2016 OU2 GROUNDWATER INVESTIGATION DATA SUMMARY REPORT VPB171

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP)
SITE 1 OU2
BETHPAGE, NY

Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Atlantic
9324 Virginia Avenue
Building Z-144
Norfolk, Virginia 23511

November 2017

DATA SUMMARY REPORT
VPB171

NWIRP
SITE 1 OU2
BETHPAGE, NY

Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Atlantic
9324 Virginia Avenue
Building Z-144
Norfolk, Virginia 23511

Prepared by:

Resolution Consultants
A Joint Venture of AECOM & EnSafe
1500 Wells Fargo Building
440 Monticello Avenue
Norfolk, Virginia 23510

Contract Number: N62470-11-D-8013
CTO WE15

November 2017

Brian Caldwell

Brian Caldwell
Contract Task Order Manager

Table of Contents

LIST OF ACRONYMS AND ABBREVIATIONS III
1.0 PROJECT BACKGROUND 1
1.1 SCOPE AND OBJECTIVES 1
1.2 SITE HISTORY 1
1.3 GEOLOGY AND HYDROGEOLOGY 2
2.0 FIELD PROGRAM 4
2.1 VERTICAL PROFILE BORINGS 4
2.1.1 Drilling 4
2.1.2 Sampling 4
2.1.3 Geophysics 5
2.2 DECONTAMINATION AND INVESTIGATION DERIVED WASTE (IDW) 5
2.3 SURVEYING 6
3.0 REFERENCES 7

Tables

Table 1 Vertical Profile Boring Summary

Figures

Figure 1 General Location Map
Figure 2 VPB171 Location Map

Appendices

Appendix A VPB171

- Section 1 VPB171 Boring and Geophysical Logs
- Section 2 VPB171 Gamma, SP,SPR and PCE/TCE Plot
- Section 3 VPB171 Groundwater Sample Log Sheets
- Section 4 VPB171 Grain Size (Sieve) Analysis
- Section 5 VPB171 Analytical Data Validation
- Section 6 VPB171 Analytical Data Table
- Section 7 VPB171 Survey

Appendix B Geologic Cross Sections derived from Environmental Sequence Stratigraphy (ESS)

List of Acronyms and Abbreviations

AOC	Area of Concern
bgs	below ground surface
COR	Continuously Operating Reference
CSM	Conceptual Site Model
DoD	Department of Defense
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency, United States
ESS	Environmental Sequence Stratigraphy
ft	feet
GOCO	Government-Owned Contractor-Operated
GPS	Global Positioning System
IDW	Investigation Derived Waste
IR	Installation Restoration
Katahdin	Katahdin Analytical Services
NAD	North American Datum
NAVD	North American Vertical Datum
NAVFAC	Naval Facilities Engineering Command
NG	Northrop Grumman
NWIRP	Naval Weapons Industrial Reserve Plant
NYSDEC	New York State Department of Environmental Conservation
OU	Operable Unit
PCBs	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PID	Photoionization Detector
POTW	Publicly Owned Treatment Works
PPE	Personal Protective Equipment
SAP	Sampling and Analysis Plan
SP	Spontaneous Potential
SPR	Single-Point Resistivity
SVOC	Semivolatile Organic Compounds
TCE	Trichloroethene
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure

TOC	Total Organic Carbon
UFP	United Federal Programs
VOC	Volatile Organic Compounds
VPB	Vertical Profile Boring

1.0 PROJECT BACKGROUND

Resolution Consultants has prepared this Data Summary Report for the Naval Facilities Engineering Command (NAVFAC), Mid-Atlantic under contract task order WE80 Contract N62470-11-D-8013. This report describes vertical profile boring (VPB) installation activities (specifically at the VPB171 location) in 2016 for the Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage Operable Unit (OU) 2 Site 1 offsite plume. NWIRP Bethpage is located in east-central Nassau County, Long Island, New York, approximately 30 miles east of New York City (Figure 1).

1.1 Scope and Objectives

This data summary report provides information on the installation of VPB171. The purpose of the VPB171 investigation was to characterize the local aquifer and assess the future locations and design of the RE108 Hotspot recovery well(s). VPB locations within the general vicinity of VPB171 are shown in Figure 2. VPB171 was completed to 770 feet (ft) below ground surface (bgs).

Field tasks were conducted in 2016 in accordance with the *United Federal Programs Sampling and Analysis Plan (UFP SAP) Site 1 OU2 Offsite TCE Groundwater Plume Investigation*, NWIRP Bethpage, New York (Resolution Consultants, 2013a) and the *UFP SAP Addendum Installation of Vertical Profile Borings and Monitoring Wells* (Resolution Consultants, 2013b). The field investigation included completing one vertical profile boring, collecting groundwater grab samples, geophysical logging, and surveying.

Documentation of these activities is included in Appendix A of this report.

1.2 Site History

NWIRP Bethpage is in the Hamlet of Bethpage, Town of Oyster Bay, New York. Since its inception in 1941, the plant's primary mission was the research, prototyping, testing, design, engineering, fabrication, and primary assembly of military aircraft. The facilities at NWIRP included four plants used for assembly and prototype testing, a group of quality control laboratories, two warehouse complexes (north and south), a salvage storage area, water recharge basins, the Industrial Wastewater Treatment Plant, and several smaller support buildings.

The Navy's property originally totaled 109.5 acres and was formerly a Government-Owned Contractor-Operated (GOCO) facility that was operated by Northrop Grumman (NG) until September 1998. Prior to 2002, the NWIRP property was bordered on the north, west, and south

by current or former NG facilities, and on the east by a residential neighborhood. By March 2008, approximately 100 acres of NWIRP property were transferred to Nassau County in three separate actions. The remaining 9 acres and access easements were retained by the Navy to continue remedial efforts at Installation Restoration (IR) Site 1 – Former Drum Marshalling Area and Site 4 – Former Underground Storage Tanks (Area of Concern [AOC] 22). A parcel of land connecting the two sites was also retained. Currently, the 9-acre parcel of NWIRP is bordered on the east by a residential neighborhood and on the north, south, and west by Steel Equities; however, a small portion near Sites 2 and 3 is still owned by Nassau County. Access to the NWIRP is from South Oyster Bay Road.

1.3 Geology and Hydrogeology

Overburden at the site consists of well over 1,000 ft of unconsolidated deposits overlying crystalline bedrock of the Hartland Formation. Overburden is divided into four geologic units: the upper Pleistocene deposits, the Magothy Formation, the clay member of the Raritan Formation ("Raritan Clay") and the Lloyd Sand member of the Raritan Formation ("Lloyd Sand") (Geraghty and Miller, 1994).

The upper Pleistocene ranges in thickness from approximately 50 to 100 ft and consists of till and outwash deposits of medium to coarse sand and gravel with lenses of fine sand, silt and clay (Smolensky and Feldman, 1988); these deposits form the Upper Glacial Aquifer. Directly underlying this unit is the Magothy Formation with a thickness of 650 to 900 ft that extends to a depth of 700 to 1,000 ft bgs, as observed at the former NWIRP and extending southeast to areas south of Southern State Parkway. Locally at VPB171, the boring did not reach the bottom of the Magothy (top of the Raritan Clay). The Magothy is characterized by fine to medium sands and silts interbedded with zones of clays, silty sands and sandy clays. Sand and gravel lenses are found in some areas between depths of 600 and 880 ft bgs; these deposits form the main producing zones of the Magothy Aquifer

Investigations performed by the Navy since 2012 indicate that the bottom of the Magothy (top of the Raritan Clay) can extend to depths of 700 to greater than 1,000 ft bgs. The top of the Raritan Clay deepens to the south-southeast, as evidenced by clay depths of 1,000 ft bgs (or more) in borings installed offsite. The Raritan Clay Unit is of continental origin and consists of clay, silty clay, clayey silt, and fine silty sand. This member acts as a confining layer over the Lloyd Sand Unit. The Lloyd Sand Unit is also of continental origin, having been deposited in a large fresh water lacustrine

environment. The material consists of fine to coarse-grained sands, gravel, inter-bedded clay, and silty sand. These deposits form the Lloyd Aquifer.

The Upper Glacial Aquifer and the Magothy Aquifer comprise the aquifers of interest at the NWIRP. Regionally, these formations are generally considered to form a common, interconnected aquifer as the coarse nature of each unit near their contact and the lack of any regionally confining clay unit allows for the unrestricted flow of groundwater between the formations.

The Magothy Aquifer is the major source of public water in Nassau County. The most productive water bearing zones are the discontinuous lenses of sand and gravel that occur within the siltier matrix. The major water-bearing zones are coarse sand and gravel lenses located in the lower portion of the Magothy. The Magothy Aquifer is commonly regarded to function overall as an unconfined aquifer at shallow depths and a confined aquifer at deeper depths. The drilling program at the NWIRP has revealed that clay zones beneath the facility are common but laterally discontinuous. No confining clay units of facility-wide extent have been encountered.

Groundwater is encountered at a depth of approximately 50 ft bgs at the facility. Historically, because of pumping and recharge at the facility, groundwater depths have been measured to range from 40 to 60 ft bgs. The groundwater flow in the area is to the south-southeast.

Resolution Consultants reviewed the geologic data and regional literature and developed four representative base-wide cross sections to support development of a Conceptual Site Model (CSM). A description of the application of Environmental Sequence Stratigraphy (ESS) and the results are provided in Appendix B.

2.0 FIELD PROGRAM

Field investigation activities at VPB171 consisted of drilling, sampling, soil/groundwater analysis, geophysical logging, and surveying. Drilling during this investigation was performed by Delta Well and Pump Company of Ronkonkoma, New York. A description of these tasks is provided below.

2.1 Vertical Profile Borings

One vertical profile boring (VPB171) was completed during this field effort between October 21, 2016 and November 29, 2016. The total depth of VPB171 was 770 ft. The location is shown in Figure 2 and details are summarized in Table 1.

2.1.1 Drilling

VPB171 was installed by drilling an 8-inch diameter hole using mud rotary drilling techniques. Drilling mud consisted of potable water and polymer-free sodium bentonite or equivalent material. Drilling mud was contained and re-circulated in baffled, high capacity mud tubs. A sand separator was used intermittently to remove fines from circulation.

2.1.2 Sampling

A total of eight (8) split spoon samples were collected from ground surface to the bottom of the boring. Split spoon samples were logged by the field geologist and screened for Volatile Organic Compounds (VOCs) utilizing a photoionization detector (PID). A detailed boring log for VPB171 is included in Appendix A.

Five of the spoon samples were collected across the recovery well's targeted screen interval at 628, 663, 688, 713 and 748 ft bgs and were submitted for grain size (sieve) analysis. Sieve analysis was conducted by Katahdin Analytical Services (Katahdin) via method ASTM D422 to confirm the final recovery filter pack and screen slot size. Plots and analyses are included in Appendix A to support the choice of No. 30 filter pack and 304SS Johnson Hi-Flow 0.030 inch slot screen.

Groundwater grab samples were collected every 50 ft for the first 200 ft of borehole depth. After the first 200 ft, groundwater grab samples were collected approximately every 20 ft until the final boring depth was reached. Groundwater grab samples were collected with a hydropunch sampler and analyzed for VOCs using Environmental Protection Agency (EPA) Method 8260C. The groundwater grab samples were analyzed by Katahdin, a Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP), and New York State Department of Environmental Conservation (NYSDEC)-certified laboratory. During the collection of groundwater

grab samples, field parameters were measured (pH, temperature, specific conductivity, oxidation reduction potential, dissolved oxygen, and turbidity). Data validation was performed by Resolution Consultants. Groundwater grab sample logs, data validation packages, and analytical data tables are included in Appendix A.

One soil sample was collected for laboratory analysis for total organic carbon (TOC) by EPA series SW-846 method 9060A. During drilling, air sampling was conducted under a Community Air Monitoring Plan. One air sample was collected using a Summa canister and submitted for laboratory analysis by EPA Method TO-15. All analyses were performed or sub-contracted by Katahdin. Data validation of both TOC and air data was performed by Resolution Consultants. Data validation packages and analytical data tables are included in Appendix A.

2.1.3 Geophysics

Three borehole geophysical logs (gamma, single point and single point resistivity) were recorded after the borehole was drilled but prior to the removal of drill rods. A Mount Sopris Instrument model 2PGA-1000 poly gamma was used. Starting at the top of the hole, the probe was advanced at a maximum rate of 12 ft per minute. A copy of the log was printed in the field for review once the probe reached the bottom of the borehole. The instrument was then raised to the top of the boring while single point and single point resistivity data was collected; logs were printed in the field for review.

The down hole gamma, spontaneous potential and single point resistivity log sheets and plots comparing the geophysical logs with trichloroethene (TCE) and tetrachloroethene (PCE) concentrations from hydropunch samples are included in Appendix A.

2.2 Decontamination and Investigation Derived Waste (IDW)

Resolution Consultants utilized dedicated and disposable sampling equipment when possible to avoid the potential for cross-contamination of samples. The sampling equipment included dedicated plastic scoops, disposable Teflon or polyethylene tubing, disposable gloves, and laboratory supplied sample bottles. Hand held equipment, split spoons, and the hydropunch were decontaminated using Luminox and water wash, a potable water rinse, followed by a distilled water rinse. Water was collected in 5-gallon pails or 55-gallon drums.

As part of the IDW management practices and in accordance with the SAP, the investigation waste (consisting of soil cuttings, drilling muds, IDW fluids, and personal protective equipment [PPE]) generated during the boring installation was containerized and staged at NWIRP Bethpage. IDW

solids were characterized and disposed of properly. Representative samples from each roll off were submitted to Katahdin for analysis of:

- Target Compound List (TCL) VOCs
- TCL Semi-Volatile Organic Compounds (SVOCs)
- Toxicity Characteristic Leaching Procedure (TCLP) Metals
- Polychlorinated Biphenyls (PCBs)
- Total petroleum hydrocarbons
- Corrosivity
- Ignitability
- Reactive Cyanide
- Reactive Sulfide
- Paint Filter

IDW water was containerized in frac tanks and stored at NWIRP Bethpage for characterization and ultimate disposal to the Publicly Owned Treatment Works (POTW), in accordance with the facilities existing discharge permit. A representative water sample was collected from each frac tank and submitted to Katahdin for analysis of VOCs via Method SW 624, pH via Method SW 9040B, PCBs via Method 8082 and Total Metals via Method SW 846. To the extent feasible, soil and water were not mixed. All analytical criteria were met for disposal of soil and water.

2.3 Surveying

A survey of the boring location was conducted at the end of the fieldwork by C. T. Male, Inc., of Latham, NY, under the direct supervision of Resolution Consultants. The location was tied into the existing base map developed for this investigation. The survey elevation is referenced to the North American Vertical Datum (NAVD) 1988 and has a vertical accuracy of 0.01 foot. Vertical control is based on observations of the Continuously Operating Reference (COR) Stations Queens and Central Islip. The horizontal location is referenced to the North American Datum (NAD) 1983 (2011) N.Y. Long Island Zone 3104 and has an accuracy of 0.1 foot. Local horizontal and vertical control is based on Global Positioning System (GPS) observations using the NYS Net Real Time Network.

A table of survey data (ground, latitude/longitude and northing/easting) and a survey map is included in Appendix A.

3.0 REFERENCES

Geraghty and Miller, Inc., 1994. *Remedial Investigation Report, Grumman Aerospace Corporation, Bethpage, New York*. Revised September 1994.

Naval Facilities Engineering Command (NAVFAC), 2003. *Record of Decision Naval Weapons Industrial Reserve Plant Bethpage, New York, Operable Unit 2 – Groundwater*, NYS Registry: 1-30-003B. April.

Resolution Consultants, 2013a. *United Federal Programs Sampling and Analysis Plan*, *Site 1 OU2 Offsite TCE Groundwater Plume Investigation,* NWIRP, Bethpage, New York. April.

Resolution Consultants, 2013b. *UFP SAP Addendum, Installation of Vertical Profile Borings and Monitoring Wells.* NWIRP, Bethpage, New York. December.

Smolensky, D., and Feldman, S., 1988. *Geohydrology of the Bethpage-Hicksville-Levittown Area, Long Island, New York, U.S*. Geological Survey Water-Resourced Investigations Report 88-4135, 25 pp.

Tables

TABLE 1
VERTICAL PROFILE BORING SUMMARY
2016 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

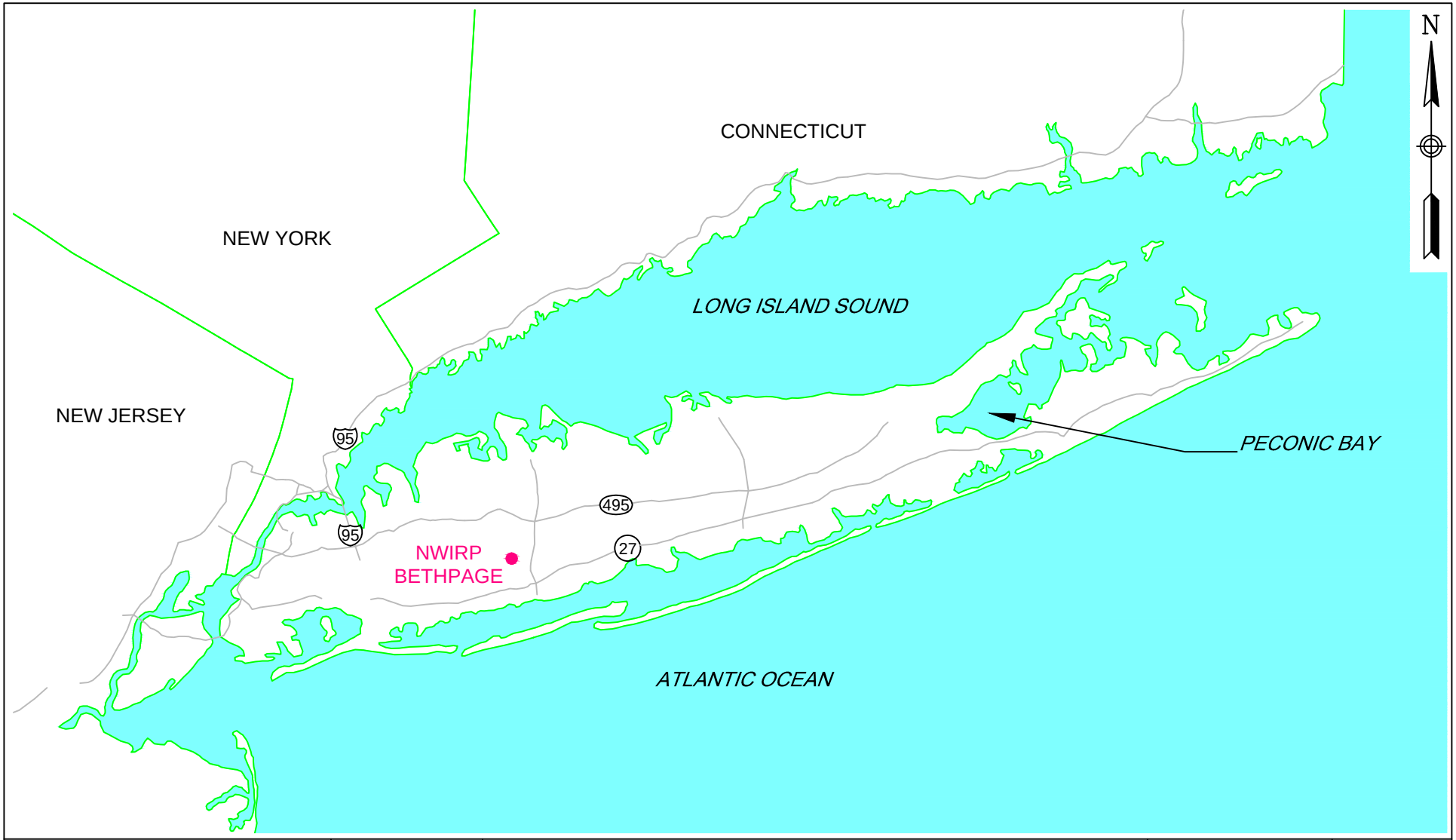
BORING	BORING START DATE	BORING COMPLETION DATE	GROUND ELEVATION (MSL)	TOTAL DEPTH (ft bgs)	SURFACE CASING SET AT (ft bgs)[1]	NO. OF SPOON SAMPLES	NO. OF SEIVE SAMPLES	GEOPHYSICAL LOG DEPTH (ft bgs)[2]	NO. GW SAMPLES COLLECTED / DUPLICATES / ATTEMPTED	TOC SAMPLE DEPTH (ft bgs)	DATE OF AIR SAMPLE	RECOVERY WELL INSTALLED AT LOCATION
VPB171	10/21/2016	11/29/2017	85.19	770	51.5 (outer) 120 (inner)	8	5	769 (gamma); 762.6 (SP,SPR)	30/2/5	388 - 390	11/11/2016	RE137

MSL - mean sea level
ft bgs - feet below ground surface
GW - Groundwater
TOC - Total Organic Carbon

[1] Surface casing consisted of: outer 10 inch casing to 51.5 ft bgs and inner 8 inch casing to 120 ft bgs.
[2] Geophysical logs included: gamma, spontaneous potential (SP), and single-point resistivity (SPR).

Figures

112G00622\0510\112G00622CM01.DWG 08/02/10 MKB



0 15 30

SCALE IN MILES

NAVFAC

GENERAL LOCATION MAP
NWIRP BETHPAGE
BETHPAGE, NEW YORK

CONTRACT NUMBER	CTO NUMBER
N62470-11-D-8013	WE15
APPROVED BY --	DATE --
APPROVED BY --	DATE --
FIGURE NO. 1	REV 0

F:\Projects\Navy\Bethpage WXE0817.0 Deliverables\7.2 CADD\GIS_files\Bethpage\MAP DOCS\MXD\MISC\Location Maps\F2 VPB171 2017 09 25 R1.mxd

Former Naval Weapons Industrial Reserve Plant

Former Northrop Grumman Site

Inset: VPB171 Location

VPB171

0 375 750 Feet

N

PWD-7435

Bethpage

Plainedge

South Farmingdale

Levittown

North Massapequa

North Wantagh

Legend

- Monitoring Well
- Vertical Profile Boring
- Vertical Profile Boring - Proposed
- Water Supply Well
- Extraction Well

0 750 1,500 3,000 Feet

NAVFAC

VPB171 LOCATION MAP
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
BETHPAGE, NEW YORK

CONTRACT NUMBER	CTO NUMBER
N62470-11-D8013	WE15
APPROVED BY: PS	DATE: 9/25/2017
APPROVED BY: —	DATE: —
FIGURE NO.: 2	REV: 0

Appendix A

VPB171

Section 1

VPB171 Boring and Geophysical Logs

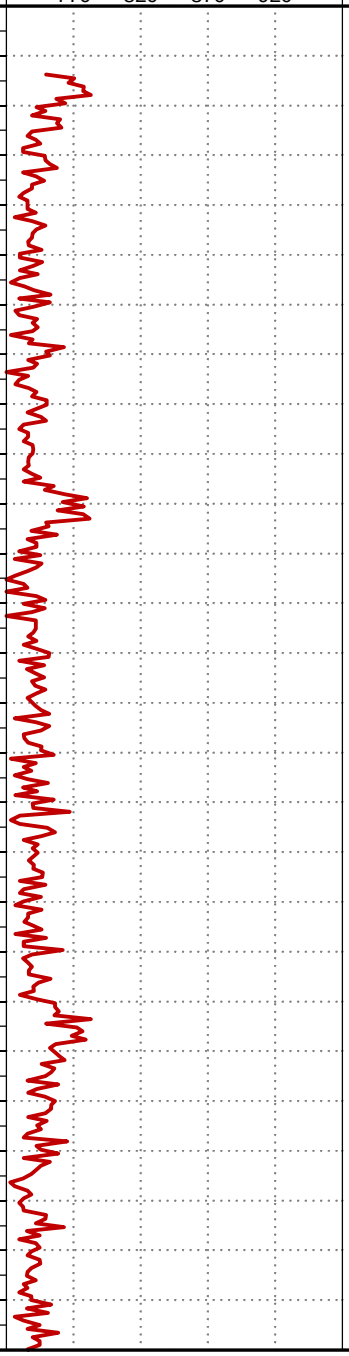
Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 1 of 13

Client: Department of the Navy, Naval Facilities Engineering Command, Mid-Atlantic		**Logged By:** V. Varricchio
Location: Nassau County Sump #305, Hicksville Rd., Bethpage, NY	**Northing:** 204372.97 **Easting:** 1125712.85	**Drilling Company:** Delta Well & Pump
Project #: 60266526	**Ground Elevation (ft amsl):** 85.19	**Well Screen Interval (ft):** NA
Start Date: 10/21/2016	**Drilling Method:** Auger (0-50' bgs) Mud Rotary (>50' bgs)	**Water Level (ft):** NA
Finish Date: 11/29/2016		**Total Depth (ft):** 770.0

Mud Rotary Drilling Note: Unless denoted by a splitspoon sample (indicated by the presence of a PID reading), boundaries between strata are approximate and may be transitional because they are based on screened wash samples collected during mud rotary drilling at 5 ft. intervals. Geophysical logs: a portion of the SP and SPR logs are shown from approximately 250-760 ft bgs.



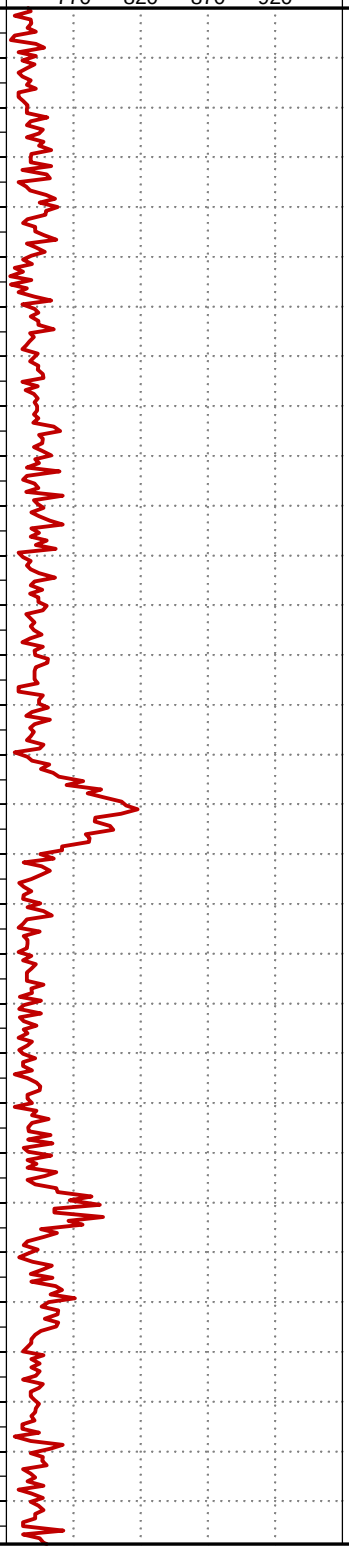
PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
			Upper Glacial	SW		Grass/Top Soil
				SW		Dark Yellowish brown (10 YR 4/6) well graded fine to coarse SAND with fine to coarse subrounded Gravel
				SW		Dark Yellowish brown (10 YR 4/6) well graded fine to coarse SAND with fine to coarse subrounded Gravel
				SW		Yellowish brown (10 YR 5/6) well graded fine to coarse SAND with fine to coarse subrounded Gravel
				SW		Dark Yellowish brown (10 YR 4/6) well graded fine to coarse SAND with fine to coarse subrounded Gravel
				SW		Yellowish brown (10 YR 5/6) well graded fine to coarse SAND with fine to coarse subrounded Gravel
				SW		Dark Yellowish brown (10 YR 4/6) well graded fine to coarse SAND with some fine subrounded Gravel
				SW		Yellowish brown (10 YR 5/6) well graded fine to coarse SAND with little subrounded fine Gravel, Some Pyrite
				SW		Yellowish brown (10 YR 5/6) well graded fine to coarse SAND with little subrounded fine Gravel
				SP		Yellowish brown (10 YR 5/6) medium poorly graded SAND with few fine to coarse subrounded Gravel
				SP		Red (2 YR 5/8) well graded medium SAND, Trace red slity clay, few coarse gravel
				SP		

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 2 of 13



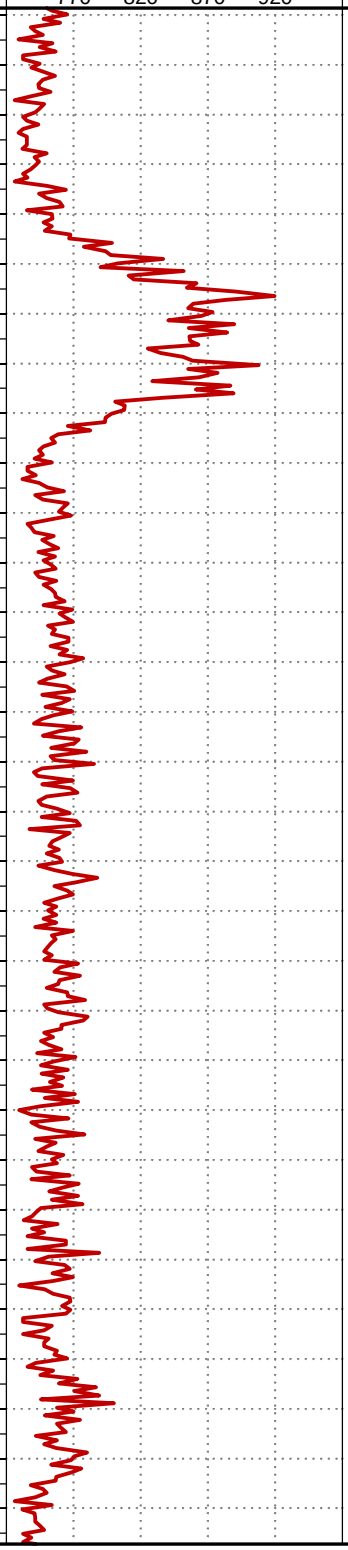
PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
			Upper Glacial	SP		Red (2 YR 5/8) well graded medium SAND, Trace red slity clay, few coarse gravel *(continued)*
	<0.50 U	<0.50 U		SW-SM		Yellowish red (5YR 5/6) well graded medium to coarse SAND with some Silt and fine subrounded gravel
				SW		Yellowish Red (5YR 5/6) well graded fine to coarse SAND with fine to coarse subrounded Gravel
				SP		Red (2.5 YR 5/6)Well graded Coarse to medium SAND with trace fine - coarse subrounded Gravel
				SP		Yellowish Red (5 YR 5/6) poorly graded medium SAND with trace fine subrounded Gravel
				SP		Reddish yellow (5 YR 6/8) poorly graded medium SAND with fine subrounded Gravel, trace pyrite
				SW		Reddish yellow (7.5 YR 6/6) well graded fine to coarse SAND with trace lean Clay and subangular fine gravel, trace pyrite
				SW		Reddish Yellow (7.5 YR 6/6) Well graded fine to coarse SAND, with trace amounts of lean white clay and sub angular to angular fine gravel and pyrite
				SW		Reddish Yellow (7.5 YR 6/6) well graded Subangular SAND with some subangluar fine Gravel and trace lean white sandy clay
	<0.50 U	<0.50 U	Magothy	GW		Brownish Yellow(10 YR 6/6) well graded GRAVEL subrounded with medium to coarse Sand and trace lean white clay, trace red silt
				SW-GW		Yellowish brown (10 YR 6/6) Gravelly well graded medium to coarse subangular SAND, with trace white lean Clay and red silt
				SW-GW		Yellowish brown (10 YR 6/6) Gravelly well graded medium to coarse subangular SAND, with trace white lean clay and red silt
				GP		Light yellowish brown (10 YR 6/4) poorly graded fine subangular GRAVEL

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 3 of 13



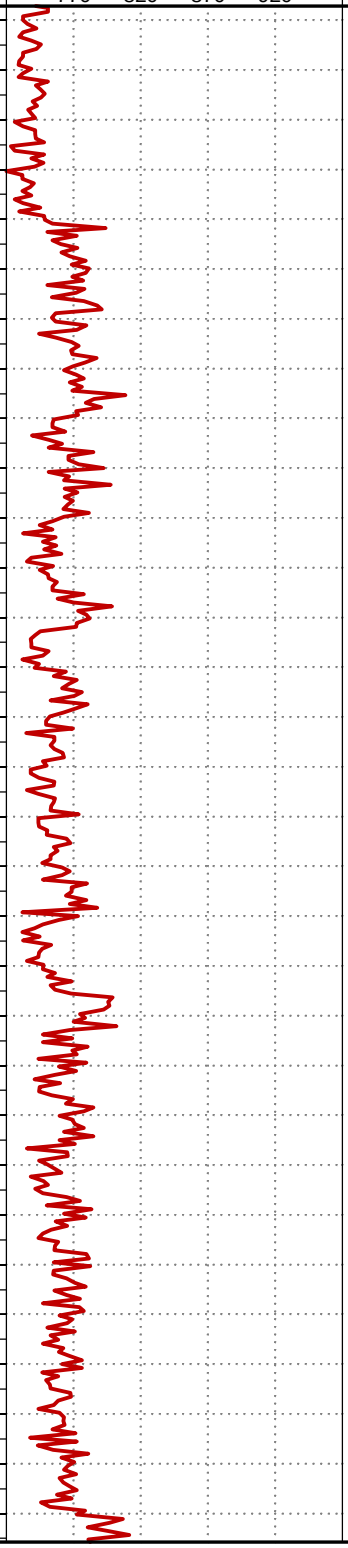
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
116				Magothy	GP		Light yellowish brown (10 YR 6/4) poorly graded fine subangular GRAVEL *(continued)*
118							
120					GW		Light yellowish brown (10 YR 6/4) well graded GRAVEL subrounded, trace medium to coarse subangular Sand
122							
124					SW		Yellow (10 YR 7/6) well graded fine to coarse subanguar SAND with trace iron nodules
126							
128					CH		Grayish brown (10YR 5/2) fat CLAY, trace fine Sand
130							
132					SP		Light yellowish brown (10 YR 6/4) poorly graded fine SAND, few fat Clay and iron nodules
134							
136					SP		Light yellowish brown (10 YR 6/4) poorly graded fine SAND, few fat Clay
138							
140					SP		Grayish brown (10 YR 5/2) poorly graded fine to medium subangular SAND
142							
144					CL		Light yellowish gray (10 YR 6/2) fine Sandy lean CLAY
146							
148		<0.50 U	<0.50 U		SP		Pale brown (10 YR 6/3) poorly graded fine SAND, trace Silt and iron nodules
150							
152					SP		Grayish brown (10 YR 5/2) poorly graded fine SAND, trace lean Clay and iron nodules
154							
156					SP		Pale brown (10 YR 6/3) poorly graded fine to medium subrounded SAND, with few iron nodules
158							
160					SM		Pale brown (10 YR 6/3) Silty fine SAND
162							
164					CH		Pale brown (10 YR 6/3) fine Sandy fat CLAY, few iron nodules
166							
168							
170							
172							
174							
176							

