TETRA TECH

NOR-02701

June 1, 2021

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

Reference: CLEAN Contract No. N6247016D9008
Contract Task Order WE13

Subject: Final CERCLA Work Plan for RE108 Area Hotspot Aquifer Testing, Operation, and Monitoring of RE137 Groundwater Extraction, Treatment, and Discharge System; Response to NYSDEC comments Dated April 20, 2021; and NYSDEC Form NY-2C. Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, New York

Dear Mr. Pelton:

On behalf of the Department of the Navy, Tetra Tech is providing the *Final CERCLA Work Plan for RE108 Area Hotspot Aquifer Testing, Operation, and Monitoring of RE137 Groundwater Extraction, Treatment, and Discharge System, NWIRP Bethpage* to the New York State Department of Environmental Conservation (NYSDEC) for information. This report incorporates the NYSDEC April 20, 2021 comments on the Draft report as indicated in the attached Response to Comments. The Navy is issuing this document as a final. If no comments are received by June 30, 2021, the Navy will include this report as a final in the NWIRP Bethpage Administrative Record.

In addition, please find attached information related to treated groundwater discharge from a Department of the Navy ("Navy") facility denominated as RE137 Groundwater Treatment System (GWTS) for the former Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage. RE 137 GWTS is a part of the Navy's ongoing CERCLA[1] remediation of groundwater contamination emanating from NWIRP Bethpage. Although no permits are required for this action,[2] the Navy closely coordinates with New York State Department of Environmental Conservation (NYSDEC) and is therefore providing relevant information utilizing the attached NYSDEC Form NY-2C.

If you have any questions please contact Mr. James Watts-Gravette, NAVFAC MIDLANT, at james.gravette@navy.mil or (757) 341-0380.

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[1] Comprehensive Environmental, Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. Sec. 9604 (e)(5)

[2] CERCLA §121(e)(1) [42 U.S.C. §9621(e)(1)] ("No Federal, State, or local permit shall be required for the portion of any removal or remedial action conducted entirely onsite, where such remedial action is selected and carried out in compliance with this section.").

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Sincerely,

David Brayack
Project Manager

Enclosures: Final CERCLA Work Plan for RE108 Area Hotspot Aquifer Testing, Operation, and Monitoring of RE137 Groundwater Extraction, Treatment, and Discharge System
Response to NYSDEC comments Dated April 20, 2021
NYSDEC Form NY-2C.

Distribution:
NYSDEC, Don Hesler
NAVFAC MIDLANT, James Watts-Gravette
Tetra Tech, Ernie Wu
Project File

Response to NYSDEC Comments - Draft CERCLA Work Plan - RE137 Groudnwater Extraction, Treatment, and Discharge System, April 20, 2021
NWIRP Bethpage
NYSDEC Site No 130003B

Comment	Section	Location	Comment	Response
1	2.0	3rd paragraph	Plume capture can be assessed using the manually collected water levels once converted to groundwater elevations. This section may benefit from a discussion on the use of hydraulic head values derived from manual water level measurements to assess plume capture. This could include an evaluation following the EPA Guidance on Capture Zone Analysis that was followed during the RE137 aquifer pumping test.	The 2nd paragraph discusses the purpose of hydraulic testing that will be completed in Section 2.1. Text was added to note that the data gathered during the hydraulic testing will be used to assess plume capture.
2	3.1	Page 3.1	The Department's Division of Water (DOW) requires a State Pollutant Discharge Elimination System (SPDES) permit equivalence and the DOW will establish the discharge criteria. If needed, the Department can provide the most current SPDES equivalence request form.	Attached for NYSDEC use is a completed SPDES form NY-2C. The following text has been added to the work plan: "NYSDEC SPDES Application Form NY-2C is being provided to NYSDEC under separate cover for information. " If you have any questions on the Treatment Goals, please let us know.
3	3.4	Page 3-6	The 8th and 9th bullets should indicate that above the ground surface represents the bottom of the recharge basin.	The text was revised accordingly.
4	3.4	Page 3-6	Should the settings for the Level Alarms in the two Conex boxes be lower than four-inches under the 10th and 11th bullets? Seems like an alarm being triggered following the accumulation of four inches of water inside the box is a large volume of water and an alarm with a lower level would be more appropriate.	The text was revised to reduce the level to 1 inch. There is a minimum depth requirement in order to activate an alarm switch.
5	3.8	Page 3-11	The Work Plan should be updated to include provisions for temporary water treatment plant shutdown in advance of and during major rain events to avoid exceeding the recharge capacity of Nassau County Recharge Basin 305.	Text was added to the end of Section 3.8 to note that the system will be shutdown in advance of and during major rain events.
6	NA	NA	Additionally, the Department has added suggested revisions directly into the Adobe portable document format (PDF) version of the Work Plan that will be sent separately as an electronic mail attachment.	The revisions suggested in the PDF verion of the work plan were incorporated in the final version of the work plan.

CERCLA WORK PLAN

FOR

RE108 AREA HOTSPOT AQUIFER TESTING AND INSTALLATION, OPERATION, AND MONITORING OF RE137 GROUNDWATER EXTRACTION, TREATMENT, AND DISCHARGE SYSTEM

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE, NEW YORK
JUNE 2021

1.0 Introduction

This work plan has been prepared for the Mid-Atlantic Division of the Naval Facilities Engineering Systems Command (NAVFAC) pursuant to Contract Task Order (CTO) WE13, issued under Comprehensive Long-term Environmental Action Navy (CLEAN) contract number N6247016D9008. This work plan identifies actions to be taken to evaluate capture of the RE108 Area groundwater hotspot in the area of recovery wells RE137 and to a lesser extent RW4. To support this evaluation, a temporary RE137 Groundwater Extraction, Treatment, and Discharge System (RE137 System) will be installed south of the former Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage, Long Island, New York in the area of RE137 (Figure 1-1). This work plan identifies steps to:

- Conduct water level measurements and chemical testing of groundwater to support a computer modeling evaluation of the RE108 Area hotspot plume capture in the RE137 and RW4 area
- Construct the RE137 Treatment System
- Prove out the RE137 Treatment System operation and conduct startup testing
- Conduct long-term operation and monitoring of the RE137 Treatment System
- Remove the RE137 Treatment System and restore the area.

The RE137 System is anticipated to start operation in spring 2021 and operate for approximately 20 months until the Phase II RE108 Area Hotspot Treatment System starts operation. This system is also expected to provide interim control of plume migration, and provide significant removal of volatile organic compounds (VOCs), primarily trichloroethane (TCE) from the aquifer.

The Navy undertakes and documents its environmental remedial activities with respect to releases/suspected releases from the former NWIRP through Department of Navy (Navy) Work Plans.

These documents outline technical requirements for conducting these activities and include provisions to protect health and safety and to minimize impact to the local community. These provisions include restricting impacts from noise, work hours, and site maintenance (e.g., cleanliness).

Prior to mobilization of equipment, notifications will be distributed to residents located near Nassau County Basin No. 305 (Basin 305) to inform the residents of the Navy's intent and plans. Notifications will be hand-delivered a minimum of one week prior to mobilization. The notifications will include points of contact for the Navy, the Navy's prime contractor (Tetra Tech), New York State Department of Environmental Conservation (NYSDEC), and the New York State Department of Health (NYSDOH). The notification letter is provided in Attachment A. Tailored letters are to be provided to residents at addresses located immediately adjacent to the basin. NYSDEC, NYSDOH, and Town of Hempstead will be notified at least 48-hours prior to the distribution of residential notifications.

1.1 Site Background

The Navy is addressing VOC-impacted groundwater at the NWIRP Bethpage under the 2003 Operable Unit 2 Record of Decision. One action under this Record of Decision is to provide a mass removal system to remediate off-property groundwater hotspots via extraction, treatment, and discharge. A hotspot is defined as an area where VOCs are present at a concentration greater than 1,000 micrograms per liter (µg/L).

In 2009, the Navy started operation at the GM38 Area Groundwater Extraction, Treatment, and Discharge System, which is a system used to provide mass removal of VOCs in a separate off-property hotspot area (Former GM38 Area Hotspot). This system continues to operate.

In approximately 2014, a second hotspot, later referred to as the RE108 Area Hotspot, was identified 1.5 miles south of the former NWIRP Bethpage and 0.7 mile west of the GM38 Area Hotspot (Figure 1-2). Subsequent OU2 groundwater investigations in this area identified and defined the boundaries of this new hotspot. The hotspot is estimated to be approximately 250 acres and be present at depths of approximately 520 to 750 feet below ground surface (bgs). This hotspot is characterized by the high percentage of TCE relative to other VOCs (greater than 90 percent TCE) and much lower concentrations of other VOCs. VOC concentrations in this area range between 1,000 to 8,200 micrograms per liter (µg/L) (Tetra Tech, 2019). Regional groundwater flow is to the south/southeast, but is locally affected by the operation of the recharge basins and public water supply wells.

