the last	MeOH	extracti	ion requ	uires an	additio	onal 4 oz jar for percent solid.
EDD:	DAYS * DAYS * DAYS * DAYS * TURNAROUND TIME IS 10 BUSINESS DAYS	RESU	ULTS ULTS Jerse Jerse	ONLY + QC y REI y CLF	OUCED []	USEPA CL New York S	P State A	SP "B"	HOM!	VON VI	outs death	A Color	STOCKLE 6	HNO 55 M	ETAL S	//9	
1		1 - 1 - 1	SAI	WPLE	SAM	PLE	ES				PRE	SERVA	TIVES				COMMENTS
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX		GRAB 34	DATE		# OF BOTTLES	A,E	E	E							← Specify Preservatives A-HCI B-HNO₃ C-H₂SO₄ D-NaOH E-ICE F-Other
1.	RE137-640FT-20181009	GW	0	1	10/09/18			2	2	3	4	5	6	7	8	9	E-ICE F-Other
2.	WE13-GW-Tank3-IDW-10102018	GW	1		10/10/18		5	2	2	1	1	1					
3.			7.5			berling	1-3-36		3				44		H		80-39
4.					121												
5.					100									77			
6.			1	1													
7.	и.									1							
8.																-	
9.			111			X							7 = 1				2
10.				700	E 34												
	SAMPLE CUSTODY MUST BE DO	CUMENTE	DBE	LOW	EACH TIN	NE SAMP	LES C	HANGE	POSS	ESSIC	N INCL	UDING	COUF	RIER DI	ELIVER	Y	100000000000000000000000000000000000000
RELINQUISHED BY 1. RELINQUISHED BY 2. RELINQUISHED BY	M. Simo 10/19/18 [245 1. Hay DATE/TIME: RECEIVED BY: 2.		12:5	3	Comm	nents:		PAG	E	20	DF &	2			10,10	_ C	Shipment Complete: Yes No
		ODV FOR	-	LIDA:	TOCUEN	T VE	1014	CUELE	recu	CORV	DIAM	CAL	DI ED	CORV		— B	By Chemtech:
evision 7/2017	WHITE - CHEMTECH C	JUPY FOR	HET	UHN	TO CLIEN	17 of 32	300	CHEM	ECH	COPY	PINE	- SAM	PLEH (CUPY			



CHEMTECH P	ROJECT NO. 41901	7
QUOTE NO.	3054	
COC Number	2019631	7.1

	CLIEN	IT INFORMATION					CLIENT PI	ROJECT IN	FORM	ATION						CLIEN	T BILLI	NG INFO	DRMATION
COMPANY: 7	retra 1	DATTO BE SENT TO: TCCH ICC Wright	Dave				Bc+4p						BILL T						PO#:
CITY: Nor!	Foik	STATE: V	A ZIP:23.502	PROJEC	ст м.	ANAG	SER: De	ue Bi	440	LK			CITY:					STAT	E: ZIP:
ATTENTION:			100				orayae					20	ATTEN	ITION:				PHON	
							a coper c			1 66	vi.cu	7	ATTE	TIOI1.		- 3	ANA	LYSIS	
PHONE: 75		ROUND INFORMAT	TION	PHONE		DATA	DELIVER	1	AX:	ATION	1		1	MeOH	extracti	on requ	ires an	additio	nal 4 oz jar for percent solid
FAX: HARD COPY: . EDD: PREAPPROV	/ED TAT: 🗅 Y		DAYS* DAYS*	RESU	JLTS JLTS Jerse Jerse	ONLY + QC y RED y CLP	OUCED [USEPA CL	P State A	SP "B"	40 W. 2	0 6 0 2 1 × 1 1 2 1 × 1 1 3 × 1 × 1	AMBER WA	160 512	/6	//	//8	/9	
CHEMTECH					SAN	MPLE		IPLE	LES		-		PRES	ERVA	TIVES				COMMENTS ← Specify Preservatives
SAMPLE	5	PROJECT SAMPLE IDENTIFIC	ATION	SAMPLE MATRIX	COMP	GRAB 34	DATE	TIME	# OF BOTTLES	A 1	2	3	4	5	6	7	8	9	A-HCI B-HNO ₃ C-H ₂ SO ₄ D-NaOH E-ICE F-Other
1.	RE123	3101-2018	81207	GW		i	12/7/15	1255	3	2	1								
2.	The state of the state of	103 2018		bw		v	12/7/18	1316	3	Z	1								
3.		20181207		GW		V	12/7/18	1400	3	Z	1								
4.																			
5.							11										17-50-50		
6.																	- 7		
7.						-	7												
8.																	111	7-	
9.					17		- 7												
10.						194													
			DDY MUST BE DOC	UMENTE	D BE	LOW	EACH TII	ME SAMP	LES C	HANG	E POSS	ESSIC	N INCL	UDING	COUR	IER DE	LIVER	Υ	The sales
Vince Shikor RELINQUISHED BY:	a RD 9/7/2019	DATE/TIME:	RECEIVED BY: 1. RECEIVED BY:	<u></u>	\		Comr	ments:	OFF	5,4	~ V	OC	615	+					Shipment
PELINQUISHED BY:		DATE/TIME:	2. RECEIVED FOR LAB 3.	BY:		-												— В	Complete: Yes No by Client: No



OC Number	2010020	5.1
JOTE NO.	30/0	
HEMTECH PI	ROJECT NO. J63	235

2019630

	CLIEN	T INFORMATION	7300000			CI	LIENT PI	ROJECT IN	FORM	ATION						CLIEN	T BILLI	NG INFO	DRMATION
The second		ORT TO BE SENT TO:	i-tipe		1.108				200										300
COMPANY:	Tetra	Tech						page					BILL T	O:		_			PO#:
ADDRESS:	5700 L	ake Wrig	nt Drive	PROJEC	CT NO.	:1126	60800	5 LOCA	TION:	Bett	house	16	ADDR						
CITY: Was	FOIK	STATE:V	A ZIP: 23502	PROJEC	T MAN	NAGE	R: De	wa B	ray	ac	K	+	CITY:			TE: ZIP:			
ATTENTION:	EINE	Wil		e-mail:	And.	ch	0446	ckut	tet	ruted	4.0	um	ATTEN	NTION:				PHON	NE:
		THE PERSON NAMED IN					100						ATTENTION: PH ANALYS						
PHONE: 757		ROUND INFORMA	TION	PHONE:		ATA	DELIVE	RABLEIN	AX:	ATION		NAME OF TAXABLE	MeOH extraction requires an a						nal 4 oz jar for percent solic
FAX: HARD COPY: EDD: PREAPPRO	VED TAT: Q Y		_ DAYS * _ DAYS *	RESU	JLTS OI JLTS + Jersey i Jersey (NLY QC REDU CLP	CED [USEPA CL New York New York Other	.P State A	OD #D#	10 2 YOU	1000 B	A PRES	100 52	/6	/1	/8	/9	
OUTMITTECH					SAME			APLE	LES		-		PRES	SERVA	TIVES		-	-	COMMENTS ← Specify Preservatives
SAMPLE	9	PROJECT SAMPLE IDENTIFIC	CATION	SAMPLE				CTION	BOTTLES	A	15						111		A-HCI B-HNO ₃
ID					COMP	GRAB	DATE	TIME	# OF	1	2	3	4	5	6	7	8	9	C-H₂SO₄ D-NaOH E-ICE F-Other
1.	12E104	13-2018	1206	GW		V	12/6/18	1335	3	2	j		- 100						
2.	RE 104	12-2018	1206	6-W		V.	1216/18	1345	3	2	1	T.							//
3.	12E 122	01-2018	1206	iw		VI	12/6/18	1542	3	2	1								
4.	1ZE 122	102-2018	1206	400		VI	12/6/18	1605	3	2	1								
5.	12E 122	03-2018	1206	bw		11	2/6/15	1605	3	2	1	3							
6.	DUPOZ	2-201812	06	6-W		1	12/6/18	1500	3	2	1								
7.	12 E 120	DI - 2018	1207	6w	i	1	12/7/18	0950	3	2	1								
8.	12E 12	6103-2018	1207	6-W		V 1.	2/7/18	0955	3	2	1		3						
9.	RE 126	D2 - 2018	1207	GW	L	11	2/7/18	1010	3	2	1								
10.	REIZS	302-2018	1207	LW	1	vi	2/7/18	1250	3	2	1								
			DOY MUST BE DO	UMENTE	BEL	OW E	ACH TI	WE SAMP	LES C	HANG	E POSS	SESSIO	N INCL	UDING	COUR	IER DE	LIVER	-	
1. Vince Shikor		DATESTIME: 12/8/18	RECEIVED BY:				Comm	nents:	OFF	site	· V	06	1151	-				_ 0	Cooler Temp.:
RELINQUISHED BY:		DATE/TIME:	RECEIVED BY:				1_				- 00								Shipment Complete: Yes No
2. RELINQUISHED BY:	-	DATE/TIME:	2. RECEIVED FOR LAB	BY:		_	-		0										By Client:
3.			3.									4							By Chemtech:



COC Number	2019698	7.1
QUOTE NO.	000	19
CHEMTECH P	ROJECT NO. 12	216

	CLIEN	T INFORMATION				(CLIENT PR	ROJECT IN	FORM	ATION						CLIENT	BILLI	NG INFO	ORMATION
COMPANY:	REPO	RT TO BE SENT TO:		PROJEC	CT NA	ME: I	Bethp	446 17	cale	inal	1-11	,	BILLT	O:					PO#:
		ce wright	Drive	PROJEC	CT NO	1126	08005	LOCA	ION:	3.+6	13611	NY	ADDR		- 8		95.50		1011.
CITY: Nort			/A ZIP: 32502				ER: Da				2492		CITY:					STAT	TE: ZIP:
			PI ZIF. JZ.JU Z						-			10.		TION			-		107-7-107-7-107
ATTENTION:	Ernie W) U		e-mail.	auvi	c. k	rayo	CKE	t te	trut	chic	UM	ATTEN	TION:		- 3	ANA	PHO	
PHONE: 75		FAX:	ATION	PHONE:		ATA	DELIVER	F	AX:	ATION			1	MeOH	extraction	on requ	ires an	additio	onal 4 oz jar for percent solid
FAX: HARD COPY: _ EDD: PREAPPROV	/ED TAT: □ Y		DAYS * DAYS *	RESU	JLTS C JLTS + Jersey Jersey	ONLY QC REDI	UCED [USEPA CL	P State A	SP "B"	10 ATV 2	A 0 73	a bei a L	10851	/6	//	//8	//9	
CUENTECH				VIII-	SAM			IPLE	LES				PRES	SERVA	TIVES				COMMENTS
SAMPLE ID	s	PROJECT AMPLE IDENTIF		SAMPLE MATRIX	COMP	GRAB III	DATE	TIME	# OF BOTTLES	A	E					, i			← Specify Preservatives A-HCI B-HNO₃ C-H₂SO₄ D-NaOH
1.	DEIZO	02-201	£120€	6w	ō	-	12/5/18	1300	3	2	2	3	4	5	6	7	8	9	E-ICE F-Other
2.		DI - 2018		bw		1000	12/5/8			2	1								
3.		D3 -2018		aw			DISIB			2	1								
4.	12E 103	12-2015	81205	ou		V	12/5/18	1620	3	2	1	Y							
5.	RE 103	01-2015	81205	6-W		V	721511	1650	3	2	1								
6.	DUPUI	-2018/20	05	600		V	12/5/08	1400	3	2	1								
7.	REIVA	01-2018	= 1206	ow		V	1215/15	1045	3	2	1								
8.	RE109	03 - 2018	8 1206	600		v.	12/6/18	1045	3	2	1					,			
9.	12E 109	02-2018	81206	6w		V	12/6/15	1050	3	2	1								
10.	12E 104	Di - 2018	1206	6-W		v	1216/15	1310	3	Z	1								
RELINQUISHED BY STATEMENT OF THE PROPERTY OF T	St. Old LASSINGS	DATE/TIME: 11.	RECEIVED BY: 2. RECEIVED FOR LAE 3.		D BEL	.ow		ME SAMP							COUR	IER DE	LIVER	— С — С В	Shipment Complete: Yes No By Client: By Chemtech:



CHEMTECH PROJECT NO. QUOTE NO.

COC Number 2019699

	CLIENT	INFORMATION					CLIENT PE	ROJECT IN	FORM	MOITA						CLIENT	BILLIN	NG INFO	PRMATION	
		RT TO BE SENT TO:		DDO IEC	T ALA		13 . 1. 1		0		111	2	DILL T	0.					204	
COMPANY: 7							132+41						BILL T			-7-		-	PO#:	7
ADDRESS: 5	200 La	ki Wright	Drive	PROJEC	T NO	1:112	260800	5 LOCA	TION:	Beth	paye	NY	ADDRI	ESS:	-					
CITY: Nor 1	FOIL	STATE: VA	ZIP: 32502	PROJEC	TMA	NAG	ER: Da	e Bra	14616	K			CITY:					STAT	E: ZIP:	
ATTENTION:	EINIC U	UU		e-mail:	dav	cil	braya	ckut	tet	ra te	24,6	en	ATTEN	ITION:	19			PHON	VE:	
PHONE: 75-7				PHONE:					AX:								ANA	LYSIS		30
		ROUND INFORMAT	TON	THONE.		ATA	DELIVER			ATION			-	MeOH,	entraction	on requ	ires an	addition	nal 4 oz jar for	percent solid.
	'ED TAT: Q Y	TOTAL TOTAL CO.	DAYS * DAYS * DAYS *	RESU	ILTS + Jersey Jersey	QC RED CLP	UCED [USEPA CL New York : New York : Other	State A	SP "A"	*040L	3 3 3	STUDIO ST	5	/6	/1	/8	/9	//	
ID FLOWER IN					SAM	PLE	SAN	IPLE	E				PRES	ERVA	TIVES					MENTS
SAMPLE		PROJECT AMPLE IDENTIFIC	ATION	SAMPLE MATRIX	TY		COLLE	CTION	BOTTLES	A	E								A-HCI	reservatives B-HNO₃
ID		AMI EL IDENTITO	Anon	MATRIA	СОМР	GRAB	DATE	TIME	# OF	1	2	3	4	5	6	7	8	9	C-H₂SO₄ E-ICE	D-NaOH F-Other
1.	TBOI-	2018120	i	AS		V	12/4/18	0800	2	2										
2.	REITT	11-201812	04	6-10		v	12/4/18	1130	3	2	1									
3.	RE/170	2-20181	204	6-w		r	12/4/18	1035	3	2	1									
4.	RE125	02-2015/2	204	6-W		V	12/4/18	1353	3	2	1									
5.	1ZE 125	DI- 20181.	204	UW		V	12/4/18	1435	3	2	1									
6.	12E 125	03 - 2018/2	204	6-10		V	12/4/18	1525	3	2	1									
7.	RE 131	02-20181	205	in		r	12/5/18	1000	3	2	1									
8.	RE 131	101-20181	205	6-W		V	12/5/6	1010	9	6	3								DO M51	MSD
9.	REISI	03-20181	205	incu		V	12/5/18	1030	3	2	1	7								
10.	12E 120	03 - 2018		ow		V	12/5/18		3	2	1						-			
			DY MUST BE DOO	UMENTE	DBEL	OW	EACH TII	ME SAMP	LES C	HANG	E POSS	ESSIO	N INCL	UDING	COUR	IER DE	LIVER			and the same
RELINQUISHED BY S Vince Shikora		DATE/TIME:	RECEIVED BY:	-			Comr	ments:	OFF.	site	L V	20	1151					_ 0	Cooler Temp.:_ Shipm	
RELINQUISHED BY:		DATE/TIME: (1-1)					24				-						_	- 0	Complete: Y	The second
RELINQUISHED BY:		DATE/TIME:	2. RECEIVED FOR LAS	BY:	PE-	-	-			_						_			By Client:	
			3.				-											_ в	By Chemtech:	



56405

CHEMTECH PROJECT NO.