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 4 of 13



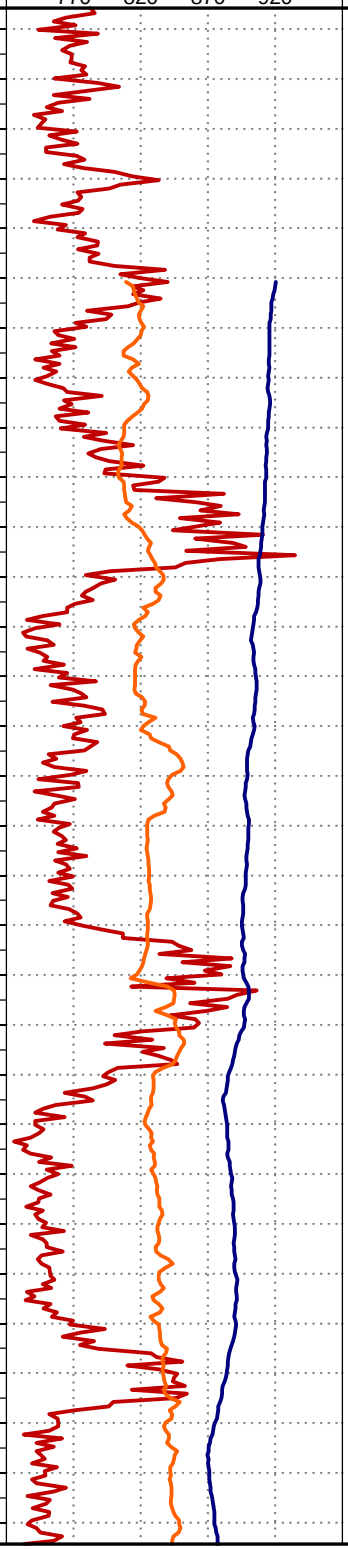
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
178				Magothy			
180					SP		Brown (10 YR 5/3) poorly graded medium subangular SAND, trace poorly graded fine subangular Gravel
182							
184					SP		Brown (10 YR 5/3) poorly graded fine SAND, trace Mica flakes
186							
188							
190					ML		Gray (10 YR 5/1) SILT, trace Mica flakes
192							
194					CL-ML		Very dark gray (10 YR 3/1) Silt mixed with lean CLAY
196							
198							
200					ML		Brown (10 YR 5/3) fine Sandy SILT
202							
204					CL		Brownish yellow (10 YR 6/6) lean CLAY, trace fine Sand
206							
208							
210					CL-ML		Dark gray (10 YR 4/1) Silt mixed with lean CLAY, trace lignite
212							
214					SW		Brown (10 YR 4/3) well graded fine to coarse subangular SAND, trace iron nodules and lignite
216							
218							
220		5.6	0.96 J		CL		Dark gray (10 YR 4/1) lean CLAY, some poorly graded medium Sand, trace iron nodules
222							
224					CL		Dark gray (10 YR 4/1) lean CLAY, trace poorly graded medium Sand and iron nodules
226							
228							
230					ML-CL		Grayish brown (10 YR 5/2) Clayey SILT, few fine to medium subangular sand, trace iron nodules and lignite
232							
234							Grayish brown (10 YR 5/2) Clayey SILT, few fine to medium subangular sand, trace iron nodules and lignite
236					ML-CL		
238							
					CL-ML		

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 5 of 13



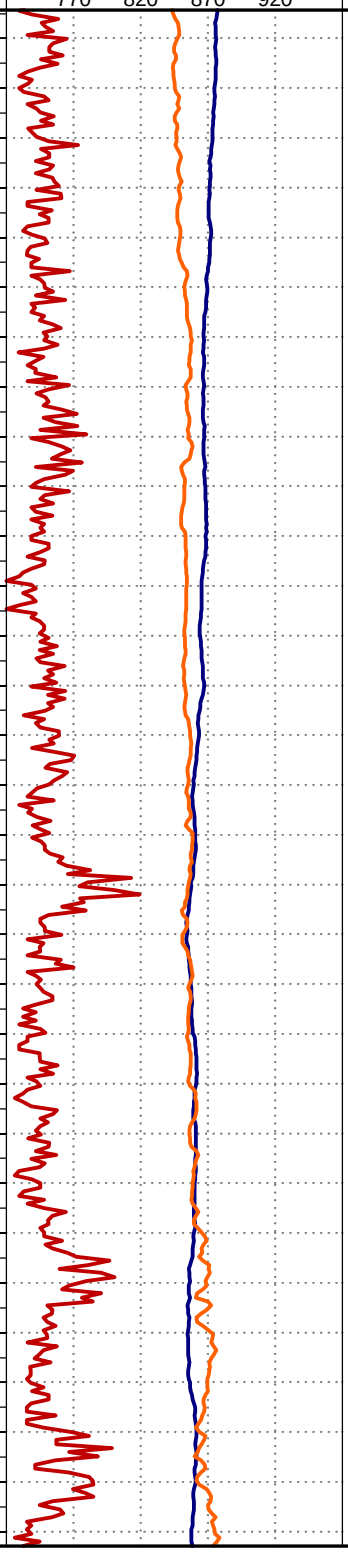
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
240				Magothy	CL-ML		Yellowish brown (10 YR 5/4) Clayey SILT, some medium subangular sand, trace iron nodules *(continued)*
242							
244		79 J	4.5 J		CL		Yellowish brown (10 YR 5/8) fine Sandy lean CLAY, some iron nodules
246							
248							
250					CL-ML		Yellowish brown (10 YR 5/8) lean CLAY, few fine Sand and iron nodules
252							
254					CH		Black (10 YR 2/1) fat CLAY, trace lignite
256							
258							
260		0.94 J	<0.50 UJ		CH		Black (10 YR 2/1) fat CLAY, few lignite
262							
264					CH		Black (10 YR 2/1) fat CLAY, few lignite
266							
268							
270					CH		Black (10 YR 2/1) fat CLAY, little lignite
272							
274					CH		Black (10 YR 2/1) fat CLAY, few poorly graded fine Sand and lignite
276							
278							
280		<2.0 UJ	<2.0 UJ		CH		Very dark gray (10 YR 3/1) fat CLAY, trace lignite
282							
284					CH		Black (10 YR 2/1) fat CLAY, some poorly graded fine Sand and lignite
286							
288							
290					CH		Black (10 YR 2/1) fat CLAY, some poorly graded fine Sand and lignite
292							
294					CH		Black (10 YR 2/1) fat CLAY, some poorly graded fine Sand and lignite
296							
298							
300		23	<0.50 U		SP		Yellowish brown (10 YR 5/4) poorly graded fine SAND, trace lignite

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 6 of 13



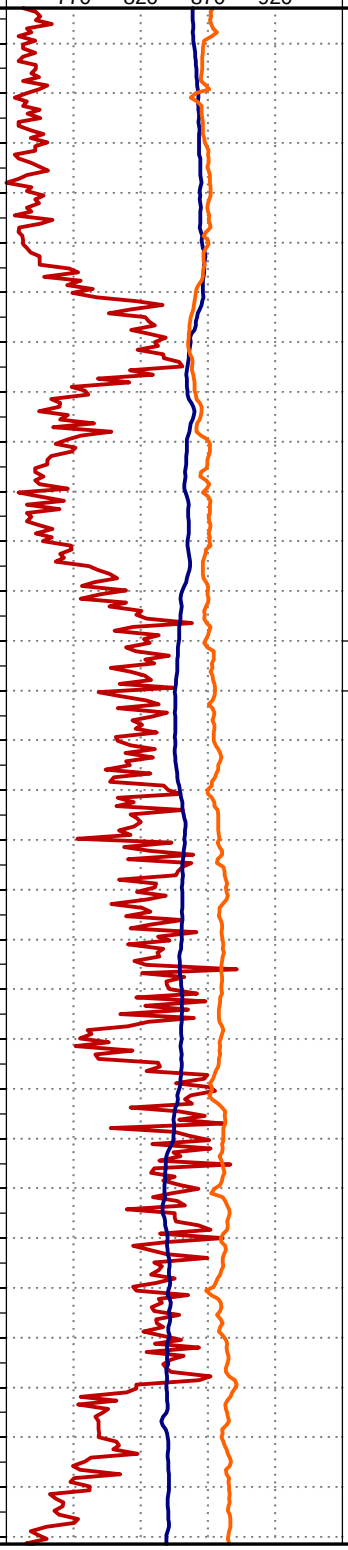
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
302				Magothy	SP		Yellowish brown (10 YR 5/4) poorly graded fine SAND, trace lignite *(continued)*
304					SP		Yellowish brown (10 YR 5/4) poorly graded fine SAND
306							
308							
310					SP		Yellowish brown (10 YR 5/4) poorly graded fine SAND
312							
314					SP		Yellowish brown (10 YR 5/4) poorly graded fine SAND, trace Silt
316							
318							
320					SP		Yellowish brown (10 YR 5/4) poorly graded fine SAND, trace Silt, iron nodules and lignite
322							
324		24 J	<1.0 UJ		ML		Grayish brown (10 YR 5/2) fine Sandy SILT, few lignite and iron nodules, trace lean clay
326							
328							
330					SM		Grayish brown (10 YR 5/2) Silty fine poorly graded SAND, little lignite and iron nodules
332							
334					SM		Grayish brown (10 YR 5/2) Silty fine poorly graded SAND, little lignite and iron nodules
336							
338							
340		220 J	4.9 J		SP		Brown (10 YR 5/3) poorly graded fine SAND, few lignite and iron nodules
342							
344					SP		Brown (10 YR 5/3) poorly graded fine SAND, few lignite and iron nodules
346							
348							
350					CL		Dark gray (10 YR 4/1) lean CLAY, with little medium Sand, few lignite and iron nodules
352							
354					CL		Dark gray (10 YR 4/1) lean CLAY, with little medium Sand, few lignite and iron nodules
356							
358							
360		180 J	3.6 J		CL		Grayish brown (10 YR 5/2) fine Sandy lean CLAY
362							

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 7 of 13



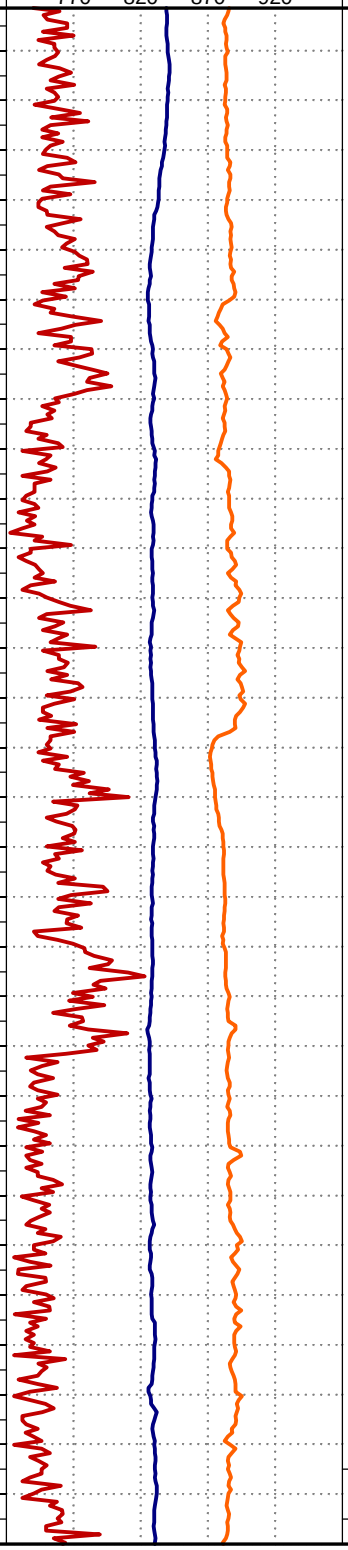
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
364				Magothy	CL		Grayish brown (10 YR 5/2) fine Sandy lean CLAY
370					CL		Grayish brown (10 YR 5/2) lean CLAY, trace fine Sand
374					CH		Very dark gray (10 YR 3/1) fat CLAY, trace lignite and iron nodules
380					CL		Grayish brown (10 YR 5/2) fine to medium Sandy fat CLAY, little lignite and iron nodules
384		63	1.3		CH		Very dark gray (10 YR 3/1) fat CLAY, trace Silt
390	0.0				CH-ML		Very dark gray (10 YR 4/1) fat CLAY with lamination and Light gray (10YR 7/1) poorly graded fine Sandy SILT
394					CH-ML		Very dark gray (10 YR 4/1) fat CLAY with lamination and Light gray (10YR 7/1) poorly graded fine Sandy SILT
400					CH		Very dark gray (10 YR 3/1) fat CLAY, trace Silt
404					CH		Very dark gray (10 YR 3/1) fat CLAY, trace Silt
410					CH		Very dark gray (10 YR 3/1) fat CLAY, trace Silt
414					CH		Very dark gray (10 YR 3/1) fat CLAY, trace Silt and poorly graded fine sand
420		<0.50 U	<0.50 U		CH		Very dark gray (10 YR 3/1) fat CLAY, trace Silt and poorly graded fine sand
424					SM		Dark gray (10 YR 4/1) poorly graded fine Sandy SILT

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 8 of 13



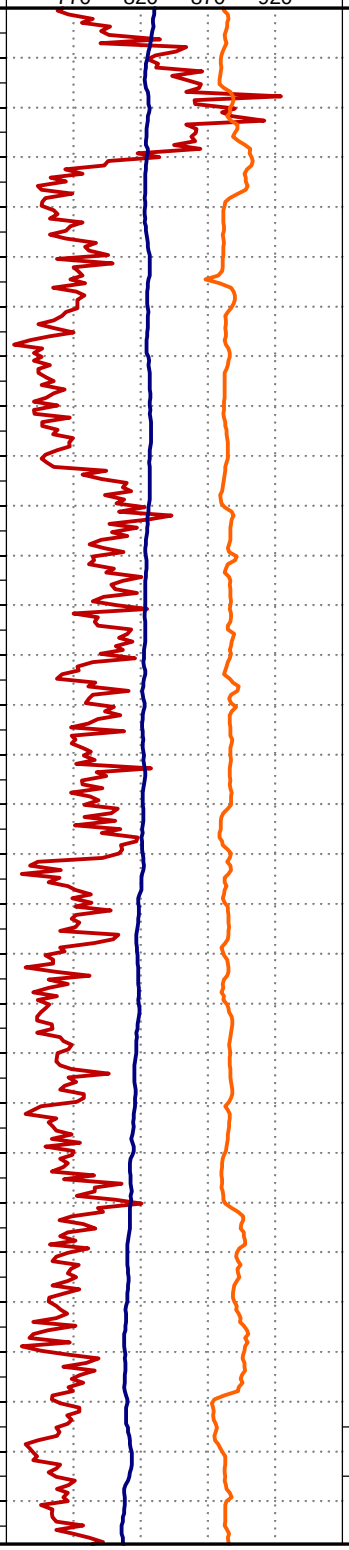
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
426				Magothy	SM		Dark gray (10 YR 4/1) poorly graded fine Sandy SILT *(continued)*
428							
430					SM		Dark gray (10 YR 4/1) poorly graded fine Sandy SILT, trace lean clay
432							
434					CL		Dark gray (10 YR 4/1) poorly graded fine Sandy lean CLAY
436							
438							
440		<0.50 U	<0.50 U		SC		Dark gray (10 YR 4/1) lean Clayey poorly graded fine SAND, trace lignite and iron nodules
442							
444					SC		Dark gray (10 YR 4/1) lean Clayey poorly graded fine SAND, few lignite and iron nodules
446							
448							
450					SC		Dark gray (10 YR 4/1) lean Clayey poorly graded fine SAND, few lignite and iron nodules
452							
454					CL		Dark gray (10 YR 4/1) poorly graded fine Sandy lean CLAY
456							
458							
460		<0.50 U	<0.50 U		SC		Dark grayish brown (10 YR 4/2) lean Clayey poorly graded fine SAND, few lignite and iron nodules
462							
464					CL		Gray (10 YR 5/1) poorly graded fine Sandy lean CLAY, few lignite
466							
468							
470					CL		Gray (10 YR 5/1) poorly graded fine Sandy lean CLAY, few lignite
472							
474					SC		Light gray (10 YR 7/1) lean Clayey poorly graded fine SAND, trace lignite and iron nodules
476							
478							
480		160	6.7		SC		Light brownish gray (10 YR 6/2) Clayey well graded fine to medium SAND, trace iron nodules
482							
484	0.0				SW		Brownish yellow (10 YR 6/6) well graded fine to medium SAND, trace lignite
486							

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 9 of 13



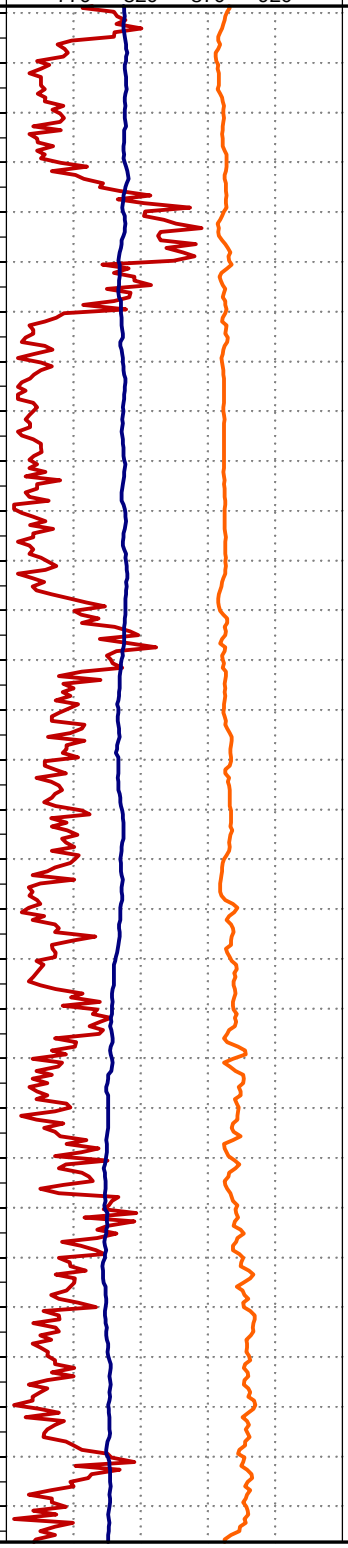
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
486				Magothy	SW		Brownish yellow (10 YR 6/6) well graded fine to medium SAND, trace lignite *(continued)*
488							
490					CL		Gray (10 YR 5/1) lean CLAY, some well graded fine to coarse subrounded SAND
492							
494					SW		Gray (10 YR 5/1) well graded fine to coarse subrounded SAND, few lean Clay
496							
498							
500		89 J	5.6 J		SC		Grayish brown (10 YR 5/2) Clayey well graded fine to medium subrounded SAND, trace lignite
502							
504					CL		Gray (10 YR 5/1) lean CLAY, little poorly graded fine Sand, trace lignite
506							
508							
510					SC		Grayish brown (10 YR 5/2) Clayey well graded fine to medium subrounded SAND, trace lignite
512							
514					SC		Grayish brown (10 YR 5/2) Clayey well graded fine to medium subrounded SAND, trace lignite
516							
518							
520		92	1.1		SM		Gray (10 YR 5/1) Silty poorly graded fine SAND, trace lean clay
522							
524					ML-CL		Black (10 YR 2/1) Silt mixed with lean Clay, trace poorly graded fine sand
526							
528							
530					ML-CL		Black (10 YR 2/1) Silt mixed with lean Clay, little poorly graded fine sand
532							
534					SC		Black (10 YR 2/1) Clayey well graded fine to medium subangular SAND
536							
538							
540		18 J	<0.50 UJ		SP		Yellow (10 YR 7/6) poorly grade fine SAND, trace lignite
542							
544	0.0				SP		Yellow (10 YR 7/6) poorly grade fine SAND
546							

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 10 of 13



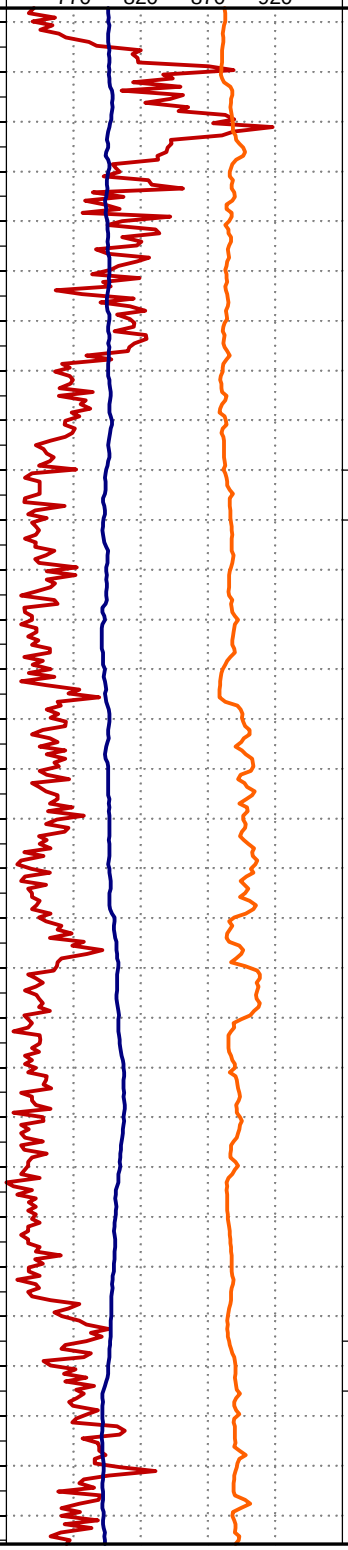
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
548				Magothy			
550					SW		Light brownish gray (10 YR 6/2) well graded fine to coarse subrounded SAND, trace Silt
552							
554					SW		Light brownish gray (10 YR 6/2) well graded fine to medium SAND
556							
558							
560		100	6.6		SW-SC		Brown (10 YR 5/3) well graded fine to medium subrounded SAND, little Clay
562							
564					SW		Light gray (10 YR 7/2) well graded fine to coarse subrounded SAND, trace Clay
566							
568							
570					SW		Light gray (10 YR 7/2) well graded fine to coarse subrounded SAND
572							
574					SP		Grayish brown (10 YR 5/2) poorly graded medium subrounded SAND
576							
578							
580					SP		Grayish brown (10 YR 5/2) poorly graded medium subrounded SAND
582							
584		230	3.8		SM		Grayish brown (10 YR 5/2) poorly graded medium subrounded SAND, some Silt
586							
588							
590					SW		Light gray (10 YR 7/2) well graded medium subangular SAND, few Silt
592							
594					SW		Light gray (10 YR 7/2) well graded fine to coarse subangular SAND, trace Silt
596							
598							
600		240	1.7		SC		Very dark gray (10 YR 7/2) well graded fine to medium subangular SAND, some Clay
602							
604					SC		Gray (10 YR 6/1) well graded fine to medium subangular SAND, little Clay
606							
608							
					SW		

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 11 of 13



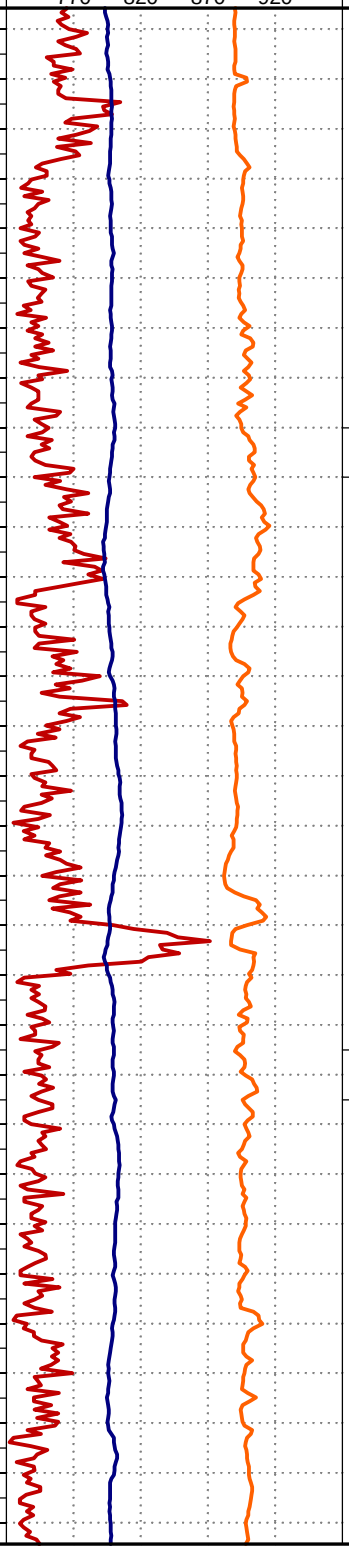
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
610				Magothy			
612					SW		Dark gray (10 YR 4/1) well graded fine to medium SAND, trace fine subangular Gravel *(continued)*
614					CL		Dark gray (10 YR 4/1) lean CLAY, trace poorly grade fine SAND and lignite
616							
618		180 J	0.69 J		CL		Dark gray (10 YR 4/1) lean CLAY, trace poorly grade fine SAND and lignite
620							
622					SP		Light grayish brown (10 YR 6/2) poorly graded fine SAND
624							
626							
628					SP		Light grayish brown (10 YR 6/2) poorly graded fine SAND
630	0.0						
632					SW		Gray (10 YR 5/1) well graded fine to coarse subangular SAND, trace fine subangular Gravel
634							
636							
638					SW		Very pale brown (10 YR 7/3) well graded fine to coarse subangular SAND, trace lean Clay
640		120 J	0.62 J				
642							
644					CL		Dark gray (10 YR 4/1) lean CLAY, few poorly graded fine Sand
646							
648							
650					SW		Gray (10 YR 6/1) well graded fine to coarse subangular SAND, trace lean Clay
652							
654							
656					SW		Gray (10 YR 6/1) well graded fine to coarse subangular SAND, trace lean Clay
658							
660		200	<0.50 U		SW		Gray (10 YR 6/1) well graded fine to coarse subangular SAND, trace lean Clay
662							
664	0.0						
666					SC		Light brownish gray (10 YR 6/2) Clayey poorly graded fine SAND
668							
670					SC		Light brownish gray (10 YR 6/2) Clayey poorly graded fine SAND

(Continued Next Page)

Resolution Consultants

Boring Log

BORING #: **VPB171**
Sheet 12 of 13



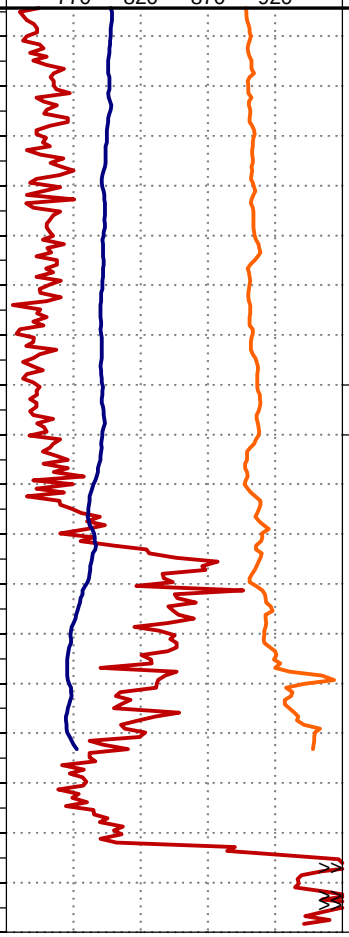
DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
672				Magothy	SC		Light brownish gray (10 YR 6/2) Clayey poorly graded fine SAND *(continued)*
674					SC		Light brownish gray (10 YR 6/2) Clayey poorly graded fine SAND
676							
678							
680		13 J	<0.80 UJ		GP		White (10 YR 8/1) poorly graded fine angular GRAVEL, trace well graded medium to coarse angular Sand
682							
684					GP		White (10 YR 8/1) poorly graded fine angular GRAVEL, few well graded medium to coarse angular Sand
686							
688							
690	0.0				SW		Very pale brown (10 YR 7/4) well graded medium to coarse angular SAND, some poorly graded fine angular Gravel
692							
694					SW		Very pale brown (10 YR 7/4) well graded medium to coarse subangular SAND, some poorly graded fine subangular Gravel
696							
698							
700		3600	3.2		SW		Very pale brown (10 YR 7/4) well graded medium to coarse subangular SAND, some poorly graded fine subangular Gravel
702							
704					SW		Very pale brown (10 YR 7/4) well graded medium to coarse subangular SAND, some poorly graded fine subangular Gravel, trace lean clay
706							
708							
710					SW		Very pale brown (10 YR 7/4) well graded medium to coarse subangular Sand, some poorly graded fine subangular GRAVEL, trace lean clay
712							
714	0.0				SW		Very pale brown (10 YR 7/4) well graded medium to coarse subangular SAND, some well graded fine to coarse subangular Gravel
716							
718							
720		5.3 J	<0.66 UJ		SW		Very pale brown (10 YR 7/4) well graded medium to coarse subangular SAND, some poorly graded fine subangular Gravel
722							
724					SW		Very pale brown (10 YR 7/4) well graded medium to coarse subangular SAND, some poorly graded fine angular Gravel, trace lean clay
726							
728							
730					SW		Very pale brown (10 YR 7/4) well graded medium to coarse angular SAND, some well graded fine to coarse angular Gravel, trace lean clay
732							

(Continued Next Page)

Resolution Consultants

Boring Log

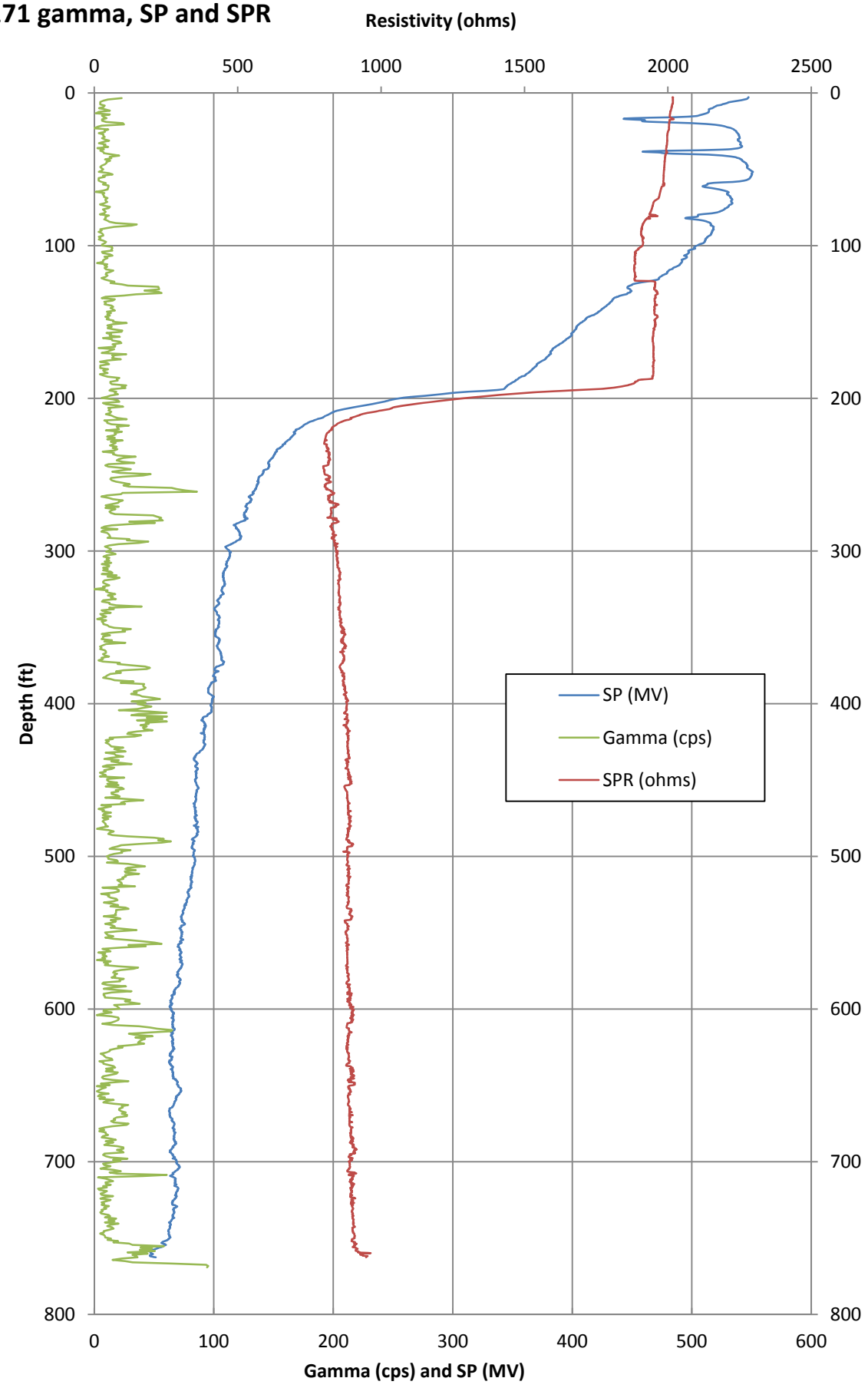
BORING #: **VPB171**
Sheet 13 of 13



DEPTH (ft)	PID (ppm)	TCE (ug/L)	PCE (ug/L)	Formation	USCS	GRAPHIC LOG	MATERIAL DESCRIPTION
734				Magothy	SW		Very pale brown (10 YR 7/4) well graded medium to coarse angular SAND, some well graded fine to coarse angular Gravel
736							
738							
740		460 J	1.9 J		SC		Light gray (10 YR 7/1) well graded fine to medium subangular SAND, some fat Clay
742							
744					SC		Light gray (10 YR 7/1) well graded fine to medium subangular SAND, some fat Clay
746							
748							
750	0.0				SP		Very pale brown (10 YR 7/4) poorly graded fine SAND, trace poorly graded fine subangular Gravel
752							
754					CL		Gray (10 YR 6/1) lean CLAY, little poorly graded fine Sand
756							
758							
760					CL		Gray (10 YR 6/1) lean CLAY, little poorly graded fine Sand
762							
764					CL		Gray (10 YR 6/1) lean CLAY, little poorly graded fine Sand
766							
768							
770							