To facilitate and expedite implementation of the RE108 Area Hotspot remedy, the remedy was divided into two phases (Phase I and II). The Phase I RE108 Area Hotspot Treatment System (Phase I System) is being installed to intercept and treat the northern portion of the RE108 Area Hotspot. Operation of the Phase I System is expected to start in spring 2021. The associated recovery well for the Phase I System is RW4, located approximately 2,100 feet north of RE137.

A Phase II System is currently being designed and will be installed in the southern portion of the RE108 Area hotspot. This system will use 2 sets of recovery wells near the leading edge of the hotspot (RW5A/B and RW6A/B), located approximately 2,000 feet south and 2,700 feet southeast of RE137, respectively. Recovery wells RW5A/B and RW6A/B will be used, as practical, to control migration of groundwater contaminated with chlorinated VOCs at concentrations greater than 500 µg/L and which is in close proximity to the hotspot groundwater. An extension to these recovery wells (Phase II Extension – RW7) is planned to be installed 2,700 feet south of the RE108 Area Hotspot and will target groundwater contaminated with chlorinated VOCs at concentrations greater than 150 µg/L in that area. The Phase II System and Extension is anticipated to start operation in late 2022.

The basis for the RE137 System and how it ties into the overall Operable Unit No. 2 (OU2) remedial plan are identified in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) February 2021 Explanation of Significant Differences, Operable Unit 2 Record of Decision that was put out for public comment in March 2021. The RE137 Treatment System will use the existing groundwater recovery well RE137. The well was installed in 2016 to a depth of 750 feet bgs and was used at that time to conduct short-term tests to evaluate the aquifer parameters and support groundwater modeling activities. Groundwater in this area contains approximately 2,000 µg/L of VOCs (see Attachment B).

1.2 Objective

The objective of the RE137 aquifer testing is to refine the recovery well capture zone estimate and evaluate mass removal of VOCs to support the RE108 Hotspot Area Phase I and Phase II Treatment Systems. In addition, the RE137 Treatment System, in combination with the Phase I - RW4 pump operation will provide interim migration control of the northern portion of the RE108 Area Hotspot groundwater. The tests will also be used to evaluate potential capture zone overlap/interference between RW4 and RE137 well operations and provide an initial evaluation for potential future use of New York State Department of Environmental Conservation recovery wells DECEX01 to DECEX05.

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2.0 Plume Capture Test and Groundwater Monitoring

The aquifer characteristics in the vicinity of the RE137 well was initially evaluated by conducting a short-term capture zone investigation in 2016 (Resolution Consultants, 2017). The evaluation included a step-test to evaluate operation efficiency of the RE137 well and a three-day constant rate pumping test to evaluate aquifer parameters. During this test, the extracted groundwater was treated onsite for VOCs and discharged to adjacent Nassau County Basin 305.

This work plan describes similar hydraulic testing, but by running the test over a 20-month operating period, the data will 1) allow additional localized calibration of the Navy's NWIRP Bethpage groundwater computer model, 2) be used to assess plume capture, and 3) also be used to assess potential impacts on the operations of various public water suppliers in the area as well as seasonal effects.

This work plan will also address plume migration and capture via trend analysis of chemical data from various monitoring wells in the area. Due to the large size of the plume and relatively slow movement of the groundwater, trend development is expected to be limited over the 20 months of operation. However, this data will be used to support long-term trend analysis of the Phase I Treatment System, as well as be used to help identify any potential data gaps or modifications to the long-term approach.

2.1 Hydraulic Testing

Water levels will be collected from the wells identified in Table 2-1 and on Figure 2-1 using pressure transducers, with a programmed data collection frequency of one reading every 10 minutes. The water level data will be downloaded monthly and plotted on graphs along with RE137 and RW4 pumping data to evaluate the effects of the operation of RE137 and RW4 on each well being monitored. The multiple screened intervals at selected well cluster locations will provide information regarding the vertical movement of groundwater across lithologies, which will be useful in projecting both the lateral and vertical hydraulic effects and in capture zone evaluation. The data will also be used in the development of the groundwater computer model to calibrate horizontal and vertical hydraulic conductivities in the area. During this testing, flow from RW4 or RE137 may be reduced or eliminated to provide a range of input parameters for transient model calibration.

2.2 Groundwater Monitoring

Groundwater samples will be collected from the wells indicated in Table 2-1, at the indicated frequencies, and analyzed for VOCs and 1,4-dioxane. The sampling data will

be used to evaluate concentration changes and potential plume shifts over time from the pumping of RE137 and RW4. RE137 will be sampled weekly for one month following each change in flow rate, then monthly to provide a detailed database of concentration changes over time as the pumping rate is adjusted. RW4 will be sampled monthly as part of the routine GM38 System operation to assess potential impacts of RE137 operation on RW4 concentrations.

As indicated in Table 2-1, most of the monitoring wells will be sampled quarterly. Selected monitoring wells will also be sampled immediately prior to each step-up in the pumping rate of RE137. Sampling will be performed in accordance with the Letter Work Plan, 2018 Off-Property VOC and 1,4-Dioxane Groundwater Investigation, Facility Wide.

2.3 Reporting

The water level data will be assembled into a database. Graphs will be prepared showing water levels over time in the wells monitored. The data will be evaluated to determine which wells were influenced by the pumping of RE137 and RW4, and to what extent. Pumping data for other large-capacity pumping wells in the area will also be obtained to screen against the water level data to identify potential water level changes due to the operation of other wells. The assessment will evaluate the influence of RE137 and RW4 pumping on groundwater levels within the strata that RE137 and RW4 are screened within, as well as depositional sequences/groundwater flow units above and below. The hydraulic data will also be used in the groundwater computer model development currently underway to validate/improve the model and allow better projections on groundwater capture in the area.

Analytical data will be presented in tabular form, with VOC data plotted over time for selected wells. The sampling data will be compared to RE137 and RW4 pumping rates information to evaluate the degree to which the pumping of RE137 and RW4 alters the plume configuration, both in terms of concentration and overall footprint.

The water level and analytical data will be compared to groundwater computer model projected changes over time. This comparison will initially be used to evaluate the accuracy of the model in select areas, and if necessary be used to adjust model calibrations.

3.0 RE137 Groundwater Treatment System

The RE137 Groundwater Treatment System will consist of groundwater extraction, treatment, and discharge components. A variable speed submersible pump will be used to extract the groundwater from a depth of 630 to 745 feet bgs, the screen depth for recovery well RE137. The water will pass through particulate filtration units and then into an ultraviolet (UV)/hydrogen peroxide advanced oxidation process (AOP) reactor for destroying 1,4 dioxane and VOCs. The water will then pass through granular activated carbon (GAC) filtration to remove residual hydrogen peroxide and VOCs and finally be discharged into Basin 305 for recharge into the aquifer. Anticipated quality of extracted groundwater to be treated is detailed in Attachment B.

3.1 Treatment Goals

Primary chemicals of concern, concentrations, and treatment goals are presented in Table 3-1. These treatment goals are considered Applicable or Relevant and Appropriate Requirements under CERCLA and are consistent with limits that would be imposed by NYSDEC, if this action required a State Pollutant Discharge Elimination System (SPDES) discharge permit. NYSDEC SPDES Application Form NY-2C is being provided to NYSDEC under separate cover for information.

Table 3-1: RE137 Groundwater Treatment System Characterization and Treatment Goals

Constituents	Design Concentration (µg/L)	Treatment Goals [(1)] (µg/L)
Trichloroethene	2,000	5
Freon 113	30	5
1,1-Dichloroethene	5	5
cis-1,2-Dichloroethene	11	5
Tetrachloroethene	5	5
Carbon Tetrachloride	5	5
Chloroform	2	5
1,1-Dichloroethane	5	5
1,1,2-Trichloroethane	5	1
1,1,1-Trichloroethane	1	5
1,4-Dioxane	10	1
pH (range)[(2)]	4.5 to 6.5	4.5 to 6.5
Iron	170	<300
Manganese	12	<300

(1) Treatment goals are based on NYSDOH MCLs. Under normal operation, VOCs in the treated effluent will be less than 1 µg/L and the 1,4-dioxane concentration will be less than 0.5 µg/L.
(2) The natural pH of the groundwater in the area is slightly acidic. Groundwater data presented is based on samples from nearby monitoring wells RE120D1, D2, and D3. The treatment process is not anticipated to significantly alter the pH of the groundwater prior to being returned to the aquifer, and would be compliant with 6 NYCRR 703.6, footnote 6 values.

3.2 Construction

Recovery well RE137 is located within the fenced area of Basin 305 property, near its southeast corner. The well is located near the top-of-bank, west of Hicksville Road and across the street from Moore Drive. The basin is bordered to the south by an access road to a commercial business. Further south is an operating gasoline station. The remaining surrounding areas to the north and west are residential (Figure 3-1).

The site is comprised of a triangle-shaped recharge basin bordered by a top-of-bank surface grade-level corridor surrounded by a six-foot chain-link fence. The bottom of the basin is approximately 16 to 20 feet lower than the top-of-bank surface grade. The treatment system and working site area will be on the eastern top-of-bank perimeter of the recharge basin. Except for discharge piping, a staff gauge, and water level transmitter, all materials will be outside the working volume of the basin.