QUOTE NO.

coc Number 2019697

7.1

	CLIENT INFORMATION			CLIENT	PROJECTI	NFORM	ATION						CLIEN	T BILLI	NG INF	ORMATION
COMPANY:	REPORT TO BE SENT TO:	PROJEC	T NAM	IE: T3eH	prese (ce 10	-al	Gla	y	BILLT	·O:					PO#:
ADDRESS: 5	5200 Lake Waright Dr.	PROJEC	T NO.	112608005	WEI3LOC	ATION:	Bet	poer	NY	ADDR	ESS:					
CITY: Nor	Folk STATE: VA ZIP: 23502				ave .		-			CITY:					STAT	TE: ZIP:
	Ernie Us.	e-mail:	D	10. BC	anacle) tel	rate	In, c	m	ATTEN	NTION:				PHO	NE:
	7)46-4901 FAX:	PHONE:				AX:					-	-		ANA	ALYSIS	
	DATA TURNAROUND INFORMATION	THORE.	DA	TA DELI	/ERABLE I		ATION			1	MeOH	extracti	on requ	uires an	additio	onal 4 oz jar for percent solid.
EDD:PREAPPRO\	DAYS * DAYS * DAYS * DAYS * /ED TAT: Q YES Q NO TURNAROUND TIME IS 10 BUSINESS DAYS	RESURESURESURESURESURESURESURESURESURESU	LTS + 0 ersey F ersey C	EDUCED LP	USEPA C New York New York Other	State A		2	20 7 2 La	12 de 12 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2 /2	Orange S	100	1	/8	//9	
OUENTEON			SAMP		AMPLE	LES			T-	PRES	SERVA	TIVES				COMMENTS ← Specify Preservatives
SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	TYP	DAT	E TIME	# OF BOTTLES	A 1	A 2	E 3	A 4	5	6	7	8	9	A-HCI B-HNO ₃ C-H ₂ SO ₄ D-NaOH E-ICE F-Other
1.	TT101D-20181212	66	1	1 12/2/	18 1320	4	2	1	1	2						
2.	TT10101-20181212	64	·	12/12	18 1335	6	2	1	1	2						
3.	TT10102-20181212	60	J	12/12	18 1350	6	2	1	1	2						
i	T3-2018/210	Ag	V	12/10/	8 0800	2	2:									
i.	7E105D1-20181210	60	ı	1/2/10/	18 0945	9	le		3							MS/MSO
	7810502-20181210	60	Ü	12/10/1	8 1005	3	2		1							
	RE108D1-20181210	Ow	V	12/10/1	8 1255	3	2		1							
	RE 108 DZ-20 181210	GU	V	12/10/	8 1255	3	2		1							
	DUP03-2018/210	60	v	12/10/1	8 1400	3	2		1							
0.	DUP04-20181210	CU			18 1600	3	2		1							
ELINQUISHED BY S	SAMPLE CUSTODY MUST BE DOC SAMPLER: DATE/TIME: RECEIVED BY:	UMENTED	BELC			-					Autorior for		Acres Acres	The second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a second section in the second section in the second section is a section in the second section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section is a section in the section in the section in the section is a section in the section in the section in the section in the section is a section in the se		70/- 10/
Bau B	enfield 12/12/18 1630 1.			Co	mments:	ovene	4/1	ite M	othed	8260	sim			7	KIN	Shipment
	DATE/TIME: RECEIVED BY:				3) 8-L F	امسو	. 11	LAN PER	eserve	hve r	acthe	1 87	170 5	×n.	# /C	Complete: 🗆 Yes 🗆 No
LINQUISHED BY:	DATE/TIME (1 1) RECEIVED FOR LAS) - News	1		4)40~1	Dio.	iene i	الد	tcl 1	retro.	i Ef	A 57	2			By Client:
Italex	11/13/18/3	101	-												- B	By Chemtech:



56405

CHEMTECH PROJECT NO. QUOTE NO.

SOUTE NO

coc Number 2019695

	CLIE	NT INFORMATION					CLIENT P	ROJECT IN	FORM.	ATION	V. L.					CLIEN	T BILLI	NG INFO	ORMATION
COMPANY:		ORT TO BE SENT TO:		PROJE	CT N	AME	13ethpo	ee Re	210-	1 (لمساو		BILLT	0:					PO#:
ADDRESS: 5	5200 L	the wigh	+ D.				1508005 V					W.	ADDRE	ESS:					
			1A ZIP 23502	PROJE	СТ М	ANAC	GER: Og	VE "	Bai	pell	· >	,,,	CITY:					STAT	TE: ZIP:
ATTENTION:				e-mail:	Do	VE.	Blayo	ckQ+	etra	tech	,000	-	ATTEN	ITION:				PHO	NE:
PHONE (75				PHONE			1		AX:								ANA	LYSIS	
		AROUND INFORM	ATION	PHONE	And in case of	DATA	DELIVER		_	ATION			E-instruments.		extracti	on requ	ires an	additio	nal 4 oz jar for percent solid.
HARD COPY: EDD: PREAPPROV	VED TAT: D	YES ID NO D TIME IS 10 BUSI	DAYS *	RES RES New Rew EDD	ULTS Jerse Jerse	+ QC y REC y CLP	DUCED []	USEPA CL New York New York Other	State A		Drays	61 32 3	4	5	/6	/	/8	//9	
CHEMTECH						MPLE		IPLE	LES	r	r -	\vdash	PRES	ERVA'	TIVES		1	r	COMMENTS Specify Preservatives
SAMPLE		PROJECT SAMPLE IDENTIFI	CATION	SAMPLE MATRIX	-	GRAB TH	DATE	TIME	# OF BOTTLES	<u>A</u>	E 2	3	4	5	6	7	8	9	A-HCI B-HNO ₃ C-H ₂ SO ₄ D-NaOH E-ICE F-Other
1.	EBOI-	20181211		Are		V	12/11/18	1500	3	2	1								
2.		20181211		Aa		V	12/1/18		3	2	1								
3.				C															
4.																			
5.																			
6.																			
7.																			
3.								2000											
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CHEMTECH PROJECT NO. QUOTE NO.

COC Number

2019697

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COC Number

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3.	TT10102-20181212	(20		/	12/18/1350	6	2	1	1.	2						
4.	TB-2018/210	Ag		/	12/10/18 0800	2	2		1							
5.	7E105D1-20181210	GL		1	12/10/18 0945	9	Ce		3							MS/MSO
6.	RE10502-20181210	60			12/10/18 1005	3	2		1							
7.	RE10801-20181210	(14)			12/10/18 1255	3	2		1							
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9.	DUP03-20181210	(10		/	12/10/18 1400	3	2		1							
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CHEMTECH PROJECT NO.

QUOTE NO.

COC Number

2019695

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APPENDIX D BLADDER VERSUS IMPELLAR PUMP EVALUATION

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TABLE D-1 - EVALUATION OF USING A BLADDER PUMP VERSUS IMPELLAR PUMP FOR PURGING

		Blade	der Pump with Drop	Tube	Centrif	igual Pump with Dro	op Tube
Well	Well Depth (feet below ground surface)	Sample Date and Time	Purge Rate (milliliters per minute)	TCE Concentration (ug/L)	Sample Date and Time	Purge Rate (milliliters per minute)	TCE Concentration (ug/L)
RE-122D1	540	7/12/18 @ 1420	375	250			
RE-122D1	540	10/4/18 @ 1215	250	400	10/4/18 @ 1630	500	670
RE-122D1	540				12/6/18 @ 1542	700	470
RE-122D2	610	7/12/18 @ 1415	300	3,700			
RE-122D2	610	10/4/18 @ 1220	300	4,700	10/4/18 @ 1345	500	4,400
RE-122D2	610				12/6/18 @ 1605	800	3,100
RE-122D3	735	7/12/18 @ 1420	300	9			
RE-122D3	735	10/4/18 @ 1215	400	4.1 U	10/4/18 @ 1500	500	1.4 J
RE-122D3	735				12/6/18 @ 1600	1,000	4.4 J

J = Estimated value. One or more quality control parameters were outside control limits or the analyte concentration was less than the limit of quantitation.

ug/L - Micrograms per liter.

TCE - Trichloroethene.

Summary Historically, bladder pumps with drop tubes have been used in the OU2 program to collect groundwater samples.

The pumps are set at approximately 100 feet below ground surface and 50 feet below the water table.

Drop tubes are attached to the bottom of the pump and extend several hundred feet to the middle of the well screen.

The wells are then purged at a rate of 200 to 400 millimeters per minute, which is near the pumps limit.

Because of the volume of water in the drop tube, extended purge times (greater than 2 hours) are often required.

In order to decrease the purge time (less than 1 hour), a different type of pump (centrifigual) was selected.

Well depths prevent installing centrigual pumps into the screen interval.

During purging, even at the highest rates, drawdowns within the well are less than 0.07 feet.

Concern Pulling water through a drop tube at too high of a rate could result in very high velocities and potential cavitation.

Cavitation could result in bubble formation and loss of volatile organics.

Evaluation See Table D-1 above.

One well cluster (RE-122D1, D2, and D3) was selected to be sampled using both methods on October 4, 2018.

Also, data from the July and December 2018 sampling events was considered.

Conclusion Although there is some variability in the data, the use of higher purge rates with a centrifugal pump does not appear to have any

significant impact on the quality of the results.

U = Undetected. The parameter was analyzed but undetected at the listed limit of quantitation or was qualified as undetected during data review due to blank artifacts.

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APPENDIX E DATA VALIDATION

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2159 Wynnton Pointe, Duluth, GA 30097

(770) 232-0130 (770) 232-5082 (Fax) www.datavalidator.com

DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: December 27, 2018
DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J4014

SAMPLING DATE(S): July 3-13, 2018

SAMPLES:

T 1 4 ID	MOG	CVOC*
<u>Laboratory ID</u>	VOC	<u>SVOC</u> *
J4014-01	X	X
J4014-01DL	X	X
J4014-02	X	X
J4014-02DL	X	X
J4014-03	X	X
J4014-03DL		X
J4014-04	X	X
J4014-05	X	X
J4014-06	X	X
J4014-06DL	X	
J4014-07	X	X
J4014-08	X	X
J4014-09	X	X
	J4014-01DL J4014-02 J4014-02DL J4014-03 J4014-03DL J4014-04 J4014-05 J4014-06 J4014-06DL J4014-07 J4014-08	J4014-01 X J4014-01DL X J4014-02 X J4014-02DL X J4014-03 X J4014-03DL X J4014-04 X J4014-05 X J4014-06 X J4014-07 X J4014-08 X

Client Sample ID	Laboratory ID	VOC	SVOC*
RE105D2-071318	J4014-10	X	X
RE105D2-071318DL	J4014-10DL	X	X
FB01-071318	J4014-11	X	X
TB02-070318	J4014-12	X	
GW03-071218	J4014-13	X	X
GW03-071218DL	J4014-13DL	X	
RE103D3-071218	J4014-14	X	X
RE103D3-071218DL	J4014-14DL	X	
RE122D2-071218	J4014-15	X	X
RE122D2-071218DL	J4014-15DL	X	X
RE104D2-071318	J4014-16	X	X
RE104D2-071318RE	J4014-16RE	X	
RE105D1-071318	J4014-17	X	X
RE105D1-071318DL	J4014-17DL		X
RE105D1-071318RE	J4014-17RE	X	

Suffix Codes: DL - DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J4014 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

The 17 days between sample collection and analysis for TB02-071318 exceeded the 14-day QC limit. The results for this sample, which consisted entirely of non-detects, were qualified as with an X and reason code H.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 7/20/18 at 20:31 on instrument MSVOAX was 20.5% for 2-hexanone, which exceeded the 20% QC limit. The results for 2-hexanone in all samples except RE104D3-071318, which consisted entirely of non-detects, were qualified as estimated (UJ) with reason code C.

The Percent Differences (%Ds) for the standards run on 7/21/18 at 10:19 on instrument MSVOAX exceeded the 20% QC limit for the following compounds:

acetone	38.8%
carbon tetrachloride	24.2%
1,2-dichloroethane	21.0%

The results for these compounds in associated sample RE104D3-071318, which were all non-detects, were qualified as estimated (UJ) with reason code C.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment Blanks:

Acetone (10.5 ug/L) was detected in equipment blank EB02-071718. All positive results for acetone in the SDG samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Field Blanks:

Acetone (7.9 ug/L) and toluene (0.44 ug/L) were detected in field blank FB01-071318. Acetone (10.6 ug/L) and 2-butanone (2.7 ug/L) were detected in field blank FB02-071718. All positive results for these compounds in the SDG samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Rinsate Blanks:

There were no detections in associated rinsate blank RB01-071218. No data qualification was necessary.

Trip Blank:

There were no detections in associated trip blank TB02-070318. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

Two LCS were analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample RE104D3-071318. All criteria were met. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE103D2-071218 / GW03-071218) was identified as part of this SDG. The only calculable RPD was 8.5% for trichloroethene, which was within the 30% QC limit. The calculated differences for 1,1,2-trichlorotrifluoroethane, carbon tetrachloride, chloroform and 1,1,2-trichloroethane were all less than the 2X the LOQ. No data qualification was necessary for this set.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples RE103D1-071218, RE122D1-071218, RE103D2-071218, RE105D2-071318, GW03-071218, RE103D3-071218 and

RE122D2-071218 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for trichloroethene in the listed samples to be of preferable data quality to the initial analysis results for this compound in the listed samples and the initial analysis results for all other compounds in the listed samples to be of preferable data quality to the reanalysis results for all other compounds in the listed samples.

Citing professional judgment, based on holding time and continuing calibration criteria and the review of the sample raw data, the validator has determined that the initial analysis results for samples RE104D2-071318 and RE105D1-071318 are of preferable data quality to the reanalysis results for these samples.

All forty-four requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

SDG: J4014

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Field Blank:

There was no detection in field blank FB01-071318. No data qualification was necessary.

Rinsate Blank:

1,4-dioxane (0.470 ug/L) was detected in rinsate blank RB01-071218. The positive result for 1,4-dioxane in SDG sample RE103D3-071218, which was greater than the LOQ but equal to the blank concentration, was qualified as undetected (U) with reason code B.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for surrogate compounds nitrobenzene-d5, 2-fluorobiphenyl, terphenyl-d14 were outside the established QC limits for most samples and the %R for

fluoranthene-d10 was also outside the established QC limits for several SDG samples. Since the listed surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample RE104D3-071318. All criteria were met. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE103D2-071218 / GW03-071218) was identified as part of this SDG. The calculable RPD was 4.4%, which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

The Area Count Percent Recoveries (%Rs) for perylene-d12 for samples RE122D2-071218DL (47.8%) and RE105D1-071318DL (45.6%) were below the 50-200% QC limits. Since the target compound was not quantitated using this ISTD, no data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1.4-dioxane in the initial analyses for samples RE103D1-071218, RE122D1-071218, RE104D1-071318, RE105D2-071318, RE122D2-071218 and RE105D1-071318 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis results for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: December 27, 2018
DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J4073

SAMPLING DATE(S): July 3-18, 2018

SAMPLES:

Client Sample ID	Laboratory ID	VOC	SVOC*
TB03-070318	J4037-01	X	X
FB02-071718	J4037-02	X	X
EB02-071718	J4037-03	X	X
RE109D2-071618	J4037-04	X	X
RE126D1-071718	J4037-05	X	X
RE126D1-071718DL	J4073-05DL		X
RE123D1-071818	J4073-06	X	X
GW04-071718	J4073-07	X	X
GW04-071818DL	J4073-07DL	X	X
RE109D3-071618	J4073-08	X	X
RE109D3-071618DL	J4073-08DL		X
RE117D1-071618	J4073-09	X	X
RE126D3-071718	J4073-10	X	X

Client Sample ID	Laboratory ID	VOC	<u>SVOC</u> *
RE108D2-071718	J4073-11	X	X
RE108D2-071718DL	J4073-11DL	X	X
RE108D2-071718RE	J4073-11RE		X
RE123D2-071818	J4073-12	X	X
RE109D1-071618	J4073-13	X	X
RE109D1-071618DL	J4073-13DL		X
RE109D1-071618RE	J4073-13RE		X
RE117D2-071618	J4073-14	X	X
RE126D2-071718	J4073-15	X	X
RE126D2-071718DL	J4073-15DL	X	X
RE108D1-071718	J4073-16	X	X
RE108D1-071718L	J4073-16DL		X
RE123D3-071818	J4040-17	X	X
RE123D3-071818MS	J4073-18	X	X
RE123D3-071818MSD	J4073-19	X	X

Suffix Codes: DL - DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J4073 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

The 16 days between sample collection and analysis for TB03-070318 exceeded the 14-day QC limit. The positive result for acetone in the sample was qualified as estimated (J) and the non-detect results for this sample were qualified with an X and reason code H.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

SDG: J4073

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 7/26/18 at 12:56 on instrument MSVOAX was -24.3% for 4-bromofluorobenzene, which exceeded the 20% QC limit. Since the compound is a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment Blanks:

Acetone (10.5 ug/L) was detected in equipment blank EB02-071718. All positive results for acetone in the SDG samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Field Blanks:

Acetone (7.9 ug/L) and toluene (0.44 ug/L) were detected in field blank FB01-071318. Acetone (10.6 ug/L) and 2-butanone (2.7 ug/L) were detected in field blank FB02-071718. All positive results for acetone in the SDG samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B. There were no positive results for 2-butanone and toluene in the SDG samples, so no further data qualification was necessary.

Rinsate Blanks:

There were no detections in associated rinsate blank RB01-071218. No data qualification was necessary.

Trip Blank:

Acetone (10.7 ug/L) was detected in associated trip blank TB03-070318. All positive results for acetone in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

SDG: J4073

V.) Surrogate Recoveries:

The Percent Recovery (%R) for toluene-d8 (87%) in sample GW04-071718DL was below the QC limits. The positive result for trichloroethene, the only reported result from this sample analysis, was qualified as estimated biased low (J-) with reason code R.