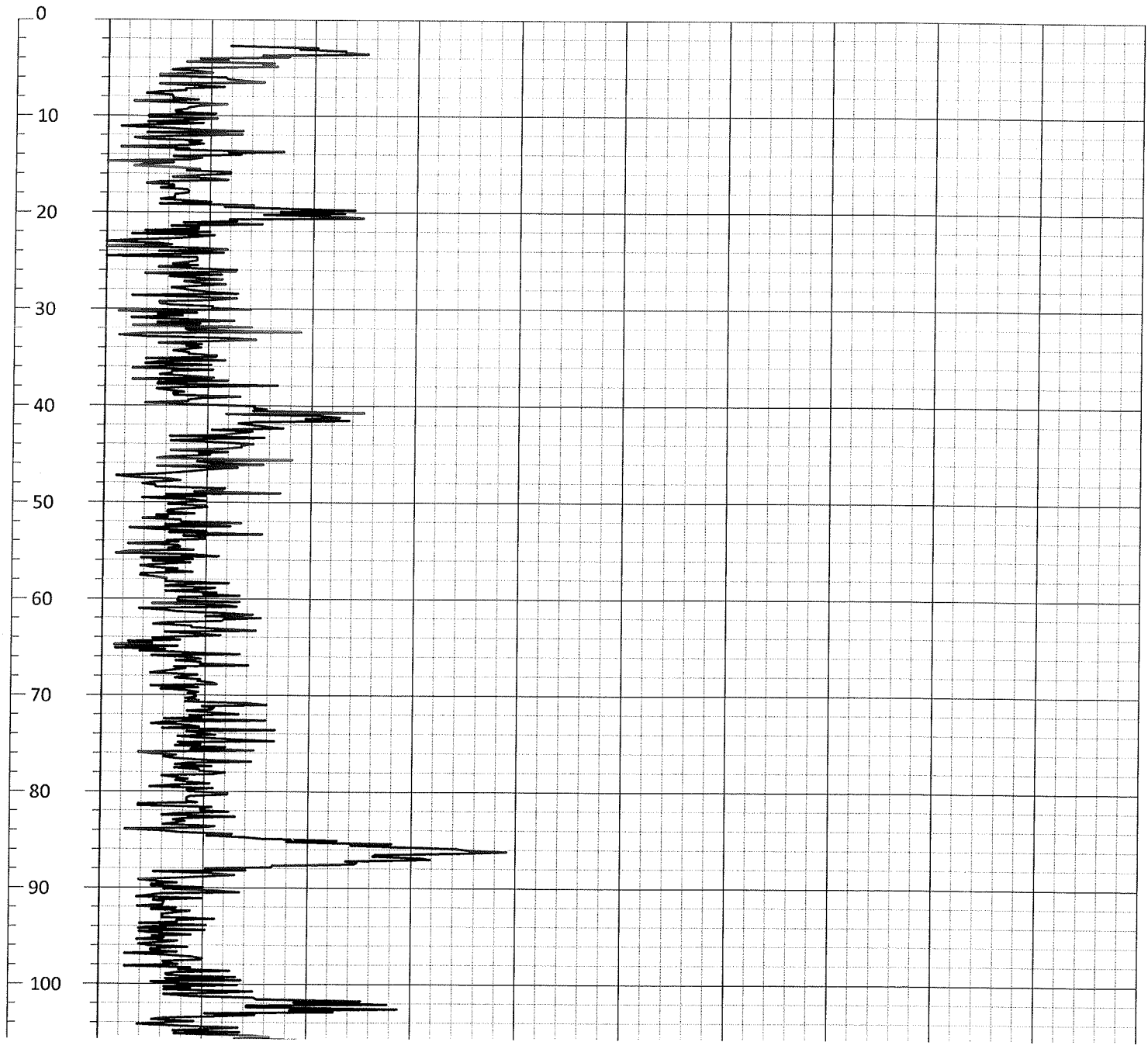
End of boring at 770.0 ft. bgs.

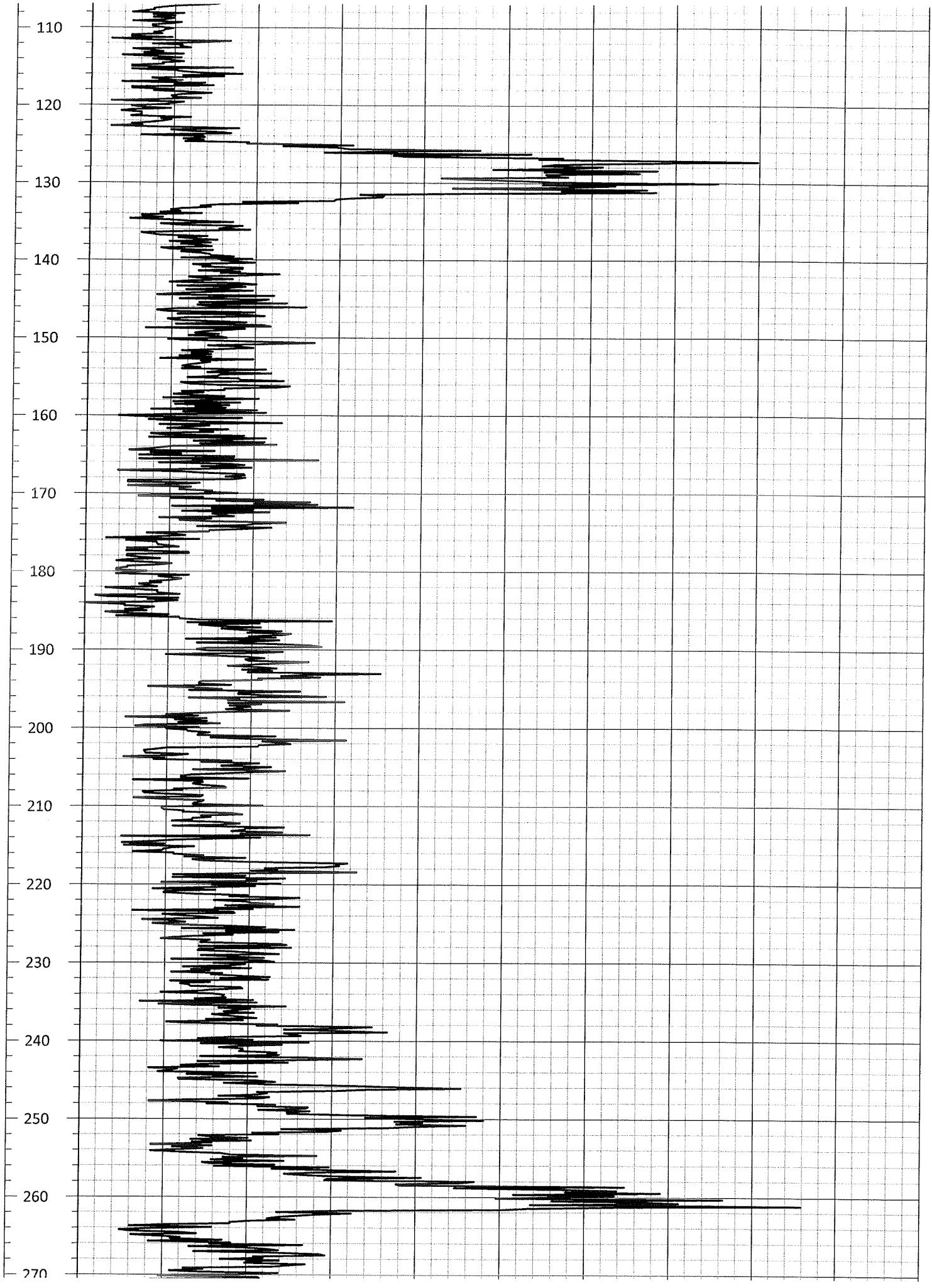
VPB171 gamma, SP and SPR

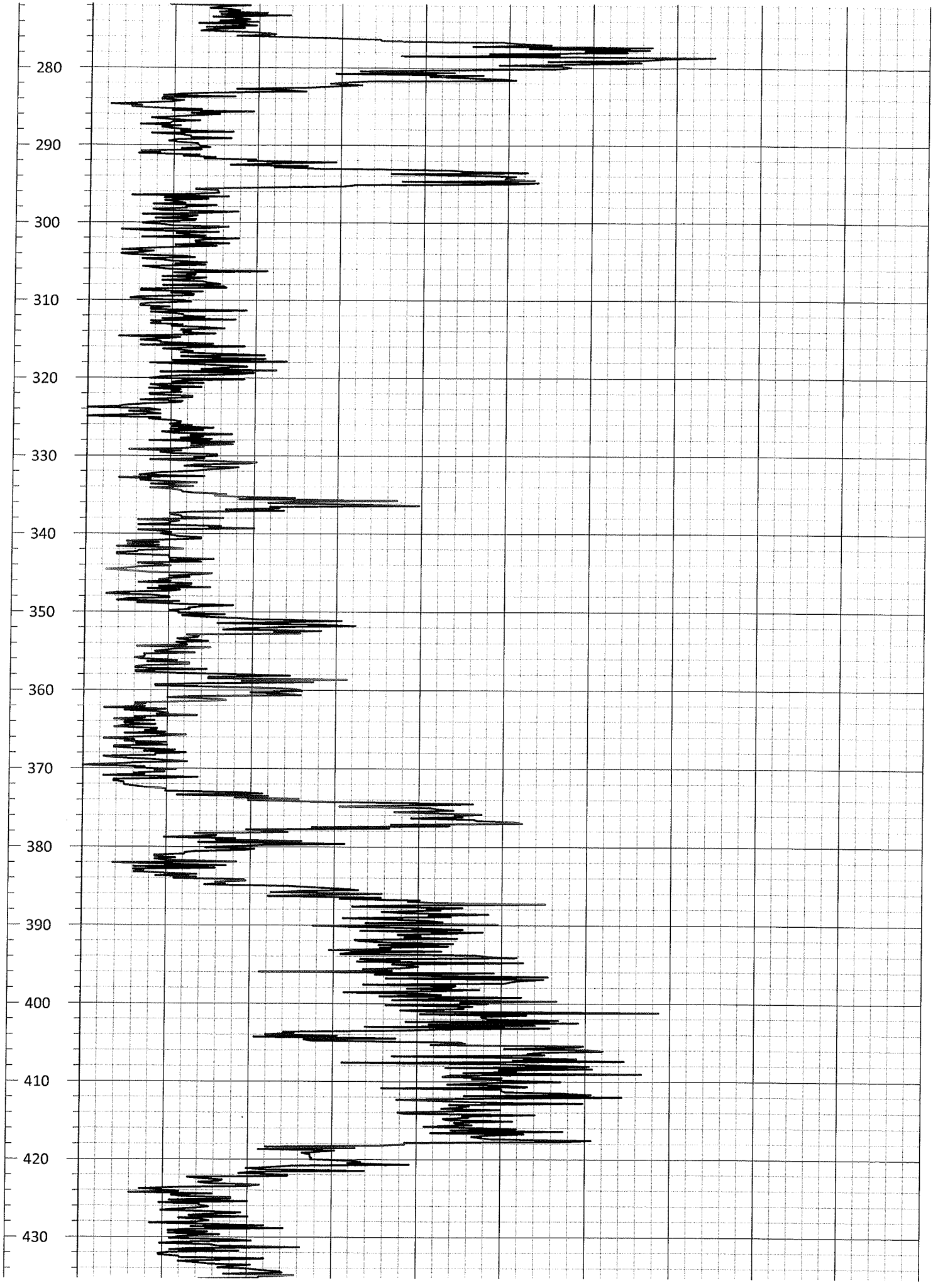


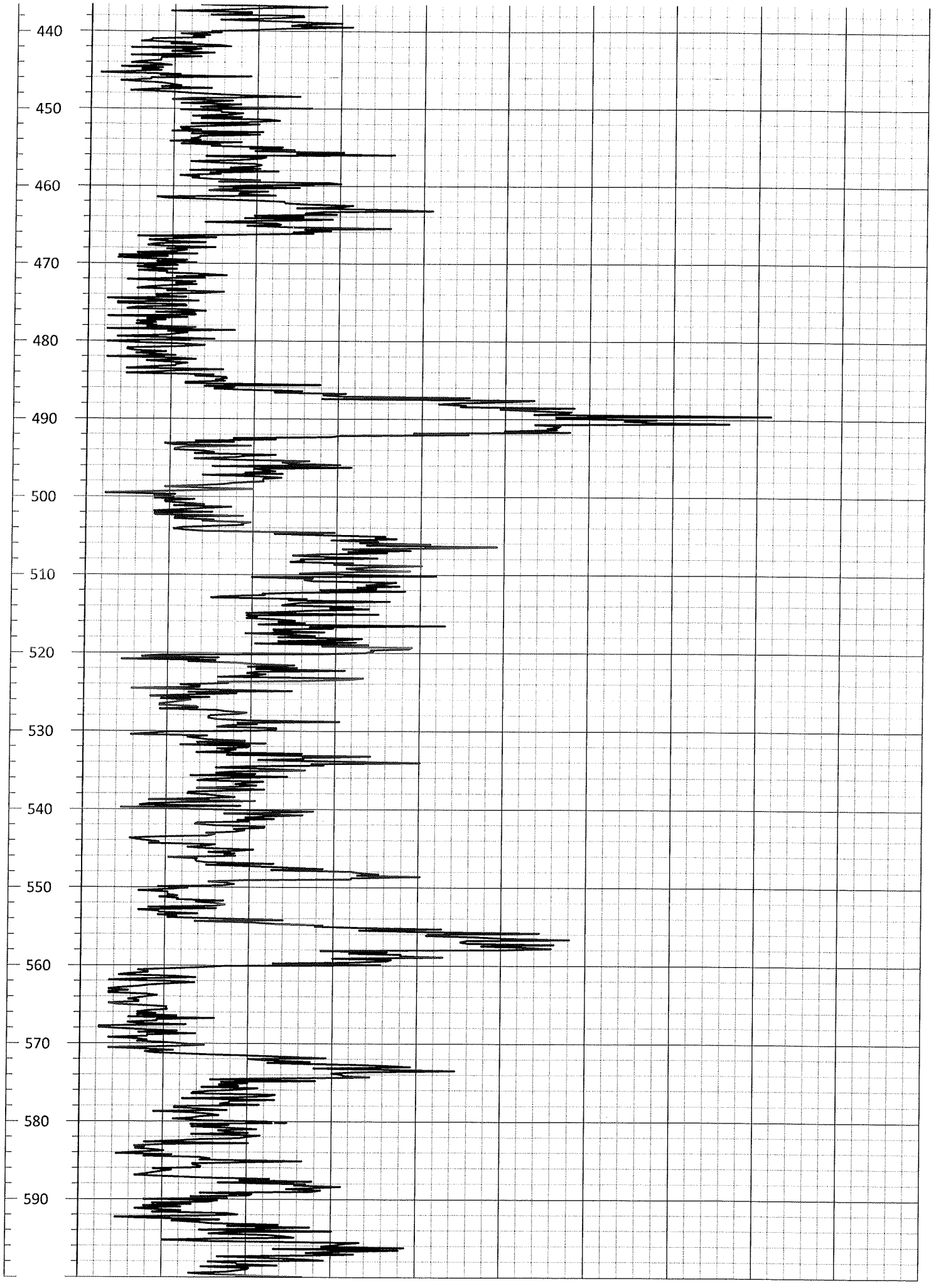
	COMPANY: DELTA WELL & PUMP CO., INC.
	LOCATION: NWIRP - ROUTE 107
Well: VPB - RE137	Depth Driller:
	Depth Logger:
Date: 11/21/2016 Time:	Logged by: CMO
File Name: 747	Witness: VIN

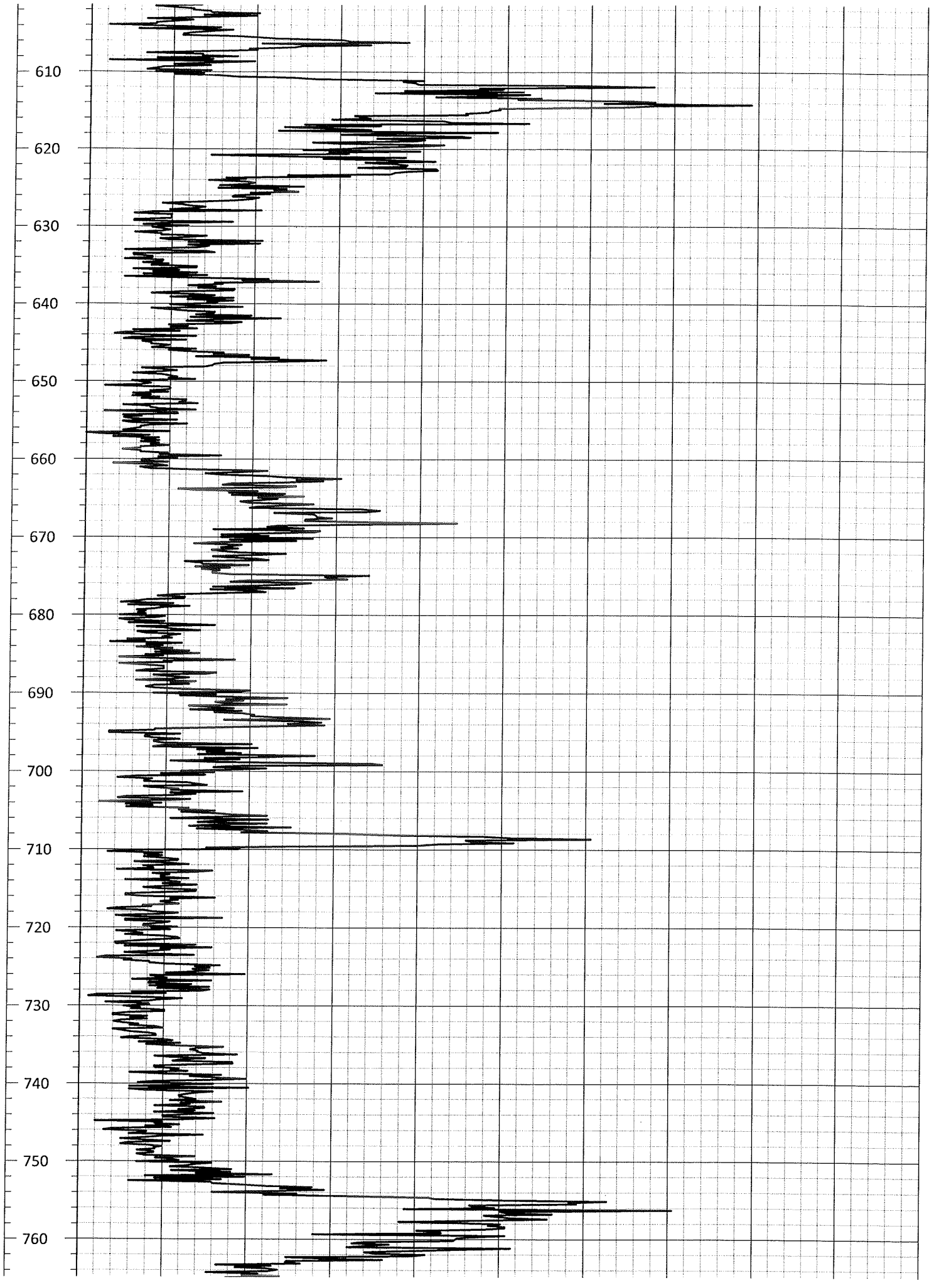
Depth (ft.)	GAMMA (cps)	
0.0		100.0

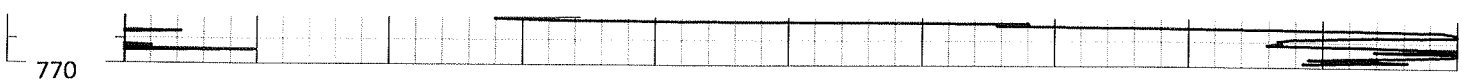



110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
260
270


280
290
300
310
320
330
340
350
360
370
380
390
400
410
420
430


440
450
460
470
480
490
500
510
520
530
540
550
560
570
580
590


610
620
630
640
650
660
670
680
690
700
710
720
730
740
750
760

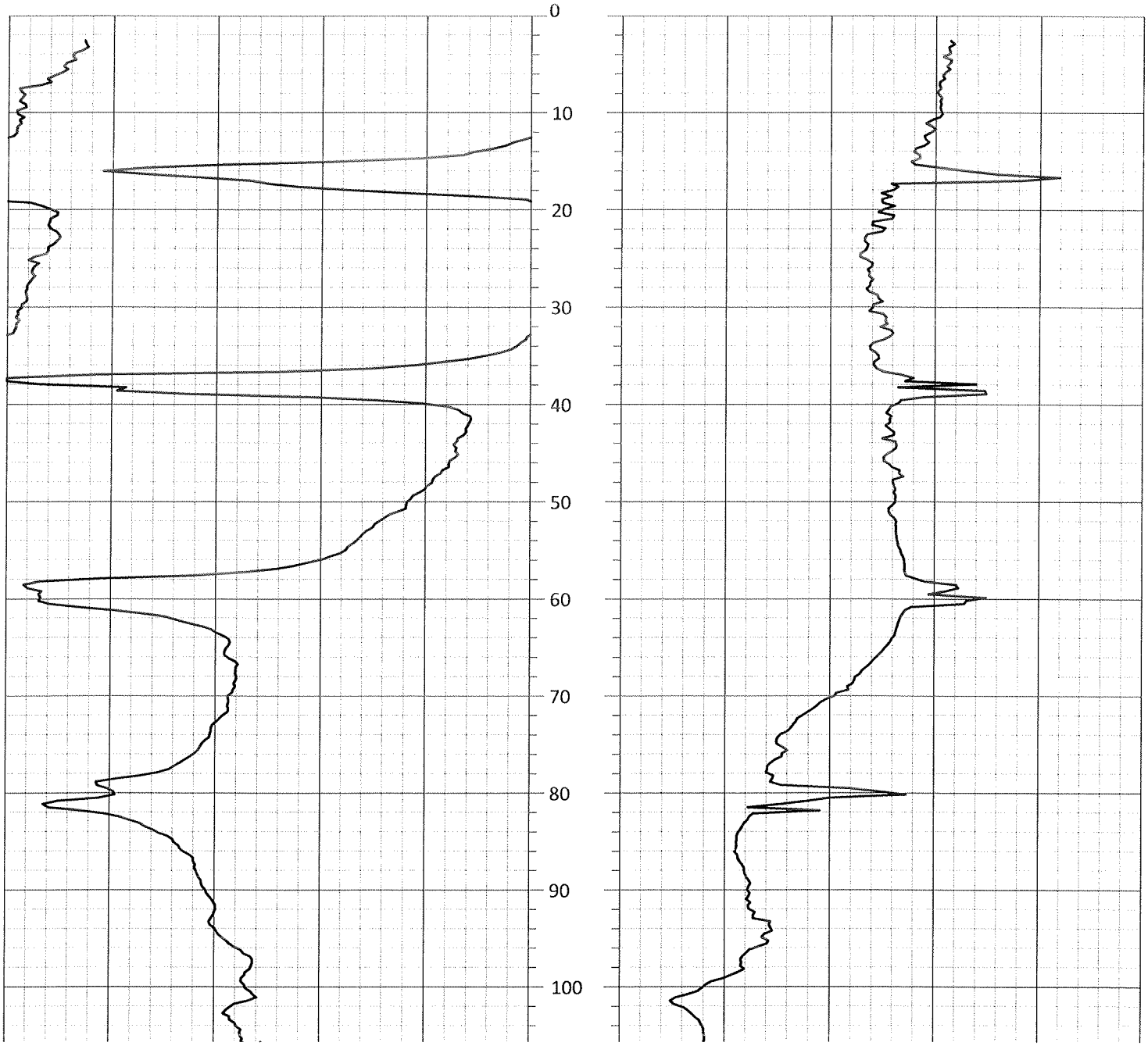


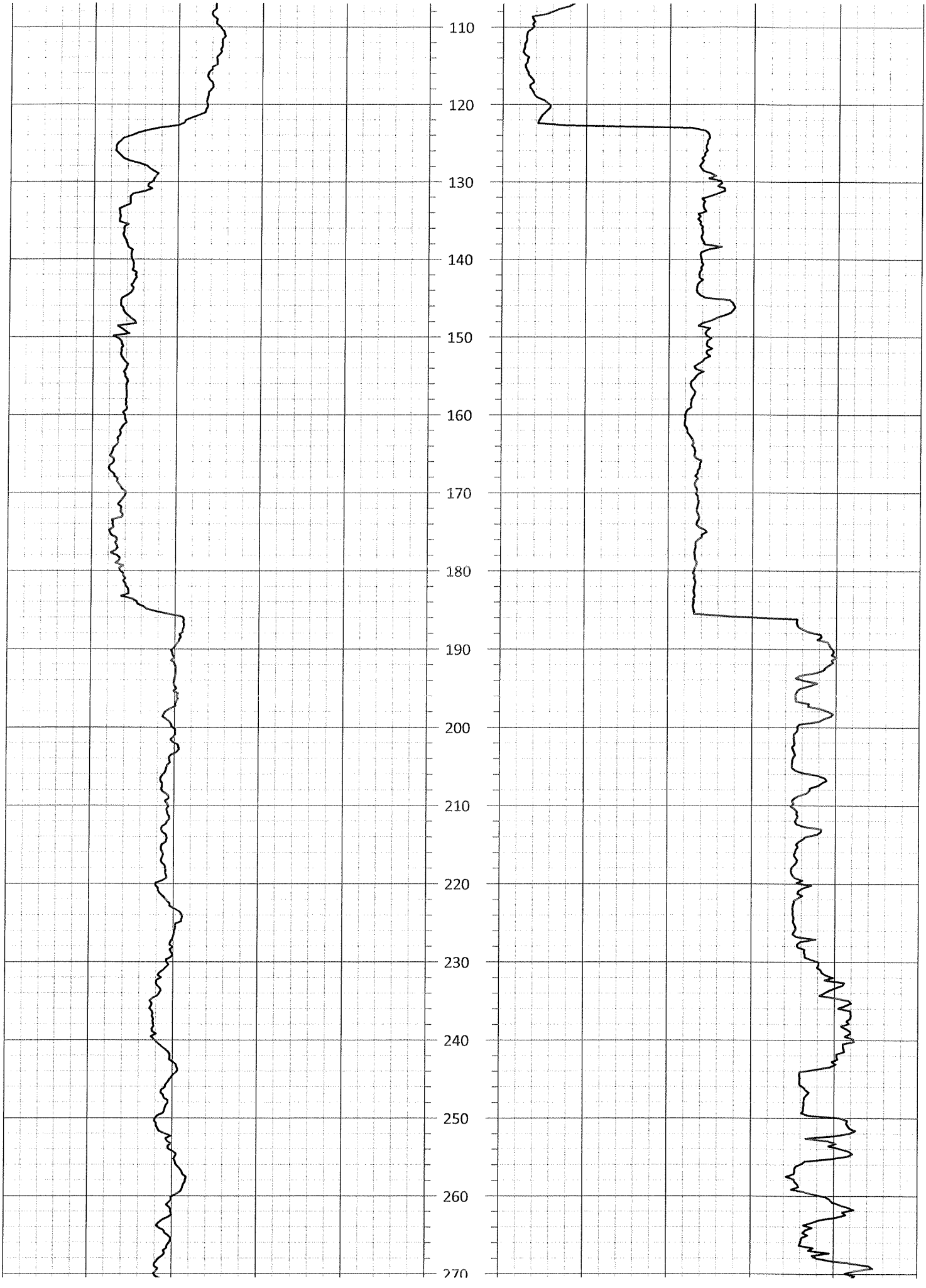
Depth (ft.)	GAMMA (cps)	
	0.0	100.0

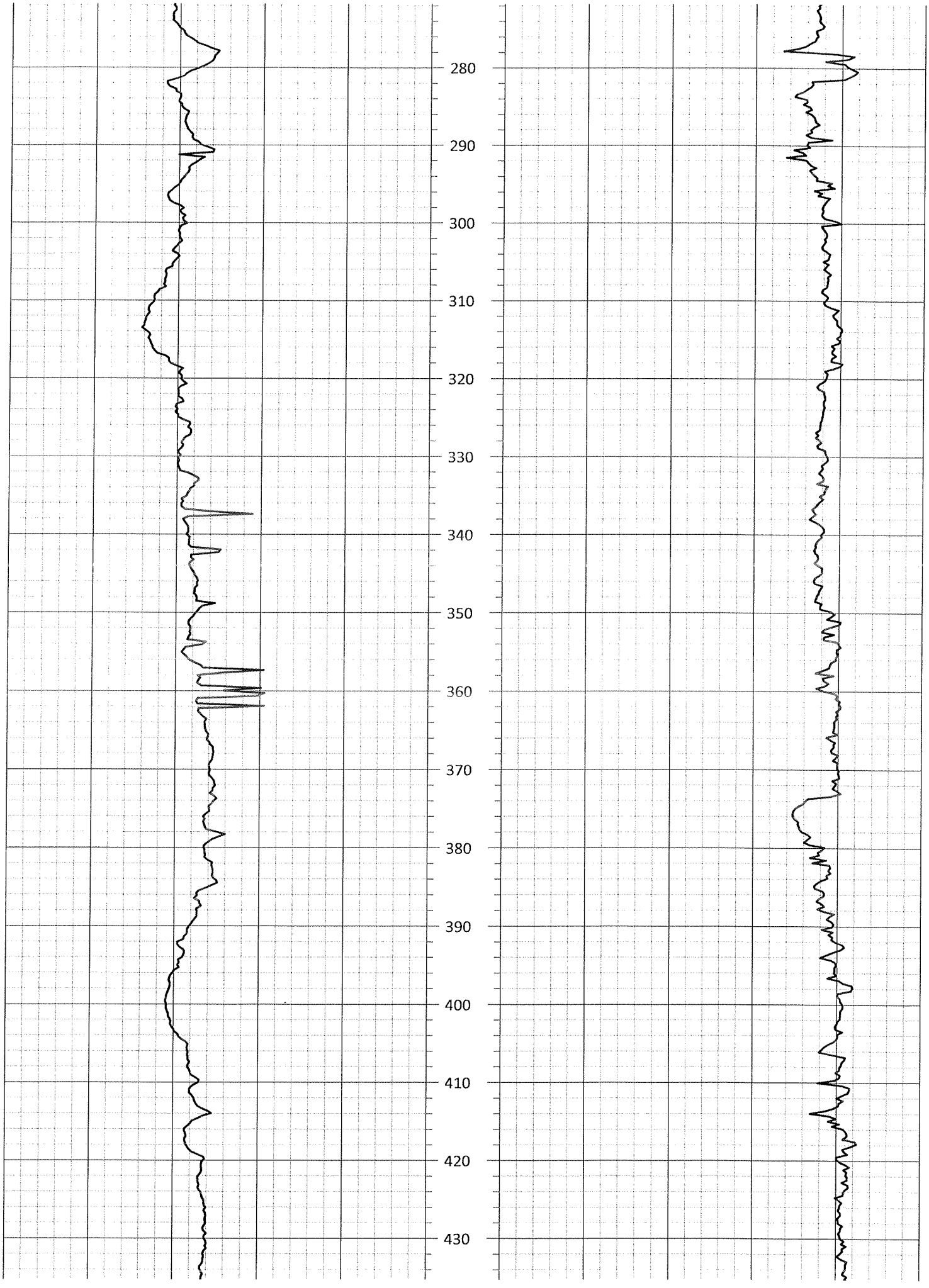
	COMPANY: DELTA WELL & PUMP CO., INC.
	LOCATION: NWIRP - ROUTE 107

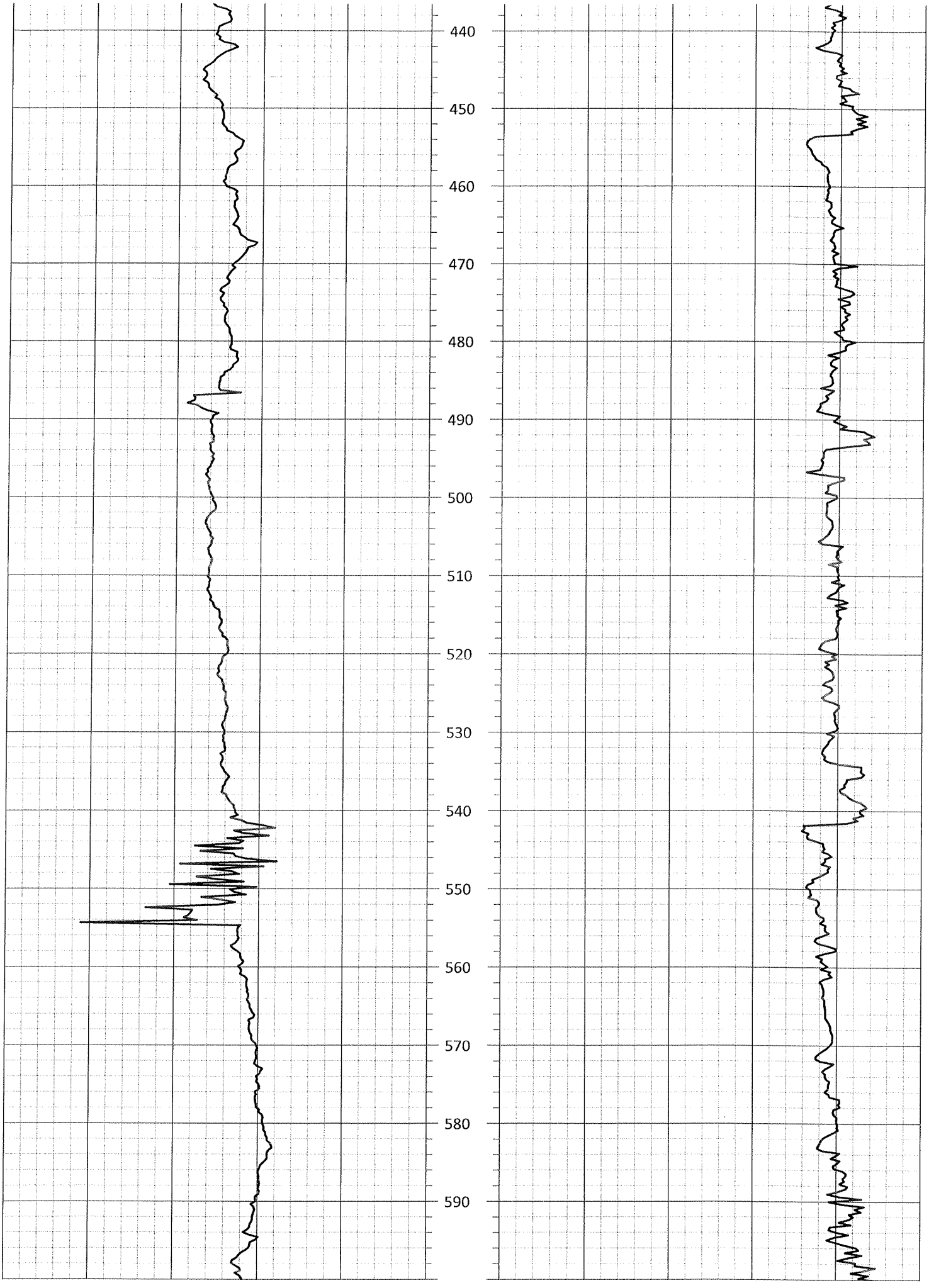
Well: VPB -171 RE137		Depth Driller:
		Depth Logger:
Date: 11/22/2016	Time:	Logged by: CMO
File Name: 747		Witness: VIN