The work area for this project covers approximately 7,650 square feet. It is currently occupied by a chain-link fence with gates on the eastern and southern sides, along with various trees and utilities. This area is the same location where similar equipment was set up during an earlier pumping test for this same well.

A portion of the existing fencing will be relocated so that the work area can expanded to the east (Figure 3-1). The work area will be cleared of debris and brush, along with the removal of three young trees on the eastern side. During operation, Tetra Tech will maintain the area within the Navy work area. The ground will be covered with a geotextile fabric and covered with a six-inch packed gravel layer. This cover is required to provide a stable base for equipment and to aid in gravel removal at the end of the project.

The relocated fencing will be bound by the road, utility poles and mature trees to the east, and young trees and parking light fixture to the south. Lockable gates will be reinstalled along the southern and eastern sides. Ingress and egress from areas of disturbance will be controlled using a stabilized construction entrance. The entrance will be constructed of gravel and matting.

Erosion and sedimentation control silt fence and/or logs will be installed and maintained in accordance with common industry best management practices (BMPs). Traffic

management control signage is presented in Figure 3-1. During initial placement and end-of-project removal of heavy equipment, a flag man will be used to help manage traffic.

Prior to any intrusive work, underground utility mark-outs will be established. Construction contractors will coordinate with Dig Safely, New York to complete an underground utilities survey of the areas of intrusive activities and to acquire utility layout plans of the areas. Underground work is not anticipated to be required for this project.

3.3 System Description

3.3.1 Process Flow

The groundwater treatment system will use a variable frequency drive (VFD) electric submersible pump (P-1A) in well RE137 (Figures 3-2 and 3-3 and Drawings process and instrumentation diagram [P&ID] 100 to 400). The pump will be set at a depth of approximately 150 feet below top of casing. The pump will extract 100 to 400 gallons per minute (gpm) with sufficient pressure to overcome static head in the well (65 feet) plus dynamic losses associated with the bag filter (maximum 25 feet), GAC (maximum 25 feet), and the AOP, piping, and fittings (10 feet) for a total maximum head of 120 feet. Assuming an 80 percent efficient pump, this corresponds to an approximate 40 horsepower motor. The motor will be 480 volt 3-phase.

The extracted groundwater will pass through one of two bag-type filtration units (BF-100A or -100B) operating in parallel to remove any particulates that may affect downstream equipment. These units will initially be equipped with 25-micron filters. If particulate accumulation in the GAC units becomes excessive and requires back washing, these filters may be replaced with 10-micron bags.

A UV/hydrogen peroxide 18 KW AOP unit (AOP-200) will be used to remove 1,4 dioxane and the majority of the VOCs from the extracted groundwater (i.e., influent). Hydrogen peroxide at 27 percent solution strength will be metered into the water prior to a static mixer (SM-100). The water/hydrogen peroxide mixture will then be exposed to UV light in the AOP reactor. Hydrogen peroxide in the presence of intense UV releases hydroxyl radicals into solution. The hydroxyl radicals, which are powerful oxidizers, are used to convert most organic chemicals to carbon dioxide, water, and residual inorganic chloride. The anticipated hydrogen peroxide concentration in the water before the AOP unit is 6 to 10 parts per million (ppm). Approximately 10 to 20 percent of the hydrogen peroxide is consumed in the AOP reactor.

The hydrogen peroxide will be stored in two 120-gallon double walled storage tanks (T-400 and T-401). Anticipated hydrogen peroxide usage rate is 2.4 to 16 gallons per day. The hydrogen peroxide will be pumped from the storage tanks to the AOP system in 1/2 -inch HDPE tubing within 2-inch PVC pipe.

From the AOP reactor, residual TCE (approximately 20 µg/L), Freon 113 (approximately 30 µg/L), and hydrogen peroxide in the water will be treated in 6,000-pound GAC filtration units aligned in series (GAC-300, -310, and -320). Normally two GAC units will operate in series and the third unit will be on standby to allow rapid carbon unit changeout. The GAC units will be connected with removable flexible hose to direct the flow as needed between the GAC units. Following the GAC units, the water will be directed to Basin 305 for infiltration. Based on previous testing in Basin 305, minimal distribution piping will be required within the basin.

3.3.2 Piping

Exterior piping from the well to the AOP units will be 6-inch in 10-inch double wall schedule 40 PVC. Exterior piping after the AOP units will be single wall 6-inch PVC or hose. During winter operation, the exterior piping along the ground will be insulated using natural biodegradable materials and covered with plastic. Elevated exterior piping will be insulated and heat tracing will be added as needed in stagnant sections of equipment. During severe cold events where power failure is possible, the units will be drained of water.

Interior piping will be 6-inch PVC schedule 40. Secondary containment piping will drain either into the RE137 well or one of the Conex boxes, where level switches activate and provide automatic shutdown of the system.

3.3.3 Support Structures and Layout

The majority of the treatment equipment will be housed within two Conex boxes. One box will contain the filtration units, static mixer, hydrogen peroxide storage tanks, and chemical feed pumps. Any material in this box that may come in contact with the hydrogen peroxide under reasonable potential failure scenarios will be isolated from contact (e.g., elevated) or be resistant to 27 percent hydrogen peroxide (e.g., floor grates).

The second Conex box will contain the AOP reactor and electrical panels, controls, alarms, and dial-out systems. In the event of a leak within the Conex boxes, level switches in the floor (one per box) will provide alarm and automatic shutdown of the system. Any alarm, including a low level in the well, high level in Basin 305, or AOP

System malfunction will result in system shutdown and automatic notification of the operator.

Each Conex box will also be equipped with an eyewash station to be located near the hydrogen peroxide tank and injection port, and other appropriate safety equipment. Health and safety practices and equipment will be detailed in a separate Health and Safety Plan.

The Conex boxes will include an interior 6-inch curb to serve as individual unit secondary containment. The Conex boxes will also be heated and be equipped with ventilation fans for winter and summer operation.

Due to the relatively large size, the GAC units will be located on skids outside the Conex boxes, between the AOP Conex box and the frac tanks.

A construction trailer will be mobilized onsite for the construction and startup period of the system. A temporary generator will be used during the initial operation and will be phased out once power to the PSE&G system is obtained.

Two 21,000-gallon frac tanks will be onsite and utilized primarily during the initial testing, temporary storage of any off-spec waters (e.g., equipment and piping drainage, leaks within the Conex boxes), and if needed, to backwash the GAC units (one clean water and one dirty water tank). If GAC backwash is needed, a temporary clean water pump will be used. A 10 gpm submersible pump with 1-inch tubing will be onsite to transfer the dirty water to the front of the system (2” Recycle Port) for subsequent treatment and discharge.

3.3.4 Sampling

Sample ports are shown in drawings P&ID-100 to -400 and will be located as follows:

- SP-100, P-1A discharge – Untreated RE137 water
- SP-200, P-1A discharge, after filters and hydrogen peroxide addition (AOP Influent)
- SP-201, AOP 200 effluent, prior to GAC unit
- SP-300, GAC-300 discharge, when GAC-300 is lead
- SP-301, GAC-310 discharge, when GAC-310 is lead
- SP-302, GAC-320 discharge, when GAC-320 is lead
- SP-303, GAC Unit effluent (compliance port)

3.4 System Sensors and Alarms

System sensors and alarms are detailed in drawings P&ID-100 to -400. A description of and initial set points for each of the alarms are presented below:

- Recovery Well RE137 Level Alarm Low Low - Backup alarm - Shut down RE137 Pump and notify operator. Setpoint: 100 feet below ground surface
- Recovery Well RE137 Level Alarm Low - Shut down RE137 Pump and notify operator. Setpoint: 70 feet below ground surface
- Recovery Well RE137 Level Alarm High - Shut down RE137 Pump and notify operator: Setpoint 20 feet below ground surface.
- Bag Filter (BF-100A/B) Differential Pressure High Level - Shut down RE137 Pump and notify operator. Setpoint: 15 pounds per square inch.
- Flow Alarm Low (FAL-200) - Prevent AOP Unit and Pump P-400 operation.
- Advanced Oxidation Process Unit (AOP-200) Fault - Shutdown RE137 Pump and notify operator.
- GAC-300, -310, and -320 (DPAH-300) Differential Pressure Alarm High - Shut down RE137 Pump and notify operator. Setpoint: 15 pounds per square inch.
- Basin 305 Level Alarm High High (LAHH) -Backup alarm - Shutdown RE137 Pump and notify operator. Setpoint: 4 feet above the bottom of the recharge basin.[1]
- Basin 305 Level Alarm High (LAH) - Shutdown RE137 Pump and notify operator. Setpoint: 3 feet above the bottom of the recharge basin.[1]
- Conex Box 1 Level Alarm High (LAH) - Shutdown RE137 Pump and notify operator. Setpoint: 1 inch above floor.
- Conex Box 2 Level Alarm High (LAH) - Shutdown RE137 Pump and notify operator. Setpoint: 1 inch above floor.