VI.) Laboratory Control Samples (LCS):

Five LCS were analyzed by the laboratory for this fraction of the SDG. The Percent Recoveries (%Rs) for VX0723WBS02 exceeded the QC limits for the following compounds:

1,1,2-trichloroethane	125%
2-hexanone	140%
1,1,2,2-tetrachloroethane	123%

All positive results for these compounds in the associated SDG samples were qualified as estimated biased high (J+) with reason code E.

The Percent Recovery (%R) for bromomethane (159%) exceeded the QC limits for VX0725WBS01. Since bromomethane was not a target compound for the associated SDG sample analysis, no data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample RE123D3-071818. All criteria were met. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE126D2-071718 / GW04-071718) was identified as part of this SDG. The calculable RPDs for cis-1,2-dichloroethene (2.3%) and trichloroethene (2.5%) were within the 30% QC limit. The calculated differences for 1,1-dichloroethene, 1,1-dichloroethane, carbon tetrachloride, chloroform, 1,1,1-trichloroethane and 1,1,2-trichloroethane were all less than the 2X the LOQ. No data qualification was necessary for this set.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

SDG: J4073 3

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples GW04-071718, RE108D2-071718 and RE126D2-071718 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for trichloroethene in the listed samples to be of preferable data quality to the initial analysis results for this compound in the listed samples and the initial analysis results for all other compounds in the listed samples to be of preferable data quality to the reanalysis results for all other compounds in the listed samples.

All forty-four requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

SDG: J4073

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

The Percent Differences (%Ds) for the standards run on 7/23/18 at 22:51 on instrument BNAE were 21.6% for 2-fluorophenol and 33.7% for 2,4,6-tribromophenol, which exceeded the 20% QC limit. Since the compounds are surrogate compounds, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Field Blank:

There was no detection in field blank FB01-071318. No data qualification was necessary.

Rinsate Blank:

1,4-dioxane (0.470 ug/L) was detected in rinsate blank RB01-071218. All positive results for 1,4-dioxane in the SDG samples were than the LOQ and the blank concentration, so no data qualification was necessary.

SDG: J4073 5

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for surrogate compounds nitrobenzene-d5, 2-fluorobiphenyl, terphenyl-d14 were outside the established QC limits for most samples and the %R for fluoranthene-d10 was also outside the established QC limits for several SDG samples. Since the listed surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed on SDG sample RE123D3-071718. The Percent Recoveries (%Rs) for 1,4-dioxane in the MS (45%) and MSD (43%) were below the QC limits. The non-detect result for 1,4-dioxane in the parent sample was qualified as estimated (UJ) with reason code D.

VIII.) Field Duplicates:

One set of field duplicate samples (RE126D2-071718 / GW04-071718) was identified as part of this SDG. The calculable RPD was 8.7%, which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

The Area Count Percent Recoveries (%Rs) for the following samples were below the 50-200% QC limits:

RE109D1-071618	acenaphthene-d10	41%
	chrysene-d12	49%
	perylene-d12	6.9%
RE109D1-071618RE	perylene-d12	9.3%

Since the target compound was not quantitated using these ISTD, no data qualification was necessary.

SDG: J4073 6

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1.4-dioxane in the initial analyses for samples RE126D1-071718, GW04-071718, RE109D3-071618, RE108D2-071718M RE109D1-071618, RE126D2-071718 and RE108D1-071718 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for 1,4-dioxane.

Citing the CRQL criteria and professional judgment, the validator has determined that the dilution analysis for samples RE108D2-071718 and RE109D1-071618 To be of preferable data quality to both the initial analysis and reanalysis results for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SDG: J4073 7



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: December 13, 2018
DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J3170

SAMPLING DATE(S): July 3-11, 2018

SAMPLES:

I also not a my ID	VOC	SVOC*
	VOC	~
J3170-01	X	X
J3170-01DL		X
J3170-02	X	X
J3170-02DL	X	X
J3170-03	X	X
J3170-03DL	X	
J3170-04	X	X
J3170-05	X	X
J3170-05DL		X
J3170-06	X	X
J3170-06DL		X
J3170-07	X	X
J3170-07DL		X
	J3170-02 J3170-02DL J3170-03 J3170-03DL J3170-04 J3170-05 J3170-05DL J3170-06 J3170-06 J3170-07	J3170-01 J3170-01DL J3170-02 X J3170-02 X J3170-02 X J3170-03 X J3170-03 X J3170-04 X J3170-05 X J3170-05 X J3170-06 X J3170-06 X J3170-07 X

Client Sample ID	Laboratory ID	VOC	SVOC*
RE120D2-071118	J3170-08	X	X
RE120D2-071118DL	J3170-08DL	X	X
RE125D2-071118	J3170-09	X	X
RE125D2-071118DL	J3170-09DL		X
RE125D2-071118RE	J3170-09RE		X
GW01-071118	J3170-10	X	X
GW01-071118DL	J3170-10DL		X
RE120D3-071118	J3170-11	X	X
RE125D3-071118	J3170-12	X	X
RE120D1-071118	J3170-13	X	X
RE120D1-071118DL	J3170-13DL	X	X
GW02-071118	J3170-14	X	X
GW02-071118DL	J3170-14DL	X	X
GW02-071118RE	J3170-14RE		X
TB01	J3170-15	X	

Suffix Codes: DL-DILUTION, MS=MATRIX SPIKE, MSD=MATRIX SPIKE DUPLICATE, RE=REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J3170 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

The 16 days between sample collection and analysis for TB01 exceeded the 14-day QC limit. The results for this sample, which consisted entirely of non-detects, were qualified as estimated (UJ) with reason code H.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 7/20/18 at 20:31 on instrument MSVOAX was 20.5% for 2-hexanone, which exceeded the 20% QC limit. The non-detect result for 2-hexanone in associated SDG sample RE131D3-071018 was qualified as estimated (UJ) with reason code C.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Trip Blank:

There were no detections in associated trip blank TB01. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

Four LCS / LCSD were analyzed by the laboratory for this fraction of the SDG. The Percent Recovery (%R) for 1,2-dichlorobenzene was 128% for LCS VX0720WBS02, which exceeded the 80-119% QC limits. Since 1,2-dichlorobenzene was not a target compound for the associated SDG samples (Dilution analyses for trichloroethene only), no data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analysis data was not submitted for this SDG. Data qualification based on the absence of the data was not required. No data qualification was necessary.

VIII.) Field Duplicates:

Two sets of field duplicate samples (RE125D2-071118 / GW01-071118 and RE120D1-071118 / GW02-071118) were identified as part of this SDG.

The only calculable RPD for RE125D2-071118 / GW01-071118 was 0% for trichloroethene, which was within the 30% QC limit. The calculated differences for 1,1,1-trichlorotrifluoroethane, 1,1-dichloroethene, acetone, carbon tetrachloride, cis-1,2-dichloroethene, chloroform, 1,1,1-trichloroethane and tetrachloroethane were all less than the 2X the LOQ. No data qualification was necessary for this set.

The only calculable RPD for RE120D1-071118 / GW02-071118 was 1.6% for trichloroethene, which was within the 30% QC limit. The calculated differences for 1,1,1-trichlorotrifluoroethane, 1,1-dichloroethene, acetone, 1,1-dichloroethane, carbon tetrachloride, cis-1,2-dichloroethene, chloroform, 1,1,2-trichloroethane and tetrachloroethane were all less than the 2X the LOQ. No data qualification was necessary for this set.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples TT101D1-071018, TT101D2-071018, RE120D2-071118, RE120D1-071118 and GW02-071118 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for trichloroethene in the listed samples to be of preferable data quality to the initial analysis results for this compound in the listed samples and the initial analysis results for all other compounds in the listed samples.

All forty-four requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Differences (%Ds) for the standards run on 7/14/18 at 00:42 on instrument BNA-E exceeded the 20% QC limit for the following compounds:

2-fluorophenol 23.0% phenol-d6 25.3%

SDG: J3170

Since the listed compounds were surrogate compounds, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for surrogate compounds nitrobenzene-d5, 2-fluorobiphenyl, terphenyl-d14 were outside the established QC limits for all samples and the %R for fluoranthene-d10 was also outside the established QC limits for several SDG samples. Since the listed surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS / LCSD set was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analysis data was not submitted for this SDG. Data qualification based on the absence of the data was not required. No data qualification was necessary.

VIII.) Field Duplicates:

Two sets of field duplicate samples (RE125D2-071118 / GW01-071118 and RE120D1-071118 / GW02-071118) were identified as part of this SDG.

The calculable RPDs for RE125D2-071118 / GW01-071118 at 1.5% and RE120D1-071118 / GW02-071118 at 3.7% were within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1.4-dioxane in the initial analyses for all SDG samples except TT101D2-071018, RE131D3-071018, RE120D3-071118 and RE125D3-071118 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis results for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 6, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J5189

SAMPLING DATE(S): September 26-28, 2018

SAMPLES:

Client Sample ID	<u>Laboratory ID</u>	<u>VOC</u>	<u>SVOC</u> *
BP-TT-TB01-20180926	J5189-01	X	
RE-117D1-20180926	J5189-02	X	X
RE-117D2-20180926	J5189-03	X	X
RE-131D2-20180927	J5189-04	X	X
RE-131D2-20180927DL	J5189-04DL	X	X
RE-131D1-20180927	J5189-05	X	X
RE-131D1-20180927DL	J5189-05DL	X	X
RE-131D3-20180927	J5189-06	X	X
RE-131D3-20180927DL	J5189-06DL	X	
RE-105D1-20180927	J5189-07	X	X
RE-105D1-20180927DL	J5189-07DL		X
RE-105D2-20180927	J5189-08	X	X
RE-105D2-20180927DL	J5189-08DL	X	X

Client Sample ID	<u>Laboratory ID</u>	<u>VOC</u>	SVOC*
TT-101D2-20180928	J5189-09	X	X
TT-101D2-20180928DL	J5189-09DL	X	
TT-101D-20180928	J5189-10	X	X
TT-101D-20180928DL	J5189-10DL	X	X
TT-101D1-20180928	J5189-11	X	X
TT-101-D1-20180928DL	J5189-11DL		X
TT-DUP01-20180928	J5189-12	X	X
TT-DUP01-20180928DL	J5189-12DL		X
BP-TT-EB01-20180928	J5189-13	X	X

Suffix Codes: DL - DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J5189 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

SDG: J5189

Continuing Calibration:

The Percent Difference (%D) for the standards run on 10/8/18 at 20:56 on instrument MSVOAX was 20.3% for 1,2-dichloroethane-d4. Since the compound was a surrogate, no data qualification was necessary. It was noted by the validator that several other compounds for the standard exceeded the 20% QC limit, but since they were not target compounds for the associated dilution analyses, they are not listed in this report and data qualification was not necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

Acetone (7.9 ug/L) was detected in equipment blank BP-TT-EB01-20180928. All positive results for acetone in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Acetone (6.70 ug/L) and trichloroethene (0.65 ug/L) were detected in equipment blank BP-TT-ERB02-20181005. All positive results for acetone and trichloroethene in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Trip Blank:

There were no detections in associated trip blank BP-TT-TB01-20180926. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses data were submitted for this SDG. The Percent Recovery (%R) for trichloroethene in the MS sample was 140%, which exceeded the QC limits. Data qualification

based on batch QC data was not required, so data qualification was not necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (TT-101D-20180928 / TT-DUP01-20180928) was identified as part of this SDG. The calculable RPDs were 15% for 1,1,2-trichlorotrifluoroethane and 91% for trichloroethene, with the RPD for trichloroethene exceeding the 30% QC limit. The positive results for this compound in the two samples were qualified as estimated (J) with reason code G.

The calculated differences for dichlodifluoromethane, 1,1-dichloroethene, 1,1-dichloroethane, carbon tetrachloride, cis-1,2-dichloroethene, chloroform and 1,1,2-trichloroethane were all less than the 2X the LOQ. No data qualification was necessary for this set.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1,1,2-trichlorotrifluoromethane in the initial analyses for RE-131D2-20180927 and RE-131D3-2018927 and the results for trichloroethene in the initial analyses for SDG samples RE-131D1-20180927, RE-105D2-20180927, TT-101D2-20180928 and TT-101D-20180928 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for either 1,1,2-trichlorotrifluoroethane or trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,1,2-trichlorotrifluoromethane or trichloroethene in the listed samples to be of preferable data quality to the initial analysis results for these compounds in the listed samples to be of preferable data quality to the reanalysis results for all other compounds in the listed samples.

All forty-four requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

SDG: J5189

Continuing Calibration:

The Percent Difference (%D) for the standards run on 10/4/18 at 15:31 on instrument BNA-E was 27.7% for nitrobenzene-d5, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/5/18 at 02:37 on instrument BNA-E was 56.2% for nitrobenzene-d5, which exceeded the 50% QC limit for closing calibrations. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/5/18 at 08:44 on instrument BNA-E was 56.2% for nitrobenzene-d5, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/5/18 at 16:25 on instrument BNA-E was 50.8% for nitrobenzene-d5, which exceeded the 50% QC limit for closing calibrations. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/5/18 at 17:40 on instrument BNA-E was 60.8% for nitrobenzene-d5, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/6/18 at 04:15 on instrument BNA-E was 82.3% for nitrobenzene-d5, which exceeded the 50% QC limit for closing calibrations. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/8/18 at 20:34 on instrument BNA-E was 68.5% for nitrobenzene-d5, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/9/18 at 01:30 on instrument BNA-E was 64.6% for nitrobenzene-d5, which exceeded the 50% QC limit for closing calibrations. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no detections in the associated equipment and rinsate blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS / LCSD set was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analysis data was not submitted for this fraction of the SDG. Data qualification based on the absence of MS / MSD data was not required, so no data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (TT-101D-20180928 / TT-DUP01-20180928) was identified as part of this SDG. The calculable RPD was 14%, which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1.4-dioxane in the initial analyses for SDG samples RE-131D2-20180927, RE-131D1-20180927, RE-105D1-20180827, RE-105D2-20180927, TT-101D-20180928, TT-101D1-20180928 and TT-DUP01-20180928 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis results for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 6, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J5284

SAMPLING DATE(S): October 1-3, 2018

SAMPLES:

Client Sample ID	Laboratory ID	VOC	SVOC*
BP-TT-TB02-20181001	J5284-01	X	
RE-125D2-2018001	J5284-02	X	X
RE-125D2-2018001DL	J5284-02DL	X	X
RE-125D2-2018001MS	J5284-03	X	X
RE-125D2-2018001MSD	J5284-04	X	X
RE-125D1-20181001	J5284-05	X	X
RE-125D1-20181001DL	J5284-05DL		X
RE-125D3-20181001	J5284-06	X	X
RE-120D3-20181002	J5284-07	X	X
RE-120D2-20181002	J5284-08	X	X
RE-120D2-20181002DL	J5284-08DL	X	X
RE-120D1-20181002	J5284-09	X	X
RE-120D1-20181002DL	J5284-09DL	X	X

Laboratory ID	<u>VOC</u>	SVOC*
J5284-10	X	X
J5284-10DL	X	X
J5284-11	X	X
J5284-11DL	X	
J5284-12	X	X
J5284-12DL	X	X
J5284-13	X	X
J5284-14	X	X
J5284-14DL		X
J5284-15	X	X
J5284-16	X	X
J5284-16DL	X	X
J5284-17	X	X
	J5284-10 J5284-10DL J5284-11 J5284-11DL J5284-12 J5284-12 J5284-13 J5284-14 J5284-14 J5284-14 J5284-15 J5284-16 J5284-16DL	J5284-10 X J5284-10DL X J5284-11 X J5284-11DL X J5284-12 X J5284-12 X J5284-13 X J5284-14 X J5284-14 X J5284-14DL J5284-15 X J5284-16 X J5284-16DL X

Suffix Codes: DL - DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J5284 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Differences (%Ds) for the standards run on 10/9/18 at 17:09 on instrument MSVOAU were 24.9% for bromomethane and -20.5% for carbon disulfide, which exceed the 20% QC limit. The non-detect results for these compounds in associated sample BP-TT-TB02-20181001 were qualified as estimated (UJ) with reason code C.

The Percent Difference (%D) for the standards run on 10/10/18 at 02:04 on instrument MSVOAX was 21.5% for 4-methyl-2-pentanone, which exceeded the 20% QC limit. The non-detect results for this compound in associated samples TT-DUP02-20181003 and TT-DUP03-20181003 were qualified as estimated (UJ) with reason code C.

The Percent Differences (%Ds) for the standards run on 10/11/18 at 02:43 on instrument MSVOAX were -20.9% for 1,2-dichloroethene-d4 and -25.9% for dibromochloromethane, which exceeded the 20% QC limit. Since the listed compounds were surrogate compounds, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

Acetone (7.9 ug/L) was detected in equipment blank BP-TT-EB01-20180928. All positive results for acetone in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Acetone (6.70 ug/L) and trichloroethene (0.65 ug/L) were detected in equipment blank BP-TT-ERB02-20181005. All positive results for acetone and trichloroethene in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Trip Blank:

There were no detections in associated trip blank BP-TT-TB02-20181001. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recovery (%R) for 4-bromofluorobenzene (84%) was below the QC limits for sample BP-TT-TB02-20181001. The results for this sample, which consisted entirely of non-

detects, were qualified as estimated (UJ) with reason code R.