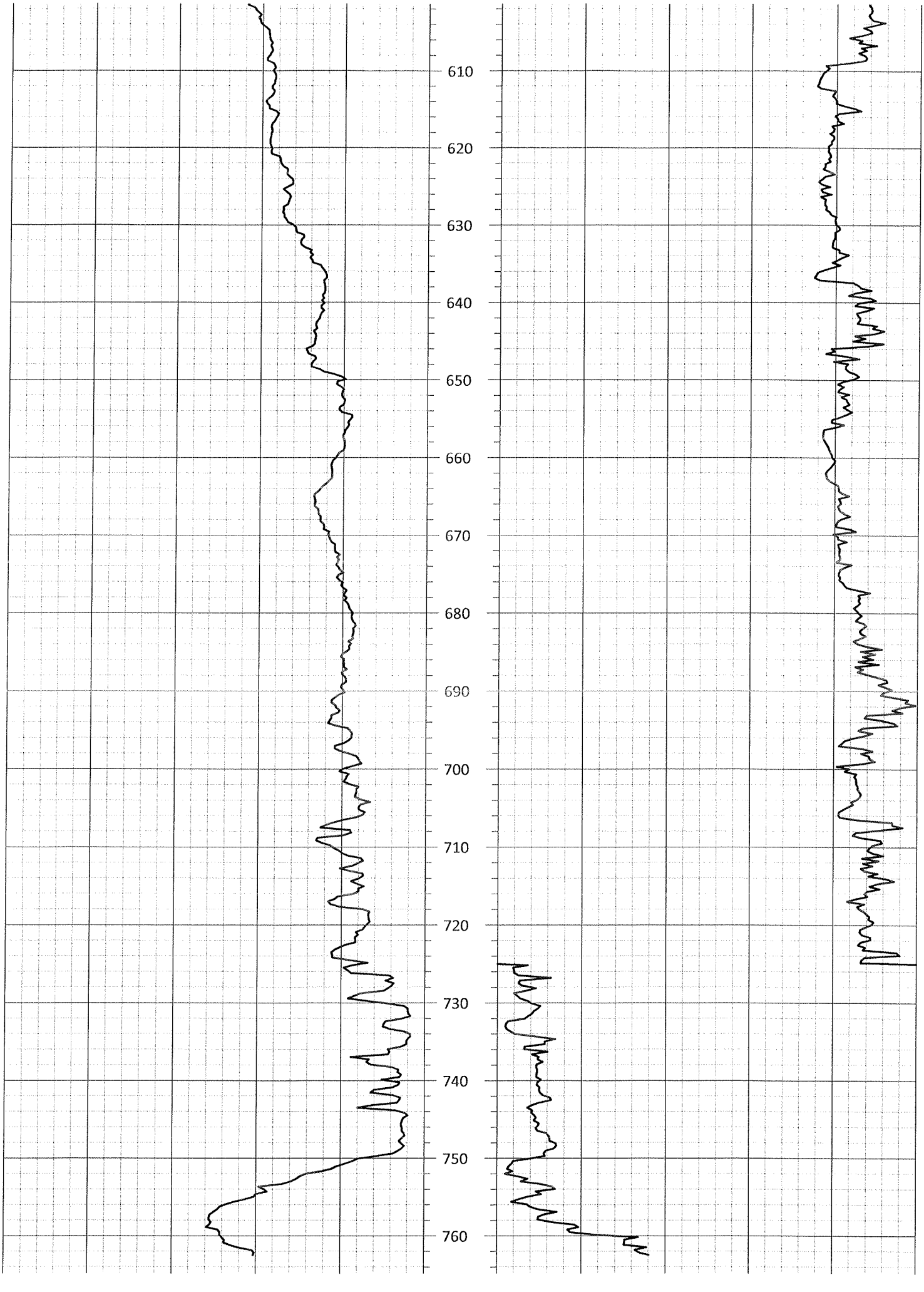
SP (mV)			Depth (ft.)	SPR (ohms)	
0.0		100.0		725.0	900.0

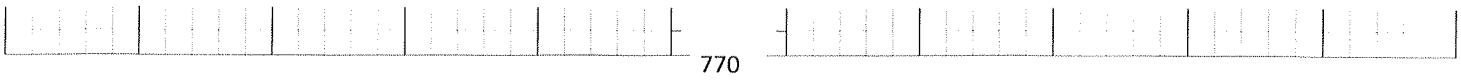



110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
260
270


280
290
300
310
320
330
340
350
360
370
380
390
400
410
420
430


440
450
460
470
480
490
500
510
520
530
540
550
560
570
580
590


610
620
630
640
650
660
670
680
690
700
710
720
730
740
750
760

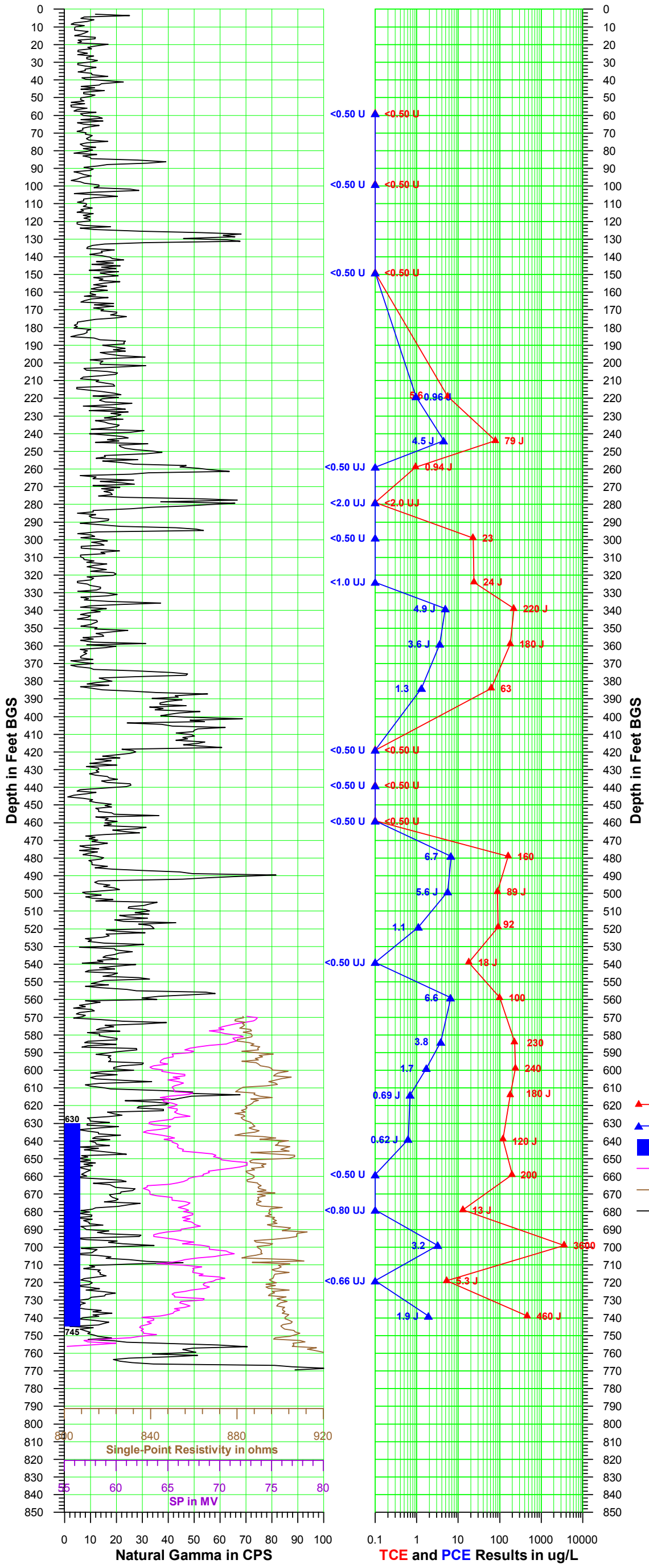


SP (mV)			Depth (ft.)	SPR (ohms)		
0.0		100.0		725.0		900.0

Section 2

VPB171 Gamma, SP, SPR and PCE/TCE Plot

Vertical Profile Boring VPB-171/Recovery Well RE137
Downward Run - November 22, 2016
Validated Analytical Data



Portions of the Spontaneous Potential and Single-Point Resistivity logs shown over the screen interval.

Section 3

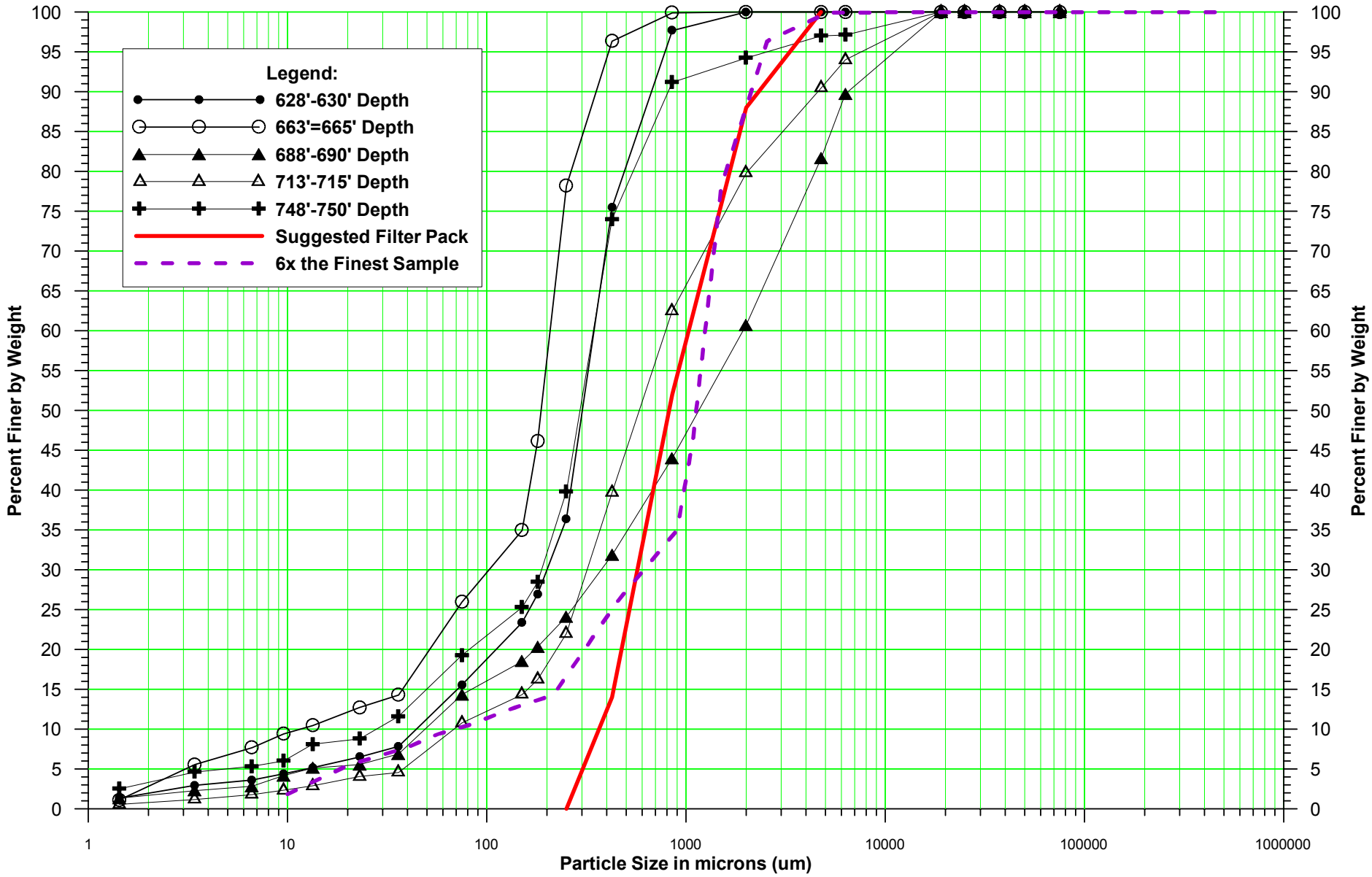
VPB171 Groundwater Sample Log Sheets

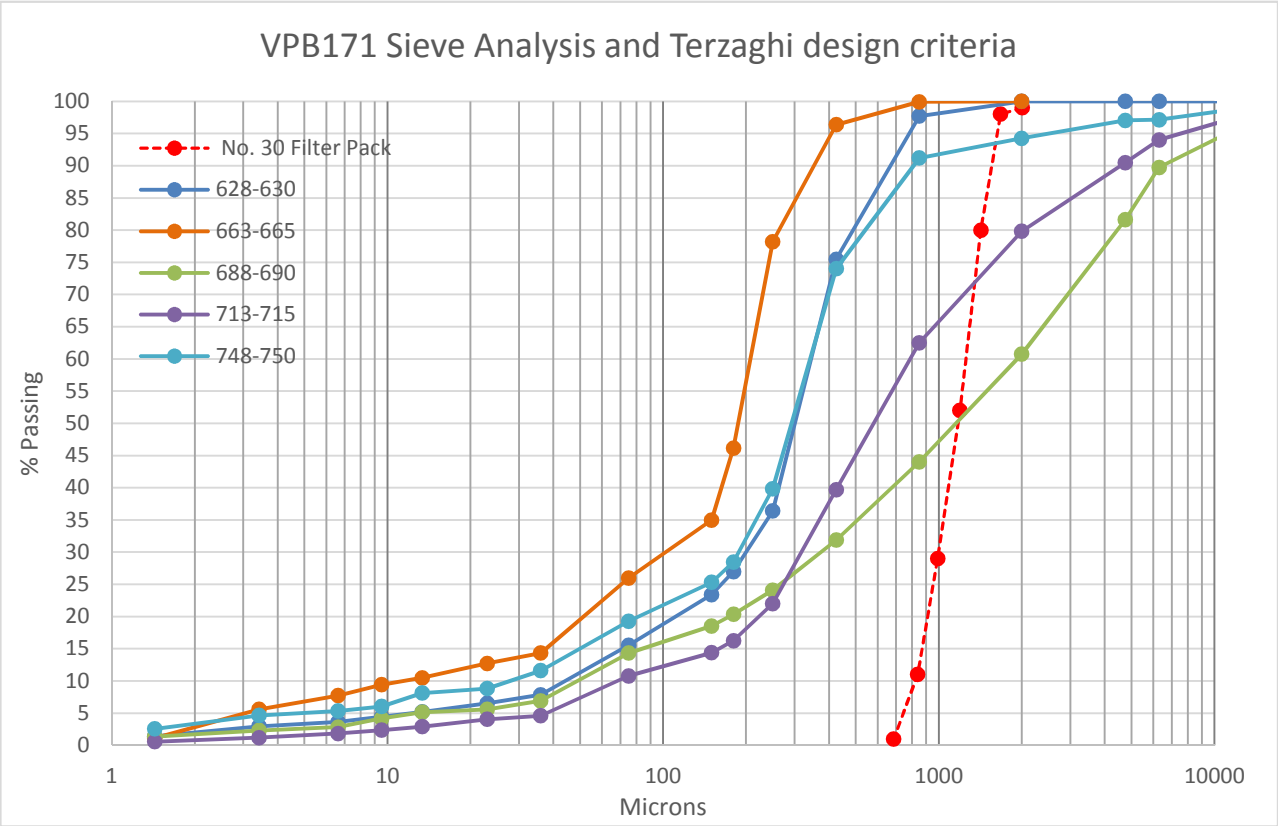
	VPB171	Project #60266526			Collector: Varricchio					NWIRP Bethpage		
#	Sample date	Time	Temp (oC)	pH	Spec. Cond. (us/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)	Starting depth (ft)	Ending depth (ft)	Color	Comments
1	10/31/2016	10:20:00	13.6	6.25	679.1	0.66	93.5	>1100	58	60	reddish grey brown	
2	10/31/2016	12:30:00	14.4	5.96	523.4	6.02	25.2	1058	98	100	reddish grey brown	
3	11/2/2016	10:30:00	16.6	7.43	521.3	3.64	26.9	96.57	148	150	Clear	
4	11/2/2016	13:00:00	19.3	7.46	321.4	4.85	9.6	>1100	198	200	light brown	
5	11/2/2016	14:45:00	19.7	7.34	227.8	3.63	7.8	587.3	218	220	light brown	
6	11/3/2016	11:15:00	NOT ENOUGH RECOVERY						243	245	brown	
7	11/3/2016	13:00:00	19.1	7.55	262.5	0.68	30	>1100	258	260	dark brown	
6	11/4/2016	9:30:00	NOT ENOUGH RECOVERY						278	280	very dark brown	
9	11/4/2016	11:30:00	16.6	7.67	237.9	1.78	37.2	>1100	298	300	dark brown	
10	11/4/2016	14:45:00	16.8	6.97	60.8	1.05	9.5	>1100	323	325	dark brown	
10	11/7/2016	10:00:00	12.8	7.64	142.7	3.89	35.6	745.5	338	340	brown	
12	11/7/2016	12:00:00	14.2	7.72	157.7	2.37	26.5	>1100	358	360	dark brown	
13	11/8/2016	9:45:00	14.9	7.31	164.1	2.32	11.1	744.6	383	385	brown	
14	11/8/2016	14:45:00	18.1	7.87	79.1	4.59	43.4	550.7	418	420	light brown	
15	11/9/2016	9:50:00	15.4	7.66	88.8	2.75	18.4	110.3	438	440	light brown	
16	11/9/2016	11:40:00	15.6	7.26	286.2	2.36	1.7	554.9	458	460	gray	
17	11/9/2016	13:45:00	16.1	7.51	147.9	2.55	37.5	394.2	478	480	light gray	
18	11/10/2016	10:00:00	14.2	7.34	146.6	2.7	32.5	103.2	498	500	light gray	
19	11/10/2016	12:00:00	15.2	7.44	148.5	2.19	21.5	49.3	518	520	very light gray	
20	11/10/2016	14:00:00	NOT ENOUGH RECOVERY						538	540	dark brown	
21	11/11/2016	10:15:00	15.9	7.44	132.3	3.23	67.1	551.6	558	560	light brown	
22	11/11/2016	14:00:00	15.7	7.26	150.4	1.71	41.8	>1100	583	585	gray	
23	11/14/2016	10:15:00	14.5	7.41	199.4	2.53	63.6	725.5	598	600	gray	
24	11/14/2016	12:15:00	15.2	7.33	254.1	1.42	48.4	>1100	618	620	dark brown	
25	11/15/2016	9:50:00	13.6	7.24	364.4	3.83	43.9	>1100	638	640	brown	
26	11/15/2016	12:00:00	13.8	7.85	112.5	4	68.1	237.6	658	660	slightly cloudy	
27	11/16/2016	10:10:00	14.8	6.93	236	3.83	47.1	>1100	678	680	dark brown	
28	11/16/2016	13:10:00	15.3	8.14	194.7	4.12	65.4	392.7	698	700	slightly cloudy	
29	11/17/2016	10:15:00	NOT ENOUGH RECOVERY						718	720	dark brown	
30	11/17/2016	12:15:00	15.6	7.91	386.5	3.93	7.8	>1100	738	740	white	
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												

Section 4

VPB171 Grain Size (Sieve) Analysis

Sieve Analysis for VPB171 Recovery Well RE137)





Terzaghi: $\frac{\text{d15 filter}}{\text{d85 aquifer}} < 4 < \frac{\text{d15 filter}}{\text{d15 aquifer}}$

628-630:	$\frac{870}{580}$	=	1.5	$\frac{870}{71}$	=	12.25
663-665:	$\frac{870}{300}$	=	2.9	$\frac{870}{36}$	=	24.17
688-690:	$\frac{870}{5300}$	=	0.16	$\frac{870}{80}$	=	10.88
713-715:	$\frac{870}{3000}$	=	0.29	$\frac{870}{155}$	=	5.61
748-750:	$\frac{870}{660}$	=	1.32	$\frac{870}{50}$	=	17.40

Katahdin Analytical Services
Grain Size
Project Review Checklist

Client:	Ensafe
Samples:	ST9584-6

QC Level: IV

Report Due Date: 12/4

Data has been approved for release by: WD

Date Released: 11/23

	Data Review Criteria	Yes	No	N.A.	NCR Filed (List Date)
1	All analyses requested were performed (Review Work Order)	✓			
2	All raw transcriptions from logbook to spreadsheet have been reviewed.	✓			
3	Ten percent of spreadsheet calculations have been checked.	✓			
4	All other data and reported results have been reviewed.	✓			
5	All reporting units and significant figures are correct.	✓			
6	All submitted forms are accurate and legible.	✓			
7	Reporting instructions and analysis instructions have been followed.	✓			
8	Field blanks are uncontaminated (i.e. < PQL).			✓	
9	Field duplicate RPD's within acceptance criteria.			✓	
10	For level I/II reports, graph form is submitted.	✓			
11	For level III/IV reports, all raw data and tab sheets are submitted.	✓			
12	Additional information to be included in cover letter as described below.			✓	

Comments (refer to numbers above; continue on back if necessary):

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-SO-1116-628-630
Lab Sample ID	SJ9584-6

Date Received	11/15/16
Start Date/Time	11/18/16:14:06
End Date/Time	11/26/16:12:32

Sample Weight	Sample (g)
Sample Weight (wet)	120.4
Sample Weight (oven dried)	100.78

Date/Time in oven	11/22/16:15:00
Date/Time out of oven	11/23/16:9:00

% Moisture	16.293

Hydrometer Data

Serial Number	379474
Cal Date:	11/21/16:08:03
Low Temp C	17.80
Low Temp Reading	1.0040
High Temp	20.60
High Temp Reading	1.0035
Hyd Cal Slope	-0.000179
Hyd Cal Intercept	0.007179
Soil Gravity	2.650000

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	0
Sample <=#10	100.78
%Passing #10	100.00

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare	Pan+Sample	Sample	%Finer	Classification	Subclass
3"	75000	0	0	0	100	Gravel	
2"	50000	0	0	0	100	Gravel	
1.5"	37500	0	0	0	100	Gravel	
1"	25000	0	0	0	100	Gravel	
3/4"	19000	0	0	0	100	Gravel	
1/4"	6300	0	0	0	100.00	Gravel	
#4	4750	0	0	0	100.00	Gravel	
#10	2000	0.00	0.00	0	100.00	Sand	Coarse
#20	850	302.8	305.1	2.3	97.72	Sand	Medium
#40	425	273.9	296.3	22.4	75.49	Sand	Medium
#60	250	248	287.4	39.4	36.40	Sand	Fine
#80	180	328	337.5	9.5	26.97	Sand	Fine
#100	150	238.6	242.2	3.6	23.40	Sand	Fine
#200	75	227.8	235.7	7.9	15.56	Sand	Fine

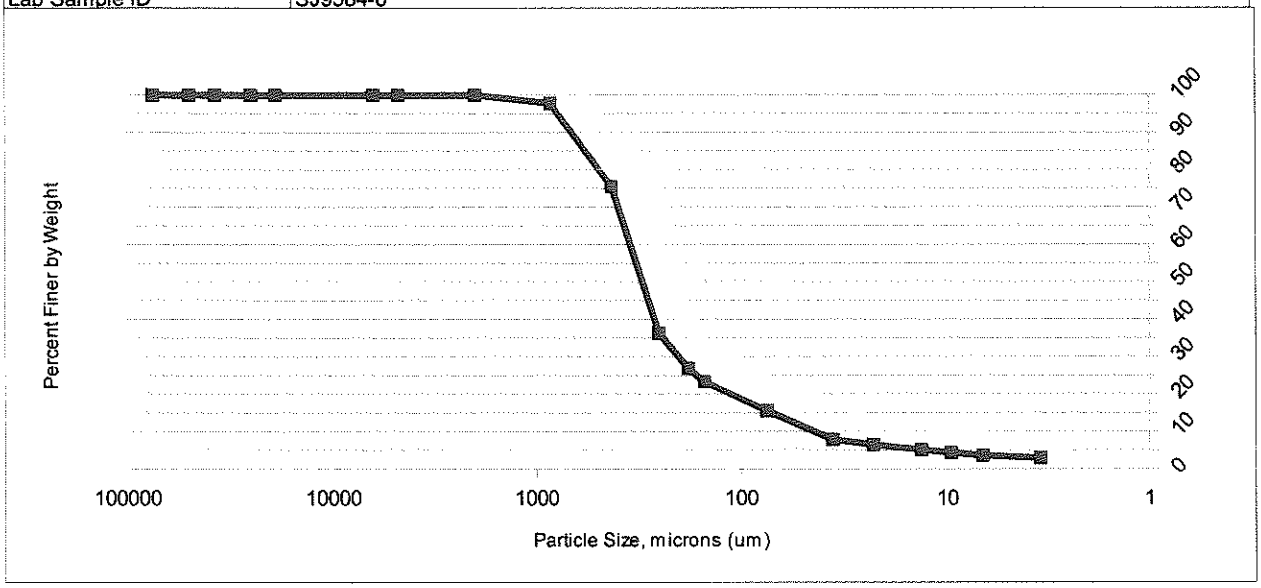
Silt/Clay Fraction (Hydrometer Test)

Time (min)	Actual Time	Spec. Gravity	Temp C	% Finer	Particle Size	Classification
2	2	1.0095	20	7.86	35.99	Silt
5	5	1.0085	20	6.53	23.00	Silt
15	15	1.0075	20	5.19	13.37	Silt
30	30	1.0070	19.5	4.41	9.52	Silt
60	64	1.0065	19	3.62	6.62	Silt
240	240	1.0060	19	2.95	3.42	Clay
1440	1440	1.0050	18	1.38	1.43	Clay

Gravel	0.00
Sand Coarse	0.00
Sand Medium	24.51
Sand Fine	59.93
Silt	12.42
Clay	3.14
Total =	100

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-SO-1116-628-630
Lab Sample ID	SJ9584-6



Data		
Sample Fraction	Particle Size	%Passing
3"	75000	100
2"	50000	100
1.5"	37500	100
1"	25000	100
3/4"	19000	100
1/4"	6300	100.00
#4	4750	100.00
#10	2000	100.00
#20	850	97.72
#40	425	75.49
#60	250	36.40
#80	180	26.97
#100	150	23.40
#200	75	15.56
2	35.99	7.86
5	23.00	6.53
15	13.37	5.19
30	9.52	4.41
64	6.62	3.62
240	3.42	2.95
1440	1.43	1.38

Gravel	0.00
Sand Coarse	0.00
Sand Medium	24.51
Sand Fine	59.93
Silt	12.42
Clay	3.14

Katahdin Analytical Services, LLC.
Sediment Grain Size - Method ASTM D422

Client	Ensafe	Date Received	
Client ID	171-30-1116-628-630	Start Date/Time	11-18-16: 14:00
Lab Sample ID	SJ9584-6A	End Date/Time	11-23-16: 12:32

Sample Weight	Sample (g)
Sample Weight (wet)	120.4
Sample Weight (oven dried)	100.78

% Moisture	16.293

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	0
Sample <=#10	100.78

Date/Time in oven	11.22.16:15:00
Date/Time out of oven	11.23.16: 9:00

Hydrometer Data	
Serial Number	37447H
Cal Date:	11.21.16: 8:03
Low Temp C	17.8
Low Temp Reading	1.0010
High Temp	20.6
High Temp Reading	1.0035
Soil Gravity	2.65

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare	Pan+Sample
3"	75000		
2"	50000		
1.5"	37500		
1"	25000		
3/4"	19000		
1/4"	6300		
#4	4750		
#10	2000		
#20	850	302.8	305.1
#40	425	273.89	296.3
#60	250	248.0	237.7
#80	180	328.0	337.5
#100	150	238.6	242.2
#200	75	227.8	235.7
Pan	Pan	298.7	299.1

8:02

Silt/Clay Fraction (Hydrometer Test)

Time (min)	Proposed Read Time	Actual Time (min)	Temp C	Spec. Gravity
2	8:04	8:04 (2)	19.9	1.0095
5	8:07	8:07 (5)	~~20.0~~ 19.9	1.0085
15	8:17	8:17 (15)	19.8	1.0075
30	8:32	8:32 (30)	19.6	1.0070
60	9:02	9:06 (64)	19.1	1.0065
240	12:02	12:02 (240)	18.9	1.0060
1440	8:02	8:02 (1440)	17.9	1.0050

NARRATIVE

CLIENT: Ensafe
Work Order #: SJ9761

Grain Size Analysis

There were no protocol deviations or observations noted by the organics laboratory staff.