3.5 System Commissioning and Performance Testing

The objectives for commissioning are to confirm that the system has been constructed and operates as specified, to facilitate any additional modifications in the system, and to

[1] These setpoints may be adjusted based on consultation with Nassau County Department of Public Works.

gather and evaluate initial operational data. The following describes the procedures associated with the commissioning of the system.

The commissioning testing process is composed of three primary activities:

- Pe-commissioning check
- Functional Demonstration Tests (FDTs) of individual components
- Pre-startup functional performance system test of the combined components

The inspections will verify that all the components of the system have been properly installed. All steps, findings, and observations are to be documented in the field log book.

The system P&ID (P&ID-100 to -400) will be used to verify that all equipment and piping are installed as designed. As-built drawings will also be created and updated as necessary. Electrical systems will be checked to verify that wiring has been completed correctly and according to the applicable code(s). The electrical one-line diagrams and wiring diagrams will be used to verify electrical and instrumentation systems (Pending).

3.5.1 Pre-Commissioning Check

All equipment and instrumentation will be inspected to verify proper installation and lubrication, and to ensure that safeguards on rotating equipment are in place. Inspections of equipment lockouts, safety valves and/or other pressure relief devices, and site security devices will also be completed. Any deficiencies will be corrected to meet operational requirements.

3.5.2 Functional Demonstration Tests of Individual Components

After equipment and electrical systems are tested and certified ready for operation, electrical systems can be energized in preparation for testing equipment and control systems. As part of the startup process, the operating range and proper operation of each controller will be demonstrated. Controls will be electrically tested with signal generators to verify operating ranges. Where controls provide ON/OFF signals, switches will be manually tripped to test control loops. Testing of control systems will proceed from this point to verify operability. Safety shutdown sequences in the control systems will be tested to ensure proper functionality. Motors that can be started with hand switches will be bump-tested to test equipment rotation. All interlocks and motor starters controlled by interlocks or the programmable logic controller (PLC) and any other relationships between equipment will be tested to determine if the responses are consistent with the design logic. Proper functioning of the local touch-screen human-machine interface (HMI) will be tested. At this point, the system will be considered ready for actual startup operating tests.

3.5.3 Functional Performance System Test of Combined Components

Checks and individual component testing will be performed to verify integrity before operation. Equipment functional performance tests will only start after all pre-commissioning checks have successfully been performed. Individual tanks, piping, and vessels will be filled with potable water and observed over a 4-hour period for leaks. Pressure piping and equipment (particulate filters, AOP reactor, and GAC units) will be pressure tested at 30 psi.

A FDT will be carried out with potable water and at flowrates of 50 gpm for 4 hours, then 100 gpm for at least 4 hours on a continuous basis, using the System Start-Up Procedures in Section 3.6. Once testing is confirmed, the system can be drained, and water discharged into the basin. Any deficiencies with the system must be corrected and performance checks successfully completed before the system can be accepted.

The second FDT will be similar to the potable water test, though this FDT will utilize groundwater from the RE137 recovery well and the AOP reactor will be in operation. This test will be carried out at flowrates of 50 gpm for at least 6 hours, then 100 gpm for at least 3 hours on a continuous basis. During each flowrate period, two rounds of process and effluent samples will be collected and analyzed for the parameters in Table 3-2. Temporary storage (frac) tanks will be used to store this treated water. Upon confirmation of successful treatment, the water will be discharged into Basin 305.

Upon successful completion of FDTs as per above, an Operational Readiness Review (ORR) will be performed with all system operators and necessary staff to ensure that the system and operators are ready for startup. The ORR will be completed immediately prior to initiating the Final FDT. After the ORR has been completed, the entire treatment system will be placed in AUTO mode to operate it with groundwater on a continuous basis (24 hours/day and 7 days a week) for the remaining time of the two-week start-up period.

3.6 System Start Up

Upon completion of the commissioning step, the system will be operated. The strategy for startup is to conduct these activities sequentially, comparing observations and test data to design and performance criteria. Operation of all mechanical equipment and controllers will be demonstrated in the presence of the designated system operator. The startup check-out will demonstrate operation of the following:

- Electric submersible pump – achieve design flow rate and pressures (P-1A, Drawing P&ID-100).
- Hydrogen peroxide Metering Pump (P-400, Drawing P&ID-400).

- AOP UV Reactor (AOP-200, Drawing P&ID-200).
- All valves, gauges, sensors, and controllers.

Table 3-2: Startup Testing Matrix

Parameter	Method	SP-100	SP-200	SP-201	SP-300	SP-303
TCL VOCs(1)	SW846 8260	X	--	X	X	X
1,4-Dioxane	EPA 522	X	--	X	X	X
TAL Metals	SW846 6010D/ 7471A	X	--	--	--	X
pH	Field Meter	X	--	--	X	X
Hydrogen Peroxide	Field Test Kit, Drop count titration with thiosulfate	--	X	X	X	X

X: – collect sample at 50 percent and 90 percent into the test run.
--- No sample collected.
TCL - Target Compound List.
TAL -Target Analyte List.
(1) Based on existing data, the oxidation and adsorption of the TCL VOCs trichloroethene and Freon 113 are expected to be the primary basis for monitoring of the AOP operation and GAC changeout.

Startup will proceed slowly with sequenced events. All related health, safety, and emergency response procedures will be in place and reviewed before this phase of operation. Before process systems are started, a final check on the alignments and positioning of all valves, and control set points will be made.

Prior to the system start-up all interlocks and alarms installed on the groundwater recovery well and treatment system will be tested. Interlocks and alarms testing will be performed as described in Section 3.5.

The general startup sequence for normal operation of the system is as follows:

- Ensure that all valves are in the proper positions.
- Ensure that the appropriate GAC vessels are inline.
- Ensure frac tank has acceptable capacity available.
- Ensure that the electrical disconnects are in the energized positions.
- Ensure that all alarm conditions are cleared.

- Turn hydrogen peroxide metering pump P-400 selector switch on the HMI panel to the AUTO position. Turn AOP reactor A-200 selector switch on the HMI panel selector switch to the AUTO position.
- Turn the selector switch for recovery well pump P-1A on HMI panel to the AUTO position. Monitor the water level and flow rates in recovery well RE137. Adjust the variable frequency drive VFD-1A as needed to obtain the desired flowrate.
- Use the signal from submersible pressure transducer SPT-1A to monitor the water level in recovery well RE137.
- Use signal from electronic flowmeter FM-1A to monitor the flow from recovery well RE137.
- Monitor the pressure differential across the sediment filters DPI-100.
- Monitor the signals from the AOP reactor chamber.

The system is now in automatic operation, and the ON/OFF and START/STOP functions of the system are controlled by control system.

Once the system has proven to be functional and treating the water as designed, the system will be operated through a step-up operational period as shown below:

Runtime Period	Recovery Well Flowrate (gpm)
Month 1	100
Month 2	200
Month 3	300
Month 4 through 20	400

During the ramp-up period, the water level in Basin 305 will be monitored to determine the flowrate that the basin can accept. The water level in the basin should remain at less than 2.0 feet during non-precipitation events.

Also during the ramp-up period, the performance of the treatment system will be evaluated. In particular, prior to an increase in flow rate, VOCs and 1,4-dioxane in the treated effluent should be 10 to 25 percent of the treatment goals, so that the increased flow will not result in a significant drop off in performance.

3.7 Treatment System Sample Collection and Data Evaluation

The performance of the treatment system will be evaluated using the monitoring data collected during this test. Tetra Tech will be responsible for sample collection, labeling, and shipment to the analytical laboratory for analysis of the parameters outlined below. These procedures are outlined in the project Sampling and Analysis Plan.

Five sets of samples will be collected from the recovery well, AOP influent, AOP effluent, GAC midfluent, and GAC effluent during the startup period and analyzed for VOCs and 1,4-dioxane, with 2-day turnaround to evaluate the operation of the system. During the startup period, discharge water will be collected in frac tanks until the system is fully operational and discharge concentrations do not exceed 0.5 µg/L for 1,4-dioxane and 2.5 µg/L for TCE.

Under normal operation, the treatment goals for the system effluent to the recharge basin will target 1,4-dioxane and TCE/Freon 113 concentrations at 0.1 µg/L and 1.0/1.0 µg/L, respectively. Values above or below these concentrations would trigger changes to the AOP operational parameters (UV intensity or hydrogen peroxide concentrations) and/or GAC changeout.

Once the prove out of the system is complete, samples from the RE137 recovery well (SP-100), AOP influent (SP-200), AOP effluent (SP-201), GAC mid-fluent (SP-300, SP-301, or SP-302 depending on configuration), and GAC effluent (SP-303) will be collected and analyzed for VOCs and 1,4-dioxane on a bimonthly basis (two per month) plus QA/QC samples, or 14 VOC and 12 1,4-dioxane samples per month.

Data evaluation will consist of the following:

- Compliance with treatment goals
- Removal efficiency of 1,4-dioxane
- Removal efficiency of TCE.