VI.) Laboratory Control Samples (LCS):

Three LCS were analyzed by the laboratory for this fraction of the SDG. The Percent Recoveries (%Rs) for VU1010WBS01 were below the QC limits for the following compounds:

trans-1,2-dichloroethene	73%
chlorobenzene	80%
ethylbenzene	77%
m,p-xylene	78%
o-xylene	77%
styrene	76%
1,3-dichlorobenzene	79%

All results for these compounds in associated sample BP-TT-TB02-20181001, which consisted entirely of non-detects, were qualified as estimated (UJ) with reason code E.

The Percent Recoveries (%Rs) for VX1009WBS01 exceeded the QC limits for the following compounds:

MTBE	126%
toluene	123%

Since the results for these compounds in the associated samples were all non-detects, no data qualification was necessary.

The Percent Recovery (%R) for VX1010WBS09 was 52% for bromomethane, which was below the QC limits. Since the compound was not a target compound for the associated samples (Dilution analyses for trichloroethene only), no data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample RE-125D2-2018001. The Percent Recovery (%R) for trichloroethene in the MS sample was 140%, which exceeded the QC limits. Since the reported result for this compound in the sample was reported from a dilution analysis, citing professional judgment, the validator determined that data qualification was not necessary.

VIII.) Field Duplicates:

Two sets of field duplicate samples (RE-103D1-20181003 / TT-DUP02-20181003 and RE-104D3-20181003 / TT-DUP03-20181003) were identified as part of this SDG.

The calculable RPDs for RE-103D1-20181003 / TT-DUP02-20181003 were 1.6% for 1,1,2-

trichlorotrifluoroethane and 1.7% for trichloroethene, which were within the 30% QC limit. The calculated differences for 1,1-dichloroethene, 1,1-dichloroethane, cis-1,2-dichloroethene, chloroform, 1,1,2-trichloroethane and tetrachloroethane were all less than the 2X the LOQ. No data qualification was necessary for this set.

The calculated percent difference for trichloroethene for RE-104D3-20181003 / TT-DUP03-20181003 was less than the 2X the LOQ. No data qualification was necessary for this set.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples RE-125D2-2018001, RE120-D2-20181002, RE-120D1-20181002, RE-103D3-20181003, RE-103D2-20181003, RE-103D1-20181003 and TT-DUP02-20181003 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for trichloroethene in the listed samples to be of preferable data quality to the initial analysis results for this compound in the listed samples and the initial analysis results for all other compounds in the listed samples.

All forty-four requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SDG: J5284

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 10/5/18 at 17:40 on instrument BNA-E was 60.8% for nitrobenzene-d5, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/6/18 at 04:15 on instrument BNA-E was 82.3% for nitrobenzene-d5, which exceeded the 50% QC limit for closing calibrations. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/8/18 at 12:43 on instrument BNA-E was 46.9% for nitrobenzene-d5, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/8/18 at 19:19 on instrument BNA-E was 55.4% for nitrobenzene-d5, which exceeded the 50% QC limit for closing calibrations. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/8/18 at 20:34 on instrument BNA-E was 68.5% for nitrobenzene-d5, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/9/18 at 01:30 on instrument BNA-E was 64.6% for nitrobenzene-d5, which exceeded the 50% QC limit for closing calibrations. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/9/18 at 12:45 on instrument BNA-E was 61.5% for nitrobenzene-d5, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/9/18 at 14:46 on instrument BNA-E was 62.3% for nitrobenzene-d5, which exceeded the 50% QC limit for closing calibrations. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no detections in the associated equipment and rinsate blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS set was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analysis was performed using sample RE-125D2-2018001. Since the parent result for 1,4-dioxane was greater than 4X the spike concentration, the results were not considered meaningful. No data qualification was necessary.

VIII.) Field Duplicates:

Two sets of field duplicate samples (RE-103D1-20181003 / TT-DUP02-20181003 and RE-104D3-20181003 / TT-DUP03-20181003) were identified as part of this SDG.

The only calculable RPD was 0% for the first set. which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1.4-dioxane in the initial analyses for SDG samples RE-125D2-2018001, RE-125D1-20181001, RE-120D2-20181002, RE-120D1-20181002, RE-103D1-20181003, RE-104D1-20181003 and TT-DUP02-20181003 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis results for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 6, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J5317

SAMPLING DATE(S): October 4-5, 2018

SAMPLES:

Client Sample ID	<u>Laboratory ID</u>	VOC	SVOC*
BP-TT-TB03-20181004	J5317-01	X	
RE-122D3-20181004	J5317-02	X	X
RE-122D3-20181004MS	J5317-03	X	X
RE-122D3-20181004MSD	J5317-04	X	X
RE-122D1-20181004	J5317-05	X	X
RE-122D1-20181004DL	J5317-05DL		X
RE-122D2-20181004	J5317-06	X	X
RE-122D2-20181004DL	J5317-06DL		X
RE-122D2-IMP-20181004	J5317-07	X	X
RE-122D2-IMP-20181004DI	L J5317-07DL		X
RE-122D3-20181004	J5317-08	X	X
RE-122D1-IMP-20181004	J5317-09	X	X

Client Sample ID	Laboratory ID	VOC	SVOC*
RE-122D1-IMP-20181004DI	L J5317-09DL	X	X
RE-108D2-20181004	J5317-10	X	X
RE-108D2-20181004DL	J5317-10DL		X
RE-108D1-20181004	J5317-11	X	X
RE-108D1-20181004DL	J5317-11DL		X
TT-DUP04-20181004	J5317-12	X	X
TT-DUP04-20181004DL	J5317-12DL	X	X
RE-109D3-20181005	J5317-13	X	X
RE-109D3-20181005DL	J5317-13DL		X
RE-109D2-20181005	J5317-14	X	X
RE-109D2-20181005MS	J5317-15MS	X	X
RE-109D2-20181005MSD	J5317-15MSD	X	X
RE-109D1-20181005	J5317-17	X	X
BP-TT-ERB02-20181005	J5317-18	X	X

Suffix Codes: DL - DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J5317 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Differences (%Ds) for the standards run on 10/10/18 at 15:33 on instrument MSVOAX were -29.1% for 1,2-dichloroethane-d4, -30.7% for dibromofluoromethane and -23.4% for toluene-d8, which exceeded the 20% QC limit. Since the compounds were surrogates, no data qualification was necessary.

The Percent Differences (%Ds) for the standards run on 10/11/18 at 15:45 on instrument MSVOAX were -25.4% for 1,2-dichloroethane-d4 and -24.3% for dibromofluoromethane, which exceeded the 20% QC limit. Since the compounds were surrogates, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

Acetone (7.9 ug/L) was detected in equipment blank BP-TT-EB01-20180928. All positive results for acetone in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Acetone (6.70 ug/L) and trichloroethene (0.65 ug/L) were detected in equipment blank BP-TT-ERB02-20181005. All positive results for acetone and trichloroethene in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Trip Blank:

Acetone (3.6 ug/L) was detected in associated trip blank BP-TT-TB03-20181004. All positive results for acetone in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for toluene-d8 (80%) in RE-122D3-20181004MS, 1,2-dichloroethane-d4 (80%), dibromofluoromethane (75%) and toluene-d8 (81%) for RE-109D2-20181005MS and 1,2-dichloroethane-d4 (80%), dibromofluoromethane (75%) and toluene-d8 (82%) for RE-109D2-20181005MSD were below the QC limits. Since the listed samples were laboratory QC samples, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

Three LCS were analyzed by the laboratory for this fraction of the SDG. The Percent Recovery (%R) for MTBE at 125% for VX1010WBS02 exceeded the QC limits. Since there were no positive results for this compound in the associated samples, no data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using samples RE-122-D3-20181004 and RE-109D2-20181005. All criteria were met. No data qualification was not necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE-108D2-20181004 / TT-DUP04-20181004) was identified as part of this SDG. The only calculable RPD was 11% for trichloroethene, which was within the 30% QC limit. The calculated differences for 1,1,2-trichloroethene, 1,1-dichloroethene, carbon tetrachloride, cis-1,2-dichloroethene, chloroform, 1,1,1-trichloroethane and 1,1,2-trichloroethane were all less than the 2X the LOQ. No data qualification was necessary for this set.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for trichloroethene in the initial analysis for SDG sample TT-DUP04-20181004 exceeded the linear calibration range. A dilution analysis was performed for the sample with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis result for trichloroethene in the listed sample to be of preferable data quality to the initial analysis result for the compound and the initial analysis results for all other compounds in the listed sample to be of preferable data quality to the reanalysis results for all other compounds in the listed sample.

It was noted that the laboratory analyzed samples RE-122D1-20181004, RE-122D2-20181004, RE122-D2-IMP-20181004, RE-122D1-IMP-20181004 and RE-108D2-20181004 at a dilution based on what is described by the laboratory as bad matrices.

All forty-four requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 10/16/18 at 17:38 on instrument BNA-E was 28.6% for terphenyl-d14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/17/18 at 05:19 on instrument BNA-E was 66.5% for terphenyl-d14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no detections in the associated equipment and rinsate blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analysis was performed using samples RE-122D3-20181004 and RE-109D2-20181005. All criteria were met. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE-108D2-20181004 / TT-DUP04-20181004) was identified as part of this SDG. The calculable RPD was 2.8%, which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

The Area Count Percent Recoveries (%Rs) for phenanthrene-d10 for samples RE-122D1-IMP-2181004, RE-122D1-IMP-20181004DL and RE-108D1-20181004 were all below the QC limits. Since the target compound is not associated with this ISTD, no data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1,4-dioxane in the initial analyses for SDG samples RE-122D1-20181004, RE-122D2-20181004, RE-122D2-IMP-20181004, RE-122D1-IMP-20181004, RE-108D2-20181004, RE-108D1-20181004, TT-DUP04-20181004 and RE-109D3-20181005 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis results for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 6, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J5393

SAMPLING DATE(S): October 8-9, 2018

SAMPLES:

Client Sample ID	Laboratory ID	<u>VOC</u>	SVOC*
BP-TT-TB04-20181008	J5393-01	X	
RE-126D2-20181008	J5393-02	X	X
RE-126D2-20181008DL	J5393-02DL	X	
TT-DUP05-20181008	J5393-03	X	X
TT-DUP05-20181008DL	J5393-03DL	X	
RE-126D1-20181008	J5393-04	X	X
RE-126D3-20181008	J5393-05	X	X
RE-123D2-20181008	J5393-06	X	X
RE-123D3-20181008	J5393-07	X	X
RE-123D1-20181009	J5393-08	X	X
RE-137-745FT-2018109	J5393-09	X	X
RE-137-745FT-2018109DL	J5393-09DL	X	X
RE137-700FT-20181009	J5393-10	X	X

Client Sample ID	<u>Laboratory ID</u>	<u>VOC</u>	SVOC*
RE137-700FT-20181009DL	J5393-10DL	X	X
RE137-640FT-20181009	J5393-11	X	X
RE137-640FT-20181009DL	J5393-11DL	X	X
WE13-GW-TANK-IDW**	J5393-12	X	

Suffix Codes: DL – DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only
** - Full client sample id WE13-GW-TANK-IDW-10102018

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J5393 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C for all samples except WE13-GW-TANK3-IDW-10102018, which was performed by Gas Chromatography / Mass Spectrometry (GC / MS) per EPA Method 624.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

The laboratory reported that samples RE-126D1-20181008 and RE-137-745FT-2018109 were logged into the lab with a pH of greater than 2. The exact pH for the samples was not reported by the laboratory. Citing the exceedance and professional judgment, the validator has qualified the positive results for these samples as estimated biased low (J-) and the non-detect results as estimated (UJ) with reason code M.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

The Percent Relative Standard Deviations (%RSDs) for the standards analyzed on 10/12/18 on instrument MSVOAN exceeded the 15% QC limit for the following compounds:

bromoform	23.3%
1,3-dichlorobezene	18.1%
1,4-dichlorobenzene	21.6%
1,2-dichlorobenzene	16.1%

The results for these compounds in associated sample WE13-GW-TANK13-IDW-10102018, which were all non-detects, were qualified as estimated (UJ) with reason code C.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Differences (%Ds) for the standards run on 10/11/18 at 15:45 on instrument MSVOAX were -25.4% for 1,2-dichloroethane-d4 and -24.3% for dibromofluoromethane, which exceeded the 20% QC limit. Since the compounds were surrogates, no data qualification was necessary.

The Percent Differences (%Ds) for the standards run on 10/24/18 at 10:38 on instrument MSVOAN exceeded the 20% QC limit for the following compounds:

vinyl chloride	-27.7%
chloroethane	-26.2%
trans-1,3-dichloropropene	-20.1%
bromoform	-25.8%

The results for these compounds in associated sample WE13-GW-TANK13-IDW-10102018, which were all non-detects, were qualified as estimated (UJ) with reason code C.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

Acetone (7.9 ug/L) was detected in equipment blank BP-TT-EB01-20180928. All positive results for acetone in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Acetone (6.70 ug/L) and trichloroethene (0.65 ug/L) were detected in equipment blank BP-TT-ERB02-20181005. All positive results for acetone and trichloroethene in the samples, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

Trip Blank:

There were no detections in associated trip blank BP-TT-TB04-20181008. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recovery (%R) for toluene-d8 in a batch QC sample was below the QC limits. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

Three LCS and one LCS / LCSD set were analyzed by the laboratory for this fraction of the SDG. The Relative Percent Difference (RPD) for 1,2-dichlorobenzene at 23% exceeded the 20% QC limit. The non-detect result for this compound in associated sample WE31-GW-TANK12-IDW-10102018 was qualified as estimated (UJ) with reason code F.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses data were submitted for this fraction of the SDG. All criteria were met. No data qualification was not necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE-126D2-20181008 / TT-DUP05-20181008) was identified as part of this SDG. The only calculable RPD was 0% for trichloroethene, which was within the 30% QC limit. The calculated differences for 1,1,2-trichloroetrifluoromethane, 1,1-dichloroethene, 1,1-dichloroethane, carbon tetrachloride, cis-1,2-dichloroethene, chloroform and tetrachloroethene were all less than the 2X the LOQ. No data qualification was necessary for this set.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples RE-126D2-20181008, TT-DUP05-20181008, RE-137-745FT-2018109, RE137-700FT-20181009 and RE137-640FT-20181009 exceeded the linear calibration range. A dilution analysis was performed for each of the samples with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for trichloroethene in the listed samples to be of preferable data quality to the initial analysis result for the compound and the initial analysis results for all other compounds in the listed samples to be of preferable data quality to the reanalysis results for all other compounds in the listed samples.

All forty-four requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP, with exception of the reported LOD and LOQ for WE13-GW-TANK3-IDW-10102018.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples, except WE13-GW-TANK3-IDW-10102018, were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples, except WE13-GW-TANK3-IDW-10102018, were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for all compounds in sample WE13-GW-TANK3-IDW-10102018 exceeded the PAL limits.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 10/16/18 at 17:38 on instrument BNA-E was 28.6% for terphenyl-d14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 10/17/18 at 05:19 on instrument BNA-E

was 66.5% for terphenyl-d14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no detections in the associated equipment and rinsate blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS / LCSD set was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analysis data was not submitted for this fraction of the SDG. Data qualification based on the absence of QC data was not required. All criteria were met. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE-126D2-20181008 / TT-DUP05-20181008) was identified as part of this SDG. The calculable RPD was 10%, which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

The Area Count Percent Recoveries (%Rs) for acenaphthene-d10, chrysene-d12 and perylene-d12

were all below the QC limits for RE-123D3-20181008. Since the target compound is not associated with these ISTDs, no data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1,4-dioxane in the initial analyses for SDG samples RE-137-745FT-2018109, RE137-700FT-20181009 and RE137-640FT-20181009 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis results for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 25, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J6325

SAMPLING DATE(S): December 4-5, 2018

SAMPLES:

Client Sample ID	Laboratory ID	VOC	<u>SVOC</u> *
TB01-20181204	J6325-01	X	
RE-117D1-20181204	J6325-02	X	X
RE-117D1-20181204RE	J6325-02RE		X
RE-117D2-20181204	J6325-03	X	X
RE-125D2-20181204	J6325-04	X	X
RE-125D2-20181204DL	J6325-04DL	X	X
RE-125D1-20181204	J6325-05	X	X
RE-125D1-20181204DL	J6325-05DL	X	X
RE-125D3-20181204	J6325-06	X	X
RE-125D3-20181204DL	J6325-06DL	X	
RE-131D2-20181205	J6325-07	X	X
RE-131D2-20181205DL	J6325-07DL	X	X
RE-131D1-20181205	J6325-08	X	X

Client Sample ID	Laboratory ID	VOC	SVOC*
RE-131D1-20181205DL	J6325-08DL	X	X
RE-131D1-20181205MS	J6325-09	X	X
RE-131D1-20181205MSD	J6325-10	X	X
RE-131D3-20181205	J6325-11	X	X
RE-131D3-20181205DL	J6325-11DL	X	
RE-120D3-20181205	J6325-12	X	X

Suffix Codes: DL - DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J6324 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were associated equipment blanks for this SDG. No data qualification was necessary.