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-111516-663-665
Lab Sample ID	SJ9761-4

Date Received	11/18/16
Start Date/Time	11/18/16:14:18
End Date/Time	11/23/16:12:45

Sample Weight	Sample (g)
Sample Weight (wet)	150.1
Sample Weight (oven dried)	118.88

Date/Time in oven	11/22/16:15:00
Date/Time out of oven	11/23/16:9:00

% Moisture	20.797

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	0
Sample <=#10	118.88
%Passing #10	100.00

Hydrometer Data

Serial Number	379474
Cal Date:	11/21/16:08:03
Low Temp C	17.80
Low Temp Reading	1.0040
High Temp	20.60
High Temp Reading	1.0035
Hyd Cal Slope	-0.000179
Hyd Cal Intercept	0.007179
Soil Gravity	2.650000

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare	Pan+Sample	Sample	%Finer	Classification	Subclass
3"	75000	0	0	0	100	Gravel	
2"	50000	0	0	0	100	Gravel	
1.5"	37500	0	0	0	100	Gravel	
1"	25000	0	0	0	100	Gravel	
3/4"	19000	0	0	0	100	Gravel	
1/4"	6300	0	0	0	100.00	Gravel	
#4	4750	0	0	0	100.00	Gravel	
#10	2000	0.00	0.00	0	100.00	Sand	Coarse
#20	850	302.8	302.9	0.1	99.92	Sand	Medium
#40	425	273.9	278.1	4.2	96.38	Sand	Medium
#60	250	248	269.6	21.6	78.21	Sand	Fine
#80	180	328	366.1	38.1	46.17	Sand	Fine
#100	150	238.6	251.9	13.3	34.98	Sand	Fine
#200	75	227.8	238.5	10.7	25.98	Sand	Fine

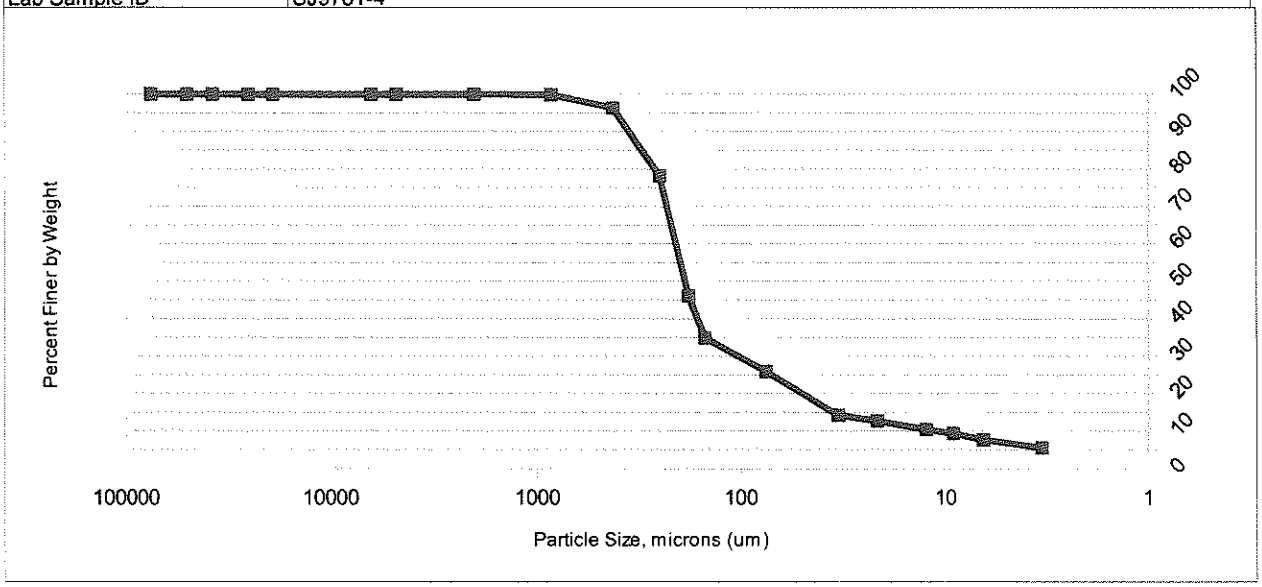
Silt/Clay Fraction (Hydrometer Test)

Time (min)	Actual Time	Spec. Gravity	Temp C	% Finer	Particle Size	Classification
2	2	1.0170	20	14.33	33.16	Silt
5	5	1.0155	20	12.73	21.41	Silt
15	16	1.0135	19.5	10.49	12.33	Silt
30	30	1.0125	19.5	9.42	9.08	Silt
60	61	1.0110	19	7.72	6.48	Silt
240	240	1.0090	19	5.58	3.33	Clay
1440	1440	1.0050	18	1.11	1.43	Clay

Gravel	0.00
Sand Coarse	0.00
Sand Medium	3.62
Sand Fine	70.40
Silt	19.84
Clay	6.14
Total =	100

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-111516-663-665
Lab Sample ID	SJ9761-4



Data		
Sample Fraction	Particle Size	%Passing
3"	75000	100
2"	50000	100
1.5"	37500	100
1"	25000	100
3/4"	19000	100
1/4"	6300	100.00
#4	4750	100.00
#10	2000	100.00
#20	850	99.92
#40	425	96.38
#60	250	78.21
#80	180	46.17
#100	150	34.98
#200	75	25.98
2	33.16	14.33
5	21.41	12.73
16	12.33	10.49
30	9.08	9.42
61	6.48	7.72
240	3.33	5.58
1440	1.43	1.11

Gravel	0.00
Sand Coarse	0.00
Sand Medium	3.62
Sand Fine	70.40
Silt	19.84
Clay	6.14

Katahdin Analytical Services, LLC.
Sediment Grain Size - Method ASTM D422

Client	Enbridge	Date Received	11-18-16
Client ID	171-111516-663-665	Start Date/Time	11-18-16: 14:16
Lab Sample ID	5J9761.4 A	End Date/Time	11-23-16: 12:45

Sample Weight	Sample (g)
Sample Weight (wet)	150.1
Sample Weight (oven dried)	118.88

% Moisture	20.797

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	0
Sample <=#10	118.88

Date/Time in oven	11-22-16: 15:00
Date/Time out of oven	11-23-16: 9:00

Hydrometer Data	
Serial Number	379474
Cal Date:	11-21-16: 8:03
Low Temp C	17.8
Low Temp Reading	1.0040
High Temp	20.6
High Temp Reading	1.0035
Soil Gravity	2.65

Gravel/Sand Fraction (Sieves)			
Sample Fraction	Size (um)	Pan Tare	Pan+Sample
3"	75000		
2"	50000		
1.5"	37500		
1"	25000		
3/4"	19000		
1/4"	6300		
#4	4750		
#10	2000		
#20	850	302.8	302.9
#40	425	273.9	278.1
#60	250	2118.0	269.6
#80	180	328.0	326.1
#100	150	238.6	251.9
#200	75	227.8	238.5
Pan	Pan	298.7	299.7

8:09 Silt/Clay Fraction (Hydrometer Test)				
Time (min)	Proposed Read Time	Actual Time (min)	Temp C	Spec. Gravity
2	8:11	8:11 (2)	20.0	~~1.0150~~ 1.0170
5	8:14	8:14 (5)	19.9	1.0155
15	8:24	8:25 (16)	19.6	1.0135
30	8:39	8:39 (30)	19.4	1.0125
60	9:09	9:10 (61)	19.1	1.0110
240	12:09	12:09 (240)	18.8	1.0090
1440	8:09	8:09 (1440)	17.8	1.0050

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-111616-688-690
Lab Sample ID	SJ9761-7

Date Received	11/18/16
Start Date/Time	11/18/16:14:20
End Date/Time	11/23/16:13:20

Sample Weight	Sample (g)
Sample Weight (wet)	181.5
Sample Weight (oven dried)	159.70

Date/Time in oven	11/22/16:15:00
Date/Time out of oven	11/23/16:9:00

% Moisture	12.009

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	62.6
Sample <=#10	97.1
%Passing #10	60.80

Hydrometer Data

Serial Number	379474
Cal Date:	11/21/16:08:03
Low Temp C	17.80
Low Temp Reading	1.0040
High Temp	20.60
High Temp Reading	1.0035
Hyd Cal Slope	-0.000179
Hyd Cal Intercept	0.007179
Soil Gravity	2.650000

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare	Pan+Sample	Sample	%Finer	Classification	Subclass
3"	75000	0	0	0	100	Gravel	
2"	50000	0	0	0	100	Gravel	
1.5"	37500	0	0	0	100	Gravel	
1"	25000	0	0	0	100	Gravel	
3/4"	19000	556.7	556.7	0	100	Gravel	
1/4"	6300	505.9	522.3	16.4	89.73	Gravel	
#4	4750	403.9	416.8	12.9	81.65	Gravel	
#10	2000	371.50	404.90	33.4	60.74	Sand	Coarse
#20	850	302.8	329.5	26.7	44.02	Sand	Medium
#40	425	273.9	293.3	19.4	31.87	Sand	Medium
#60	250	248	260.4	12.4	24.11	Sand	Fine
#80	180	328	334	6	20.35	Sand	Fine
#100	150	238.5	241.4	2.9	18.54	Sand	Fine
#200	75	227.7	234.4	6.7	14.34	Sand	Fine

Silt/Clay Fraction (Hydrometer Test)

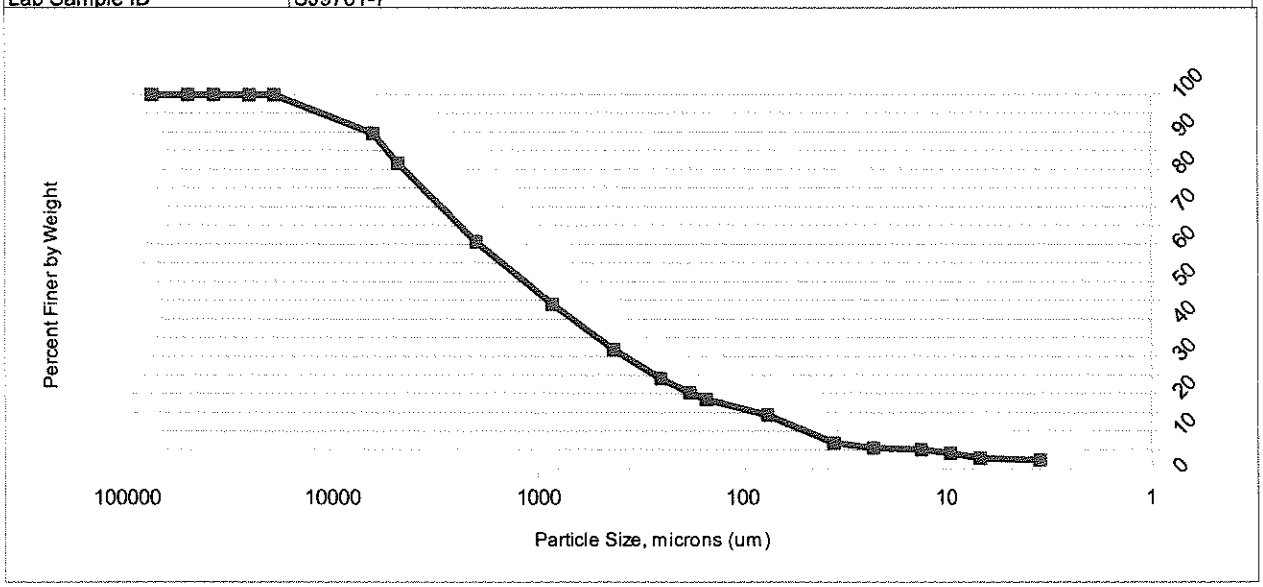
Time (min)	Actual Time	Spec. Gravity	Temp C	% Finer	Particle Size	Classification
2	2	1.0115	19.5	6.91	35.55	Silt
5	5	1.0100	19.5	5.58	22.74	Silt
15	15	1.0095	19.5	5.14	13.22	Silt
30	30	1.0085	19	4.17	9.51	Silt
60	60	1.0070	19	2.84	6.77	Silt
240	240	1.0065	18.5	2.32	3.44	Clay
1440	1440	1.0055	18	1.36	1.43	Clay

Gravel	18.35
Sand Coarse	20.91
Sand Medium	28.87
Sand Fine	17.53
Silt	11.55
Clay	2.79

Total =	100

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-111616-688-690
Lab Sample ID	SJ9761-7



Data		
Sample Fraction	Particle Size	%Passing
3"	75000	100
2"	50000	100
1.5"	37500	100
1"	25000	100
3/4"	19000	100
1/4"	6300	89.73
#4	4750	81.65
#10	2000	60.74
#20	850	44.02
#40	425	31.87
#60	250	24.11
#80	180	20.35
#100	150	18.54
#200	75	14.34
2	35.55	6.91
5	22.74	5.58
15	13.22	5.14
30	9.51	4.17
60	6.77	2.84
240	3.44	2.32
1440	1.43	1.36

Gravel	18.35
Sand Coarse	20.91
Sand Medium	28.87
Sand Fine	17.53
Silt	11.55
Clay	2.79

Katahdin Analytical Services, LLC.
Sediment Grain Size - Method ASTM D422

Client	Ensafe	Date Received	11-18-16
Client ID	M1-111616.688-1090	Start Date/Time	11:19:16: 14:20
Lab Sample ID	ST9761-7A	End Date/Time	11-23-16: 13:20

Sample Weight	Sample (g)
Sample Weight (wet)	181.5
Sample Weight (oven dried)	159.70

Date/Time in oven	11.22.16: 15:00
Date/Time out of oven	11.23-16: 9:00

% Moisture	12.009

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	62.6
Sample <=#10	97.1

Hydrometer Data	
Serial Number	37947
Cal Date:	11.21-16 - 8:03
Low Temp C	17.8
Low Temp Reading	1.0040
High Temp	20.6
High Temp Reading	1.0035
Soil Gravity	2.65

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare	Pan+Sample
3"	75000		
2"	50000		
1.5"	37500		
1"	25000		
3/4"	19000	556.7	556.7
1/4"	6300	~~506.0~~ 505.9	522.3
#4	4750	403.9	416.8
#10	2000	371.5	404.9
#20	850	302.8	329.5
#40	425	273.9	293.3
#60	250	248.0	260.4
#80	180	328.0	334.0
#100	150	238.5	241.4
#200	75	227.7	234.4
Pan	Pan	298.6	299.2

8:19 Silt/Clay Fraction (Hydrometer Test)

Time (min)	Proposed Read Time	Actual Time (min)	Temp C	Spec. Gravity
2	8:21	8:21 (2)	19.5	1.0115
5	8:24	8:24 (5)	19.5	1.0100
15	8:34	8:34 (15)	19.3	1.0095
30	8:49	8:49 (30)	19.1	1.0085
60	9:19	9:19 (60)	19.1	1.0070
240	12:19	12:19 (240)	18.7	1.0065
1440	8:19	8:19 (1449)	17.9	1.0055

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-111616-713-715
Lab Sample ID	SJ9761-10

Date Received	11/18/16
Start Date/Time	11/18/16:14:22
End Date/Time	11/23/16:13:45

Sample Weight	Sample (g)
Sample Weight (wet)	150.4
Sample Weight (oven dried)	128.35

% Moisture	14.66

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	26.2
Sample <=#10	102.15
%Passing #10	79.59

Date/Time in oven	11/22/16:15:00
Date/Time out of oven	11/23/16:9:00

Hydrometer Data

Serial Number	379474
Cal Date:	11/21/16:08:03
Low Temp C	17.80
Low Temp Reading	1.0040
High Temp	20.60
High Temp Reading	1.0035
Hyd Cal Slope	-0.000179
Hyd Cal Intercept	0.007179
Soil Gravity	2.650000

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare	Pan+Sample	Sample	%Finer	Classification	Subclass
3"	75000	0	0	0	100	Gravel	
2"	50000	0	0	0	100	Gravel	
1.5"	37500	0	0	0	100	Gravel	
1"	25000	0	0	0	100	Gravel	
3/4"	19000	556.7	556.7	0	100	Gravel	
1/4"	6300	505.9	513.6	7.7	94.00	Gravel	
#4	4750	403.9	408.4	4.5	90.49	Gravel	
#10	2000	371.50	385.20	13.7	79.82	Sand	Coarse
#20	850	302.8	325	22.2	62.52	Sand	Medium
#40	425	273.8	303.1	29.3	39.70	Sand	Medium
#60	250	248	270.7	22.7	22.01	Sand	Fine
#80	180	328	335.4	7.4	16.25	Sand	Fine
#100	150	238.5	240.9	2.4	14.38	Sand	Fine
#200	75	227.8	232.4	4.6	10.79	Sand	Fine

Silt/Clay Fraction (Hydrometer Test)

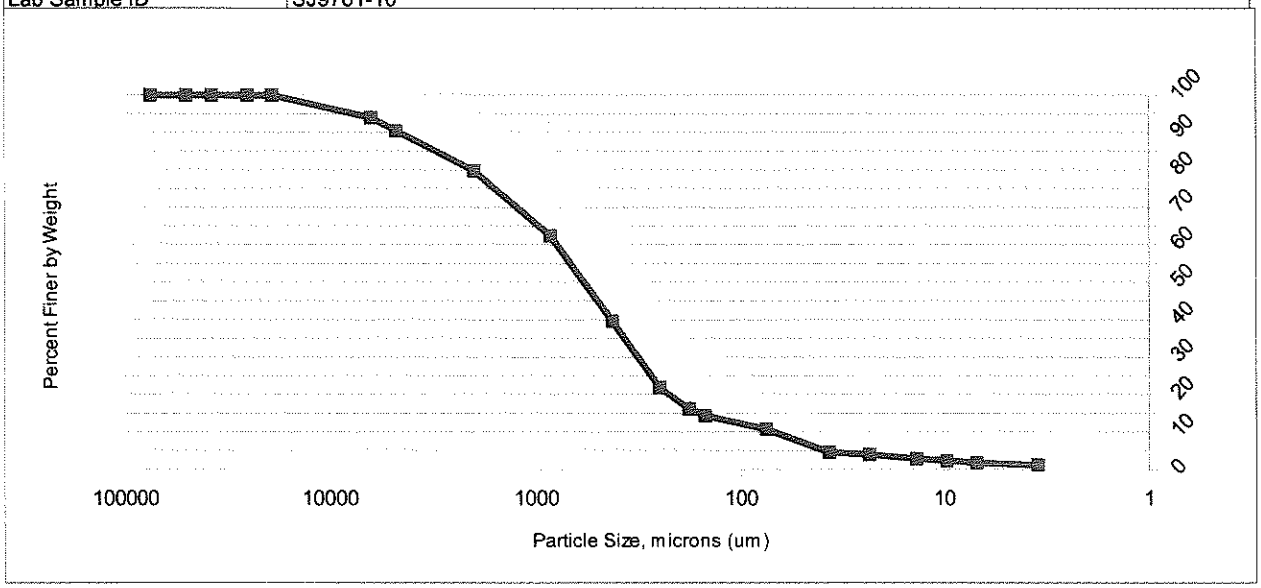
Time (min)	Actual Time	Spec. Gravity	Temp C	% Finer	Particle Size	Classification
2	2	1.0080	19.5	4.60	36.60	Silt
5	5	1.0075	19.5	4.06	23.31	Silt
15	15	1.0065	19	2.90	13.68	Silt
30	30	1.0060	19	2.36	9.67	Silt
60	60	1.0055	19	1.83	6.91	Silt
240	240	1.0050	18.5	1.20	3.48	Clay
1440	1440	1.0045	18	0.57	1.44	Clay

Gravel	9.51
Sand Coarse	10.67
Sand Medium	40.12
Sand Fine	28.91
Silt	9.25
Clay	1.54

Total =	100

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-111616-713-715
Lab Sample ID	SJ9761-10



Data		
Sample Fraction	Particle Size	%Passing
3"	75000	100
2"	50000	100
1.5"	37500	100
1"	25000	100
3/4"	19000	100
1/4"	6300	94.00
#4	4750	90.49
#10	2000	79.82
#20	850	62.52
#40	425	39.70
#60	250	22.01
#80	180	16.25
#100	150	14.38
#200	75	10.79
2	36.60	4.60
5	23.31	4.06
15	13.68	2.90
30	9.67	2.36
60	6.91	1.83
240	3.48	1.20
1440	1.44	0.57

Gravel	9.51
Sand Coarse	10.67
Sand Medium	40.12
Sand Fine	28.91
Silt	9.25
Clay	1.54

Katahdin Analytical Services, LLC.
Sediment Grain Size - Method ASTM D422

Client	EnSafe	Date Received	11-18-16
Client ID	171-111616-713-715	Start Date/Time	11-18-16: 14:22
Lab Sample ID	599761-10 A	End Date/Time	11:23-16: 13:45

Sample Weight	Sample (g)
Sample Weight (wet)	150.4
Sample Weight (oven dried)	128.35
% Moisture	14.66

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	26.2
Sample <=#10	102.15

Date/Time in oven	11-22-16 :15:00
Date/Time out of oven	11-23-16 9:00
Hydrometer Data	
Serial Number	319474
Cal Date:	11-21-16: 8:03
Low Temp C	17.8
Low Temp Reading	1.0040
High Temp	20.6
High Temp Reading	1.0035
Soil Gravity	2.65

Gravel/Sand Fraction (Sieves)			
Sample Fraction	Size (um)	Pan Tare	Pan+Sample
3"	75000		
2"	50000		
1.5"	37500		
1"	25000		
3/4"	19000	556.7	556.7
1/4"	6300	505.9	513.16
#4	4750	403.9	408.4
#10	2000	371.95	385.2
#20	850	302.8	325.0
#40	425	273.8	303.1
#60	250	248.0	270.7
#80	180	328.0	335.4
#100	150	238.5	240.9
#200	75	227.8	232.4
Pan	Pan	~~22~~ 298.16	296.8

8:28	Silt/Clay Fraction (Hydrometer Test)			
Time (min)	Proposed Read Time	Actual Time (min)	Temp C	Spec. Gravity
2	8:30	8:30 (2)	19.7	1.0080
5	8:33	8:33 (5)	19.6	1.0075
15	8:43	8:43 (15)	19.2	1.0065
30	8:58	8:58 (30)	19.1	1.0060
60	9:28	9:28 (60)	18.9	1.0055
240	12:28	12:28 (240)	18.7	1.0050
1440	8:28	8:28 (1440)	17.9	1.0045

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-SO-1118-748-750
Lab Sample ID	SJ9868-1

Date Received	11/22/16
Start Date/Time	11/28/16:13:08
End Date/Time	12/01/16:9:30

Sample Weight	Sample (g)
Sample Weight (wet)	115.3
Sample Weight (oven dried)	101.23

Date/Time in oven	11/29/16:13:45
Date/Time out of oven	12/01/16:8:10

% Moisture	12.201

Hydrometer Data

Serial Number	379474
Cal Date:	11/28/16:10:33
Low Temp C	20.30
Low Temp Reading	1.0035
High Temp	20.60
High Temp Reading	1.0030
Hyd Cal Slope	-0.001667
Hyd Cal Intercept	0.037333
Soil Gravity	2.650000

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	5.8
Sample <=#10	95.43
%Passing #10	94.27

Gravel/Sand Fraction (Sieves)

Sample Fraction	Size (um)	Pan Tare	Pan+Sample	Sample	%Finer	Classification	Subclass
3"	75000	0	0	0	100	Gravel	
2"	50000	0	0	0	100	Gravel	
1.5"	37500	0	0	0	100	Gravel	
1"	25000	0	0	0	100	Gravel	
3/4"	19000	556.7	556.7	0	100	Gravel	
1/4"	6300	506	508.9	2.9	97.14	Gravel	
#4	4750	403.9	404	0.1	97.04	Gravel	
#10	2000	371.40	374.20	2.8	94.27	Sand	Coarse
#20	850	302.9	306	3.1	91.21	Sand	Medium
#40	425	273.9	291.3	17.4	74.02	Sand	Medium
#60	250	248	282.6	34.6	39.84	Sand	Fine
#80	180	328	339.5	11.5	28.48	Sand	Fine
#100	150	238.5	241.7	3.2	25.32	Sand	Fine
#200	75	227.7	233.8	6.1	19.29	Sand	Fine

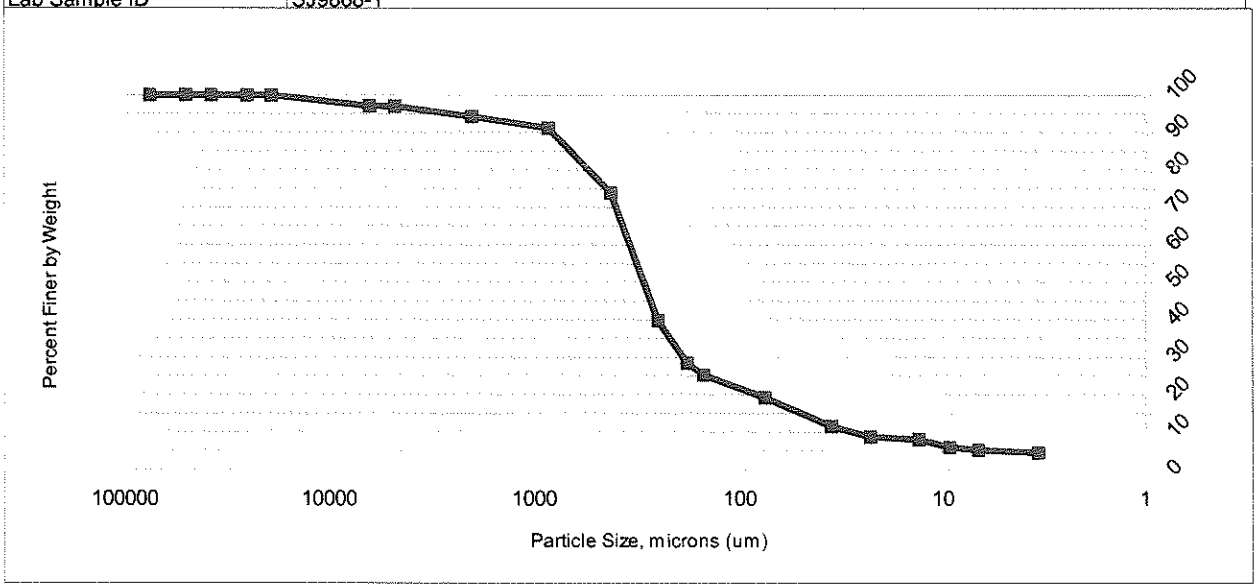
Silt/Clay Fraction (Hydrometer Test)

Time (min)	Actual Time	Spec. Gravity	Temp C	% Finer	Particle Size	Classification
2	2	1.0115	20.5	11.61	35.11	Silt
5	5	1.0095	20.5	8.82	22.62	Silt
15	15	1.0090	20.5	8.13	13.06	Silt
30	31	1.0075	20.5	6.04	9.25	Silt
60	60	1.0070	20.5	5.34	6.65	Silt
240	240	1.0065	20.5	4.64	3.36	Clay
1440	1440	1.0050	20.5	2.55	1.38	Clay

Gravel	2.96
Sand Coarse	2.77
Sand Medium	20.25
Sand Fine	54.73
Silt	14.50
Clay	4.79
Total =	100

Kathdin Analytical Services - Report of Analysis
Sediment Grain Size - ASTM D422

Client	ENSAFE
Client ID	171-SO-1118-748-750
Lab Sample ID	SJ9868-1



Data		
Sample Fraction	Particle Size	%Passing
3"	75000	100
2"	50000	100
1.5"	37500	100
1"	25000	100
3/4"	19000	100
1/4"	6300	97.14
#4	4750	97.04
#10	2000	94.27
#20	850	91.21
#40	425	74.02
#60	250	39.84
#80	180	28.48
#100	150	25.32
#200	75	19.29
2	35.11	11.61
5	22.62	8.82
15	13.06	8.13
31	9.25	6.04
60	6.65	5.34
240	3.36	4.64
1440	1.38	2.55

Gravel	2.96
Sand Coarse	2.77
Sand Medium	20.25
Sand Fine	54.73
Silt	14.50
Clay	4.79

Sand

Katahdin Analytical Services, LLC.
Sediment Grain Size - Method ASTM D422

Client	Ensafe	Date Received	11-22-16
Client ID	171-50411B-748-750	Start Date/Time	11-28-16: 13:08
Lab Sample ID	579BLEB-1 A	End Date/Time	12-1-16 : 9:30

Sample Weight	Sample (g)
Sample Weight (wet)	115.3
Sample Weight (oven dried)	101.23
% Moisture	12.20

Sample Split (Oven Dried)	Sample (g)
Sample >=#10	5.8
Sample <=#10	95.43

Date/Time in oven	11-29-16: 13:45
Date/Time out of oven	12-1-16: 8:10
Hydrometer Data	
Serial Number	379474
Cal Date:	11-28-16: 10:33
Low Temp C	20.3
Low Temp Reading	1.0035
High Temp	20.6
High Temp Reading	1.0030
Soil Gravity	2.65

Gravel/Sand Fraction (Sieves)			
Sample Fraction	Size (um)	Pan Tare	Pan+Sample
3"	75000		
2"	50000		
1.5"	37500		
1"	25000		
3/4"	19000	556.7	556.7
1/4"	6300	506.0	508.9
#4	4750	403.9	404.0
#10	2000	371.4	374.2
#20	850	302.9	306.0
#40	425	273.9	291.3
#60	250	248.0	282.6
#80	180	328.0	339.5
#100	150	238.5	241.7
#200	75	227.7	233.8
Pan	Pan	298.7	298.9

10:30

Silt/Clay Fraction (Hydrometer Test)				
Time (min)	Proposed Read Time	Actual Time (min)	Temp C	Spec. Gravity
2	10:32	10:32 (2)	20.3	1.01105
5	10:35	10:35 (5)	20.3	1.0095
15	10:45	10:45 (15)	20.3	1.0090
30	11:00	11:01 (31)	20.3	1.0075
60	11:30	11:30 (60)	20.3	1.0070
240	14:30	1430 (240)	20.5	1.0065
1440	10:30	10:30 (mm)	20.6	1.0050

Section 5

VPB171 Analytical Data Validation

- Analytical Data Sheets
- Validation Letter and Table

DATA VALIDATION REPORT

Project:	Regional Groundwater Investigation — NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Sample Delivery Group:	BETHPAGE VPB171	
Analyses/Method:	Volatile Organic Compounds (VOCs) by U.S. EPA SW-846 Method 8260C and Total Organic Carbon (TOC) by U.S. EPA SW-846 Method 9060A	
Validation Level:	3	
Project Number:	0888812477.SA.DV	
Prepared by:	Dana Miller/Resolution Consultants	Completed on: 01/20/2017
Reviewed by:	Tina Clemmey/Resolution Consultants	File Name: BETHPAGE VPB171_8260C_9060A

SUMMARY

This report summarizes data review findings for samples listed below, collected by Resolution Consultants from the Regional Groundwater Investigation — NWIRP Bethpage Site on 31 October to 17 November 2016 in accordance with the following Sampling and Analysis Plans:

- *Sampling and Analysis Plan, Bethpage, New York.* (Resolution Consultants, April 2013).
- *UFP SAP Addendum, Installation of Vertical Profile Borings and Monitoring Wells, Operable Unit 2, NWIRP Bethpage, New York.* (Resolution Consultants, November 2013).
- *UFP SAP Addendum, Inclusion of Additional Target Analytes for Volatile Organics Analyses, NWIRP Bethpage OU2, Bethpage, New York*. (Resolution Consultants, August 2014).

Sample ID	Lab ID	Matrix/Sample Type	Analysis
VPB171-GW-103116-58-60	SJ9098-1	Groundwater	8260C
VPB171-GW-103116-98-100	SJ9098-2	Groundwater	8260C
VPB171-GW-110216-148-150	SJ9255-2	Groundwater	8260C
VPB171-GW-110216-218-220	SJ9255-4	Groundwater	8260C
VPB171-GW-110316-243-245	SJ9255-5	Groundwater	8260C
VPB171-GW-110316-258-260	SJ9255-6	Groundwater	8260C
VPB171-GW-110416-278-280	SJ9359-2DL	Groundwater	8260C
VPB171-GW-110416-298-300	SJ9359-3RA	Groundwater	8260C
VPB171-GW-110416-323-325	SJ9359-7DL	Groundwater	8260C
VPB171-GW-110716-338-340	SJ9359-8	Groundwater	8260C
VPB171-GW-110716-358-360	SJ9359-9	Groundwater	8260C

Sample ID	Lab ID	Matrix/Sample Type	Analysis
VPB171-GW-111016-498-500	SJ9516-10	Groundwater	8260C
VPB171-GW-111016-518-520	SJ9516-11	Groundwater	8260C
VPB171-GW-111016-538-540	SJ9516-12	Groundwater	8260C
VPB171-GW-110816-383-385	SJ9516-2	Groundwater	8260C
VPB171-SOIL-110816-388-390	SJ9516-3	Soil	9060A
VPB171-GW-110816-418-420	SJ9516-6	Groundwater	8260C
VPB171-GW-110916-438-440	SJ9516-7	Groundwater	8260C
VPB171-GW-110916-458-460	SJ9516-8	Groundwater	8260C
VPB171-GW-110916-478-480	SJ9516-9	Groundwater	8260C
VPB171-GW-111116-558-560	SJ9584-2	Groundwater	8260C
VPB171-GW-111116-583-585	SJ9584-3	Groundwater	8260C
VPB171-GW-111416-598-600	SJ9584-4	Groundwater	8260C
VPB171-GW-111416-618-620	SJ9584-5	Groundwater	8260C
VPB171-SOIL-111416-628-630	SJ9584-6	Soil	9060A
VPB171-GW-111716-718-720	SJ9761-11DL	Groundwater	8260C
VPB171-GW-111716-738-740	SJ9761-12	Groundwater	8260C
VPB171-GW-111516-638-640	SJ9761-2	Groundwater	8260C
VPB171-GW-111516-658-660	SJ9761-3	Groundwater	8260C
VPB171-GW-111516-658-660	SJ9761-3DL	Groundwater	8260C
VPB171-GW-111616-678-680	SJ9761-5DL	Groundwater	8260C
VPB171-GW-111616-698-700	SJ9761-9	Groundwater	8260C
VPB171-SOIL-111816-748-750	SJ9868-1	Soil	9060A

Data validation activities were conducted using the following guidance documents: *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846, specifically Method 8260C, Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry* (U.S. EPA, 2006), *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods SW-846, specifically Method 9060A, Total Organic Carbon* (U.S. EPA, 1996), *Method SM5310B, Total Organic Carbon by High-Temperature Combustion, U.S. Environmental Protection Agency (U.S. EPA) Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (NFG, June 2008), *U.S. Environmental Protection Agency (U.S. EPA) Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review* (NFG, January 2010), and Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (October 2010). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following parameters (where applicable to the method):

✓	Holding times and sample preservation
✓	Gas chromatography/Mass spectrometer performance checks
✗	Initial calibration (ICAL) /initial calibration verification (ICV)/continuing calibration verification (CCV)
✗	Laboratory blanks/field blanks/equipment blanks/trip blanks
✗	Surrogate spike recoveries
✓	Matrix spike and/or matrix spike duplicate results
✗	Laboratory control sample/laboratory control sample duplicate results
✗	Field duplicates
✓	Internal standards
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. Acceptable data parameters for which all criteria were met and no qualification was performed and non-conformance or other issues that were noted during validation, but did not result in qualification of data are not discussed further. The symbol (✗) indicates that a QC non-conformance resulted in the qualification of data. Any QC non-conformance that resulted in the qualification of data is discussed below.