During operation, the UV power and hydrogen peroxide concentrations may be increased or decreased as needed to achieve the treatment goals.

3.8 Operations, Maintenance, and System Monitoring

Operations and maintenance during the start-up phase will be performed to maintain compliance and proper system operation. The system start-up phase is expected to occur during the first month of system operation. During the startup phase, operation and maintenance will be conducted daily for the first two weeks, and then twice per week for the remainder of the first month through the fourth month of operation, to ensure that the system is operating as designed and can achieve the 400 gpm design rate.

All operation and maintenance, including prove-out, will be documented on site-specific data sheets and in the field logbook.

After the system is running within the expected operating conditions, the entire system will be checked. Readings for flows and pressure at the recovery well, and operation

flows, pressures, and temperatures at all monitoring points in the system will be recorded. Operating data will be compared to equipment performance data and evaluated for discrepancies. Individual pieces of equipment will be inspected for proper mechanical operation.

Following startup, the groundwater extraction and treatment system is anticipated to operate as a stand-alone system and only require routine operation, maintenance, and monitoring visits during the remainder of the 20-month test period. Based on the flow rate, approximately 120 gallons of hydrogen peroxide will be delivered and unloaded to the site as needed, and could range from weekly to monthly. All operation and maintenance will be documented on site-specific data sheets and in the field logbook.

The groundwater extraction and treatment system will be shutdown in advance of and during major rain events to avoid exceeding the recharge capacity of Nassau County Recharge Basin 305.

3.9 Aquifer Testing Closeout

When the 20-month test period has passed, system closeout activities will be initiated. Closeout will include removal of all above ground portions of the groundwater treatment system as well as the piping and pump. Recovery well RE137 will remain in place and the wellhead will be properly secured.

Site restoration will include removal of surface completions, decommissioning and removal of all treatment system components and fluids. A decontamination pad at the NWIRP will be used to decontaminate piping and equipment prior to storage for reuse or disposal. All decontamination fluids will be collected and managed as investigation derived waste. Decontamination activities conducted during this investigation will follow procedures outlined in Tetra Tech SOP SA-7.1 Decontamination of Field Equipment and Management of Investigation Derived Waste (Tetra Tech, 2016). The gravel and geotextile will be removed, the site regraded as necessary, trees replanted, and security fence returned to the original location.

4.0 References

Resolution Consultants, 2016. *Aquifer Test and Capture Zone Analysis for Well RE137, RE108 Hot Spot Naval Weapons Industrial Reserve Plant (NWIRP) Bethpage Technical Memorandum*. March.

Tetra Tech, 2016. Tetra Tech SOP SA-7.1 *Decontamination of Field Equipment and Management of Investigation Derived Waste*.

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TABLES

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Table 2-1
RE137 Plume Capture Test Groundwater Monitoring Program

Well	Distance from RE137 (feet)	Monitored Interval (feet bgs)	Max 2019 TCE Conc. (ug/L)	Sampling Schedule			
				Weekly	Bi-Monthly	Quarterly	Prior to each Flow Increase
RE 137[(1)]	0	630 - 745	3,100	X	X		X
RE120D1	640	630 - 650	1,000			X	X
RE120D2	640	690 - 710	760			X	X
RE120D3	640	740 - 760	200			X	
TT-101D2	880	740 - 760	1,100			X	X
RE105D1	1,150	530 - 550	120			X	
RE105D2	1,150	730 - 750	2,000			X	X
RE125D1	1,200	320 - 340	400			X	
RE125D2	1,200	580 - 600	440			X	X
RE125D3	1,200	670 - 690	270			X	X
RE132D5	1,250	610 - 630	160			X	
RE132D6	1,250	685 - 705	2,600			X	X
RE132D7	1,250	743 - 758	1,100			X	X
RE103D1	2,300	625 - 640	1,400			X	
RE103D2	2,300	653 - 673	830			X	
RE103D3	2,300	715 - 730	680			X	
RE114D1	2,950	535 - 550	400			X	
RE114D2	2,950	610 - 630	87			X	
RE115D1	3,300	640 - 655	150			X	
RE115D2	3,300	730 - 750	610			X	
RE122D1	3,400	520 - 540	750			X	
RE122D2	3,400	590 - 610	6,300			X	
RE122D3	3,400	715 - 735	14			X	
RW 4	2,050	570 - 670	NA			X	
RE134D1	3,045	325 - 345	6			X	
RE134D2	3,045	510 - 530	140			X	
RE134D3	3,045	600 - 620	180			X	
RE134D4	3,045	665 - 685	22			X	
RE108D1	3,300	530 - 550	42			X	
RE108D2	3,300	630 - 650	3,200			X	
GM38RW3-MW01	3,500	475-495	21			X	

(1) RE137 will be sampled weekly for 1 month following each change in flow rate, then bi-monthly (two per month) thereafter.

Monitoring wells will be used for both the RE 137 and RW 4 evaluations.

bgs - feet below ground surface.

ug/L - micrograms per liter.

TCE - Trichloroethene.

NA - Not available.

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FIGURES

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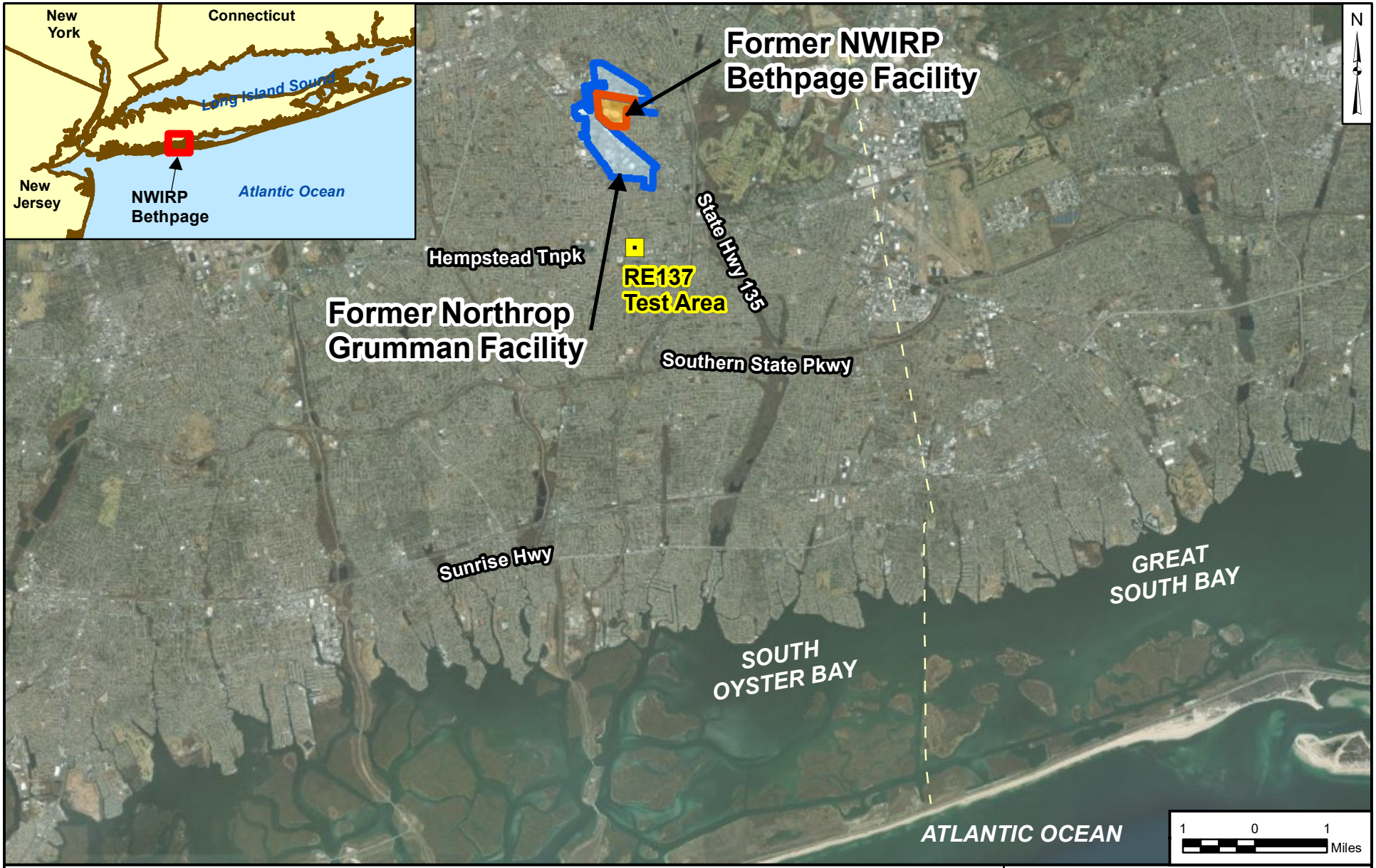

RE137 WELL PLUME CAPTURE TEST
GENERAL LOCATION MAP
NWIRP BETHPAGE, NEW YORK

NAVFAC Naval Facilities Engineering Systems Command

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MC	01/07/21	112G08005-WE13
CHECKED BY	DATE	FIGURE NUMBER
PL	01/07/21	**1-1**