Trip Blank:

There were no detections in associated trip blank TB01-20181204. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

Three LCS were analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were performed using sample RE-131D1-20181205. The Percent Recovery (%R) for trichloroethene was 140% for the MS sample, which exceeded the QC limits. The positive result for this compound in the parent sample was qualified as estimated (J+) with reason code D.

VIII.) Field Duplicates:

One set of field duplicate samples (RE-120D3-20181205 / DUP01-20181205 (SDG J6324) was identified as part of this SDG. The calculable Relative Percent Difference (RPD) for trichloroethene (4.9%) was within the 30% QC limit and the calculable difference for 1,1,2-trichlorotrifluoroethane was within the 2X LOQ limits, so no data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples RE-125D2-20181204, RE-125D1-20181204, RE-125D3-20181204 and RE-131D1-20181205 and the results for 1,1,2-trichlorotrifluoroethane in the initial analyses for SDG samples RE-131D2-20181205 and RE-131D3-20181205 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for trichloroethene or 1,1,2-trichlorotrifluoroethane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for these compounds in the listed samples to be of preferable data quality to the initial analysis results for this compound in the listed samples and the initial analysis results for all other compounds in the listed samples.

All forty-three requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

The non-detect results for samples RE-117D1-20181204 and RE-117D1-20181204RE were qualified as X based on surrogate recovery criteria.

All other laboratory data were acceptable without qualifications.

MAJOR ISSUES

I.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for all surrogates in both the initial and reanalysis for sample RE-117D1-20181204 were below the QC limits and were at or below 10%. Citing surrogate recovery criteria and professional judgment, the validator has qualified the non-detect results for both samples as X with reason code R.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 12/12/18 at 15:42 on instrument BNA-E was -21.1% for terphenyld-14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

SDG: J6325 4

The Percent Difference (%D) for the standards run on 12/13/18 at 15:16 on instrument BNA-E was -21.0% for terphenyld-14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no equipment blanks associated with this SDG. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target compound, no data qualification was necessary.

Please also see the Major Issues section for this fraction of the SDG.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample RE-131D1-20181205. Since the parent sample result was greater than 4X the spike concentration, the results were not considered meaningful. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE-120D3-20181205 / DUP01-20181205 (SDG J6324) was identified as part of this SDG. The calculable Relative Percent Difference (RPD) was 4.1%, which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

SDG: J6325 5

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1,4-dioxane in the initial analysis for SDG samples RE-125D2-20181204, RE-125D1-20181204, RE-131D2-20181205 and RE-131D1-20181205 exceeded the linear calibration range. A dilution analysis was performed for each of the samples with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis result for this compound in the samples.

The surrogate compound %Rs were below the QC limits and less than 10% for the initial analysis of sample RE-117D1-20181204. The sample was reanalyzed, but not re-extracted due to limited sample volume, with all surrogate %Rs at or below 10%. Citing the similar surrogate performance, holding times and professional judgment, the validator has determined that the initial analysis result for the sample to be of preferable data quality to the reanalysis sample result.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SDG: J6325 6



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 25, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J6324

SAMPLING DATE(S): December 5-6, 2018

SAMPLES:

Client Sample ID	<u>Laboratory ID</u>	VOC	SVOC*
RE-120D2-20181205	J6324-01	X	X
RE-120D2-20181205DL	J6324-01DL	X	X
RE-120D1-20181205	J6324-02	X	X
RE-120D1-20181205DL	J6324-02DL		X
RE-103D3-20181205	J6324-03	X	X
RE-103D3-20181205DL	J6324-03DL	X	
RE-103D2-20181205	J6324-04	X	X
RE-103D2-20181205DL	J6324-04DL	X	
RE-103D1-20181205	J6324-05	X	X
RE-103D1-20181205DL	J6324-05DL	X	X
DUP01-20181205	J6324-06	X	X
RE-109D1-20181206	J6324-07	X	X
RE-109D3-20181206	J6324-08	X	X

Client Sample ID	Laboratory ID	VOC	SVOC*
RE-109D3-20181206DL	J6324-08DL		X
RE-109D2-20181206	J6324-09	X	X
RE-104D1-220181206	J6324-10	X	X
RE-104D1-20181206DL	J6324-10DL		X

Suffix Codes: DL - DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J6324 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Differences (%Ds) for the standards run on 12/11/18 at 10:47 on instrument MOVOAX were 26.7% for bromomethane and 23.8% for acetone, which exceeded the 20% QC limit. The results for these compounds in associated sample DUP01-20181205, which were both non-detect, were qualified as estimated (UJ) with reason code C.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were associated equipment blanks for this SDG. No data qualification was necessary.

Trip Blank:

There were associated trip blanks submitted for this SDG. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS and one LCS / LCSD set were analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this fraction of the SDG. Data qualification based on the absence of QC data was not required. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE-120D3-20181205 (SDG J6325) / DUP01-20181205) was identified as part of this SDG. The calculable Relative Percent Difference (RPD) for trichloroethene (4.9%) was within the 30% QC limit and the calculable difference for 1,1,2-trichlorotrifluoroethane was within the 2X LOQ limits, so no data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples RE-120D2-20181208, RE-120D1-20181205, RE-103D3-20181205, RE-103D2-20181205 and RE103D1-20181205 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for trichloroethene in the listed samples to be of preferable data quality to the initial analysis results for this compound in the listed samples and the initial analysis results for all other compounds in the listed samples to be of preferable data quality to the reanalysis results for all other compounds in the listed samples.

All forty-three requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 12/12/18 at 15:42 on instrument BNA-E was -21.1% for terphenyld-14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

The Percent Difference (%D) for the standards run on 12/13/18 at 15:16 on instrument BNA-E was -21.0% for terphenyld-14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no equipment blanks associated with this SDG. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses data were submitted for this fraction of the SDG. Since the parent sample result was greater than 4X the spike concentration, the results were not considered meaningful. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE-120D3-20181205 (SDG J6325) / DUP01-20181205) was identified as part of this SDG. The calculable Relative Percent Difference (RPD) was 4.1%, which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1,4-dioxane in the initial analysis for SDG samples RE-120D2-20181205, RE-120D1-20181205, RE-103D1-20181205, RE-109D3-20181206 and RE-104D1-20181206 exceeded the linear calibration range. A dilution analysis was performed for each of the samples with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis result for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 24, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J6323

SAMPLING DATE(S): December 6-7, 2018

SAMPLES:

Client Sample ID	Laboratory ID	VOC	SVOC*
RE-104D3-20181206	J6323-01	X	X
RE-104D2-20181206	J6323-02	X	X
RE-122D1-20181206	J6323-03	X	X
RE-122D1-20181206DL	J6323-03DL	X	
RE-122D2-20181206	J6232-04	X	X
RE-122D2-20181206DL	J6323-04DL	X	X
RE-122D3-20181206	J6323-05	X	X
DUP02-20181206	J6323-06	X	X
RE-126D1-20181207	J6323-07	X	X
RE-126D3-20181207	J6323-08	X	X
RE-126D2-2181207	J6323-09	X	X
RE-126D2-20181207DL	J6323-09DL	X	
RE-123D2-20181207	J6323-10	X	X

Suffix Codes: DL - DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

* SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J6323 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were associated equipment blanks for this SDG. No data qualification was necessary.

Trip Blank:

There were associated trip blanks submitted for this SDG. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

Two LCS were analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

Batch MS / MSD analyses data were submitted for this fraction of the SDG. One Percent Recovery (%R) exceeded the QC limits. Data qualification based on batch QC data was not required. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE104D2-20181206 / DUP02-20181206) was identified as part of this SDG. The calculable Relative Percent Differences (RPDs) for cis-1,2-dichloroethene (4.4%) and trichloroethene (3.0%) were within the 30% QC limit and the calculable difference for chloroform was within the 2X LOQ limits, so no data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

SDG: J6323 2

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples RE-122D1-20181206, RE-122D2-20181206 and RE-126D2-20181207 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for trichloroethene in the listed samples to be of preferable data quality to the initial analysis results for this compound in the listed samples and the initial analysis results for all other compounds in the listed samples.

All forty-three requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 12/13/18 at 15:16 on instrument BNA-E was -21.0% for terphenyld-14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no equipment blanks associated with this SDG. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target

SDG: J6323 4

compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS / LCSD set was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this fraction of the SDG. Data qualification based on the absence of QC data was not required. No data qualification was necessary.

VIII.) Field Duplicates:

One set of field duplicate samples (RE104D2-20181206 / DUP02-20181206) was identified as part of this SDG. The calculable Relative Percent Difference (RPD) was 0%, which was within the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The result for 1.4-dioxane in the initial analysis for SDG sample RE-122D2-20181206 exceeded the linear calibration range. A dilution analysis was performed for the sample with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis result for 1,4-dioxane in the sample to be of preferable data quality to the initial analysis result for this compound in the sample.

1,4-dioxane was reported with acceptable LOD and LOO results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SDG: J6323 5



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 24, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J6321

SAMPLING DATE(S): December 7, 2018

SAMPLES:

Client Sample ID	<u>Laboratory ID</u>	VOC	SVOC*
RE123D1-20181207	J6321-01	X	X
RE123D3-20181207	J6321-02	X	X
EB01-20181207	J6321-03	X	X

Suffix Codes: DL – DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J6321 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no detections in associated equipment blank EB01-20181207. No data qualification was necessary.

Trip Blank:

There were associated trip blanks submitted for this SDG. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS / LCSD set was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this fraction of the SDG. Data qualification based on the absence of QC data was not required. No data qualification was necessary.

VIII.) Field Duplicates:

There were no field duplicate samples identified as part of this SDG. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No data qualification was necessary.

All forty-three requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 12/13/18 at 15:16 on instrument BNA-E was -21.0% for terphenyld-14, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

1,4-dioxane (1.7 ug/L) was detected in associated equipment blank EB01-20181207. Since the sample results for this compound were non-detects, no data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS / LCSD set was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this fraction of the SDG. Data qualification based on the absence of QC data was not required. No data qualification was necessary.

VIII.) Field Duplicates:

There were no field duplicate samples identified as part of this SDG. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No data qualification was necessary.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.



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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ

JOB NO./ACCOUNTING CODE: 112G08005-WE13 QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260C and 8270 Modified

VALIDATION GUIDELINES: Draft Tier II Sampling and Analysis Plan, (Field Sampling Plan

and Quality Assurance Project Plan) for Regional Groundwater

Investigation Site 0001, Former Drum Marshalling Area Operable Unit 2 Plan, Naval Weapons Industrial Plant, Bethpage, New York, June 2018, DOD QSM 5.0; July 2013,

DOD Data Validation Guidance, February 2018 and

Professional Judgment

SAMPLE MATRIX: Water

TYPES OF ANALYSES: Volatile Organic Compounds (VOC) and Semivolatile Organic

Compounds (SVOC)*

DATA VALIDATION DATE: March 24, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J6405

SAMPLING DATE(S): December 10-12, 2018

SAMPLES:

Client Sample ID	Laboratory ID	VOC	SVOC*
TT101D-20181212	J6405-01	X	X
TT101D-20181212DL	J6405-01DL		X
TT101D1-20181212	J6405-02	X	X
TT101D1-20181212DL	J6405-02DL	X	X
TT101D2-20181212	J6405-03	X	X
TT101D2-20181212DL	J6405-03DL	X	
TB-20181210	J6405-04	X	
RE105D1-20181210	J6405-05	X	X
RE105D1-20181210DL	J6405-05DL		X
RE105D1-20181210MS	J6405-06	X	X
RE105D1-20181210MSD	J6405-07	X	X
RE105D-2-20181210	J6405-08	X	X
RE105D-2-20181210DL	J6405-08DL	X	X

Client Sample ID	Laboratory ID	VOC	SVOC*
RE108D1-20181210	J6405-09	X	X
RE108D2-20181210	J6405-10	X	X
RE108D2-20181210DL	J6405-10DL	X	
DUP03-20181210	J6405-11	X	X
DUP03-20181210DL	J6405-11DL	X	X
DUP04-20181210	J6405-12	X	X
DUP04-20181210DL	J6405-12DL	X	
EB01-20181211	J6405-13	X	X
EB02-20181211	J6405-14	X	X

Suffix Codes: DL – DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} SVOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J6405 – Organic Chemistry

VOLATILE ORGANICS

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260C.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 12/17/18 at 09:36 on instrument MSVOAX was 22.7%, which exceed the 20% QC limit. The results for these compounds in the associated samples, which were all non-detects, were qualified as estimated (UJ) with reason code C. The associated samples were: TT101D-20181212, TT101D1-20181212, TT101D2-20181212, TB-20181210, RE105D1-20181210, RE108D2-20181210, DUP03-20181210, DUP04-20181210 and EB02-20181211.

IV.) Blanks:

Method Blanks:

There were no detections in the method blanks for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

Acetone (4.20 ug/L) was detected in associated equipment blank EB02-20181211. The positive results for acetone in associated samples RE105D1-20181210 and RE105D2-20181210, which were less than the LOQ, were qualified as undetected (U) with the result being raised to the LOQ with reason code B.

There were no detections in associated equipment blank EB01-20181211. No data qualification was necessary.

Trip Blank:

There were no detections in associated trip blank TB-20181210. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

Four LCS were analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses were performed using sample RE-105D1-20181210. The Percent Recoveries (%Rs) for trichloroethene (149%, 149%) exceeded the QC limits. The positive result for

trichloroethene in the parent sample was qualified as estimated biased high (J+) with reason code D.

VIII.) Field Duplicates:

Two sets of field duplicate samples (RE-105D2-20181210 / DUP03-20181210 and RE-108D2-20181210 / DUP04-20181210) were identified as part of this SDG.

The calculable RPDs for RE-105D2-20181210 / DUP03-20181210 were 0% for 1,1,2-trichlorotrifluoroethane, 3.9% for 1,1-dichloroethene and 0% for trichloroethene, which were within the 30% QC limit. The calculated differences for 1,1-dichloroethane, carbon tetrachloride, cis-1,2-dichloroethene, chloroform, 1,1,2-trichloroethane and tetrachloroethene were all less than the 2X the LOQ. No data qualification was necessary for this set.

The calculable RPDs for RE-108D2-2181210 / DUP04-20181210 were 1.7% for 1,1,2-trichlorotrifluoroethane, 3.6% for 1,1-dichloroethene, 2.7% for ci-1,2-dichloreothene and 0% for trichloroethene, which were within the 30% QC limit. The calculated differences for 1,1-dichoroethane, carbon tetrachloride, chloroform, 1,1,2-trichloroethane and tetrachloroethene were less than the 2X the LOQ. No data qualification was necessary for this set.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for trichloroethene in the initial analyses for SDG samples TT101D1-20181212, TT101D2-20181212, RE105D2-20181210, RE108D2-2181210, DUP03-20181210 and DUP04-20181210 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for trichloroethene. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for trichloroethene in the listed samples to be of preferable data quality to the initial analysis results for this compound in the listed samples and the initial analysis results for all other compounds in the listed samples.

All forty-three requested compounds were reported with acceptable LOD and LOQ results as determined by the SAP.

The validator has noted that the non-detect results for 1,2-dichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

The validator has noted that the non-detect results for 1,1,1trichloroethane in all samples were reported at 0.75 ug/L, which exceeds the PAL limit of 0.50 ug/L.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SEMIVOLATILE ORGANICS (1,4-DIOXANE ONLY)

SUMMARY

I.) General:

The analyses for Semivolatile Organics (1,4-dioxane only) were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8270 Modified.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was not necessary.

Continuing Calibration:

The Percent Difference (%D) for the standards run on 12/16/18 at 13:14 on instrument BNA-E was 20.2% for fluoranthene-d10, which exceeded the 20% QC limit. Since the listed compound was a surrogate compound, no data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no detections in the associated equipment and rinsate blanks. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recoveries (%Rs) for several surrogate compounds were outside the established QC limits for multiple samples. Since the surrogate compounds were not associated with the target compound, no data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this fraction of the SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analysis was performed using sample RE-105D1-20181210. The Relative Percent Difference (RPD) was 50%, which exceeded the 20% QC limit. The positive result for the parent sample was qualified as estimated (J) with reason code F.

VIII.) Field Duplicates:

Two sets of field duplicate samples (RE-105D2-20181210 / DUP03-20181210 and RE-108D2-20181210 / DUP04-20181210) were identified as part of this SDG.

The calculable RPDs were 13% for the first set and 3.4% for the second set, which were within

SDG: J6405 5

the 30% QC limit. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

The results for 1.4-dioxane in the initial analyses for SDG samples TT101D-20181212, TT101D1-20181212, RE105D1-20181210, RE105D2-2181210 and DUP03-20181210 exceeded the linear calibration range. A dilution analysis was performed for each sample with all calibration criteria met for 1,4-dioxane. Citing the CRQL criteria and professional judgment, the validator has determined that the reanalysis results for 1,4-dioxane in the samples to be of preferable data quality to the initial analysis results for this compound in the samples.