RESULTS

Initial Calibration/Continuing Calibration Verification

Calibration data were reviewed for conformance with the QC acceptance criteria to ensure that:

- The ICAL percent relative standard deviation, correlation coefficient/coefficient of determination, and/or response factor method acceptance criteria were met
- The ICV standard percent recovery acceptance criteria were met
- The CCV method percent difference or percent drift and response factor acceptance criteria were met
- The retention time method acceptance criteria were met

Data qualification to the analytes associated with the specific ICAL was as follows:

ICAL Linearity Non-conformance:

Criteria	Actions	
	Detected Results	Non-detected Results
%RSD >15% and quantitation based on mean response factor	J	UJ

Notes:
%RSD = Relative standard deviation
J = Estimated
UJ = Undetected and estimated

Data qualification to the analytes associated with the specific ICV was as follows:

ICV Recovery Non-conformance:

Criteria	Actions	
	Detected Results	Non-detected Results
Recovery >120%	J	UJ
Recovery < 80%	J	UJ

Notes:
J = Estimated
UJ = Undetected and estimated

Data qualification to the analytes associated with the specific CCV was as follows:

CCV Linearity Non-conformance:

Criteria	Actions	
	Detected Results	Non-detected Results
%Difference or %Drift > 20%	J	UJ

Notes:
J = Estimated
UJ = Undetected and estimated

Laboratory Blanks/Equipment Blanks/ Field Blanks/Trip Blanks

Laboratory blanks, equipment blanks, field blanks, and trip blanks were analyzed with samples to assess contamination imparted by sample preparation and/or analysis. All results associated with a particular blank were evaluated to determine whether there was an inherent variability in the data, or if a problem was an isolated occurrence that did not affect the data. Samples were flagged in accordance with *Functional Guidelines* (shown below) where detections were not believed to be site-related.

Blank Non-conformance Charts:

For common lab contaminants (methylene chloride, acetone, 2-butanone):			
Blank type	**Blank result**	**Sample result**	**Action for samples**
Method, Storage, Trip, Field, or Equipment	Detects	Not detected	No qualification
	≤ 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and ≤ 4x the LOQ	Report the sample result with a U**
		≥ 4x the LOQ	No qualifications
	> 2x LOQ	< LOD	Report sample LOD value with a U**
		≥ LOD and < 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the blank result with a U or reject the sample result as unusable R
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U.** If the result is > 2x blank result, no qualification is required. **
****Based on Resolution Consultants professional judgment**			

For all other compounds:			
Blank type	**Blank result**	**Sample result**	**Action for samples**
Method, Storage, Trip, Field, or Equipment	Detects	Not detected	No qualification
	< 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ	Use professional judgment
	> 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the blank result with a U or reject the sample result as unusable R
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U. If the result is > 2x blank result, no qualification is required.
	= 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ	Use professional judgment
	Gross contamination	Detects	Qualify results as unusable R

Notes:

LOQ = Limit of quantitation
LOD = Limit of detection
U = Undetected
R = Rejected

Surrogate Spike Recovery

Surrogates provide information needed to assess the accuracy of analyses. Known amounts of surrogate compounds, which are not likely to be found in the actual samples, are added to each organic sample to check for accuracy. If surrogate percent recoveries (%Rs) are close to the known concentrations, the reported target compound concentrations are assumed to be accurate. Data qualification on the basis of surrogate recovery was as follows:

Surrogate Spike Recovery Non-Conformance Chart:

Criteria	Action	
	Detected	**Non-Detected**
Lower Limit ≤ %R or RPD ≤ Upper Limit	No qualification	No qualification
% R > Upper Limit	J	No qualification
20% <%R < Lower Limit	J	UJ
% R < 20%	J	Rejected

Notes:
%R = Percent recovery
RPD = Relative percent differences
J = Estimated value
UJ = Undetected and estimated

Laboratory Control Samples / Laboratory Control Sample Duplicate

LCS %Rs is used to monitor the overall accuracy and performance of each step during analysis, including sample preparation. The laboratory analyzed LCSs in duplicate when matrix spike/matrix spike duplicates were not reported. In these instances, the laboratory determined precision between the duplicated values. Data qualification to the analytes associated with the specific LCS/LCS duplicate was as follows:

Laboratory Control Sample / Laboratory Control Sample Duplicate Non-conformance Chart:

Criteria	Action	
	Detected	**Non-detected**
% R or RPD > UL	J	No qualification
%R < LL	J	UJ
%R < 20%	J	Rejected

Notes:
%R = Percent recovery
RPD = Relative percent difference
UL = Upper limit
LL = Lower limit
J = Estimated
UJ = Undetected and estimated

Field Duplicate

Three field duplicate pairs were collected to assess precision: VPB171-GW-110416-298-300/VPB171-GWD-110416, VPB171-GW-111616-698-700/VPB171-GWD-111616 and VPB171-SOIL-110816-388-390/VPB171-SOIL-D-110816. Field duplicate RPDs were reviewed for conformance with the Resolution Consultants QC criteria of ≤30% for aqueous matrices and ≤50% for solids. These criteria apply if both

results were greater than two times the limit of quantitation (LOQ). Data qualification to the analytes associated with the specific field duplicate RPDs was as follows:

Field Duplicate Non-conformances Chart:

Criteria	RPD	Action	
		Detected	Non-detected
Sample and duplicate are not detected results	NC	No qualification	No qualification
Sample and duplicate results ≥2x LOQ	>30 (aqueous) >50 (solid)	J	Not Applicable
If sample or duplicate result is >2x LOQ and the other is not detected	NC	J	UJ
If sample or duplicate result is <2x LOQ and the other is not detected	NC	No qualification	No qualification

Qualifications Actions

The data were reviewed independently from the laboratory to assess data quality. All compounds detected at concentrations less than the limit of quantitation but greater than the method detection limit were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation. Any sample that was analyzed at a dilution because of high concentrations of target or non-target analytes was checked to confirm that the results and/or sample-specific limit of quantitation and limit of detections were adjusted accordingly by the laboratory.

No results were rejected; therefore, analytical completeness was calculated to be 100 percent. Data not qualified during data review are considered usable by the project. The remaining results qualified as estimated may be high or low, but the data are usable for their intended purpose, according to U.S. EPA and Department of Defense guidelines. Final data review qualifiers used to describe results and how they should be interpreted by the end data user are provided in Attachment A and Attachment B. Attachment C provides final results after data review.

ATTACHMENTS

Attachment A: Qualifier Codes and Explanations
Attachment B: Reason Codes and Explanations
Attachment C: Final Results after Data Review

Attachment A
Qualifier Codes and Explanations

Qualifier	Explanation
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual quantitation limit necessary to accurately and precisely measure the analyte in the sample.
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

Attachment B
Reason Codes and Explanations

Reason Code	Explanation
be	Equipment blank contamination
bf	Field blank contamination
bl	Laboratory blank contamination
bm	Missing blank information
bt	Trip blank contamination
c	Calibration issue
cr	Chromatographic resolution
d	Reporting limit raised due to chromatographic interference
dt	Dissolved result > total over limit
e	Ether interference
ej	Above calibration range; result estimated.
f	Presumed contamination from FB or ER.
fd	Field duplicate RPDs
h	Holding times
hs	Headspace greater than 6mm in all sample vials
i	Internal standard areas
ii	Injection internal standard area or retention time exceedance
it	Instrument tune
k	Estimated maximum possible concentrations (EMPC)
l	LCS recoveries
lc	Labeled compound recovery
ld	Laboratory duplicate RPDs
lp	Laboratory control sample/laboratory control sample duplicate RPDs
m	Matrix spike recovery
mc	Deviation from the method
md	MS/MSD RPDs
nb	Negative laboratory blank contamination
p	Chemical preservation issue
p-h	Uncertainty near detection limit (< Reporting Limit), historical reason code applied.
pe	Post Extraction Spike
q	Quantitation issue
r	Dual column RPD
rt	SIM ions not within + 2 seconds
s	Surrogate recovery
sp	Sample preparation issue
su	Evidence of ion suppression
t	Temperature Preservation Issue
x	Low % solids
y	Serial dilution results
z	ICS results

Attachment C
Final Results after Data Review

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516			SJ9516			SJ9516		
		Lab Identification		SJ9516-3			SJ9516-4			SJ9516-5		
		Sample Identification		VPB171-SOIL-110816-388-390			VPB171-SOIL-D-110816			VPB171-EB-110816		
		Sample Date		11/8/2016			11/8/2016			11/8/2016		
		Sample Type		Soil			Field Duplicate			Equipment Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC	Result	Qual	RC	Result	Qual	RC
2540G	TOTAL SOLIDS	-29	PCT	78			77			NA		
9060A	TOTAL ORGANIC CARBON	-28	UG_G	22000			25000			NA		
9060A	TOTAL ORGANIC CARBON	-28	MG_L	NA			NA			0.5	U	bl

Notes:

Qual	=	Final interpreted qualifier
RC	=	Validator reason code (See definition below)
PCT	=	Percent
UG_G	=	Micrograms per gram
MG_L	=	Milligrams per liter
U	=	Associated sample qualified as non-detect "U".

Reason Code

bl	=	Flagged estimated due to lab blank contamination.

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9098		
		Lab Identification		SJ9098-1		
		Sample Identification		VPB171-GW-103116-58-60		
		Sample Date		10/31/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	c
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	c
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.9	J	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	c
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	15	J	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	c
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.72	J	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9098		
		Lab Identification		SJ9098-2		
		Sample Identification		VPB171-GW-103116-98-100		
		Sample Date		10/31/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	c
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	c
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	c
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	3.1	J	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.34	J	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	c
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9255		
		Lab Identification		SJ9255-2		
		Sample Identification		VPB171-GW-110216-148-150		
		Sample Date		11/2/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	c
8260C	ACETONE	67-64-1	UG_L	6.8	J	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	c
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	1.6		
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9255		
		Lab Identification		SJ9255-4		
		Sample Identification		VPB171-GW-110216-218-220		
		Sample Date		11/2/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	c
8260C	ACETONE	67-64-1	UG_L	5.4	J	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	c
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.96	J	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	5.6		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9255		
		Lab Identification		SJ9255-5		
		Sample Identification		VPB171-GW-110316-243-245		
		Sample Date		11/3/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	2.4	J	s,mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.28	J	s,mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	1.1	J	s,mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	J	s,mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2.5	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc,c
8260C	ACETONE	67-64-1	UG_L	6.2	J	s,mc,c
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc,c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	1	J	s,mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc,c
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	4.5	J	s,mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	79	J	s,mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9255		
		Lab Identification		SJ9255-6		
		Sample Identification		VPB171-GW-110316-258-260		
		Sample Date		11/3/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2.5	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc,c
8260C	ACETONE	67-64-1	UG_L	6.7	J	s,mc,c
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc,c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc,c
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.94	J	s,mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-2DL		
		Sample Identification		VPB171-GW-110416-278-280		
		Sample Date		11/4/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	2	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	2	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	2	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	2	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	2	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	2	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	2	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	3	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	2	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	2	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	2	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	4	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	2	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	2	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	2	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	10	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	10	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	10	UJ	mc
8260C	ACETONE	67-64-1	UG_L	10	J	s,l,c,mc
8260C	BENZENE	71-43-2	UG_L	2	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	2	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	2	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	4	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	2	UJ	mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	2	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	2	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	4	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	2	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	4	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	2	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	2	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	2	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	2	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	4	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	2	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	2	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	4	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	3	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	2	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	2	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	10	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	2	UJ	mc
8260C	STYRENE	100-42-5	UG_L	2	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	2	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	2	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	2	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	2	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	2	UJ	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	4	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	4	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	6	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-3RA		
		Sample Identification		VPB171-GW-110416-298-300		
		Sample Date		11/4/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	1.8		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	0.36	J	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.54	J	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	c
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.36	J	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	0.42	J	fd
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	23		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-4		
		Sample Identification		VPB171-GWD-110416		
		Sample Date		11/4/2016		
		Sample Type		Field Duplicate		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	2.3	J	s
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.46	J	s
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	0.4	J	s
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.4	J	s
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	0.85	J	s,l,fd
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	29	J	s
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-7DL		
		Sample Identification		VPB171-GW-110416-323-325		
		Sample Date		11/4/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	1	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	1	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	1.9	J	s,mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	1	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	1	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	1	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	1	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	1.5	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	1	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	1	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	1	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	2	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	1	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	1	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	1	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	5	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	12	J	s,l,c,mc
8260C	BENZENE	71-43-2	UG_L	1	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	1	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	1	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	2	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.51	J	s,mc
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	1	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	1	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	2	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	1	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1.2	J	s,mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	1	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	1	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	1	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	1	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	2	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	1	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	1	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	2	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	1.5	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	1	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	1	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	1	UJ	mc
8260C	STYRENE	100-42-5	UG_L	1	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	1	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	1	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	1	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	1	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	24	J	s,mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	2	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	2	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	3	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-8		
		Sample Identification		VPB171-GW-110716-338-340		
		Sample Date		11/7/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	8.5	J	s
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	1.1	J	s
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	2.4	J	s
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	6.3	J	s,l,c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.38	J	s
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	2.4	J	s
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	J	s,l
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	4.9	J	s
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	220	J	s
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	0.29	J	s
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-9		
		Sample Identification		VPB171-GW-110716-358-360		
		Sample Date		11/7/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	7.8	J	s
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	1.1	J	s
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	2	J	s
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	4.6	J	s,l,c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.41	J	s
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	2	J	s
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	0.97	J	s,l
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	3.6	J	s
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	180	J	s
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-10		
		Sample Identification		VPB171-GW-111016-498-500		
		Sample Date		11/10/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	3	J	s
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	0.5	J	s
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	3.8	J	s
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	bt,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	J	s
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	5.6	J	s
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	89	J	s
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-11		
		Sample Identification		VPB171-GW-111016-518-520		
		Sample Date		11/10/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	8.3		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.44	J	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.89	J	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	3		
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	3	J	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	2.5		
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1.2	J	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	1.1		
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.51	J	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	92		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-12		
		Sample Identification		VPB171-GW-111016-538-540		
		Sample Date		11/10/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	2.4	J	s,mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2.5	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	19	J	s,mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	bt,mc,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.5	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc,c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	18	J	s,mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-2		
		Sample Identification		VPB171-GW-110816-383-385		
		Sample Date		11/8/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	6.2		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	0.85	J	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	4.7	J	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	bt,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.85	J	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	J	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	1.3		
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	63		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-6		
		Sample Identification		VPB171-GW-110816-418-420		
		Sample Date		11/8/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	4.1	J	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	1.1	J	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-7		
		Sample Identification		VPB171-GW-110916-438-440		
		Sample Date		11/9/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	4.1	J	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	1.2	J	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-8		
		Sample Identification		VPB171-GW-110916-458-460		
		Sample Date		11/9/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	3.1		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	5.7		
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1.7	J	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-9		
		Sample Identification		VPB171-GW-110916-478-480		
		Sample Date		11/9/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	6.8		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1.4	J	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	U	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	bt,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	1.4		
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	0.55	J	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	6.7		
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	160		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	0.27	J	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:
UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9584		
		Lab Identification		SJ9584-2		
		Sample Identification		VPB171-GW-111116-558-560		
		Sample Date		11/11/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	2.1		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	0.7	J	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	5.3	J	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	c
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	c
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.7	J	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	6.6		
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	100		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9584		
		Lab Identification		SJ9584-3		
		Sample Identification		VPB171-GW-111116-583-585		
		Sample Date		11/11/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	6.9		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.87	J	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1.9	J	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	3.3	J	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	c
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	c
8260C	CHLOROFORM	67-66-3	UG_L	0.35	J	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	1.9		
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	0.61	J	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	3.8		
8260C	TOLUENE	108-88-3	UG_L	1.6		
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	230		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9584		
		Lab Identification		SJ9584-4		
		Sample Identification		VPB171-GW-111416-598-600		
		Sample Date		11/14/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.25	J	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	6.6		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.24	J	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.6	J	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1.8	J	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	5.4	J	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	c
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.56	J	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	c
8260C	CHLOROFORM	67-66-3	UG_L	0.44	J	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	1.8		
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	1.7		
8260C	TOLUENE	108-88-3	UG_L	2.5		
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	240		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9584		
		Lab Identification		SJ9584-5		
		Sample Identification		VPB171-GW-111416-618-620		
		Sample Date		11/14/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	16		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.45	J	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	1.9		
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1.9	J	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	4.1	J	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	c
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	c
8260C	CHLOROFORM	67-66-3	UG_L	1		
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	1.9		
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	2.3		
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.69	J	
8260C	TOLUENE	108-88-3	UG_L	30		
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	180	J	m
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-11DL		
		Sample Identification		VPB171-GW-111716-718-720		
		Sample Date		11/17/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.66	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.66	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.66	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.66	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.66	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.66	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.66	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	1	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.66	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.66	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.66	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1.3	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.66	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.66	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.66	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	3.2	J	mc
8260C	2-HEXANONE	591-78-6	UG_L	3.3	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	3.3	UJ	mc
8260C	ACETONE	67-64-1	UG_L	18	J	mc
8260C	BENZENE	71-43-2	UG_L	0.66	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.66	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.66	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1.3	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.66	UJ	mc,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.66	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.66	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1.3	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.66	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1.3	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.66	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.66	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.66	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.66	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1.3	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.66	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.66	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1.3	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	1	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.66	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.66	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	3.3	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.66	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.66	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.66	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	0.66	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.66	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.66	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	5.3	J	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1.3	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1.3	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	2	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-12		
		Sample Identification		VPB171-GW-111716-738-740		
		Sample Date		11/17/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	9.2	J	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.43	J	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.49	J	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	1.4	J	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1.1	J	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	1.4	J	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	7.1	J	mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	be,mc,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.62	J	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	1.1	J	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	1.9	J	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	460	J	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-2		
		Sample Identification		VPB171-GW-111516-638-640		
		Sample Date		11/15/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	4.7	J	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.69	J	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	0.97	J	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	2.5	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	UJ	mc
8260C	ACETONE	67-64-1	UG_L	9.1	J	mc
8260C	BENZENE	71-43-2	UG_L	0.5	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	be,mc,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.38	J	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.97	J	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.5	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.5	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.62	J	mc
8260C	TOLUENE	108-88-3	UG_L	0.5	UJ	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	120	J	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-3		
		Sample Identification		VPB171-GW-111516-658-660		
		Sample Date		11/15/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	9.3		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.57	J	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.34	J	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	2.4		
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	2.2		
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	U	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	2.6		
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	2.8		
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	2.2		
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	0.89	J	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	200		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-5DL		
		Sample Identification		VPB171-GW-111616-678-680		
		Sample Date		11/16/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.8	UJ	mc
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.8	UJ	mc
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.8	UJ	mc
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.8	UJ	mc
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.8	UJ	mc
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.8	UJ	mc
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.8	UJ	mc
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	1.2	UJ	mc
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.8	UJ	mc
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.8	UJ	mc
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.8	UJ	mc
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1.6	UJ	mc
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.8	UJ	mc
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.8	UJ	mc
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.8	UJ	mc
8260C	2-BUTANONE	78-93-3	UG_L	4	UJ	mc
8260C	2-HEXANONE	591-78-6	UG_L	4	UJ	mc
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	4	UJ	mc
8260C	ACETONE	67-64-1	UG_L	12	J	mc
8260C	BENZENE	71-43-2	UG_L	0.8	UJ	mc
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.8	UJ	mc
8260C	BROMOFORM	75-25-2	UG_L	0.8	UJ	mc
8260C	BROMOMETHANE	74-83-9	UG_L	1.6	UJ	mc
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.8	UJ	be,mc,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.8	UJ	mc
8260C	CHLOROBENZENE	108-90-7	UG_L	0.8	UJ	mc
8260C	CHLOROETHANE	75-00-3	UG_L	1.6	UJ	mc
8260C	CHLOROFORM	67-66-3	UG_L	0.8	UJ	mc
8260C	CHLOROMETHANE	74-87-3	UG_L	1.6	UJ	mc
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.8	UJ	mc
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.8	UJ	mc
8260C	CYCLOHEXANE	110-82-7	UG_L	0.8	UJ	mc
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.8	UJ	mc
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1.6	UJ	mc
8260C	ETHYLBENZENE	100-41-4	UG_L	0.8	UJ	mc
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.8	UJ	mc
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1.6	UJ	mc
8260C	METHYL ACETATE	79-20-9	UG_L	1.2	UJ	mc
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.8	UJ	mc
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.8	UJ	mc
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	4	UJ	mc
8260C	O-XYLENE	95-47-6	UG_L	0.8	UJ	mc
8260C	STYRENE	100-42-5	UG_L	0.8	UJ	mc
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.8	UJ	mc
8260C	TOLUENE	108-88-3	UG_L	18	J	mc
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.8	UJ	mc
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.8	UJ	mc
8260C	TRICHLOROETHENE	79-01-6	UG_L	13	J	mc
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1.6	UJ	mc
8260C	VINYL CHLORIDE	75-01-4	UG_L	1.6	UJ	mc
8260C	XYLENES, TOTAL	1330-20-7	UG_L	2.4	UJ	mc

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-8		
		Sample Identification		VPB171-GWD-111616		
		Sample Date		11/16/2016		
		Sample Type		Field Duplicate		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.9	J	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	66		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	2.4		
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	2		
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	12		
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.55	J	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	7.1		
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	J	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	be,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	5.7		
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	4.4		
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	7.1		
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	0.6	J	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	3.5		
8260C	TOLUENE	108-88-3	UG_L	47		
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	3500		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-9		
		Sample Identification		VPB171-GW-111616-698-700		
		Sample Date		11/16/2016		
		Sample Type		Groundwater		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.85	J	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	63		
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	2.4		
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	1.8		
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	12		
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.54	J	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	6.7		
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.6	J	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	be,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	5.4		
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	4.2		
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	6.7		
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	0.46	J	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	3.2		
8260C	TOLUENE	108-88-3	UG_L	46		
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	3600		
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9255		
		Lab Identification		SJ9255-1		
		Sample Identification		VPB171-TB-110216		
		Sample Date		11/2/2016		
		Sample Type		Trip Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	UJ	c
8260C	2-HEXANONE	591-78-6	UG_L	2.5	UJ	c
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	bl,c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	UJ	c
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-1		
		Sample Identification		VPB171-TB-110416		
		Sample Date		11/4/2016		
		Sample Type		Trip Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-5		
		Sample Identification		VPB171-FB-110416		
		Sample Date		11/4/2016		
		Sample Type		Field Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.38	J	s
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9359		
		Lab Identification		SJ9359-6		
		Sample Identification		VPB171-EB-110416		
		Sample Date		11/4/2016		
		Sample Type		Equipment Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	U	
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9516		
		Lab Identification		SJ9516-1		
		Sample Identification		VPB171-TB-110816		
		Sample Date		11/8/2016		
		Sample Type		Trip Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	U	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.92	J	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	UJ	c
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9584		
		Lab Identification		SJ9584-1		
		Sample Identification		VPB171-TB-111116		
		Sample Date		11/11/2016		
		Sample Type		Trip Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	UJ	c
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	UJ	c
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	UJ	c
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-1		
		Sample Identification		VPB171-TB-111516		
		Sample Date		11/15/2016		
		Sample Type		Trip Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	U	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	bl,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

Final Results after Data Review
NWIRP Bethpage OU2 Regional Groundwater Investigation

		Sample Delivery Group		SJ9761		
		Lab Identification		SJ9761-6		
		Sample Identification		VPB171-EB-111616		
		Sample Date		11/16/2016		
		Sample Type		Equipment Blank		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
8260C	1,1,1-TRICHLOROETHANE	71-55-6	UG_L	0.5	U	
8260C	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_L	0.5	U	
8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_L	0.5	U	
8260C	1,1,2-TRICHLOROETHANE	79-00-5	UG_L	0.5	U	
8260C	1,1-DICHLOROETHANE	75-34-3	UG_L	0.5	U	
8260C	1,1-DICHLOROETHENE	75-35-4	UG_L	0.5	U	
8260C	1,2,4-TRICHLOROBENZENE	120-82-1	UG_L	0.5	U	
8260C	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	UG_L	0.75	U	
8260C	1,2-DIBROMOETHANE	106-93-4	UG_L	0.5	U	
8260C	1,2-DICHLOROBENZENE	95-50-1	UG_L	0.5	U	
8260C	1,2-DICHLOROETHANE	107-06-2	UG_L	0.5	U	
8260C	1,2-DICHLOROETHENE, TOTAL	540-59-0	UG_L	1	U	
8260C	1,2-DICHLOROPROPANE	78-87-5	UG_L	0.5	U	
8260C	1,3-DICHLOROBENZENE	541-73-1	UG_L	0.5	U	
8260C	1,4-DICHLOROBENZENE	106-46-7	UG_L	0.5	U	
8260C	2-BUTANONE	78-93-3	UG_L	2.5	U	
8260C	2-HEXANONE	591-78-6	UG_L	2.5	U	
8260C	4-METHYL-2-PENTANONE	108-10-1	UG_L	2.5	U	
8260C	ACETONE	67-64-1	UG_L	2.5	U	
8260C	BENZENE	71-43-2	UG_L	0.5	U	
8260C	BROMODICHLOROMETHANE	75-27-4	UG_L	0.5	U	
8260C	BROMOFORM	75-25-2	UG_L	0.5	U	
8260C	BROMOMETHANE	74-83-9	UG_L	1	U	
8260C	CARBON DISULFIDE	75-15-0	UG_L	0.5	UJ	bl,c
8260C	CARBON TETRACHLORIDE	56-23-5	UG_L	0.5	U	
8260C	CHLOROBENZENE	108-90-7	UG_L	0.5	U	
8260C	CHLOROETHANE	75-00-3	UG_L	1	U	
8260C	CHLOROFORM	67-66-3	UG_L	0.5	U	
8260C	CHLOROMETHANE	74-87-3	UG_L	1	U	
8260C	CIS-1,2-DICHLOROETHENE	156-59-2	UG_L	0.5	U	
8260C	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_L	0.5	U	
8260C	CYCLOHEXANE	110-82-7	UG_L	0.5	U	
8260C	DIBROMOCHLOROMETHANE	124-48-1	UG_L	0.5	U	
8260C	DICHLORODIFLUOROMETHANE	75-71-8	UG_L	1	U	
8260C	ETHYLBENZENE	100-41-4	UG_L	0.5	U	
8260C	ISOPROPYLBENZENE	98-82-8	UG_L	0.5	U	
8260C	M- AND P-XYLENE	108-38-3/106-42	UG_L	1	U	
8260C	METHYL ACETATE	79-20-9	UG_L	0.75	U	
8260C	METHYL CYCLOHEXANE	108-87-2	UG_L	0.5	U	
8260C	METHYL TERT-BUTYL ETHER	1634-04-4	UG_L	0.5	U	
8260C	METHYLENE CHLORIDE	75-09-2	UG_L	2.5	U	
8260C	O-XYLENE	95-47-6	UG_L	0.5	U	
8260C	STYRENE	100-42-5	UG_L	0.5	U	
8260C	TETRACHLOROETHENE	127-18-4	UG_L	0.5	U	
8260C	TOLUENE	108-88-3	UG_L	0.5	U	
8260C	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_L	0.5	U	
8260C	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_L	0.5	U	
8260C	TRICHLOROETHENE	79-01-6	UG_L	0.5	U	
8260C	TRICHLOROFLUOROMETHANE	75-69-4	UG_L	1	U	
8260C	VINYL CHLORIDE	75-01-4	UG_L	1	U	
8260C	XYLENES, TOTAL	1330-20-7	UG_L	1.5	U	

Notes:

UG_L = Micrograms per liter
Qual = Final qualifiers (See Attachment A)
RC = Reason codes (See Attachment B)

DATA VALIDATION REPORT

Project:	Regional Groundwater Investigation — NWIRP Bethpage	
Laboratory:	Katahdin Analytical	
Sample Delivery Group:	SJ9585	
Analyses/Method:	Volatile Organic Compounds (VOCs) by U.S. EPA Method TO-15	
Validation Level:	3	
Project Number:	0888812477.SA.DV	
Prepared by:	Dana Miller/Resolution Consultants	Completed on: 01/10/2017
Reviewed by:	Tina Clemmey/Resolution Consultants	File Name: SJ9585_TO15

SUMMARY

This report summarizes data review findings for samples listed below, collected by Resolution Consultants from the Regional Groundwater Investigation — NWIRP Bethpage site on 11 November 2016 in accordance with the following Sampling and Analysis Plans:

- *Sampling and Analysis Plan, Bethpage, New York.* (Resolution Consultants April 2013).
- *UFP SAP Addendum, Installation of Vertical Profile Borings and Monitoring Wells, Operable Unit 2, NWIRP Bethpage, New York.* (Resolution Consultants November 2013).
- *UFP SAP Addendum, Inclusion of Additional Target Analytes for Volatile Organics Analyses, NWIRP Bethpage OU2, Bethpage, New York*. (Resolution Consultants August 2014).

Sample ID	Matrix/Sample Type	Analysis
VPB171-AIR-111116	Air	TO-15

Data validation activities were conducted using the following guidance documents: *Determination of Volatile Organic Compounds (VOCs) In Air Collected In Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS)* (*U.S. EPA*, Method TO-15), *U.S. Environmental Protection Agency (U.S. EPA) Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (NFG, June 2008), and Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 4.2 (October 2010). In the absence of method-specific information, laboratory quality control (QC) limits, project-specific requirements and/or professional judgment were used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following parameters (where applicable to the method):

✓	Data completeness (chain-of-custody (COC)/sample integrity
✓	Holding times and sample preservation
✓	GC/MS performance checks
✓	Initial calibration/continuing calibration verification
✗	Laboratory blanks/trip blanks
NA	Matrix duplicate (MD) results
✓	Laboratory control sample (LCS) results
NA	Field duplicates
✓	Internal standards
✓	Sample results/reporting issues

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. NA indicates that the parameter was not included as part of this data set or was not applicable to this validation and therefore not reviewed. Acceptable data parameters for which all criteria were met and no qualification was performed and non-conformance or other issues that were noted during validation, but did not result in qualification of data are not discussed further. The symbol (✗) indicates that a QC non-conformance resulted in the qualification of data. Any QC non-conformance that resulted in the qualification of data is discussed below.

RESULTS

Laboratory Blanks/Equipment Blanks/ Field Blanks/Trip Blanks

Laboratory blanks, equipment blanks, field blanks, and trip blanks were analyzed with samples to assess contamination imparted by sample preparation and/or analysis. All results associated with a particular blank were evaluated to determine whether there was an inherent variability in the data, or if a problem was an isolated occurrence that did not affect the data. Samples were flagged in accordance with *Functional Guidelines* (shown below) where detections were not believed to be site-related.

Blank Non-conformance Charts:

For common lab contaminants (methylene chloride, acetone, 2-butanone):			
Blank type	**Blank result**	**Sample result**	**Action for samples**
Method, Storage, Trip, Field, or Equipment	Detects	Not detected	No qualification
	≤ 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and ≤ 4x the LOQ	Report the sample result with a U**
		≥ 4x the LOQ	No qualifications
	> 2x LOQ	< LOD	Report sample LOD value with a U**
		≥ LOD and < 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the blank result with a U or reject the sample result as unusable R
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U.** If the result is > 2x blank result, no qualification is required. **
****Based on Resolution Consultants professional judgment**			

For all other compounds:			
Blank type	**Blank result**	**Sample result**	**Action for samples**
Method, Storage, Trip, Field, or Equipment	Detects	Not detected	No qualification
	< 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ	Use professional judgment
	> 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ and < blank contamination	Report the blank result with a U or reject the sample result as unusable R
		≥ 2x LOQ and ≥ blank contamination	If the result is ≤2x blank result, report the sample result U. If the result is > 2x blank result, no qualification is required.
	= 2x LOQ	< 2x LOQ	Report sample LOQ value with a U
		≥ 2x LOQ	Use professional judgment
	Gross contamination	Detects	Qualify results as unusable R

Notes:

LOQ	=	Limit of quantitation
LOD	=	Limit of detection
U	=	Undetected
R	=	Rejected

Qualifications Actions

The data were reviewed independently from the laboratory to assess data quality. All compounds detected at concentrations less than the limit of quantitation but greater than the method detection limit were qualified by the laboratory as estimated (J). This "J" qualifier was retained during data validation.

No results were rejected; therefore, analytical completeness was calculated to be 100 percent. Data not qualified during data review are considered usable by the project. The remaining results qualified as estimated may be high or low, but the data are usable for their intended purpose, according to U.S. EPA and Department of Defense guidelines. Attachment A provides final results after data review.