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Map does not depict HR VOC contamination to OU2 Plume

N

HR

NG

NWIRP

BCP

RW-1

RW-2

RW-3

RW-4

Well 3R

NG

Well 1

Well 17

Well 18

Well 19

RW-21

RW-20

RW4

RW22

GM38-RW03

GM38-RW01

DECEX-01

RE137

DECEX-02

DECEX-03

RW5

RW6

RW7

HWD-9-3

HWD-9-1

HWD-9-2

HWD-8-3

HWD-8-1

HWD-3-2

BWD-8

BWD-7

BWD-1

BWD-4-1

BWD-4-2

BWD-6-1

BWD-6-2

BWD-5-1

LWD-5A

LWD-7A

LWD-8A

LWD-13

NYAW-3S

NYAW-4S

SFWD-6-1

SFWD-6-2

SFWD-3-1

SFWD-4-1

SFWD-5-1

SFWD-5-2

SFWD-1-4

SFWD-1-2

SFWD-1-3

FWD-11004

FWD-6644

MWD-4

MWD-5

Former GM38 Area Hotspot (OU2)

GM38 Treatment Plant

RE108 Area Hotspot (OU2)

RE108 Treatment Plant

Deep Western Plume (OU2)

Shallow (OU3) Plume

Shallow (OU2) Plume

South Oyster Bay ~ 3.6 Miles

Legend

- Recovery Well
- Recovery Well (Proposed)
- Public Water Supply Well
- NYSDEC Proposed Recovery Well
- Groundwater Flow Direction

2019 TCE Plume (All Depths)

- 5 to100 µg/L TCE
- > 100 to1,000 µg/L TCE
- > 1,000 µg/L TCE
- Navy Treatment Plants

Notes:

BCP- Bethpage Community Park (OU3)
BWD- Bethpage Water District
HR- Hooker Ruco Superfund Site
HWD- Hempstead Water District
LWD- Levittown Water District
MWD-Massapequa Water District
NG- Former Northrop Grumman Facility
NWIRP- Former Naval Weapons Industrial Reserve Plant
NYAW- New York American Water
OU- Operable Unit
SFWD- South Farmingdale Water District
TCE- Trichloroethene
µg/L- microgram per liter

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RE137 WELL PLUME CAPTURE TEST
GROUNDWATER PLUME LAYOUT
NWIRP BETHPAGE, NEW YORK

NAVFAC Naval Facilities Engineering Systems Command

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MC	01/18/21	N62470-16-D-9008-WE13
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EW	01/18/21	1-2

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N

RE122D1
RE122D2
RE122D3
RE108D1
RE108D2
RE103D1
RE103D2
RE103D3
RW4
GM38-RW03-MW01
RE134D1
RE134D2
RE134D3
RE134D4
RE105D1
RE105D2
RE125D1
RE125D2
RE125D3
RE120D3
RE120D1
RE120D2
RE137
Hempstead Tpke
Wantagh Ave
TT-101D2
Union Ave
Stewart Ave
RE132D5
RE132D7
RE132D6
Hicksville Rd
RE114D1
RE114D2
Miller Pl
RE115D1
RE115D2
Boundary Ave
135

Legend

- Transducer in Monitoring Well
- Recovery Well RW-4
- Recovery Well RE137
- Monitoring Well
- Water Supply Well
- 1997 Northrop Grumman Property

0 1,000 2,000 Feet

GROUNDWATER MONITORING WELL SAMPLING LOCATIONS FOR
RE137 WELL PLUME CAPTURE ZONE
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
BETHPAGE, NEW YORK

NAVFAC
Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

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MC	01/19/21	112G08005-WE13
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PL	01/19/21	2-1

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Legend

- RE137
- Trees to be removed
- Mature Tree
- Utility Pole
- Manhole to Sump
- Parking Lot Light
- Top of bank
- Current Entrance Gate
- Fence Gate to be Installed
- Fence to be Installed
- Fence to be Removed
- Work Area
- Navy Access Request
- Basin #305 Fenceline

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RE137 WELL PLUME CAPTURE TEST
FENCING AND TRAFFIC MANAGEMENT
NWIRP BETHPAGE, NEW YORK

NAVFAC
Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

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PL	02/09/21	3-1

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N

21,000
Frac Tank

21,000
Frac Tank

GAC Unit

100 kW
Generator

AOP Reactor
Conex Box

Filters and
Hydrogen Peroxide
Tanks Conex Box

RE137

Construction
Trailer

Maintenenance
Gate

Hicksville Rd

Moore Dr

0 12.5 25 50
Feet

Legend

- RE137
- Mature Tree
- Utility Pole
- Manhole to Sump
- Parking Lot Light
- Basin # 305 Fenceline to remain intact
- Top of bank
- Fence Gate to be Installed
- Fence to be Installed
- Treatment System Features
- Work Area
- Navy Access Request

RE137 WELL PLUME CAPTURE TEST
WORK AREA EQUIPMENT LAYOUT
NWIRP BETHPAGE, NEW YORK

NAVFAC
Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

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N

21,000
Frac Tank

21,000
Frac Tank

GAC Unit

100 kW
Generator

AOP Reactor
Conex Box

Filters and
Hydrogen
Peroxide Tanks
Conex Box

RE137

Construction
Trailer

Maintenenance
Gate

Hicksville Rd

Moore Dr

0 12.5 25 50
Feet

Legend

- RE137
- Mature Tree
- Utility Pole
- Manhole to Sump
- Parking Lot Light
- Basin # 305 Fenceline to remain intact
- Single Wall PVC Piping 6 inch
- Double Wall PVC Piping 6 inch & 10 inch
- Top of bank
- Fence Gate to be Installed
- Fence to be Installed
- Treatment System Features
- Work Area
- Navy Access Request

RE137 WELL PLUME CAPTURE TEST
WORK AREA PIPING LAYOUT
NWIRP BETHPAGE, NEW YORK

NAVFAC
Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

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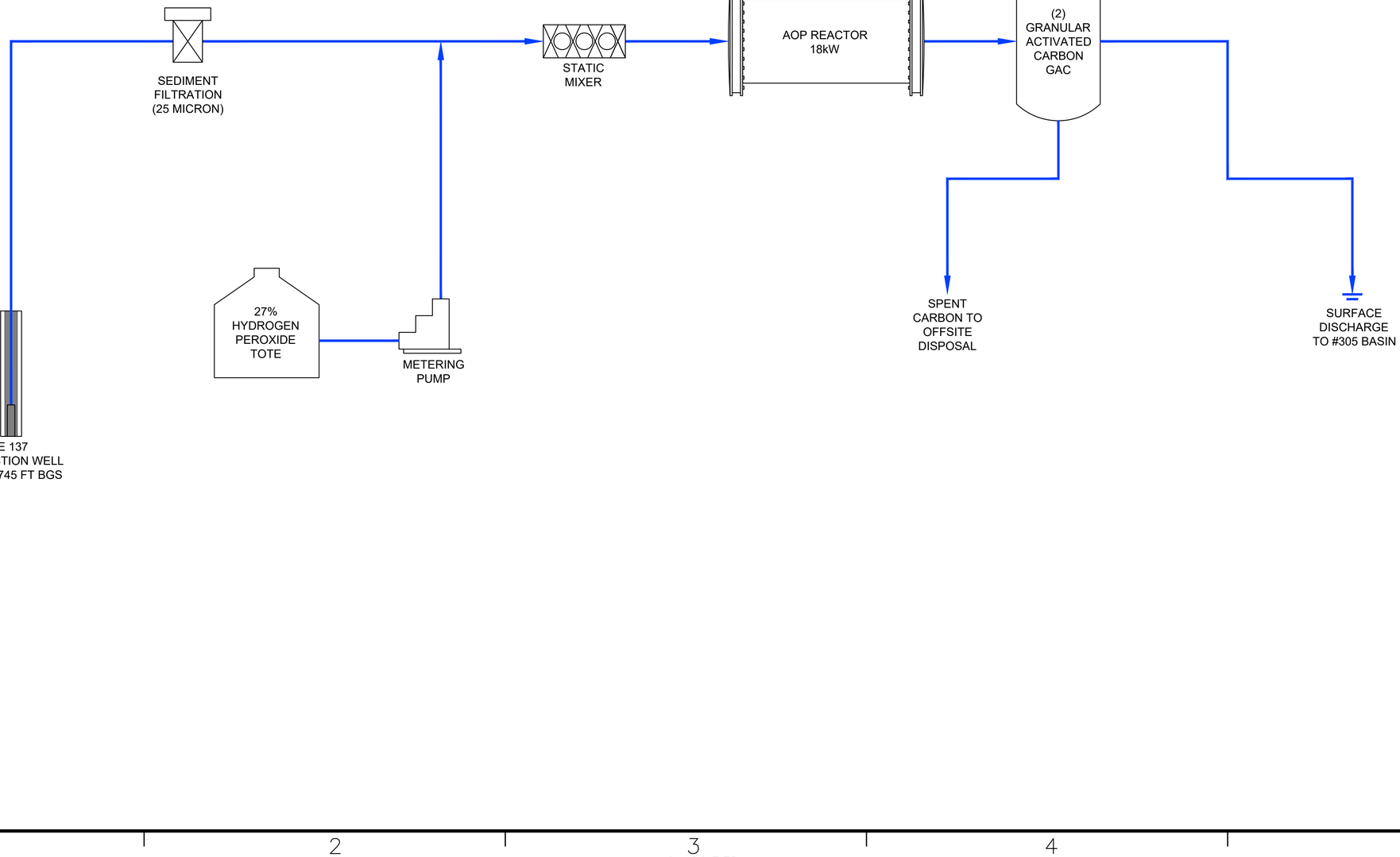