1,4-dioxane was reported with acceptable LOD and LOQ results as determined by the SAP.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

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DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ; subcontracted to Eurofins /

Lancaster Laboratories

JOB NO./ACCOUNTING CODE: 112G08005-WE13

QA/QC LEVEL: EPA Stage 4

ANALYTICAL METHOD(S): SW846 Methods 8260CSIM

VALIDATION GUIDELINES: Method criteria, Laboratory limits and Professional Judgment

SAMPLE MATRIX: Groundwater

TYPES OF ANALYSES: Volatile Organic Compounds (VOC)*

DATA VALIDATION DATE: March 21, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J6406

SAMPLING DATE(S): December 12, 2018

SAMPLES:

Client Sample ID	<u>Laboratory ID</u>	VOC
TT101D-20181212	9948251	X
TT101D1-20181212	9948252	X
TT101D2-20181212	9948253	X

Suffix Codes: DL – DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE,

RE = REANALYSIS

^{*} VOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J6406 – Organic Chemistry

VOLATILE ORGANICS (1,4-dioxane only)

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per SW846 Method 8260CSIM.

II.) Overall Assessment of Data:

All laboratory data were acceptable without qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

All Holding Time criteria were met. No data qualification was necessary.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no associated equipment blanks analyzed under this method. No data qualification was necessary.

Field Blank:

There were no associated field blanks for this SDG. No data qualification was necessary.

Trip Blank:

There were no associated trip blanks for this SDG analyzed under this method. No data qualification was necessary.

V.) Surrogate Recoveries:

All Surrogate Recovery criteria were met. No data qualification was necessary.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on the absence of QC data was not required. No data qualification was necessary.

VIII.) Field Duplicates:

There were no field duplicate samples identified as part of this SDG. No data qualification was necessary.

SDG: J6406 2

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No data qualification was necessary.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SDG: J6406 3



2159 Wynnton Pointe, Duluth, GA 30097

(770) 232-0130 (770) 232-5082 (Fax) www.datavalidator.com

DATA VALIDATION SUMMARY REPORT - CHEMISTRY

COMPANY: Tetra Tech, Inc., Norfolk, VA

PROJECT NAME: Basewide Groundwater Investigation, Naval Weapons Industrial

Reserve Plant (NWIRP), Bethpage, NY, N62470-16-D-9008

SITE NAME: CTO-WE13

CONTRACTED LAB: CHEMTECH, Mountainside, NJ; subcontracted to

TestAmerica-Burlington

JOB NO./ACCOUNTING CODE: 112G08005-WE13

QA/QC LEVEL: EPA Stage 4
ANALYTICAL METHOD(S): EPA Method 522

VALIDATION GUIDELINES: Method criteria, Laboratory limits and Professional Judgment

SAMPLE MATRIX: Groundwater

TYPES OF ANALYSES: Volatile Organic Compounds (VOC)*

DATA VALIDATION DATE: March 21, 2019 DATA REVIEWER(S): Amy L. Hogan

SDG NUMBER: J6407

SAMPLING DATE(S): December 12, 2018

SAMPLES:

Client Sample ID	<u>Laboratory ID</u>	VOC
TT101D-20181212	J6407-01	X
TT101D1-20181212	J6407-02	X
TT101D2-20181212	J6407-03	\mathbf{X}

Suffix Codes: DL – DILUTION, MS = MATRIX SPIKE, MSD = MATRIX SPIKE DUPLICATE, RE = REANALYSIS

^{*} VOC analyses reported 1,4-dioxane only

Qualifier	Definition
U	The analyte was not detected and was reported as less than the LOD or as defined by the customer. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result was an estimated value with an unknown bias.
J+	The result was an estimated quantity, but the result may be biased high.
J-	The result was an estimated quantity, but the result may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer. However, the associated numerical value is approximate.
X	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Acceptance or rejection of the data should be decided by the project team (which should include a project chemist), but exclusion of the data is recommended.

DATA VALIDATION SUMMARY

CHEMTECH – SDG: J64076 – Organic Chemistry

VOLATILE ORGANICS (1,4-dioxane only)

SUMMARY

I.) General:

The analyses for Volatile Organics were performed by Gas Chromatography / Mass Spectrometry (GC / MS) per EPA Method 522.

II.) Overall Assessment of Data:

All laboratory data were acceptable with qualifications.

MAJOR ISSUES

There were no Major Issues for this SDG.

MINOR ISSUES

I.) Holding Times:

It was noted on the chain of custody that all samples were preserved using hydrochloric acid as opposed to sodium sulfite, which is required by the method. Citing the method criteria and professional judgment, the validator has qualified the sample results, which were all positive, as estimated (J) with reason code M.

II.) GC/MS Tuning:

All GC/MS Tuning criteria were met. No data qualification was necessary.

III.) Calibration:

Initial Calibration:

All Initial Calibration criteria were met. No data qualification was necessary.

Initial Calibration Verification:

All Initial Calibration Verification criteria were met. No data qualification was necessary.

Continuing Calibration:

All Continuing Calibration criteria were met. No data qualification was necessary.

IV.) Blanks:

Method Blanks:

There were no detections in the method blank for this SDG. No data qualification was necessary.

Equipment and Rinsate Blanks:

There were no associated equipment blanks analyzed under this method. No data qualification was necessary.

Field Blank:

There were no associated field blanks for this SDG. No data qualification was necessary.

Trip Blank:

There were no associated trip blanks for this SDG analyzed under this method. No data qualification was necessary.

V.) Surrogate Recoveries:

The Percent Recovery (%R) for 1,4-dioxane-d8 was 159% for TT101D2-20181212, which exceeded the laboratory QC limits (46-130%). The positive result for this sample was qualified as estimated (J) with reason code R.

VI.) Laboratory Control Samples (LCS):

One LCS was analyzed by the laboratory for this SDG. All criteria were met. No data qualification was necessary.

VII.) Matrix Spike / Matrix Spike Duplicate (MS / MSD):

MS / MSD analyses data were not submitted for this SDG. Data qualification based on the absence of QC data was not required. No data qualification was necessary.

SDG: J6407 2

VIII.) Field Duplicates:

There were no field duplicate samples identified as part of this SDG. No data qualification was necessary.

IX.) TCL Compound Identification:

All TCL Compound Identification criteria were met. No data qualification was necessary.

X.) Internal Standards Performance (ISTD):

All ISTD area count criteria were met. No data qualification was necessary.

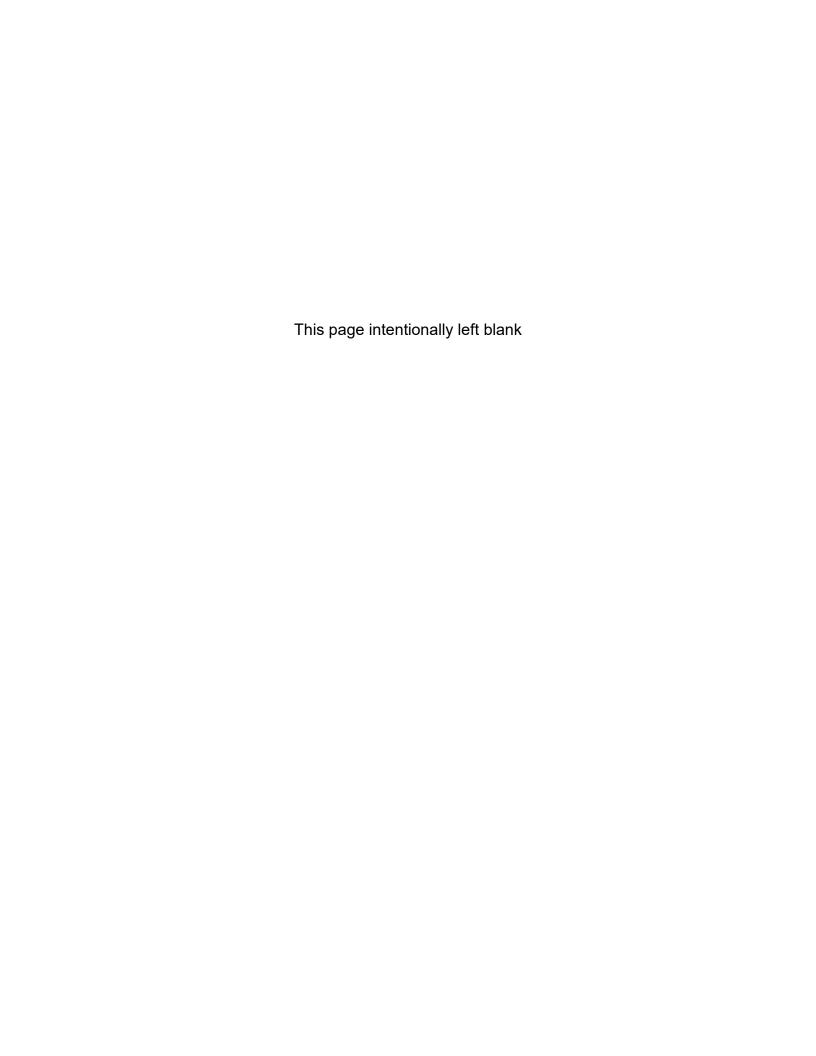
XI.) Compound Quantitation and Reported Contract Required Quantitation Limits (CRQL):

All CRQL criteria were met. No data qualification was necessary.

XII.) Sample Calculation Verification (Stage 4):

No discrepancies were noted in the sample calculation verification process.

SDG: J6407 3



APPENDIX F ARCADIS MONITORED WELLS

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Table 1.

Concentrations of Volatile Organic Compounds
and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7,
Second Quarter 2018
Operable Unit 2 (Groundwater),

Bethpage, New York

	Well:	BPOW 5-1	BPOW 5-2	BPOW 5-3	BPOW 5-3
	Sample ID:	BPOW 5-1	BPOW 5-2	BPOW 5-3	REP050718AD1
CONSTITUENT	Date:	5/7/2018	5/7/2018	5/7/2018	5/7/2018
Units (ug/L)					
Volatile Organic Compounds (VOCs) (1)					
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)		< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone		< 2.0	< 2.0	< 2.0	< 2.0
Acetone		< 5.0	< 5.0	< 5.0	< 5.0
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride		< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene		< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes		< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)		< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene		< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)		< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Toluene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride		< 0.50	< 0.50	< 0.50	< 0.50
Total VOCs (2)		0	0	0	0
1,4-Dioxane ⁽³⁾		0.102 J	< 0.200	1.81	1.94

See last page for Notes and Abbreviations

Table 1.

Concentrations of Volatile Organic Compounds
and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7,
Second Quarter 2018
Operable Unit 2 (Groundwater),

Bethpage, New York

	Well:	BPOW 5-4	BPOW 5-5	BPOW 5-6	BPOW 5-7
	Sample ID:	BPOW 5-4	BPOW 5-5	BPOW 5-6	BPOW 5-7
CONSTITUENT	Date:	5/3/2018	5/4/2018	5/4/2018	5/2/2018
Units (ug/L)					
Volatile Organic Compounds (VOCs) (1)					
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)		< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone		< 2.0	< 2.0	< 2.0	< 2.0
Acetone		< 5.0	< 5.0	< 5.0	< 5.0
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride		< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene		< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes		< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)		< 2.0	< 2.0	< 2.0	< 2.0
p-Xylene		< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)		< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Foluene	 	< 0.50	< 0.50	< 0.50	< 0.50
rans-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
rans-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride	+	< 0.50	< 0.50	< 0.50	< 0.50
Fotal VOCs (2)		0	0	0	0
otal VOCS					

See last page for Notes and Abbreviations

Table 1. Concentrations of Volatile Organic Compounds

and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7,

Second Quarter 2018

Operable Unit 2 (Groundwater),

Bethpage, New York

Notes and Abbreviations:

(1) Samples were analyzed for the TCL VOCs using USEPA Method 524.2.

(2) Total VOCs are rounded to two significant figures.

(3) Samples were analyzed for 1,4-Dioxane using USEPA Method 522.

Results validated following protocols specified in OU2 Groundwater Monitoring Plan

(ARCADIS 2016).

Bold Constituent detected

TCL Target Compound List

REP Blind duplicate sample

VOC Volatile Organic Compound

USEPA United States Environmental Protection Agency

μg/L Micrograms per liter

J Constituent value is estimated

< 0.50 Constituent not detected above its laboratory detection limit

ARCADIS Design & Consultancy for natural and built assets

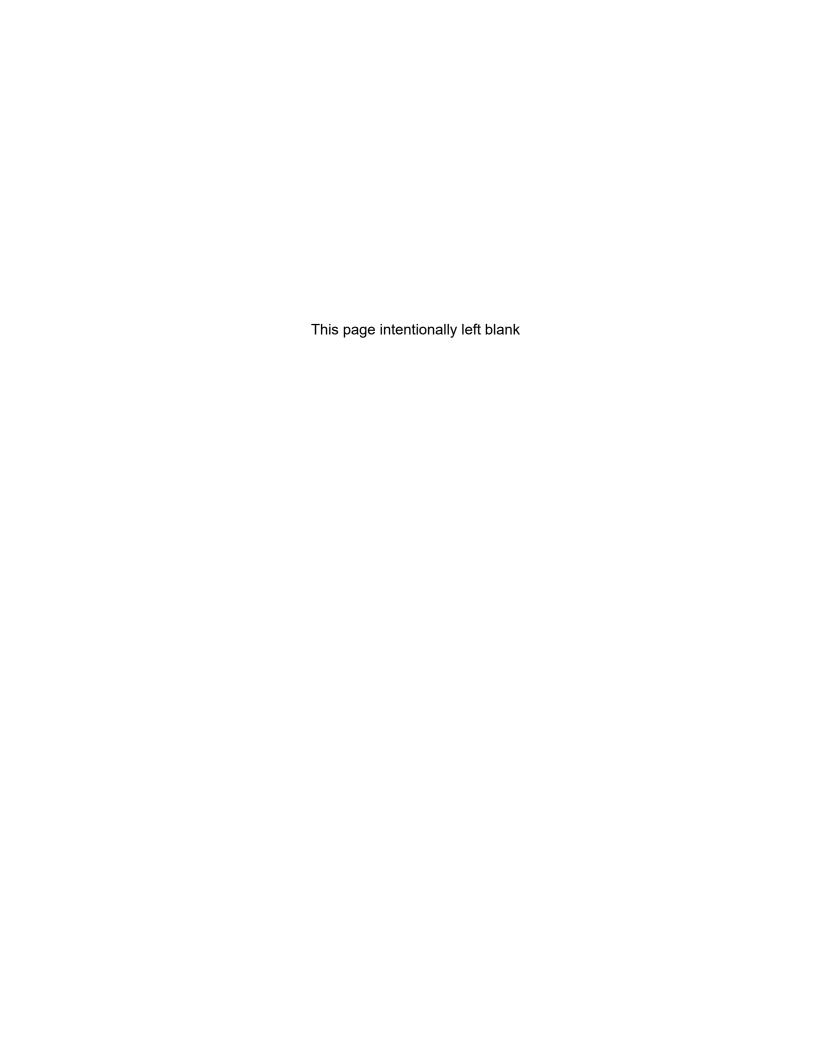


Table 1.

Concentrations of Volatile Organic Compounds and

1,4-Dioxane in Outpost Wells BPOW 6-1 through BPOW 6-6, Second Quarter 2018

Operable Unit 2 (Groundwater),

Bethpage, New York

Well:	BPOW 6-1	BPOW 6-2	BPOW 6-3	BPOW 6-4	BPOW 6-5	BPOW 6-6
Sample ID:	BPOW 6-1	BPOW 6-2	BPOW 6-3	BPOW 6-4	BPOW 6-5	BPOW 6-6
CONSTITUENT Date:	5/10/2018	5/7/2018	5/8/2018	5/8/2018	5/9/2018	5/9/2018
units (ug/L)						
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Acetone	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Toluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total VOCs ⁽²⁾	0	0	0	0	0	0
1,4-Dioxane ⁽³⁾	0.131 J	< 0.200	0.143 J	< 0.200	< 0.200	< 0.200

See last page for Notes and Abbreviations.

Table 1.

ARCADIS Design & Consultancy for natural and built assets **Concentrations of Volatile Organic Compounds and** 1,4-Dioxane in Outpost Wells BPOW 6-1 through BPOW 6-6, Second Quarter 2018 Operable Unit 2 (Groundwater),

Bethpage, New York

Notes and Abbreviations:

Samples were analyzed for the TCL VOCs using USEPA Method 524.2.

(2) Total VOCs are rounded to two significant figures.

(3) Samples were analyzed for 1,4-Dioxane using USEPA Method 522.

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

Bold Constituent detected TCL Target Compound List VOC Volatile Organic Compound

USEPA United States Environmental Protection Agency

μg/L Micrograms per liter

Constituent value is estimated

< 0.50 Constituent not detected above its laboratory detection limit

Table 1.