ATTACHMENTS

Attachment A: Final Results after Data Review

Attachment A
Final Results after Data Review

		Sample Delivery Group		SJ9585		
		Lab Identification		SJ9585-1RA		
		Sample Identification		VPB171-AIR-111116		
		Sample Date		11/11/2016		
		Sample Type		Air		
Method	**Analyte**	**CAS No**	**Units**	Result	Qual	RC
TO-15	1,1,1-TRICHLOROETHANE	71-55-6	UG_M3	0.27	U	
TO-15	1,1,2,2-TETRACHLOROETHANE	79-34-5	UG_M3	0.34	U	
TO-15	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	UG_M3	0.57	J	
TO-15	1,1,2-TRICHLOROETHANE	79-00-5	UG_M3	0.27	U	
TO-15	1,1-DICHLOROETHANE	75-34-3	UG_M3	0.2	U	
TO-15	1,1-DICHLOROETHENE	75-35-4	UG_M3	0.2	U	
TO-15	1,2,4-TRICHLOROBENZENE	120-82-1	UG_M3	0.37	U	bl
TO-15	1,2-DIBROMOETHANE	106-93-4	UG_M3	0.38	U	
TO-15	1,2-DICHLOROBENZENE	95-50-1	UG_M3	0.096	J	
TO-15	1,2-DICHLOROETHANE	107-06-2	UG_M3	0.2	U	
TO-15	1,2-DICHLOROPROPANE	78-87-5	UG_M3	0.23	U	
TO-15	1,3-DICHLOROBENZENE	541-73-1	UG_M3	0.078	J	
TO-15	1,4-DICHLOROBENZENE	106-46-7	UG_M3	0.3	U	
TO-15	2-BUTANONE	78-93-3	UG_M3	0.41	J	
TO-15	2-HEXANONE	591-78-6	UG_M3	0.2	U	
TO-15	4-METHYL-2-PENTANONE	108-10-1	UG_M3	0.061	J	
TO-15	ACETONE	67-64-1	UG_M3	4.7		
TO-15	BENZENE	71-43-2	UG_M3	0.38		
TO-15	BROMODICHLOROMETHANE	75-27-4	UG_M3	0.33	U	
TO-15	BROMOFORM	75-25-2	UG_M3	0.52	U	
TO-15	BROMOMETHANE	74-83-9	UG_M3	0.19	U	
TO-15	CARBON DISULFIDE	75-15-0	UG_M3	0.037	J	
TO-15	CARBON TETRACHLORIDE	56-23-5	UG_M3	0.5	J	
TO-15	CHLOROBENZENE	108-90-7	UG_M3	0.23	U	
TO-15	CHLOROETHANE	75-00-3	UG_M3	0.13	U	
TO-15	CHLOROFORM	67-66-3	UG_M3	0.12	J	
TO-15	CHLOROMETHANE	74-87-3	UG_M3	1		
TO-15	CIS-1,2-DICHLOROETHENE	156-59-2	UG_M3	0.2	U	
TO-15	CIS-1,3-DICHLOROPROPENE	10061-01-5	UG_M3	0.23	U	
TO-15	CYCLOHEXANE	110-82-7	UG_M3	0.079	J	
TO-15	DIBROMOCHLOROMETHANE	124-48-1	UG_M3	0.42	U	
TO-15	DICHLORODIFLUOROMETHANE	75-71-8	UG_M3	1.5		
TO-15	ETHYLBENZENE	100-41-4	UG_M3	0.11	J	
TO-15	ISOPROPYLBENZENE	98-82-8	UG_M3	0.24	U	
TO-15	M- AND P-XYLENE	108-38-3/106-42	UG_M3	0.58	J	
TO-15	METHYL TERT-BUTYL ETHER	1634-04-4	UG_M3	0.18	U	
TO-15	METHYLENE CHLORIDE	75-09-2	UG_M3	2.5		
TO-15	O-XYLENE	95-47-6	UG_M3	0.13	J	
TO-15	STYRENE	100-42-5	UG_M3	0.21	U	
TO-15	TETRACHLOROETHENE	127-18-4	UG_M3	0.19	J	
TO-15	TOLUENE	108-88-3	UG_M3	0.72		
TO-15	TRANS-1,2-DICHLOROETHENE	156-60-5	UG_M3	0.2	U	
TO-15	TRANS-1,3-DICHLOROPROPENE	10061-02-6	UG_M3	0.23	U	
TO-15	TRICHLOROETHENE	79-01-6	UG_M3	0.27	U	
TO-15	TRICHLOROFLUOROMETHANE	75-69-4	UG_M3	1.6		
TO-15	VINYL CHLORIDE	75-01-4	UG_M3	0.13	U	
TO-15	XYLENES, TOTAL	1330-20-7	UG_M3	1.3	J	

Notes:

UG_M3 = Micrograms per cubic meter
Qual = Final qualifier
U = The analyte was analyzed for and not detected above the reported sample quantitation limit.
J = The analyte concentration was less than the limit of quantitation.

Section 6

VPB171 Analytical Data Table

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	VPB171	VPB171	VPB171	VPB171
Sample Date		10/31/2016	10/31/2016	11/2/2016	11/2/2016
Sample ID		VPB171-GW-103116-58-60	VPB171-GW-103116-98-100	VPB171-GW-110216-148-150	VPB171-GW-110216-218-220
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1,2,2-TETRACHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1,2-TRICHLOROETHANE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1-DICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1-DICHLOROETHENE	5	<0.50 UJ	<0.50 UJ	<0.50 U	<0.50 U
1,2,4-TRICHLOROBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<0.75 UJ***	***<0.75 UJ***	***<0.75 U***	***<0.75 U***
1,2-DIBROMOETHANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROETHENE, TOTAL	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
1,2-DICHLOROPROPANE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,3-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,4-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
2-BUTANONE	50	**2.9 J**	<2.5 U	<2.5 U	<2.5 U
2-HEXANONE	50	<2.5 UJ	<2.5 UJ	<2.5 U	<2.5 U
4-METHYL-2-PENTANONE	NL	<2.5 U	<2.5 U	<2.5 UJ	<2.5 UJ
ACETONE	50	**15 J**	**3.1 J**	**6.8 J**	**5.4 J**
BENZENE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
BROMODICHLOROMETHANE	50	<0.50 U	<0.50 U	<0.50 U	<0.50 U
BROMOFORM	50	<0.50 U	<0.50 U	<0.50 U	<0.50 U
BROMOMETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
CARBON DISULFIDE	60	<0.50 UJ	<0.50 UJ	<0.50 U	<0.50 U
CARBON TETRACHLORIDE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
CHLOROBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
CHLOROETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
CHLOROFORM	7	<0.50 U	**0.34 J**	<0.50 U	<0.50 U
CHLOROMETHANE	5	<1.0 U	<1.0 U	<1.0 UJ	<1.0 UJ
CIS-1,2-DICHLOROETHENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
CIS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.50 U***	***<0.50 U***	***<0.50 U***
CYCLOHEXANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
DIBROMOCHLOROMETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
DICHLORODIFLUOROMETHANE	5	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ
ETHYLBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
ISOPROPYLBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
M- AND P-XYLENE	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U
METHYL ACETATE	NL	<0.75 U	<0.75 U	<0.75 U	<0.75 U
METHYL CYCLOHEXANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
METHYL TERT-BUTYL ETHER	10	<0.50 U	<0.50 U	<0.50 U	<0.50 U
METHYLENE CHLORIDE	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U
O-XYLENE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
STYRENE	5	<0.50 U	<0.50 U	**1.6**	<0.50 U
TETRACHLOROETHENE	5	<0.50 U	<0.50 U	<0.50 U	**0.96 J**
TOLUENE	5	**0.72 J**	<0.50 U	<0.50 U	<0.50 U
TRANS-1,2-DICHLOROETHENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
TRANS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.50 U***	***<0.50 U***	***<0.50 U***
TRICHLOROETHENE	5	<0.50 U	<0.50 U	<0.50 U	**5.6**
TRICHLOROFLUOROMETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
VINYL CHLORIDE	2	<1.0 U	<1.0 U	<1.0 U	<1.0 U
XYLENES, TOTAL	5	<1.5 U	<1.5 U	<1.5 U	<1.5 U

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	VPB171	VPB171	VPB171	VPB171
Sample Date		11/3/2016	11/3/2016	11/4/2016	11/4/2016
Sample ID		VPB171-GW-110316-243-245	VPB171-GW-110316-258-260	VPB171-GW-110416-278-280	VPB171-GW-110416-298-300
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
1,1,2,2-TETRACHLOROETHANE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	**2.4 J**	<0.50 UJ	<2.0 UJ	**1.8**
1,1,2-TRICHLOROETHANE	1	<0.50 UJ	<0.50 UJ	***<2.0 UJ***	<0.50 U
1,1-DICHLOROETHANE	5	**0.28 J**	<0.50 UJ	<2.0 UJ	<0.50 U
1,1-DICHLOROETHENE	5	**1.1 J**	<0.50 UJ	<2.0 UJ	<0.50 U
1,2,4-TRICHLOROBENZENE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<0.75 UJ***	***<0.75 UJ***	***<3.0 UJ***	***<0.75 U***
1,2-DIBROMOETHANE	NL	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
1,2-DICHLOROBENZENE	3	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
1,2-DICHLOROETHANE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
1,2-DICHLOROETHENE, TOTAL	5	**1.0 J**	<1.0 UJ	<4.0 UJ	**0.36 J**
1,2-DICHLOROPROPANE	1	<0.50 UJ	<0.50 UJ	***<2.0 UJ***	<0.50 U
1,3-DICHLOROBENZENE	3	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
1,4-DICHLOROBENZENE	3	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
2-BUTANONE	50	<2.5 UJ	<2.5 UJ	<10 UJ	<2.5 U
2-HEXANONE	50	<2.5 UJ	<2.5 UJ	<10 UJ	<2.5 U
4-METHYL-2-PENTANONE	NL	<2.5 UJ	<2.5 UJ	<10 UJ	<2.5 U
ACETONE	50	**6.2 J**	**6.7 J**	**10 J**	<2.5 UJ
BENZENE	1	<0.50 UJ	<0.50 UJ	***<2.0 UJ***	<0.50 U
BROMODICHLOROMETHANE	50	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
BROMOFORM	50	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
BROMOMETHANE	5	<1.0 UJ	<1.0 UJ	<4.0 UJ	<1.0 U
CARBON DISULFIDE	60	<0.50 UJ	<0.50 UJ	<2.0 UJ	**0.54 J**
CARBON TETRACHLORIDE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
CHLOROBENZENE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
CHLOROETHANE	5	<1.0 UJ	<1.0 UJ	<4.0 UJ	<1.0 UJ
CHLOROFORM	7	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
CHLOROMETHANE	5	<1.0 UJ	<1.0 UJ	<4.0 UJ	<1.0 UJ
CIS-1,2-DICHLOROETHENE	5	**1.0 J**	<0.50 UJ	<2.0 UJ	**0.36 J**
CIS-1,3-DICHLOROPROPENE	0.4	***<0.50 UJ***	***<0.50 UJ***	***<2.0 UJ***	***<0.50 U***
CYCLOHEXANE	NL	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
DIBROMOCHLOROMETHANE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
DICHLORODIFLUOROMETHANE	5	<1.0 UJ	<1.0 UJ	<4.0 UJ	**0.42 J**
ETHYLBENZENE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
ISOPROPYLBENZENE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
M- AND P-XYLENE	NL	<1.0 UJ	<1.0 UJ	<4.0 UJ	<1.0 U
METHYL ACETATE	NL	<0.75 UJ	<0.75 UJ	<3.0 UJ	<0.75 U
METHYL CYCLOHEXANE	NL	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
METHYL TERT-BUTYL ETHER	10	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
METHYLENE CHLORIDE	5	<2.5 UJ	<2.5 UJ	***<10 UJ***	<2.5 U
O-XYLENE	NL	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
STYRENE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
TETRACHLOROETHENE	5	**4.5 J**	<0.50 UJ	<2.0 UJ	<0.50 U
TOLUENE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
TRANS-1,2-DICHLOROETHENE	5	<0.50 UJ	<0.50 UJ	<2.0 UJ	<0.50 U
TRANS-1,3-DICHLOROPROPENE	0.4	***<0.50 UJ***	***<0.50 UJ***	***<2.0 UJ***	***<0.50 U***
TRICHLOROETHENE	5	**79 J**	**0.94 J**	<2.0 UJ	**23**
TRICHLOROFLUOROMETHANE	5	<1.0 UJ	<1.0 UJ	<4.0 UJ	<1.0 U
VINYL CHLORIDE	2	<1.0 UJ	<1.0 UJ	***<4.0 UJ***	<1.0 U
XYLENES, TOTAL	5	<1.5 UJ	<1.5 UJ	***<6.0 UJ***	<1.5 U

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	VPB171	VPB171	VPB171	VPB171
Sample Date		11/4/2016	11/4/2016	11/7/2016	11/7/2016
Sample ID		VPB171-GWD-110416	VPB171-GW-110416-323-325	VPB171-GW-110716-338-340	VPB171-GW-110716-358-360
Sample type code		FD	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,1,2,2-TETRACHLOROETHANE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	**2.3 J**	**1.9 J**	**8.5 J**	**7.8 J**
1,1,2-TRICHLOROETHANE	1	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,1-DICHLOROETHANE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,1-DICHLOROETHENE	5	**0.46 J**	<1.0 UJ	**1.1 J**	**1.1 J**
1,2,4-TRICHLOROBENZENE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<0.75 U***	***<1.5 UJ***	***<0.75 U***	***<0.75 U***
1,2-DIBROMOETHANE	NL	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,2-DICHLOROBENZENE	3	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,2-DICHLOROETHANE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,2-DICHLOROETHENE, TOTAL	5	**0.40 J**	<2.0 UJ	**2.4 J**	**2.0 J**
1,2-DICHLOROPROPANE	1	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,3-DICHLOROBENZENE	3	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
1,4-DICHLOROBENZENE	3	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
2-BUTANONE	50	<2.5 U	<5.0 UJ	<2.5 U	<2.5 U
2-HEXANONE	50	<2.5 U	<5.0 UJ	<2.5 U	<2.5 U
4-METHYL-2-PENTANONE	NL	<2.5 U	<5.0 UJ	<2.5 U	<2.5 U
ACETONE	50	<2.5 UJ	**12 J**	**6.3 J**	**4.6 J**
BENZENE	1	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
BROMODICHLOROMETHANE	50	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
BROMOFORM	50	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
BROMOMETHANE	5	<1.0 U	<2.0 UJ	<1.0 U	<1.0 U
CARBON DISULFIDE	60	<0.50 U	**0.51 J**	<0.50 U	<0.50 U
CARBON TETRACHLORIDE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
CHLOROBENZENE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
CHLOROETHANE	5	<1.0 U	<2.0 UJ	<1.0 U	<1.0 U
CHLOROFORM	7	<0.50 U	<1.0 UJ	**0.38 J**	**0.41 J**
CHLOROMETHANE	5	<1.0 U	**1.2 J**	<1.0 U	<1.0 U
CIS-1,2-DICHLOROETHENE	5	**0.40 J**	<1.0 UJ	**2.4 J**	**2.0 J**
CIS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<1.0 UJ***	***<0.50 U***	***<0.50 U***
CYCLOHEXANE	NL	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
DIBROMOCHLOROMETHANE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
DICHLORODIFLUOROMETHANE	5	**0.85 J**	<2.0 UJ	**1.0 J**	**0.97 J**
ETHYLBENZENE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
ISOPROPYLBENZENE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
M- AND P-XYLENE	NL	<1.0 U	<2.0 UJ	<1.0 U	<1.0 U
METHYL ACETATE	NL	<0.75 U	<1.5 UJ	<0.75 U	<0.75 U
METHYL CYCLOHEXANE	NL	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
METHYL TERT-BUTYL ETHER	10	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
METHYLENE CHLORIDE	5	<2.5 U	<5.0 UJ	<2.5 U	<2.5 U
O-XYLENE	NL	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
STYRENE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
TETRACHLOROETHENE	5	<0.50 U	<1.0 UJ	**4.9 J**	**3.6 J**
TOLUENE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
TRANS-1,2-DICHLOROETHENE	5	<0.50 U	<1.0 UJ	<0.50 U	<0.50 U
TRANS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<1.0 UJ***	***<0.50 U***	***<0.50 U***
TRICHLOROETHENE	5	**29 J**	**24 J**	**220 J**	**180 J**
TRICHLOROFLUOROMETHANE	5	<1.0 U	<2.0 UJ	**0.29 J**	<1.0 U
VINYL CHLORIDE	2	<1.0 U	<2.0 UJ	<1.0 U	<1.0 U
XYLENES, TOTAL	5	<1.5 U	<3.0 UJ	<1.5 U	<1.5 U

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	VPB171	VPB171	VPB171	VPB171
Sample Date		11/8/2016	11/8/2016	11/9/2016	11/9/2016
Sample ID		VPB171-GW-110816-383-385	VPB171-GW-110816-418-420	VPB171-GW-110916-438-440	VPB171-GW-110916-458-460
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1,2,2-TETRACHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	**6.2**	<0.50 U	<0.50 U	**3.1**
1,1,2-TRICHLOROETHANE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1-DICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1-DICHLOROETHENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2,4-TRICHLOROBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<0.75 U***	***<0.75 U***	***<0.75 U***	***<0.75 U***
1,2-DIBROMOETHANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROETHENE, TOTAL	5	**0.85 J**	<1.0 U	<1.0 U	<1.0 U
1,2-DICHLOROPROPANE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,3-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,4-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
2-BUTANONE	50	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-HEXANONE	50	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-METHYL-2-PENTANONE	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
ACETONE	50	**4.7 J**	**4.1 J**	**4.1 J**	**5.7**
BENZENE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
BROMODICHLOROMETHANE	50	<0.50 U	<0.50 U	<0.50 U	<0.50 U
BROMOFORM	50	<0.50 U	<0.50 U	<0.50 U	<0.50 U
BROMOMETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
CARBON DISULFIDE	60	<0.50 UJ	**1.1 J**	**1.2 J**	<0.50 UJ
CARBON TETRACHLORIDE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
CHLOROBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
CHLOROETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
CHLOROFORM	7	<0.50 U	<0.50 U	<0.50 U	<0.50 U
CHLOROMETHANE	5	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ
CIS-1,2-DICHLOROETHENE	5	**0.85 J**	<0.50 U	<0.50 U	<0.50 U
CIS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.50 U***	***<0.50 U***	***<0.50 U***
CYCLOHEXANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
DIBROMOCHLOROMETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
DICHLORODIFLUOROMETHANE	5	**1.0 J**	<1.0 U	<1.0 U	**1.7 J**
ETHYLBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
ISOPROPYLBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
M- AND P-XYLENE	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U
METHYL ACETATE	NL	<0.75 U	<0.75 U	<0.75 U	<0.75 U
METHYL CYCLOHEXANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
METHYL TERT-BUTYL ETHER	10	<0.50 U	<0.50 U	<0.50 U	<0.50 U
METHYLENE CHLORIDE	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U
O-XYLENE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
STYRENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
TETRACHLOROETHENE	5	**1.3**	<0.50 U	<0.50 U	<0.50 U
TOLUENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
TRANS-1,2-DICHLOROETHENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
TRANS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.50 U***	***<0.50 U***	***<0.50 U***
TRICHLOROETHENE	5	**63**	<0.50 U	<0.50 U	<0.50 U
TRICHLOROFLUOROMETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
VINYL CHLORIDE	2	<1.0 U	<1.0 U	<1.0 U	<1.0 U
XYLENES, TOTAL	5	<1.5 U	<1.5 U	<1.5 U	<1.5 U

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	VPB171	VPB171	VPB171	VPB171
Sample Date		11/9/2016	11/10/2016	11/10/2016	11/10/2016
Sample ID		VPB171-GW-110916-478-480	VPB171-GW-111016-498-500	VPB171-GW-111016-518-520	VPB171-GW-111016-538-540
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	**6.8**	**3.0 J**	**8.3**	**2.4 J**
1,1,2-TRICHLOROETHANE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,1-DICHLOROETHANE	5	<0.50 U	<0.50 U	**0.44 J**	<0.50 UJ
1,1-DICHLOROETHENE	5	<0.50 U	<0.50 U	**0.89 J**	<0.50 UJ
1,2,4-TRICHLOROBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<0.75 U***	***<0.75 U***	***<0.75 U***	***<0.75 UJ***
1,2-DIBROMOETHANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,2-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,2-DICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	**1.4 J**	**0.50 J**	**3.0**	<1.0 UJ
1,2-DICHLOROPROPANE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,3-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
1,4-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
2-BUTANONE	50	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
2-HEXANONE	50	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
4-METHYL-2-PENTANONE	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
ACETONE	50	<2.5 U	**3.8 J**	**3.0 J**	**19 J**
BENZENE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
BROMODICHLOROMETHANE	50	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
BROMOFORM	50	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
BROMOMETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ
CARBON DISULFIDE	60	<0.50 UJ	<0.50 UJ	<0.50 UJ	<0.50 UJ
CARBON TETRACHLORIDE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
CHLOROBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
CHLOROETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ
CHLOROFORM	7	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
CHLOROMETHANE	5	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ
CIS-1,2-DICHLOROETHENE	5	**1.4**	**0.50 J**	**2.5**	<0.50 UJ
CIS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.50 U***	***<0.50 U***	***<0.50 UJ***
CYCLOHEXANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
DIBROMOCHLOROMETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
DICHLORODIFLUOROMETHANE	5	**0.55 J**	<1.0 U	**1.2 J**	<1.0 UJ
ETHYLBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
ISOPROPYLBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
M- AND P-XYLENE	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ
METHYL ACETATE	NL	<0.75 U	<0.75 U	<0.75 U	<0.75 UJ
METHYL CYCLOHEXANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
METHYL TERT-BUTYL ETHER	10	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
METHYLENE CHLORIDE	5	<2.5 U	<2.5 U	<2.5 U	<2.5 UJ
O-XYLENE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
STYRENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
TETRACHLOROETHENE	5	**6.7**	**5.6 J**	**1.1**	<0.50 UJ
TOLUENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	<0.50 U	<0.50 U	**0.51 J**	<0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.50 U***	***<0.50 U***	***<0.50 UJ***
TRICHLOROETHENE	5	**160**	**89 J**	**92**	**18 J**
TRICHLOROFLUOROMETHANE	5	**0.27 J**	<1.0 U	<1.0 U	<1.0 UJ
VINYL CHLORIDE	2	<1.0 U	<1.0 U	<1.0 U	<1.0 UJ
XYLENES, TOTAL	5	<1.5 U	<1.5 U	<1.5 U	<1.5 UJ

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	VPB171	VPB171	VPB171	VPB171
Sample Date		11/11/2016	11/11/2016	11/14/2016	11/14/2016
Sample ID		VPB171-GW-111116-558-560	VPB171-GW-111116-583-585	VPB171-GW-111416-598-600	VPB171-GW-111416-618-620
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	<0.50 U	<0.50 U	**0.25 J**	<0.50 U
1,1,2,2-TETRACHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	**2.1**	**6.9**	**6.6**	**16**
1,1,2-TRICHLOROETHANE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,1-DICHLOROETHANE	5	<0.50 U	<0.50 U	**0.24 J**	**0.45 J**
1,1-DICHLOROETHENE	5	<0.50 U	**0.87 J**	**0.60 J**	**1.9**
1,2,4-TRICHLOROBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<0.75 U***	***<0.75 U***	***<0.75 U***	***<0.75 U***
1,2-DIBROMOETHANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,2-DICHLOROETHENE, TOTAL	5	**0.70 J**	**1.9 J**	**1.8 J**	**1.9 J**
1,2-DICHLOROPROPANE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,3-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
1,4-DICHLOROBENZENE	3	<0.50 U	<0.50 U	<0.50 U	<0.50 U
2-BUTANONE	50	<2.5 U	<2.5 U	<2.5 U	<2.5 U
2-HEXANONE	50	<2.5 U	<2.5 U	<2.5 U	<2.5 U
4-METHYL-2-PENTANONE	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
ACETONE	50	**5.3 J**	**3.3 J**	**5.4 J**	**4.1 J**
BENZENE	1	<0.50 U	<0.50 U	<0.50 U	<0.50 U
BROMODICHLOROMETHANE	50	<0.50 U	<0.50 U	<0.50 U	<0.50 U
BROMOFORM	50	<0.50 UJ	<0.50 UJ	<0.50 UJ	<0.50 UJ
BROMOMETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
CARBON DISULFIDE	60	<0.50 UJ	<0.50 UJ	<0.50 UJ	<0.50 UJ
CARBON TETRACHLORIDE	5	<0.50 U	<0.50 U	**0.56 J**	<0.50 U
CHLOROBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
CHLOROETHANE	5	<1.0 UJ	<1.0 UJ	<1.0 UJ	<1.0 UJ
CHLOROFORM	7	<0.50 U	**0.35 J**	**0.44 J**	**1.0**
CHLOROMETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
CIS-1,2-DICHLOROETHENE	5	**0.70 J**	**1.9**	**1.8**	**1.9**
CIS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.50 U***	***<0.50 U***	***<0.50 U***
CYCLOHEXANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
DIBROMOCHLOROMETHANE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
DICHLORODIFLUOROMETHANE	5	<1.0 U	**0.61 J**	<1.0 U	**2.3**
ETHYLBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
ISOPROPYLBENZENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
M- AND P-XYLENE	NL	<1.0 U	<1.0 U	<1.0 U	<1.0 U
METHYL ACETATE	NL	<0.75 U	<0.75 U	<0.75 U	<0.75 U
METHYL CYCLOHEXANE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
METHYL TERT-BUTYL ETHER	10	<0.50 U	<0.50 U	<0.50 U	<0.50 U
METHYLENE CHLORIDE	5	<2.5 U	<2.5 U	<2.5 U	<2.5 U
O-XYLENE	NL	<0.50 U	<0.50 U	<0.50 U	<0.50 U
STYRENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
TETRACHLOROETHENE	5	**6.6**	**3.8**	**1.7**	**0.69 J**
TOLUENE	5	<0.50 U	**1.6**	**2.5**	**30**
TRANS-1,2-DICHLOROETHENE	5	<0.50 U	<0.50 U	<0.50 U	<0.50 U
TRANS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.50 U***	***<0.50 U***	***<0.50 U***
TRICHLOROETHENE	5	**100**	**230**	**240**	**180 J**
TRICHLOROFLUOROMETHANE	5	<1.0 U	<1.0 U	<1.0 U	<1.0 U
VINYL CHLORIDE	2	<1.0 U	<1.0 U	<1.0 U	<1.0 U
XYLENES, TOTAL	5	<1.5 U	<1.5 U	<1.5 U	<1.5 U

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	VPB171	VPB171	VPB171	VPB171
Sample Date		11/15/2016	11/15/2016	11/16/2016	11/16/2016
Sample ID		VPB171-GW-111516-638-640	VPB171-GW-111516-658-660	VPB171-GW-111616-678-680	VPB171-GW-111616-698-700
Sample type code		N	N	N	N
VOC 8260C (ug/L)					
1,1,1-TRICHLOROETHANE	5	<0.50 UJ	<0.50 U	<0.80 UJ	**0.85 J**
1,1,2,2-TETRACHLOROETHANE	5	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	**4.7 J**	**9.3**	<0.80 UJ	**63**
1,1,2-TRICHLOROETHANE	1	<0.50 UJ	**0.57 J**	<0.80 UJ	**2.4**
1,1-DICHLOROETHANE	5	<0.50 UJ	**0.34 J**	<0.80 UJ	**1.8**
1,1-DICHLOROETHENE	5	**0.69 J**	**2.4**	<0.80 UJ	**12**
1,2,4-TRICHLOROBENZENE	5	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<0.75 UJ***	***<0.75 U***	***<1.2 UJ***	***<0.75 U***
1,2-DIBROMOETHANE	NL	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
1,2-DICHLOROBENZENE	3	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
1,2-DICHLOROETHANE	5	<0.50 UJ	<0.50 U	<0.80 UJ	**0.54 J**
1,2-DICHLOROETHENE, TOTAL	5	**0.97 J**	**2.2**	<1.6 UJ	**6.7**
1,2-DICHLOROPROPANE	1	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
1,3-DICHLOROBENZENE	3	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
1,4-DICHLOROBENZENE	3	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
2-BUTANONE	50	<2.5 UJ	<2.5 U	<4.0 UJ	<2.5 U
2-HEXANONE	50	<2.5 UJ	<2.5 U	<4.0 UJ	<2.5 U
4-METHYL-2-PENTANONE	NL	<2.5 UJ	<2.5 U	<4.0 UJ	<2.5 U
ACETONE	50	**9.1 J**	<2.5 U	**12 J**	**2.6 J**
BENZENE	1	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
BROMODICHLOROMETHANE	50	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
BROMOFORM	50	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
BROMOMETHANE	5	<1.0 UJ	<1.0 U	<1.6 UJ	<1.0 U
CARBON DISULFIDE	60	<0.50 UJ	<0.50 UJ	<0.80 UJ	<0.50 UJ
CARBON TETRACHLORIDE	5	<0.50 UJ	**2.6**	<0.80 UJ	**5.4**
CHLOROBENZENE	5	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
CHLOROETHANE	5	<1.0 UJ	<1.0 U	<1.6 UJ	<1.0 U
CHLOROFORM	7	**0.38 J**	**2.8**	<0.80 UJ	**4.2**
CHLOROMETHANE	5	<1.0 UJ	<1.0 U	<1.6 UJ	<1.0 U
CIS-1,2-DICHLOROETHENE	5	**0.97 J**	**2.2**	<0.80 UJ	**6.7**
CIS-1,3-DICHLOROPROPENE	0.4	***<0.50 UJ***	***<0.50 U***	***<0.80 UJ***	***<0.50 U***
CYCLOHEXANE	NL	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
DIBROMOCHLOROMETHANE	5	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
DICHLORODIFLUOROMETHANE	5	<1.0 UJ	**0.89 J**	<1.6 UJ	**0.46 J**
ETHYLBENZENE	5	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
ISOPROPYLBENZENE	5	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
M- AND P-XYLENE	NL	<1.0 UJ	<1.0 U	<1.6 UJ	<1.0 U
METHYL ACETATE	NL	<0.75 UJ	<0.75 U	<1.2 UJ	<0.75 U
METHYL CYCLOHEXANE	NL	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
METHYL TERT-BUTYL ETHER	10	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
METHYLENE CHLORIDE	5	<2.5 UJ	<2.5 U	<4.0 UJ	<2.5 U
O-XYLENE	NL	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
STYRENE	5	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
TETRACHLOROETHENE	5	**0.62 J**	<0.50 U	<0.80 UJ	**3.2**
TOLUENE	5	<0.50 UJ	<0.50 U	**18 J**	**46**
TRANS-1,2-DICHLOROETHENE	5	<0.50 UJ	<0.50 U	<0.80 UJ	<0.50 U
TRANS-1,3-DICHLOROPROPENE	0.4	***<0.50 UJ***	***<0.50 U***	***<0.80 UJ***	***<0.50 U***
TRICHLOROETHENE	5	**120 J**	**200**	**13 J**	**3600**
TRICHLOROFLUOROMETHANE	5	<1.0 UJ	<1.0 U	<1.6 UJ	<1.0 U
VINYL CHLORIDE	2	<1.0 UJ	<1.0 U	<1.6 UJ	<1.0 U
XYLENES, TOTAL	5	<1.5 UJ	<1.5 U	<2.4 UJ	<1.5 U

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	VPB171	VPB171	VPB171
Sample Date		11/16/2016	11/17/2016	11/17/2016
Sample ID		VPB171-GWD-111616	VPB171-GW-111716-718-720	VPB171-GW-111716-738-740
Sample type code		FD	N	N
VOC 8260C (ug/L)				
1,1,1-TRICHLOROETHANE	5	**0.90 J**	<0.66 UJ	<0.50 UJ
1,1,2,2-TETRACHLOROETHANE	5	<0.50 U	<0.66 UJ	<0.50 UJ
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	**66**	<0.66 UJ	**9.2 J**
1,1,2-TRICHLOROETHANE	1	**2.4**	<0.66 UJ	**0.43 J**
1,1-DICHLOROETHANE	5	**2.0**	<0.66 UJ	**0.49 J**
1,1-DICHLOROETHENE	5	**12**	<0.66 UJ	**1.4 J**
1,2,4-TRICHLOROBENZENE	5	<0.50 U	<0.66 UJ	<0.50 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<0.75 U***	***<1.0 UJ***	***<0.75 UJ***
1,2-DIBROMOETHANE	NL	<0.50 U	<0.66 UJ	<0.50 UJ
1,2-DICHLOROBENZENE	3	<0.50 U	<0.66 UJ	<0.50 UJ
1,2-DICHLOROETHANE	5	**0.55 J**	<0.66 UJ	<0.50 UJ
1,2-DICHLOROETHENE, TOTAL	5	**7.1**	<1.3 UJ	**1.1 J**
1,2-DICHLOROPROPANE	1	<0.50 U	<0.66 UJ	<0.50 UJ
1,3-DICHLOROBENZENE	3	<0.50 U	<0.66 UJ	<0.50 UJ
1,4-DICHLOROBENZENE	3	<0.50 U	<0.66 UJ	<0.50 UJ
2-BUTANONE	50	<2.5 U	**3.2 J**	**1.4 J**
2-HEXANONE	50	<2.5 U	<3.3 UJ	<2.5 UJ
4-METHYL-2-PENTANONE	NL	<2.5 U	<3.3 UJ	<2.5 UJ
ACETONE	50	**2.5 J**	**18 J**	**7.1 J**
BENZENE	1	<0.50 U	<0.66 UJ	<0.50 UJ
BROMODICHLOROMETHANE	50	<0.50 U	<0.66 UJ	<0.50 UJ
BROMOFORM	50	<0.50 U	<0.66 UJ	<0.50 UJ
BROMOMETHANE	5	<1.0 U	<1.3 UJ	<1.0 UJ
CARBON DISULFIDE	60	<0.50 UJ	<0.66 UJ	<0.50 UJ
CARBON TETRACHLORIDE	5	**5.7**	<0.66 UJ	<0.50 UJ
CHLOROBENZENE	5	<0.50 U	<0.66 UJ	<0.50 UJ
CHLOROETHANE	5	<1.0 U	<1.3 UJ	<1.0 UJ
CHLOROFORM	7	**4.4**	<0.66 UJ	**0.62 J**
CHLOROMETHANE	5	<1.0 U	<1.3 UJ	<1.0 UJ
CIS-1,2-DICHLOROETHENE	5	**7.1**	<0.66 UJ	**1.1 J**
CIS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.66 UJ***	***<0.50 UJ***
CYCLOHEXANE	NL	<0.50 U	<0.66 UJ	<0.50 UJ
DIBROMOCHLOROMETHANE	5	<0.50 U	<0.66 UJ	<0.50 UJ
DICHLORODIFLUOROMETHANE	5	**0.60 J**	<1.3 UJ	<1.0 UJ
ETHYLBENZENE	5	<0.50 U	<0.66 UJ	<0.50 UJ
ISOPROPYLBENZENE	5	<0.50 U	<0.66 UJ	<0.50 UJ
M- AND P-XYLENE	NL	<1.0 U	<1.3 UJ	<1.0 UJ
METHYL ACETATE	NL	<0.75 U	<1.0 UJ	<0.75 UJ
METHYL CYCLOHEXANE	NL	<0.50 U	<0.66 UJ	<0.50 UJ
METHYL TERT-BUTYL ETHER	10	<0.50 U	<0.66 UJ	<0.50 UJ
METHYLENE CHLORIDE	5	<2.5 U	<3.3 UJ	<2.5 UJ
O-XYLENE	NL	<0.50 U	<0.66 UJ	<0.50 UJ
STYRENE	5	<0.50 U	<0.66 UJ	<0.50 UJ
TETRACHLOROETHENE	5	**3.5**	<0.66 UJ	**1.9 J**
TOLUENE	5	**47**	<0.66 UJ	<0.50 UJ
TRANS-1,2-DICHLOROETHENE	5	<0.50 U	<0.66 UJ	<0.50 UJ
TRANS-1,3-DICHLOROPROPENE	0.4	***<0.50 U***	***<0.66 UJ***	***<0.50 UJ***
TRICHLOROETHENE	5	**3500**	**5.3 J**	**460 J**
TRICHLOROFLUOROMETHANE	5	<1.0 U	<1.3 UJ	<1.0 UJ
VINYL CHLORIDE	2	<1.0 U	<1.3 UJ	<1.0 UJ
XYLENES, TOTAL	5	<1.5 U	<2.0 UJ	<1.5 UJ

Notes:

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; NL = Not Listed

Bold = Detected; ***Bold and Italics*** =Not detected exceeds NYS Groundwater Standards or guidance value
Yellow highlighted values exceed Groundwater Standards or guidance value

Sample type codes: N - normal environmental sample, FD - field duplicate

U = Nondetected result. The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte.
J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
M = the matrix spike or matrix spike duplicate did not meet recovery or precision requirements.