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ACTIVITY

XXXXX

SATISFACTORY TO DATE 11/16/2020

DES	DRW	CHK

PM/DM --

BRANCH MANAGER

CHIEF ENG/ARCH --

FIRE PROTECTION --

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
RE-137

NAVAL FACILITIES ENGINEERING COMMAND – MIDATLANTIC
NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE, NEW YORK

RE 137 GROUNDWATER TREATMENT SYSTEM
PROCESS FLOW DIAGRAM

SCALE:

EPROJECT NO.:

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
112G08005

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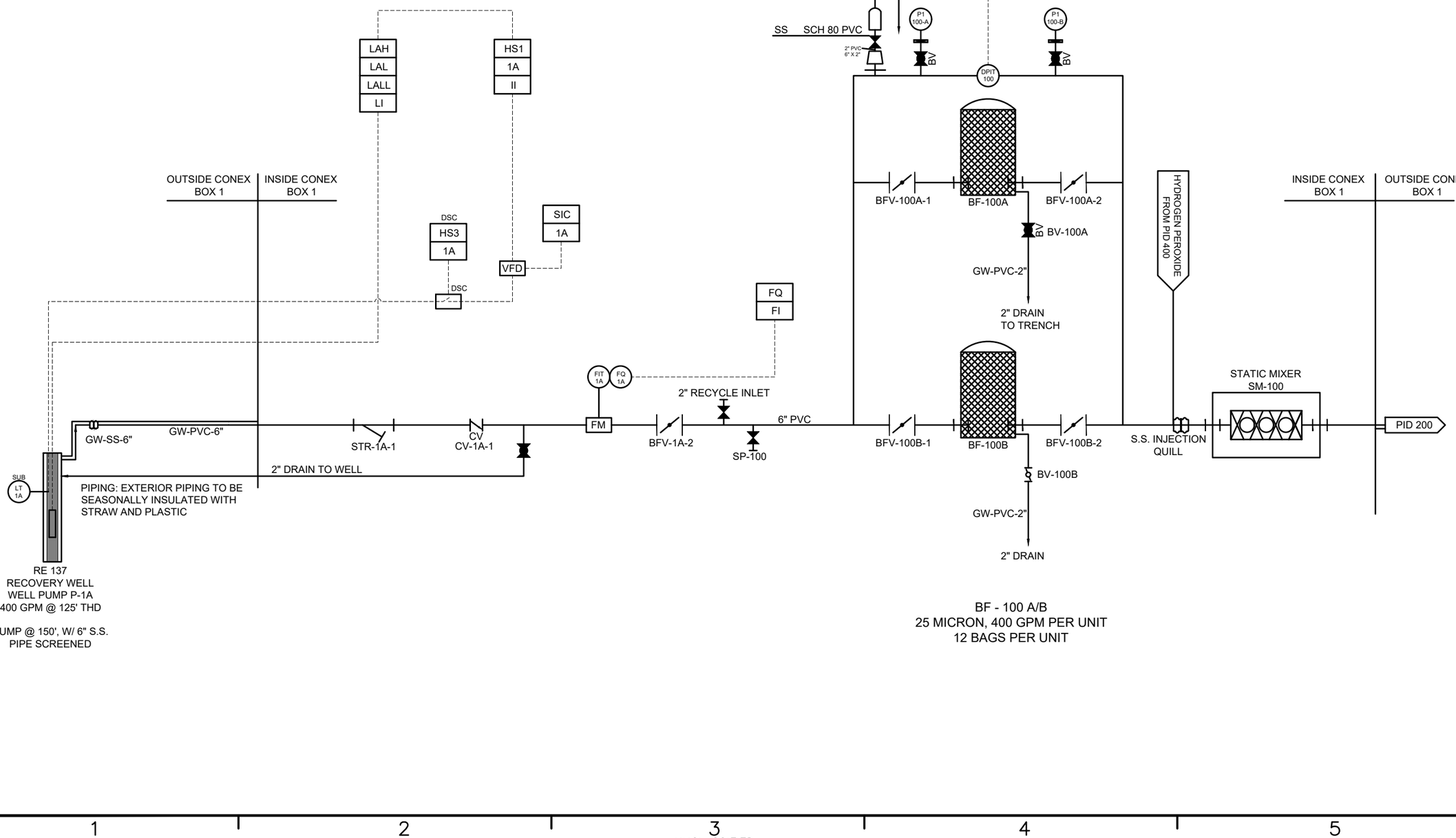

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SATISFACTORY TO DATE 11/16/2020

DES	DRW	CHK
PM/DM		
BRANCH MANAGER		
CHIEF ENG/ARCH		
FIRE PROTECTION		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND – MIDATLANTIC
RE-137
NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE, NEW YORK
RE 137 GROUNDWATER TREATMENT SYSTEM
PROCESS FLOW DIAGRAM

SCALE:
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FAL 200 — ALARM

HS 200A — AOP START/STOP

YI 200B — AOP ALARM INFO

FAL 200C — AOP SHUT DOWN

FAL 200D — AOP WARNING INFO

PLL — P

A B C D

LOCAL CONTROL SYSTEM PROVIDED BY AOP VENDOR

SKID LIMITS

EXTERNAL INTERFACE CONTACTS

OUTSIDE CONEX BOX 2 | INSIDE CONEX BOX 2

INSIDE CONEX BOX 2 | OUTSIDE CONEX BOX 2

P1 201

BV-HPV10

BV-LPD4

6" S.S.

BFV-200B

GW-PVC-6"

PID 300

LC

SP - 201

AOP 200

P1 200

GW-PVC-6"

6" S.S.

FSL 200

BFV-200A

PID 100

SP-200

DRAIN

DRAIN

AOP-200
ADVANCED OXIDATION PROCESS
UV (1 CHAMBER SYSTEM)
400 GPM, 18KW, 480 VOLT

APPR	DATE	DESCRIPTION	MJS

NAVFAC

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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

XXXXX

SATISFACTORY TO DATE 11/16/2020

DES.	DRW	CHK

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – MIDATLANTIC
RE-137

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE, NEW YORK
NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
RE 137 GROUNDWATER TREATMENT SYSTEM
PROCESS FLOW DIAGRAM

SCALE:

EPROJECT NO.:

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
112008005

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DPAH 300 ALARM
DPIT 300

DPIT 300 H L

PID 200

BFV-300A

BFV-300B

BV

GAC 300

DRAIN/FILL

BV

BFV-300C

BFV-300D

SP-300

6" FLEX HOSE

BFV-300E

BFV-300F

BV

GAC 310

DRAIN/FILL

BV

BFV-300G

BFV-300H

SP-301

BFV-300I

BFV-300J

BV

GAC 320

DRAIN/FILL

BV

BFV-300K

BFV-300L

SP-302

6" FLEX HOSE

QUICK DISCONNECT CAMLOCK

SP-303

GW-PVC-6"

BFV-310

ARV

TO 2" RECYCLE INLET

21,000 GALLON FRAC TANK

GW-PVC-6"

BFV-320

21,000 GALLON FRAC TANK

BFV-330

DISCHARGE TO BASIN 305

LAHH
LAH
LI

LI 460

BASIN 305

GAC-300
GRANULAR ACTIVATED
CARBON TANKS
6,000 LB EACH,
IN SERIES

GAC-310
GRANULAR ACTIVATED
CARBON TANKS
6,000 LB EACH,
IN SERIES

GAC-320
GRANULAR ACTIVATED
CARBON TANK
6,000 LB SPARE

APPR | DATE | DESCRIPTION | MJG

NAVFAC

PRELIMINARY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

XXXXX

SATISFACTORY TO DATE 11/16/2020

DES	DRW	CHK

PM/DM

BRANCH MANAGER

CHIEF ENG/ARCH

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND – MIDATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL INDUSTRIAL RESERVE ORDNANCE PLANT
RE-137
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE, NEW YORK
RE 137 GROUNDWATER TREATMENT SYSTEM
PROCESS FLOW DIAGRAM

SCALE:

EPROJECT NO.:

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.
1120008005

SHEET OF

P&ID-300

DRAWFORM REVISION: 07 AUG 2018

FILE NAME: C:\Users\jordan.shoffer\AppData\Local\Temp\AcPublish_14764\RE 137 PFD.dwg LAYOUT NAME: P&ID (3) PLOTTED: Wednesday, February 10, 2021 - 10:26am USER: jordan.shoffer

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PLL P-400A/B

CHEMICAL FEED PUMP SKID

2" CPVC VENT WITH BIRDSCREEN MESH

S M STROKE ADJUST

PULSATION DAMPENER

$\frac{1}{2}$" S.S.