Concentrations of Volatile Organic Compounds
and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7,
Third Quarter 2018

Operable Unit 2 (Groundwater),

Bethpage, New York

	Well:	BPOW 5-1	BPOW 5-2	BPOW 5-3	BPOW 5-3
	Sample ID:	BPOW 5-1	BPOW 5-2	BPOW 5-3	REP091318AD1
CONSTITUENT	Date:	9/13/2018	9/14/2018	9/13/2018	9/13/2018
Units (ug/L)					
Volatile Organic Compounds (VOCs) (1)					
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)		< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone		< 2.0	< 2.0	< 2.0	< 2.0
Acetone		< 5.0	< 5.0	< 5.0	< 5.0
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride		< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene		< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes		< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)		< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene		< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)		< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Toluene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride		< 0.50	< 0.50	< 0.50	< 0.50
Total VOCs (2)		0	0	0	0
1,4-Dioxane (3)		0.104 J	< 0.200	1.45	0.132 J

See last page for Notes and Abbreviations

Table 1.

Concentrations of Volatile Organic Compounds
and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7,
Third Quarter 2018

Operable Unit 2 (Groundwater),

Bethpage, New York

Bethpage, New York	Well:	BPOW 5-4	BPOW 5-5	BPOW 5-6	BPOW 5-7
	Sample ID:	BPOW 5-4	BPOW 5-5	BPOW 5-6	BPOW 5-7
CONSTITUENT	Date:	9/4/2018	9/12/2018	9/12/2018	9/5/2018
Units (ug/L)					
Volatile Organic Compounds (VOCs) (1)					
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)		< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone		< 2.0	< 2.0	< 2.0	< 2.0
Acetone		< 5.0	< 5.0	< 5.0	< 5.0
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride		< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene		< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes		< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)		< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene		< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)		< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Toluene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride		< 0.50	< 0.50	< 0.50	< 0.50
Total VOCs (2)		0	0	0	0
(2)					
1,4-Dioxane ⁽³⁾		0.985	1.65	0.263	< 0.200

See last page for Notes and Abbreviations

Table 1.

ARCADIS Design & Consultancy for natural and built assets **Concentrations of Volatile Organic Compounds** and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7, **Third Quarter 2018** Operable Unit 2 (Groundwater), Bethpage, New York

Notes and Abbreviations:

Samples were analyzed for the TCL VOCs using USEPA Method 524.2.

(2) Total VOCs are rounded to two significant figures.

(3) Samples were analyzed for 1,4-Dioxane using USEPA Method 522. Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

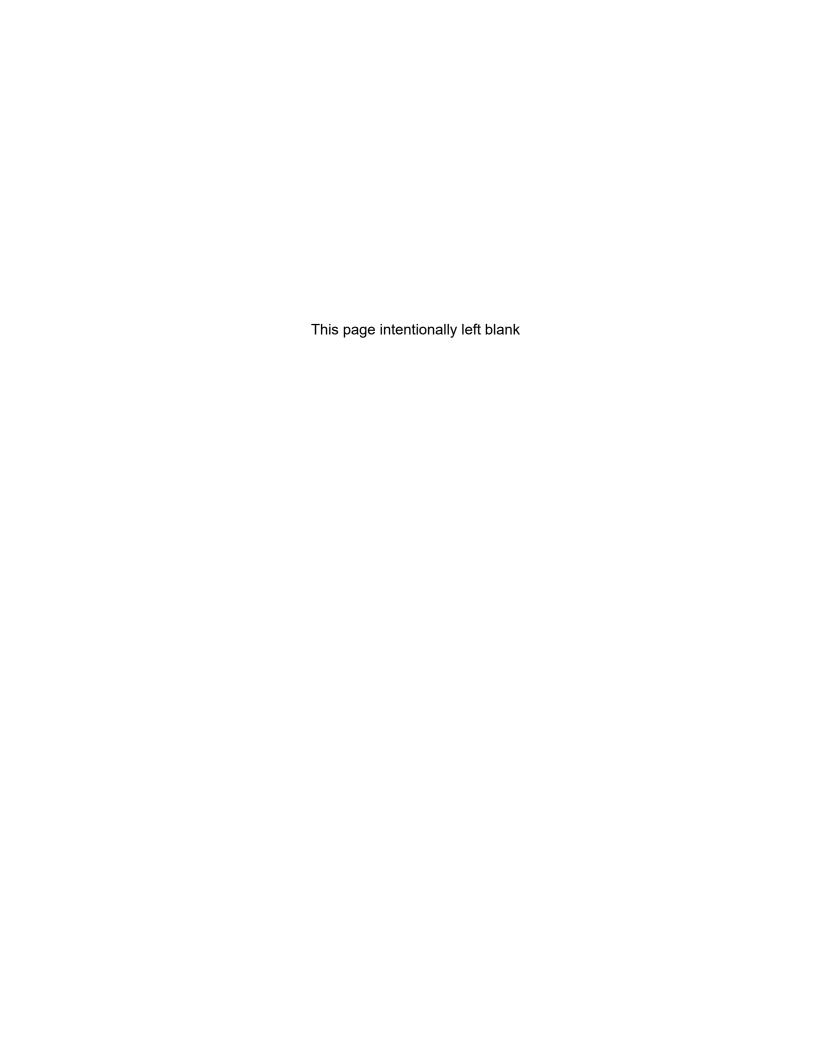
Bold Constituent detected TCL **Target Compound List** REP Blind duplicate sample VOC Volatile Organic Compound

USEPA United States Environmental Protection Agency

Micrograms per liter μg/L

J Constituent value is estimated

Constituent not detected above its laboratory detection limit < 0.50



ARCADIS Design & Consultancy for natural and built assets Table 1. **Concentrations of Volatile Organic Compounds and** 1,4-Dioxane in Outpost Wells BPOW 6-1 through BPOW 6-6, **Third Quarter 2018**

Operable Unit 2 (Groundwater), Bethpage, New York

Well:	BPOW 6-1	BPOW 6-2	BPOW 6-3	BPOW 6-4	BPOW 6-5	BPOW 6-6
Sample ID:	BPOW 6-1	BPOW 6-2	BPOW 6-3	BPOW 6-4	BPOW 6-5	BPOW 6-6
CONSTITUENT Date:	9/11/2018	9/11/2018	9/11/2018	9/11/2018	9/10/2018	9/10/2018
units (ug/L)						
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1-Methyl-2-Pentanone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Acetone	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
p-Xylene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Toluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
rans-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
rans-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
/inyl chloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total VOCs (2)	0	0	0	0	0	0

See last page for Notes and Abbreviations.

Table 1.

ARCADIS Design & Consultancy for natural and built assets **Concentrations of Volatile Organic Compounds and** 1,4-Dioxane in Outpost Wells BPOW 6-1 through BPOW 6-6, **Third Quarter 2018** Operable Unit 2 (Groundwater), Bethpage, New York

Notes and Abbreviations:

Samples were analyzed for the TCL VOCs using USEPA Method 524.2.

(2) Total VOCs are rounded to two significant figures.

(3) Samples were analyzed for 1,4-Dioxane using USEPA Method 522.

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

Constituent detected **Bold** TCL **Target Compound List** VOC Volatile Organic Compound

United States Environmental Protection Agency **USEPA**

Micrograms per liter μg/L

Constituent value is estimated

< 0.50 Constituent not detected above its laboratory detection limit

Table 1.

Concentrations of Volatile Organic Compounds
and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7,
Fourth Quarter 2018
Operable Unit 2 (Groundwater),
Bethpage, New York



	Well:	BPOW 5-1	BPOW 5-2	BPOW 5-3	BPOW 5-4
	Sample ID:		BPOW5-2_20181128	BPOW5-3_20181128	BPOW5-4_20181127
CONSTITUENT	Date:	11/28/2018	11/28/2018	11/28/2018	11/27/2018
Units (ug/L)					
Volatile Organic Compounds (VOCs) (1)					
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)		< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone		< 2.0	< 2.0	< 2.0	< 2.0
Acetone		< 5.0	< 5.0	< 5.0	< 5.0
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride		< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene		< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes		< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)		< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene		< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)		< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Toluene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride		< 0.50	< 0.50	< 0.50	< 0.50
Total VOCs (2)		0	0	0	0
1,4-Dioxane (3)		0.121 J	< 0.200	1.52 J	0.858

See last page for Notes and Abbreviations

Table 1.

Concentrations of Volatile Organic Compounds
and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7,
Fourth Quarter 2018
Operable Unit 2 (Groundwater),
Bethpage, New York



	Well:	BPOW 5-4	BPOW 5-5	BPOW 5-6	BPOW 5-7
	Sample ID:	REP112718LV1	BPOW5-5_20181126	BPOW5-6_20181126	BPOW5-7_20181129
CONSTITUENT	Date:	11/27/2018	11/26/2018	11/26/2018	11/29/2018
Units (ug/L)					
Volatile Organic Compounds (VOCs) (1)					
1,1,1-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane		< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane		< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)		< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone		< 2.0	< 2.0	< 2.0	< 2.0
Acetone		< 5.0	< 5.0	< 5.0	< 5.0
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Bromoform		< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide		< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride		< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene		< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane		< 0.50	< 0.50	< 0.50	< 0.50
Chloroform		< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane		< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene		< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes		< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)		< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene		< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)		< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Toluene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene		< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene		< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride		< 0.50	< 0.50	< 0.50	< 0.50
Total VOCs (2)		0	0	0	0
1,4-Dioxane (3)		< 0.200	1.40	0.311	< 0.200 J

See last page for Notes and Abbreviations

Table 1.

Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Outpost Wells BPOW 5-1 through BPOW 5-7, Fourth Quarter 2018 Operable Unit 2 (Groundwater), Bethpage, New York



Notes and Abbreviations:

(1) Samples were analyzed for the TCL VOCs using USEPA Method 524.2.

(2) Total VOCs are rounded to two significant figures.

Samples were analyzed for 1,4-Dioxane using USEPA Method 522.

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

Bold Constituent detected

TCL Target Compound List

REP Blind duplicate sample

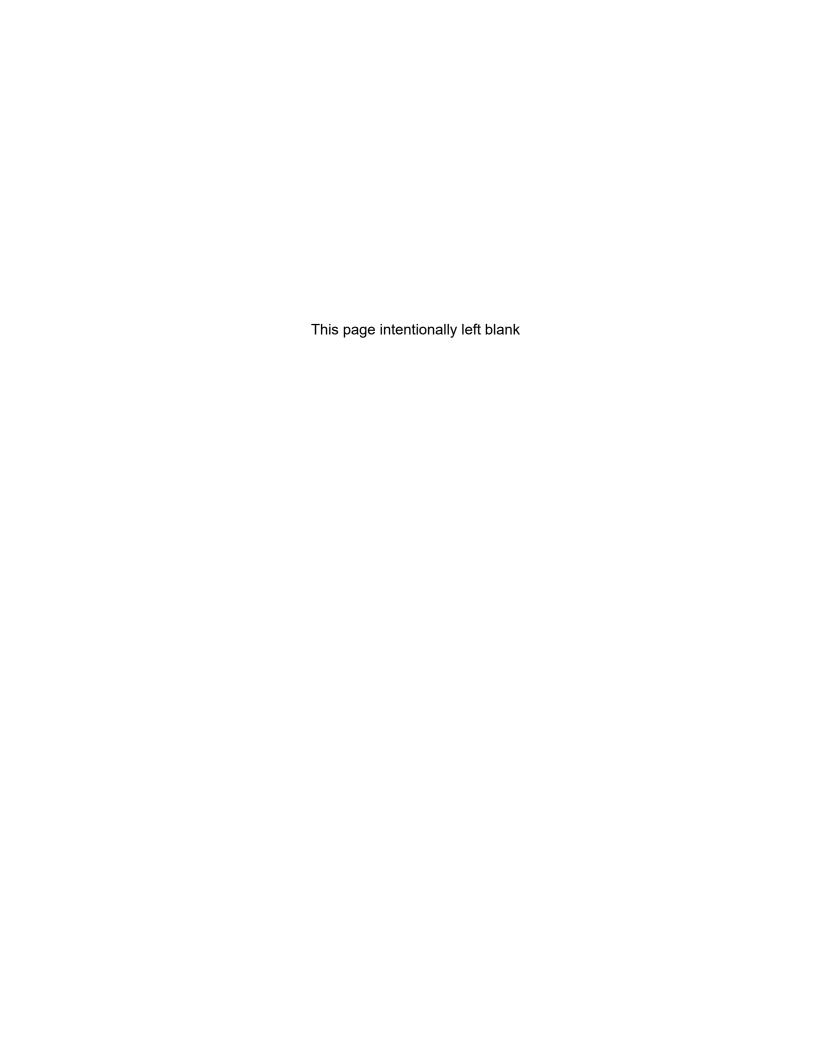
VOC Volatile Organic Compound

USEPA United States Environmental Protection Agency

μg/L Micrograms per liter

J Constituent value is estimated

< . Constituent not detected above its laboratory detection limit







Well		BPOW 6-2	BPOW 6-3	BPOW 6-4	BPOW 6-5	BPOW 6-6
Sampi In		BPOW6-2_20181126	BPOW6-3_20181130	BPOW6-4_20181130	BPOW6-5_20181127	BPOW6-6_20181127
CONSTITUENT Date		11/26/2018	11/30/2018	11/30/2018	11/27/2018	11/27/2018
units (ug/L)						
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-trichloro-1,2,2-trifluoroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone (MEK)	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Acetone	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon Disulfide	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Carbon Tetrachloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorodibromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
m&p-Xylenes	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methyl N-Butyl Ketone (2-Hexanone)	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
o-Xylene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Styrene (Monomer)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Tetrachloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Toluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Vinyl chloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total VOCs (2)	0	0	0	0	0	0
1,4-Dioxane (3)	0.118 J	< 0.200	< 0.200	0.217	< 0.200	< 0.200
Coolean Material Alebanish						

See last page for Notes and Abbreviations.

Table 1.

Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Outpost Wells BPOW 6-1 through BPOW 6-6, Fourth Quarter 2018 Operable Unit 2 (Groundwater), Bethpage, New York



Notes and Abbreviations:

Samples were analyzed for the TCL VOCs using USEPA Method 524.2.

(2) Total VOCs are rounded to two significant figures.

Samples were analyzed for 1,4-Dioxane using USEPA Method 522.

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

BoldConstituent detectedTCLTarget Compound ListVOCVolatile Organic Compound

USEPA United States Environmental Protection Agency

μg/L Micrograms per liter

J Constituent value is estimated

< . Constituent not detected above its laboratory detection limit

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE106D1	RE106D2	RE106D3	RE107D1	RE107D2
Constituent	Sample ID:	RE106D1	RE106D2	RE106D3	RE107D1	RE107D2
(Units in μg/L)	Date:	5/17/2018	5/17/2018	5/18/2018	5/15/2018	5/15/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		1.6	3.9	90	0.62 J	40
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		< 1.0	< 1.0	1.1	< 1.0	0.82 J
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0	< 1.0	0.34 J
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	< 1.0	2.4	< 1.0	3.3
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		1.2	2.4	55	1.1	11
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		10	24	94	12	180 D
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		13	30	240	14	240
1,4-Dioxane (3)		11	13	15	9.5	17

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE107D3	RE109D1	RE109D2	RE109D3	RE114D1
Constituent	Sample ID:	RE107D3	RE109D1	RE109D2	RE109D3	RE114D1
(Units in μg/L)	Date:	5/15/2018	5/24/2018	5/24/2018	5/24/2018	5/21/2018
Volatile Organic Compounds (VOCs) ⁽¹⁾						
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	0.45 J
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		2.8	0.65 J	0.84 J	2.2	22
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	2.0
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	1.3
1,1-Dichloroethene		< 1.0	< 1.0	< 1.0	0.52 J	4.6
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0	2.5
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0	< 1.0	2.6
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	< 1.0	0.27 J	0.72 J	4.5
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		< 1.0	22	28	59	390 D
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		2.8	23	30	63	430
1,4-Dioxane (3)		< 0.24 J	6.1	6	9.3	6.7

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE114D1	RE114D2	RE114D3	RE115D1
Constituent	Sample ID:	REP052118MM1	RE114D2	RE114D3	RE115D1
(Units in μg/L)	Date:	5/21/2018	5/21/2018	5/21/2018	5/23/2018
Volatile Organic Compounds (VOCs) (1)					
1,1,1-Trichloroethane		0.51 J	< 1.0	< 1.0	0.28 J
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		23	10	15	2.9
1,1,2-Trichloroethane		2.1	1.1	< 1.0 U	1.2
1,1-Dichloroethane		1.3	0.60 J	< 1.0 U	< 1.0 U
1,1-Dichloroethene		4.2	1.4	1.2	2.4
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		2.3	0.35 J	0.37 J	< 1.0 U
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		2.6	0.59 J	< 1.0	2.6
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		4.3	0.94 J	0.94 J	1.7
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		360 D	82 J	48	71
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		400	97	66	82
1,4-Dioxane (3)		6.6	4.7 J	3.2	6.7