Section 7

VPB171 Survey

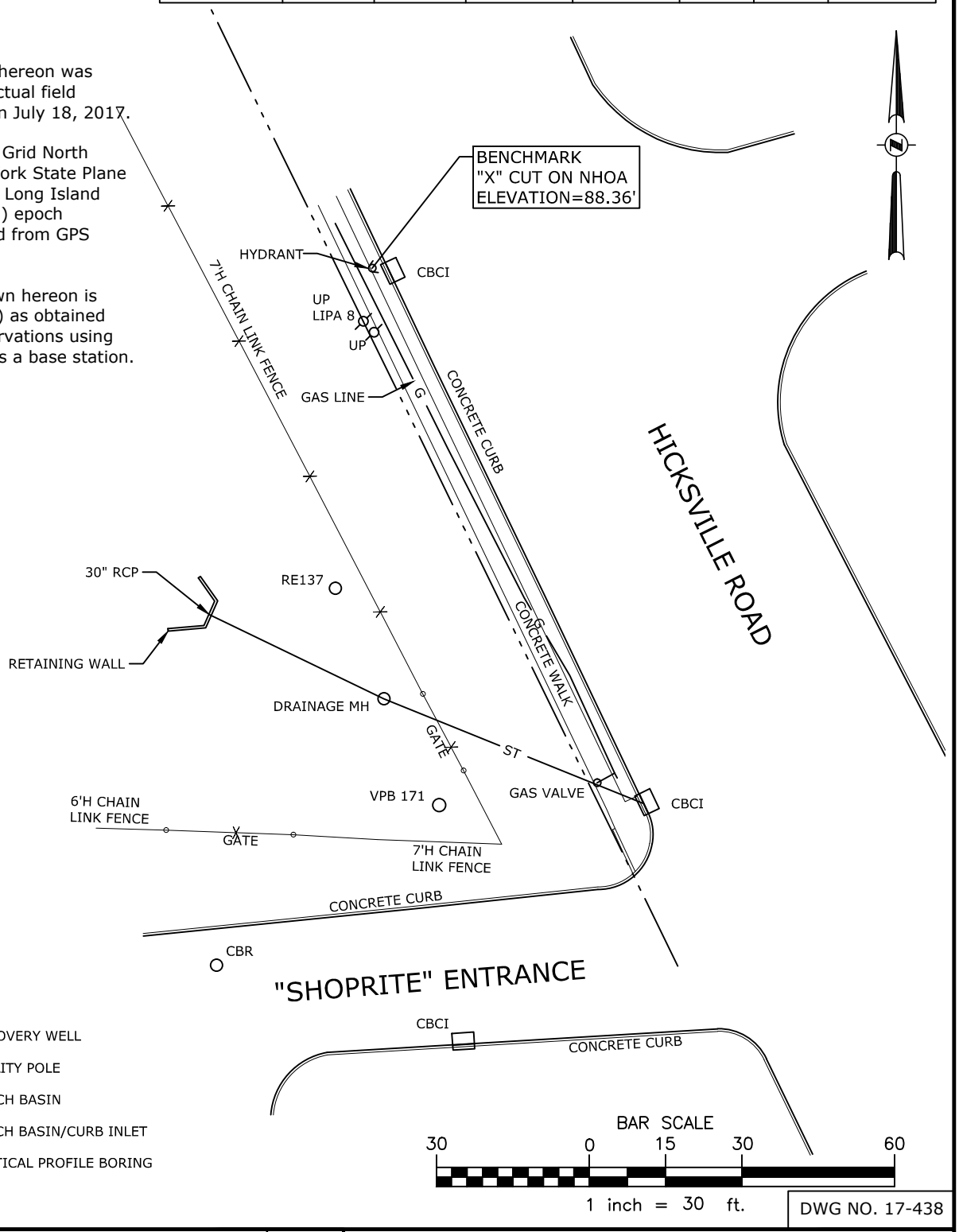
NONE :XREFS

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

Description	Northing	Easting	Latitude	Longitude	Ground	Top of Manhole	Top of 12" Casing
RE137	204415.54	1125692.43	N40-43-35.83	W73-29-22.88	85.53	85.79	85.15
VPB 171	204372.97	1125712.85	N40-43-35.41	W73-29-22.61	85.19	NA	NA

Map Notes

1. Information shown hereon was compiled from an actual field survey conducted on July 18, 2017.
2. North orientation is Grid North based on the New York State Plane Coordinate System, Long Island Zone, NAD 83(2011) epoch 2010.00 as obtained from GPS observations.
3. Vertical datum shown hereon is NAVD 88(Geoid12A) as obtained from RTK GPS observations using the Queens CORS as a base station.



Legend

RE137	RECOVERY WELL
UP	UTILITY POLE
CBR	CATCH BASIN
CBCI	CATCH BASIN/CURB INLET
VPB	VERTICAL PROFILE BORING

DWG NO. 17-438

Date	RECORD OF WORK	Appr.
9/11/17	SHOW NEW 7'H CHAIN LINK FENCE & VPB 171 LOCATION	

Drafter: MDD | Checker:

Appr. by: WJN | Proj. No. 14.4121

RECOVERY WELL SURVEY LOCATION RE137
176 HICKSVILLE ROAD

TOWN OF BETHPAGE | NASSAU COUNTY, NEW YORK

C.T. MALE ASSOCIATES
Engineering, Surveying, Architecture & Landscape Architecture, D.P.C.
50 CENTURY HILL DRIVE, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299

SCALE: 1"=30' | DATE:JULY 18, 2017

CAD DWG. FILE NAME: K:\Projects\144121\Survey\Drawings and Maps\2017 DRAWINGS\RE 137_141421_VPB SITE.dwg

Appendix B

Geologic Cross sections derived from

Environmental Sequence Stratigraphy (ESS)

Appendix B. Geologic Cross Sections derived from Environmental Sequence Stratigraphy

Resolution Consultants reviewed the geologic data and regional literature at the Naval Weapons Industrial Reserve Plant at Bethpage, New York and developed four representative base-wide cross sections to support development of a CSM. The cross sections are presented in Figure 1 - Figure 4. The cross sections provide geologic context for groundwater and analytical data and can be used as the framework upon which new and existing datasets (groundwater, analytical chemistry, geophysical data, etc.) can be analyzed to better understand groundwater flow-paths and contaminant transport and storage zones. As such, these sections are an integral component of an effective CSM.

The cross sections were developed using ESS. The ESS approach examines subsurface data in the context of the depositional environments and petroleum industry best practices of sequence stratigraphy and facies models. Shown for each boring included in the stratigraphic analysis are a vertical series of colored blocks which correspond to boring log lithology and a continuous data curve (in red or as a scan of a paper document, which corresponds to the gamma log). These colored blocks represent vertical grain size distribution and are the basis for the correlations between the data points.

The color coded blocks correspond to the graphic grainsize scale as shown in the cross-sections' keys. The width of the block increases with relative grainsize. Block color indicates the textural classification of the sediment (e.g., yellow for sand, green for silt, blue for clay) as written in the field notes of the core logging geologist (see the cross section keys for further definition).

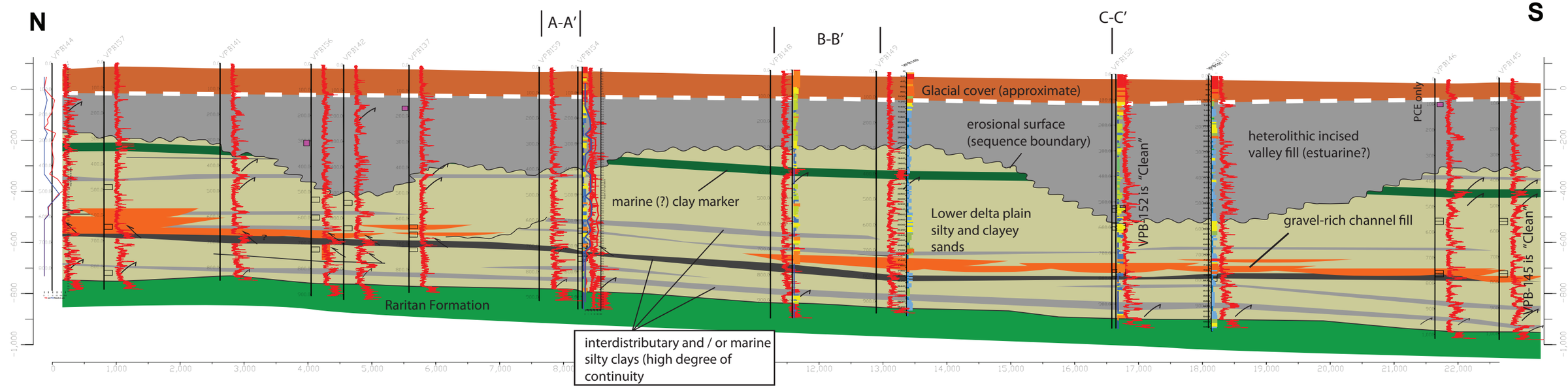
Logs of natural gamma emissions are a common proxy for grainsize. They typically are used as a correlation aide because repetitive spatially extensive trends in grainsize are easily identified visually when curves are examined along a given section. In non-granitic aquifer material, the chemistry of minerals found in clays result in higher concentrations of gamma emitting anions as opposed to the quartz, heavy minerals, and lithic fragments that generally predominate the coarser size fractions. Thus, peaks in the gamma logs can be indicative of clay layers and in general as gamma count per second increases, the grainsize decreases. Gamma logs should always be "calibrated" by comparing side by side with a lithologic log at representative locations. Good agreement between gamma logs and lithology logs were noted in the data points used for the ESS sections at Bethpage.

The previously established general hydrostratigraphy at Bethpage consists of the basal Raritan confining unit, the Magothy aquifer, and the shallow glacial aquifer. The stratigraphy shown in the sections presented in this technical memo is consistent with this general model but additionally shows the Magothy to consist of basal zone gravel-rich channel fills (orange in sections); extensive, planar marine clays (thin units shown in grey and dark green); and silty sands of inter-distributary and delta front origins (shown in tan). Additionally, an erosional incision into the lower delta plain sediments is observed throughout the site (portrayed in sections as a wavy solid black line). Above this, the Magothy sediments are more likely estuarine "incised valley fill" as indicated by the more heterogeneous gamma ray character. In some locations, such as VPB139 on section A-A', there appears to be clear lithologic control on contaminant distribution within the estuarine facies where the higher TCE and PCE concentrations occur in the coarser lithologic zones.

The depositional axis of the incised valley fill likely trends north-south/southeast. The incision is clearly indicated on all sections via the correlation of a prominent clay layer shown in sections in dark green. Where this clay is missing in the gamma logs, it is likely that it was eroded during a lowstand of sea level. Additionally, while relatively planar in their geometry, the major units dip gently south-south east. This is an important geologic characteristic to consider when comparing analytical results because hydrologic zones separated by thin confining layers within the Magothy may be accessed by screens of similar depth.

One of the most important benefits of the ESS approach is to develop and refine the CSM. ESS facilitates an understanding of the geology governing groundwater occurrence and movement, and provides an element for refining the approaches for assessment and remediation. The ESS results from this effort suggest that a modern analog (a modern geological setting that allows an understanding of the ancient environment) for the Magothy depositional environments is the Mackenzie River Delta, shown in Figure 5. Basal gravel zones are represented by the braided river deposits of the Toklat River, Alaska, in Figure 6.

Environmental Sequence Stratigraphy Cross Section



GRAIN SIZE LOG INDEX*

* not all grainsize categories shown in the comprehensive key are present at the site.
Site sediments are predominatly fine (clays, sandy clays, silts,and fine to medium sand)

- Clay
- Clay with 10% Sand
- Clay with 20% Sand
- Clay with 30% Sand
- Clay with 40% Sand
- Clay with Fine Gravel
- Clay with Medium Gravel
- Clay with Coarse Gravel
- Silt
- Silt with 10% Sand
- Silt with 20% Sand
- Sandy Silt
- Silty Sand
- Clayey Sand
- Silty Sand (Fine Sand with 40% Fines)
- Clayey Sand (Fine Sand with 40% Fines)
- Silty Sand (Fine Sand with 30% Fines)
- Clayey Sand (Fine Sand with 30% Fines)
- Silty Sand (Fine Sand with 10-20% Fines)
- Clayey Sand (Fine Sand with 10-20% Fines)
- Gravelly Silt (Silt with Fine Gravel)
- Gravelly Silt (Silt with Medium Gravel)
- Gravelly Silt (Silt with Coarse Gravel)
- Fine Sand
- Silty Sand (Medium Sand with 50% Fines)
- Clayey Sand (Medium Sand with 50% Fines)
- Silty Sand (Medium Sand with 40% Fines)
- Clayey Sand (Medium Sand with 40% Fines)
- Silty Sand (Medium Sand with 30% Fines)
- Clayey Sand (Medium Sand with 30% Fines)
- Silty Sand (Medium Sand with 10-20% Fines)
- Clayey Sand (Medium Sand with 10-20% Fines)
- Fine Sand with Fine Gravel
- Fine Sand with Medium Gravel
- Fine Sand with Coarse Gravel
- Medium Sand
- Silty Sand (Coarse Sand with 50% Fines)
- Clayey Sand (Coarse Sand with 50% Fines)
- Silty Sand (Coarse Sand with 40% Fines)
- Clayey Sand (Coarse Sand with 40% Fines)
- Silty Sand (Coarse Sand with 30% Fines)
- Clayey Sand (Coarse Sand with 30% Fines)
- Silty Sand (Coarse Sand with 10-20% Fines)
- Clayey Sand (Coarse Sand with 10-20% Fines)
- Medium Sand with Fine Gravel
- Medium Sand with Medium Gravel
- Medium Sand with Coarse Gravel
- Coarse Sand
- Coarse Sand with Fine Gravel
- Coarse Sand with Medium Gravel
- Coarse Sand with Coarse Gravel
- Clayey/Silty Gravel (Fine gravel with clay/silt)
- Clayey/Silty Gravel (Medium gravel with clay/silt)
- Clayey/Silty Gravel (Coarse gravel with clay/silt)
- Sandy Gravel (Fine Gravel with Sand)
- Sandy Gravel (Medium Gravel with Sand)
- Sandy Gravel (Coarse Gravel with Sand)
- Fine Gravel
- Medium Gravel
- Coarse Gravel

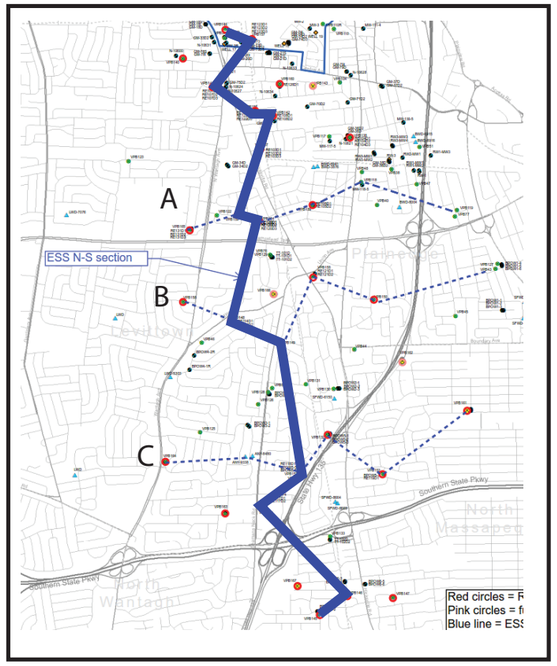


Figure 1. Cross Section N-S

A – A′

West

A

intersection with N-S

VPB-165 VPB-159 VPB-154 VPB-139 BWD 6-1 BWD 6-2 VPB-118 VPB-46 VPB-40 VPB-77 VPB-119

A′

East

Elevation (Ft.)

100 0 -100 -200 -300 -400 -500 -600 -700 -800

Apparent lithologic control on TCE and PCE concentrations

Potentially leaky zone in basal clay here

Raritan Formation

Natural Gamma in CPS

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000 12,000 13,000 14,000 15,000

Distance

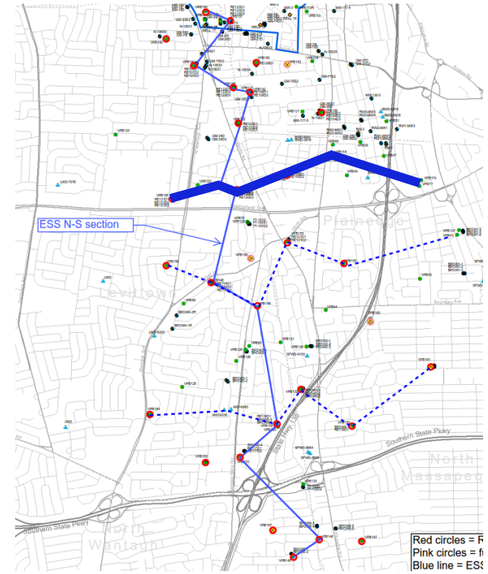
Glacial cover (approximate)

heterolithic incised valley fill (estuarine?)

marine (?) clay marker

interdistributary and / or marine silty clays (high degree of continuity (darkest grey clay may serve as base to contaminant)

gravel-rich channel fill



GRAIN SIZE LOG INDEX*

* not all grainsize categories shown in the comprehensive key are present at the site.
Site sediments are predominatly fine (clays, sandy clays, silts,and fine to medium sand)

- Clay
- Clay with 10% Sand
- Clay with 20% Sand
- Clay with 30% Sand
- Clay with 40% Sand
- Clay with Fine Gravel
- Clay with Medium Gravel
- Clay with Coarse Gravel
- Silt
- Silt with 10% Sand
- Silt with 20% Sand
- Sandy Silt
- Silty Sand
- Clayey Sand
- Silty Sand (Fine Sand with 40% Fines)
- Clayey Sand (Fine Sand with 40% Fines)
- Silty Sand (Fine Sand with 30% Fines)
- Clayey Sand (Fine Sand with 30% Fines)
- Silty Sand (Fine Sand with 10-20% Fines)
- Clayey Sand (Fine Sand with 10-20% Fines)
- Gravelly Silt (Silt with Fine Gravel)
- Gravelly Silt (Silt with Medium Gravel)
- Gravelly Silt (Silt with Coarse Gravel)
- Fine Sand
- Silty Sand (Medium Sand with 50% Fines)
- Clayey Sand (Medium Sand with 50% Fines)
- Silty Sand (Medium Sand with 40% Fines)
- Clayey Sand (Medium Sand with 40% Fines)
- Silty Sand (Medium Sand with 30% Fines)
- Clayey Sand (Medium Sand with 30% Fines)
- Silty Sand (Medium Sand with 10-20% Fines)
- Clayey Sand (Medium Sand with 10-20% Fines)
- Fine Sand with Fine Gravel
- Fine Sand with Medium Gravel
- Fine Sand with Coarse Gravel
- Medium Sand
- Silty Sand (Coarse Sand with 50% Fines)
- Clayey Sand (Coarse Sand with 50% Fines)
- Silty Sand (Coarse Sand with 40% Fines)
- Clayey Sand (Coarse Sand with 40% Fines)
- Silty Sand (Coarse Sand with 30% Fines)
- Clayey Sand (Coarse Sand with 30% Fines)
- Silty Sand (Coarse Sand with 10-20% Fines)
- Clayey Sand (Coarse Sand with 10-20% Fines)
- Medium Sand with Fine Gravel
- Medium Sand with Medium Gravel
- Medium Sand with Coarse Gravel
- Coarse Sand
- Coarse Sand with Fine Gravel
- Coarse Sand with Medium Gravel
- Coarse Sand with Coarse Gravel
- Clayey/Silty Gravel (Fine gravel with clay/silt)
- Clayey/Silty Gravel (Medium gravel with clay/silt)
- Clayey/Silty Gravel (Coarse gravel with clay/silt)
- Sandy Gravel (Fine Gravel with Sand)
- Sandy Gravel (Medium Gravel with Sand)
- Sandy Gravel (Coarse Gravel with Sand)
- Fine Gravel
- Medium Gravel
- Coarse Gravel

Figure 2. Cross Section A-A’

B

B–B′

B′

West

East

VPB-156

VPB-148

VPB-149

VPB-155

VPB-150

VPB-45

VPB-43

VPB-127

intersection with N-S

Glacial cover (approximate)

heterolithic incised valley fill (estuarine?)

marine (?) clay marker

Lower delta plain silty and clayey sands

gravel-rich channel fill

interdistributary and / or marine silty clays (high degree of continuity (darkest grey clay may serve as base to contaminant)

?

Raritan Formation

100

0

-100

-200

-300

-400

-500

-600

-700

-800

0

1,000

2,000

3,000

4,000

5,000

6,000

7,000

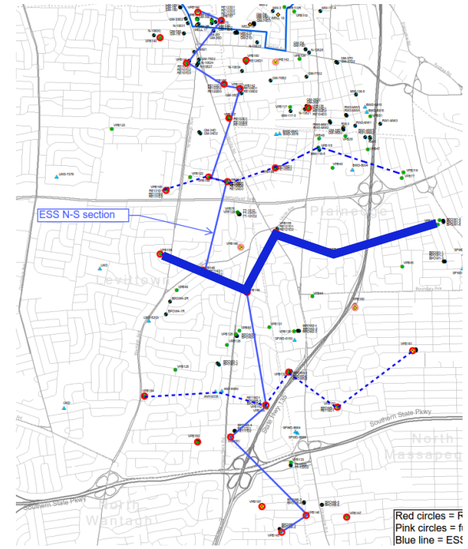
8,000

9,000

10,000

11,000

12,000

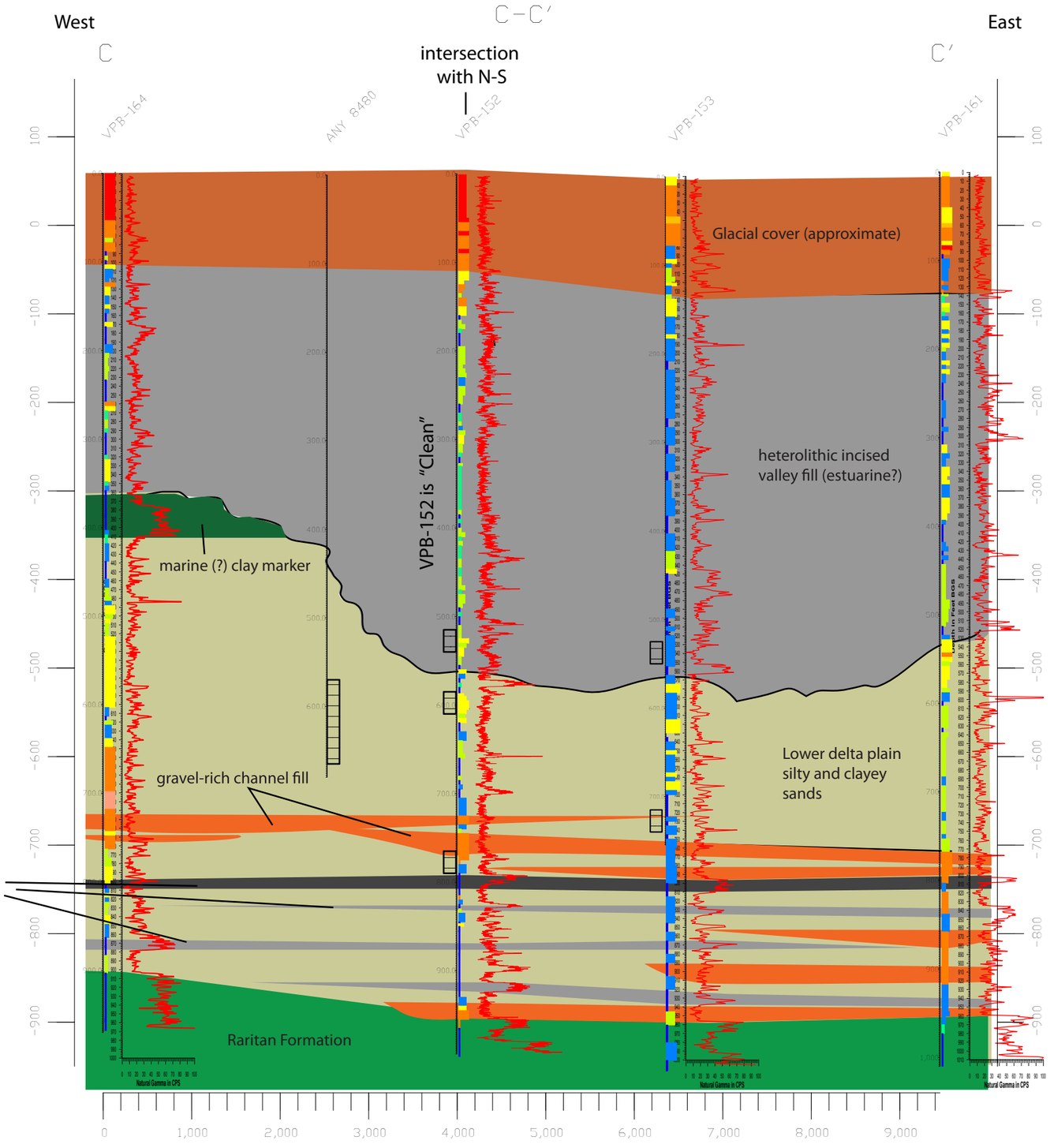


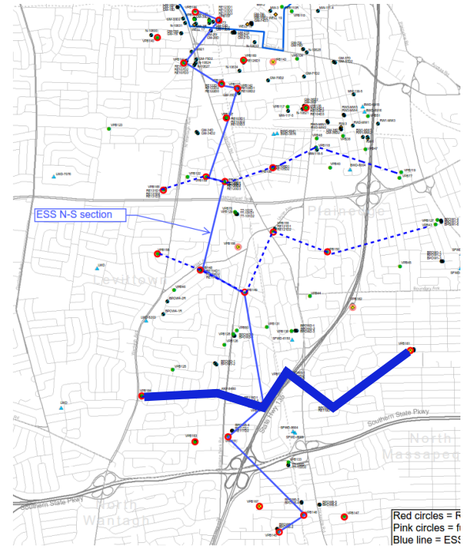
GRAIN SIZE LOG INDEX*

* not all grainsize categories shown in the comprehensive key are present at the site.
Site sediments are predominatly fine (clays, sandy clays, silts,and fine to medium sand)

- Clay
- Clay with 10% Sand
- Clay with 20% Sand
- Clay with 30% Sand
- Clay with 40% Sand
- Clay with Fine Gravel
- Clay with Medium Gravel
- Clay with Coarse Gravel
- Silt
- Silt with 10% Sand
- Silt with 20% Sand
- Sandy Silt
- Silty Sand
- Clayey Sand
- Silty Sand (Fine Sand with 40% Fines)
- Clayey Sand (Fine Sand with 40% Fines)
- Silty Sand (Fine Sand with 30% Fines)
- Clayey Sand (Fine Sand with 30% Fines)
- Silty Sand (Fine Sand with 10-20% Fines)
- Clayey Sand (Fine Sand with 10-20% Fines)
- Gravelly Silt (Silt with Fine Gravel)
- Gravelly Silt (Silt with Medium Gravel)
- Gravelly Silt (Silt with Coarse Gravel)
- Fine Sand
- Silty Sand (Medium Sand with 50% Fines)
- Clayey Sand (Medium Sand with 50% Fines)
- Silty Sand (Medium Sand with 40% Fines)
- Clayey Sand (Medium Sand with 40% Fines)
- Silty Sand (Medium Sand with 30% Fines)
- Clayey Sand (Medium Sand with 30% Fines)
- Silty Sand (Medium Sand with 10-20% Fines)
- Clayey Sand (Medium Sand with 10-20% Fines)
- Fine Sand with Fine Gravel
- Fine Sand with Medium Gravel
- Fine Sand with Coarse Gravel
- Medium Sand
- Silty Sand (Coarse Sand with 50% Fines)
- Clayey Sand (Coarse Sand with 50% Fines)
- Silty Sand (Coarse Sand with 40% Fines)
- Clayey Sand (Coarse Sand with 40% Fines)
- Silty Sand (Coarse Sand with 30% Fines)
- Clayey Sand (Coarse Sand with 30% Fines)
- Silty Sand (Coarse Sand with 10-20% Fines)
- Clayey Sand (Coarse Sand with 10-20% Fines)
- Medium Sand with Fine Gravel
- Medium Sand with Medium Gravel
- Medium Sand with Coarse Gravel
- Coarse Sand
- Coarse Sand with Fine Gravel
- Coarse Sand with Medium Gravel
- Coarse Sand with Coarse Gravel
- Clayey/Silty Gravel (Fine gravel with clay/silt)
- Clayey/Silty Gravel (Medium gravel with clay/silt)
- Clayey/Silty Gravel (Coarse gravel with clay/silt)
- Sandy Gravel (Fine Gravel with Sand)
- Sandy Gravel (Medium Gravel with Sand)
- Sandy Gravel (Coarse Gravel with Sand)
- Fine Gravel
- Medium Gravel
- Coarse Gravel

Figure 3. Cross Section B-B’





GRAIN SIZE LOG INDEX*

* not all grainsize categories shown in the comprehensive key are present at the site.
Site sediments are predominatly fine (clays, sandy clays, silts,and fine to medium sand)

- Clay
- Clay with 10% Sand
- Clay with 20% Sand
- Clay with 30% Sand
- Clay with 40% Sand
- Clay with Fine Gravel
- Clay with Medium Gravel
- Clay with Coarse Gravel
- Silt
- Silt with 10% Sand
- Silt with 20% Sand
- Sandy Silt
- Silty Sand
- Clayey Sand
- Silty Sand (Fine Sand with 40% Fines)
- Clayey Sand (Fine Sand with 40% Fines)
- Silty Sand (Fine Sand with 30% Fines)
- Clayey Sand (Fine Sand with 30% Fines)
- Silty Sand (Fine Sand with 10-20% Fines)
- Clayey Sand (Fine Sand with 10-20% Fines)
- Gravelly Silt (Silt with Fine Gravel)
- Gravelly Silt (Silt with Medium Gravel)
- Gravelly Silt (Silt with Coarse Gravel)
- Fine Sand
- Silty Sand (Medium Sand with 50% Fines)
- Clayey Sand (Medium Sand with 50% Fines)
- Silty Sand (Medium Sand with 40% Fines)
- Clayey Sand (Medium Sand with 40% Fines)
- Silty Sand (Medium Sand with 30% Fines)
- Clayey Sand (Medium Sand with 30% Fines)
- Silty Sand (Medium Sand with 10-20% Fines)
- Clayey Sand (Medium Sand with 10-20% Fines)
- Fine Sand with Fine Gravel
- Fine Sand with Medium Gravel
- Fine Sand with Coarse Gravel
- Medium Sand
- Silty Sand (Coarse Sand with 50% Fines)
- Clayey Sand (Coarse Sand with 50% Fines)
- Silty Sand (Coarse Sand with 40% Fines)
- Clayey Sand (Coarse Sand with 40% Fines)
- Silty Sand (Coarse Sand with 30% Fines)
- Clayey Sand (Coarse Sand with 30% Fines)
- Silty Sand (Coarse Sand with 10-20% Fines)
- Clayey Sand (Coarse Sand with 10-20% Fines)
- Medium Sand with Fine Gravel
- Medium Sand with Medium Gravel
- Medium Sand with Coarse Gravel
- Coarse Sand
- Coarse Sand with Fine Gravel
- Coarse Sand with Medium Gravel
- Coarse Sand with Coarse Gravel
- Clayey/Silty Gravel (Fine gravel with clay/silt)
- Clayey/Silty Gravel (Medium gravel with clay/silt)
- Clayey/Silty Gravel (Coarse gravel with clay/silt)
- Sandy Gravel (Fine Gravel with Sand)
- Sandy Gravel (Medium Gravel with Sand)
- Sandy Gravel (Coarse Gravel with Sand)
- Fine Gravel
- Medium Gravel
- Coarse Gravel

Figure 4. Cross Section C-C’

Figure 5. Mackenzie River Delta Depositional Environment

Source: Thermal Emission and Reflection Radiometer image from NASA's TERRA satellite, August 4, 2005, Mackenzie River, Canada. Image from GSFC/METI/ERSDAC/JAROS and the US/Japan ASTER Science Team. http://earthobservatory.nasa.gov/IOTD/view.php?id=8320

Figure 6. Braided River Depositional Environment

Source: East Fork Toklat River, Alaska Range, Denali National Park https://pubs.usgs.gov/of/2004/1216/b/b.html