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE115D2	RE116D1	RE118D1	RE119D1	RE121D1
Constituent	Sample ID:	RE115D2	RE116D1	RE118D1	RE119D1	RE121D1
(Units in μg/L)	Date:	5/23/2018	6/1/2018	5/16/2018	5/16/2018	5/23/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		1.1	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		28	< 5.0	< 5.0	< 5.0	7.4
1,1,2-Trichloroethane		1.5	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		1.3	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		11	< 1.0	< 1.0	< 1.0	1.8
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		1.7	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		1.2	< 1.0	< 1.0	< 1.0	0.33 J
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		3.0	< 1.0	< 1.0	< 1.0	0.98 J
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	0.54	0.31 J	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		320 D	< 1.0	< 1.0	< 1.0	27
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		370	0.54	0.31	0	38
1,4-Dioxane (3)		6.5	4.7	< 0.24	< 0.24	10

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE121D2	RE121D2	RE124D1	RE124D2
Constituent	Sample ID:	RE121D2	REP052318DC1	RE124D1	RE124D2
(Units in μg/L)	Date:	5/23/2018	5/23/2018	5/24/2018	5/24/2018
Volatile Organic Compounds (VOCs) (1)					
1,1,1-Trichloroethane		< 1.0	0.39 J	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		16	16	62	< 5.0
1,1,2-Trichloroethane		1.2	1.4	< 1.0	< 1.0
1,1-Dichloroethane		0.78 J	0.75 J	< 1.0	< 1.0
1,1-Dichloroethene		4.0 J	4.2 J	0.86	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		3.4	3.4	< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		1.8	1.8	< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		4.1	4.2	< 1.0	< 1.0
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		<5.0	<5.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		640 D	650 D	3.2	< 1.0
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		670	680	66	0
1,4-Dioxane (3)		7.1	7.1	3.1	< 0.24

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE127D1	RE127D2	RE128D1	RE128D2	RE129D1
Constituent	Sample ID:	RE127D1	RE127D2	RE128D1	RE128D2	RE129D1
(Units in μg/L)	Date:	5/22/2018	5/22/2018	5/18/2018	5/17/2018	5/16/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triffroethane		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
·		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Hexanone						
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		0	0	0	0	0
1,4-Dioxane (3)		< 0.24	< 0.24	< 0.24	0.092 J	< 0.24

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE129D2	RE130D1	RE130D2	RE133D1	RE133D2
Constituent	Sample ID:	RE129D2	RE130D1	RE130D2	RE133D1	RE133D2
(Units in μg/L)	Date:	5/16/2018	5/15/2018	5/21/2018	5/22/2018	5/22/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		0	0	0	0	0
1,4-Dioxane ⁽³⁾		< 0.24	< 0.10 J	< 0.24	0.12 J	< 0.24

Table 1

Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



Notes and Abbreviations:

Samples were analyzed for the TCL VOCs sing USEPA Method 8260C.

(2) Total VOCs are rounded to two significant figures.

Samples were analyzed for 1,4-Dioxane using USEPA Method 8270D SIM

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

Bold Constituent detected

D Concentration is based on a diluted sample analysis

J Constituent value is estimated
REP Blind Duplicate Sample
SIM Selected Ion Monitoring
TCL Target Compound List

USEPA United States Environmental Protection Agency

VOC Volatile Organic Compound

μg/L Micrograms per liter

< 0.50 Compound not detected above its laboratory detection limit





	Well:	TT-102D	TT-102D2
Constituent	Sample ID:	TT-102D	TT-102D2
(units in μg/L)	Date:	5/29/2018	5/29/2018
Volatile Organic Compounds (VOCs) (1)			
1,1,1-Trichloroethane		< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifluroethane		< 1.0	< 1.0
1,1,2-Trichloroethane		< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0
1,1-Dichloroethene		< 1.0 J	< 1.0 J
1,2-Dichloroethane		< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0
2-Butanone (MEK)		< 5.0	< 5.0
2-Hexanone		< 5.0 J	< 5.0 J
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0
Acetone		< 5.0	< 5.0
Benzene		< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0
Bromoform		< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0
Carbon Disulfide		< 1.0	< 1.0
Carbon tetrachloride		< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0
Chloroform		< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	< 1.0
cis-1,3-dichloropropene		< 1.0	< 1.0
Dibromochloromethane		< 2.0	< 2.0
Ethylbenzene		< 1.0	< 1.0
Methylene Chloride		< 0.50	< 0.50
Styrene		< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0
Toluene		< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0
Trichloroethylene		< 1.0	< 1.0
Vinyl Chloride		< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0
Xylenes - m,p		< 2.0	< 2.0
Total VOCs (2)		0	0
1,4-Dioxane (3)		< 0.25	0.61
1,7 DIOXAIIC		. 0.20	0.01

Table 1

Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells TT-102D and TT-102D2 Second Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



Notes and Abbreviations on next page.

Notes and Abbreviations:

(1) Samples were analyzed for the TCL VOCs using USEPA Method 8260C

(2) Total VOCs are rounded to two significant figures.

(3) Samples were analyzed for 1,4-Dioxane using USEPA Method 8270D SIM

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

BoldConstituent detectedSIMSelected Ion MonitoringTCLTarget Compound List

USEPA United States Environmental Protection Agency

VOC Volatile Organic Compound J Constituent value is estimated

μg/L Micrograms per liter

< . Compound not detected above its laboratory detection limit

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE106D1	RE106D2	RE106D3	RE106D3	RE107D1
Constituent	Sample ID:	RE106D1	RE106D2	RE106D3	REP121218DC1	RE107D1
(Units in μg/L)	Date:	12/12/2018	12/12/2018	12/12/2018	12/12/2018	12/12/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		1.6	7.2	70	65	0.46 J
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	0.62J	3.6	3.4	< 1.0
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		1.4	4.8	69	64	1.3
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		12	33	99	95	13
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		15	46	240	220	15
1,4-Dioxane ⁽³⁾		11	14	14	13	11

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE107D2	RE107D3	RE109D1	RE109D2	RE109D3
Constituent	Sample ID:	RE107D2	RE107D3	RE109D1	RE109D2	RE109D3
(Units in μg/L)	Date:	12/6/2018	12/6/2018	12/6/2018	12/19/2018	12/19/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		-10	-110	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0 < 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triffroethane		16				
1,1,2-trichloro-1,2,2-trilloetriane			4.0	0.69 J	1.5	2.4
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
·		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		0.60 J	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	0.34 J
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0	0.67 J
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		2.8	< 1.0	< 1.0	0.40 J	0.78 J
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		9.4	0.59 J	0.54 J	< 1.0 U	0.52 J
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		190 D	< 1.0	30	44	71
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		220	5	31	46	76
1,4-Dioxane (3)		17	0.13 J	6.4	7.1	7.6
1,7-DIOXAIIC		- 17	0.13 0	V. -1		7.0

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE114D1	RE114D1	RE114D2	RE114D3	RE115D1
Constituent	Sample ID:	RE114D1	REP120418	RE114D2	RE114D3	RE115D1
(Units in μg/L)	Date:		PP1 12/4/2018	12/4/2018	12/4/2018	12/4/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		0.36 J	0.53 J	< 1.0 U	< 1.0 U	0.26 J
1,1,2,2-Tetrachloroethane		< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
1,1,2-trichloro-1,2,2-triflroethane		16 J	25 J	9.6	16	5.1
1,1,2-Trichloroethane		1.3	1.4	< 1.0 U	< 1.0 U	0.49 J
1,1-Dichloroethane		1.2	1.6	0.78 J	< 1.0 U	< 1.0 U
1,1-Dichloroethene		5.0	6.3	1.3	1.3	3.6
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		2.2	3.0	0.34 J	0.26 J	0.46 J
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		2.5	3.2	< 1.0 U	< 1.0 U	2.7
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 U
cis-1,2-dichloroethene		4.6	4.4	1.2	1.1	1.8
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		360 D	390 D	87	48	110
Vinyl Chloride		1.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		390	430	100	67	120

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE115D2	RE116D1	RE118D1	RE119D1	RE121D1
Constituent	Sample ID:	RE115D2	RE116D1	RE118D1	RE119D1	RE121D1
(Units in μg/L)	Date:	12/3/2018	12/3/2018	12/14/2018	12/14/2018	11/29/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		0.84 J	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		24	< 5.0	< 5.0	< 5.0	8.1
1,1,2-Trichloroethane		0.95 J	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		1.2	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		15	< 1.0	< 1.0	< 1.0	1.8
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		1.6	< 1.0	< 1.0	< 1.0 U	0.36 J
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		1.0	< 1.0	< 1.0	< 1.0 U	0.48 J
Chloromethane		< 1.0 U	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		3.3	< 1.0	< 1.0	< 1.0 U	1.2
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		400 D	< 1.0	< 1.0	< 1.0 U	37
Vinyl Chloride		0.29 J	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		450	0	0	0	49

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



		Well:	RE121D2	RE124D1	RE124D2	RE127D1	RE127D2
Volatile Organic Compounds (VOCs)	Constituent	Sample ID:	RE121D2	RE124D1	RE124D2	RE127D1	RE127D2
1,1,1-Trickloroethane < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0<	(Units in μg/L)	Date:	12/18/2018	12/13/2018	12/13/2018	12/10/2018	12/10/2018
1,1,2,2-Tetrachioroethane <1.0	Volatile Organic Compounds (VOCs) (1)						
1,1,2-trichloro-1,2,2-triffroethane 10 57 < 5.0 < 5.0 < 5.0 1,1,2-Trichloroethane < 1.0	1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane < 1.0	1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane < 1.0	1,1,2-trichloro-1,2,2-triflroethane		10	57	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene 3.3 1.1 < 1.0 < 1.0 < 1.0 1,2-Dichloroethane < 1.0	1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane < 1.0	1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane < 1.0	1,1-Dichloroethene		3.3	1.1	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane < 1.0							
2-Butanone (MEK) < 10							
2-Hexanone < 5.0	· ·		-	-		-	
4-methyl-2-pentanone (MIK) < 5.0			-		-	-	
Acetone < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10							
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Bromodichloromethane < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 </td <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td></td>			-	-		-	
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Ethylbenzene < 1.0							
Methylene Chloride < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 2.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 <td>Fthylbenzene</td> <td></td> <td>-</td> <td>-</td> <td>_</td> <td></td> <td></td>	Fthylbenzene		-	-	_		
Styrene < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 <							
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trans-1,2-dichloroethene < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1							
trans-1,3-dichloropropene < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 <							
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Xylene-o < 1.0 < 1.0 < 1.0 < 1.0 < 1.0 Xylenes - m,p < 1.0	,						
Xylenes - m,p < 1.0 < 1.0 < 1.0 < 1.0 < 1.0	•						
	,						
1,4-Dioxane (3) 5.0 3.1 < 0.24 < 0.24 < 0.24							< 0.24

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE128D1	RE128D2	RE129D1	RE129D2	RE130D1
Constituent	Sample ID:	RE128D1	RE128D2	RE129D1	RE129D2	RE130D1
(Units in μg/L)	Date:	12/10/2018	12/10/2018	12/5/2018	12/5/2018	12/5/2018
Volatile Organic Compounds (VOCs) (1)						
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon tetrachloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs (2)		0	0	0	0	0
1,4-Dioxane ⁽³⁾		< 0.24	0.12 J	< 0.24	< 0.24	< 0.14 J

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



	Well:	RE130D2	RE133D1	RE133D2
Constituent	Sample ID:	RE130D2	RE133D1	RE133D2
(Units in μg/L)	Date:	12/5/2018	12/3/2018	12/3/2018
Volatile Organic Compounds (VOCs) (1)				
1,1,1-Trichloroethane		< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0	< 1.0
1,1,2-trichloro-1,2,2-triflroethane		< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane		< 1.0	< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0	< 1.0
1,1-Dichloroethene		< 1.0	< 1.0	< 1.0
1,2-Dichloroethane		< 1.0	< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0	< 1.0
2-Butanone (MEK)		< 10	< 10	< 10
2-Hexanone		< 5.0	< 5.0	< 5.0
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0	< 5.0
Acetone		< 10	< 10	< 10
Benzene		< 0.50	< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0	< 1.0
Bromoform		< 1.0	< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0	< 2.0
Carbon Disulfide		< 2.0	< 2.0	< 2.0
Carbon tetrachloride		< 1.0	< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0	< 1.0
Chloroform		< 1.0	< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	< 1.0	< 1.0
cis-1,3-dichloropropene		< 1.0	< 1.0	< 1.0
Dibromochloromethane		< 1.0	< 1.0	< 1.0
Ethylbenzene		< 1.0	< 1.0	< 1.0
Methylene Chloride		< 2.0	< 2.0	< 2.0
Styrene		< 1.0	< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0	< 1.0
Toluene		< 1.0	< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0	< 1.0
Trichloroethylene		< 1.0	< 1.0	< 1.0
Vinyl Chloride		< 1.0	< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0	< 1.0
Xylenes - m,p		< 1.0	< 1.0	< 1.0
Total VOCs (2)		0	0	0
1,4-Dioxane (3)		0.12 J	0.18 J	< 0.24
'.				

Table 1

Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells Installed by the Navy Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



Notes and Abbreviations:

(1) Samples were analyzed for the TCL VOCs sing USEPA Method 8260C.

(2) Total VOCs are rounded to two significant figures.

(3) Samples were analyzed for 1,4-Dioxane using USEPA Method 8270D SIM

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

Bold Constituent detected

D Concentration is based on a diluted sample analysis

J Constituent value is estimated
REP Blind Duplicate Sample
SIM Selected Ion Monitoring
TCL Target Compound List

USEPA United States Environmental Protection Agency

VOC Volatile Organic Compound

μg/L Micrograms per liter

< 0.50 Compound not detected above its laboratory detection limit

Table 1
Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells TT-102D and TT-102D2
Fourth Quarter 2018, Operable Unit 2 (Groundwater)
Bethpage, New York.



	Well:	TT-102D	TT-102D2
Constituent	Sample ID:	TT-102D	TT-102D2
(units in μg/L)	Date:	12/7/2018	12/7/2018
Volatile Organic Compounds (VOCs) (1)			
1,1,1-Trichloroethane		< 1.0	< 1.0
1,1,2,2-Tetrachloroethane		< 1.0	< 1.0
1,1,2-trichloro-1,2,2-trifluroethane		< 1.0	< 1.0
1,1,2-Trichloroethane		< 1.0	< 1.0
1,1-Dichloroethane		< 1.0	< 1.0
1,1-Dichloroethene		< 1.0 J	< 1.0 J
1,2-Dichloroethane		< 1.0	< 1.0
1,2-Dichloropropane		< 1.0	< 1.0
2-Butanone (MEK)		< 5.0	< 5.0
2-Hexanone		< 5.0 J	< 5.0 J
4-methyl-2-pentanone (MIK)		< 5.0	< 5.0
Acetone		< 5.0	< 5.0
Benzene		< 0.50	< 0.50
Bromodichloromethane		< 1.0	< 1.0
Bromoform		< 1.0	< 1.0
Bromomethane		< 2.0	< 2.0
Carbon Disulfide		< 1.0	< 1.0
Carbon tetrachloride		< 1.0	< 1.0
Chlorobenzene		< 1.0	< 1.0
Chloroethane		< 1.0	< 1.0
Chloroform		< 1.0	< 1.0
Chloromethane		< 1.0	< 1.0
cis-1,2-dichloroethene		< 1.0	< 1.0
cis-1,3-dichloropropene		< 1.0	< 1.0
Dibromochloromethane		< 2.0	< 2.0
Ethylbenzene		< 1.0	< 1.0
Methylene Chloride		< 0.50	< 0.50
Styrene		< 1.0	< 1.0
Tetrachloroethene		< 1.0	< 1.0
Toluene		< 1.0	< 1.0
trans-1,2-dichloroethene		< 1.0	< 1.0
trans-1,3-dichloropropene		< 1.0	< 1.0
Trichloroethylene		< 1.0	< 1.0
Vinyl Chloride		< 1.0	< 1.0
Xylene-o		< 1.0	< 1.0
Xylenes - m,p		< 2.0	< 2.0
Total VOCs (2)		0	0
4.4 Diayona (3)		0.40	- 0.05
1,4-Dioxane (3)		0.46	< 0.25

Table 1

Concentrations of Volatile Organic Compounds and 1,4-Dioxane in Monitoring Wells TT-102D and TT-102D2 Fourth Quarter 2018, Operable Unit 2 (Groundwater) Bethpage, New York.



Notes and Abbreviations:

(1) Samples were analyzed for the TCL VOCs using USEPA Method 524.2

(2) Total VOCs are rounded to two significant figures.

(3) Samples were analyzed for 1,4-Dioxane using USEPA Method 8270D SIM

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2016).

BoldConstituent detectedSIMSelected Ion MonitoringTCLTarget Compound List

USEPA United States Environmental Protection Agency

VOC Volatile Organic Compound
J Constituent value is estimated

μg/L Micrograms per liter

< . Compound not detected above its laboratory detection limit