BV BPV BV

$\frac{1}{2}$" HDPE INSIDE 2" PVC

TO PAGE 1

PID 100

T-400

HYDROGEN PEROXIDE

2" CPVC VENT WITH BIRDSCREEN MESH

HDPE - 1/2"

P-400
HYDROGEN PEROXIDE METERING PUMP
MANUAL VARIABLE SPEED
2 TO 20 GPD

LAH

LS

CONEX BOX 1

LAH

LS

CONEX BOX 2

T-401

(2) HYDROGEN PEROXIDE TANK
120 GALLONS
48" X 40" X 46"

PRELIMINARY NOT FOR CONSTRUCTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND – MIDATLANTIC
RE-137
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT BETHPAGE, NEW YORK
NWIRL INDUSTRIAL RESERVE ORDNANCE PLANT
RE 137 GROUNDWATER TREATMENT SYSTEM
PROCESS FLOW DIAGRAM

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
XXXXX
SATISFACTORY TO DATE 11/16/2020
DES DRW CHK
PM/DM
BRANCH MANAGER
CHIEF ENG/ARCH
FIRE PROTECTION

SCALE:
EPROJECT NO.:
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
112008005
SHEET OF
P&ID-400
DRAWFORM REVISION: 07 AUG 2018

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ATTACHMENT A – NOTIFICATION LETTER

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JUNE 2021

NOTIFICATION OF DEPT. OF NAVY PLANNED REMEDIAL ACTIONS FOR OU2 GROUNDWATER PLUME, NASSAU COUNTY BASIN 305 – HICKSVILLE ROAD.

Dear Resident:

This notification letter is being distributed on behalf of the Department of Navy (Navy) to inform you of environmental work that will be conducted in Nassau County Basin near your residence. The Navy, with support of the New York State Department of Environmental Conservation, will be conducting groundwater treatment activities in a grass strip along Hicksville Road, across from Moore Drive, and discharging treated water into Nassau County Basin No. 305 (Basin 305), in the same area. The water is treated to meet drinking water standards. The property owner (Nassau County) has granted the Navy access to perform this work.

The Navy is taking actions to address contaminated groundwater originating from the former Naval Weapons Industrial Plant (NWIRP) in Bethpage (termed the OU2 Plume). Industrial activities at the NWIRP and Northrop Grumman properties from the 1950s to early 1980s resulted in groundwater contamination. Industrial solvents including trichloroethylene were used at this facility. Some of these solvents made their way into the groundwater and have since moved off property to the south with the groundwater flow. Over the past 25 years, the Navy has taken actions to clean up the groundwater and to protect water supplies. Although significant progress has been made, this process is not complete. The Navy is beginning a new phase of its remedial actions to intercept the OU2 Groundwater Plume.

At Basin 305, the Navy will implement one of these actions. This action will capture a portion of the RE108 Area groundwater hotspot and consists of a temporary groundwater extraction, treatment, and discharge system (RE137 System). The RE137 System is anticipated to start operation in spring 2021 and operate for approximately 20 months, until another phase (Phase II RE108 Area Hotspot Treatment System) starts operation. This system is also expected to provide interim control of plume migration, and provide significant removal of volatile organic compounds (VOCs), primarily trichloroethane (TCE) from the aquifer.

A submersible pump will be used to extract the groundwater. The water will pass through particulate filtration units and then into an ultraviolet/hydrogen peroxide (UV/H2O2) advanced oxidation process (AOP) reactor for destroying 1,4 dioxane and VOCs. The water will then pass through granular activated carbon (GAC) filtration to remove residual hydrogen peroxide and VOCs and finally be discharged into Nassau County Basin No 305 for recharge into the aquifer. The groundwater will be treated to meet drinking water standards.

Access to the work area will be from Hicksville Road, across from Moore Drive. Prior to equipment arriving on site, limited clearing of vegetation will be conducted and the fence will be moved to the east.

We assure you this work is critical, and that the Navy and its contractors will be taking all reasonable steps to minimize disruption to your neighborhood.

Additional information on the Navy's environmental cleanup program for NWIRP Bethpage is available at https://go.usa.gov/DyXF.

Sincerely,

Jim Watts-Gravette
Remedial Project Manager
NAVFAC MIDLANT

If you require additional information during these activities, please contact:

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ATTACHMENT B – AREA GROUNDWATER DATA

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ATTACHMENT B

Groundwater Results Summary

ANALYTICAL DATA SUMMARY
RE137 POST-DEVELOPMENT BASELINE MARCH 28, 2017
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	RE137
Sample Date		3/28/2017
Sample ID		RE137-GW-032817-INF
Sample type code		N
VOC 8260C	**(ug/L)**	**(ug/L)**
1,1,1-TRICHLOROETHANE	5	<1 U
1,1,2,2-TETRACHLOROETHANE	5	<1 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	**29.1**
1,1,2-TRICHLOROETHANE	1	**1.2**
1,1-DICHLOROETHANE	5	**1.2**
1,1-DICHLOROETHENE	5	<1 U
1,2,4-TRICHLOROBENZENE	5	<1 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	***<1 U***
1,2-DIBROMOETHANE	NL	<1 U
1,2-DICHLOROBENZENE	3	<1 U
1,2-DICHLOROETHANE	5	<1 U
1,2-DICHLOROPROPANE	1	<1 U
1,3-DICHLOROBENZENE	3	<1 U
1,4-DICHLOROBENZENE	3	<1 U
2-BUTANONE	50	<1 U
2-HEXANONE	50	<1 U
4-METHYL-2-PENTANONE	NL	<1 U
ACETONE	50	<5 U
BENZENE	1	<1 U
BROMODICHLOROMETHANE	50	<1 U
BROMOFORM	50	<1 U
BROMOMETHANE	5	<1 U
CARBON DISULFIDE	60	<1 U
CARBON TETRACHLORIDE	5	**4.2**
CHLOROBENZENE	5	<1 U
CHLOROETHANE	5	<1 U
CHLOROFORM	7	**1.9**
CHLOROMETHANE	5	<1 U
CIS-1,2-DICHLOROETHENE	5	**4.7**
CIS-1,3-DICHLOROPROPENE	0.4	***<1 U***
CYCLOHEXANE	NL	<1 U
DIBROMOCHLOROMETHANE	5	<1 U
DICHLORODIFLUOROMETHANE	5	<1 U
ETHYLBENZENE	5	<1 U
ISOPROPYLBENZENE	5	<1 U
M- AND P-XYLENE	NL	<1 U
METHYL ACETATE	NL	<1 U
METHYL CYCLOHEXANE	NL	<1 U
METHYL TERT-BUTYL ETHER	10	<1 U
METHYLENE CHLORIDE	5	<1 U
O-XYLENE	NL	<1 U
STYRENE	5	<1 U
TETRACHLOROETHENE	5	**3.8 J**
TOLUENE	5	<1 U
TRANS-1,2-DICHLOROETHENE	5	<1 U
TRANS-1,3-DICHLOROPROPENE	0.4	***<1 U***
TRICHLOROETHENE	5	**1920**
TRICHLOROFLUOROMETHANE	5	<1 U
VINYL CHLORIDE	2	<1 U
XYLENES, TOTAL	5	<1 U

ANALYTICAL DATA SUMMARY
RE137 POST-DEVELOPMENT BASELINE MARCH 28, 2017
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	RE137
Sample Date		3/28/2017
Sample ID		RE137-GW-032817-INF
Sample type code		N
SVOCs 8270D	**(ug/L)**	**(ug/L)**
1,1-BIPHENYL	5	<5.0 U
2,2'-OXYBIS(1-CHLOROPROPANE)	5	<5.0 UJ
2,4,5-TRICHLOROPHENOL	NL	<5.0 U
2,4,6-TRICHLOROPHENOL	NL	<5.0 U
2,4-DICHLOROPHENOL	1	***<5.0 U***
2,4-DIMETHYLPHENOL	1	***<5.0 U***
2,4-DINITROPHENOL	1	***<10.0 U***
2,4-DINITROTOLUENE	5	<5.0 U
2,6-DINITROTOLUENE	5	<5.0 U
2-CHLORONAPHTHALENE	NL	<5.0 U
2-CHLOROPHENOL	NL	<5.0 U
2-METHYLNAPHTHALENE	NL	<5.0 U
2-METHYLPHENOL	NL	<5.0 U
2-NITROANILINE	5	<5.0 UJ
2-NITROPHENOL	NL	<5.0 U
3- AND 4-METHYLPHENOL	NL	<5.0 U
3,3-DICHLOROBENZIDINE	5	<5.0 U
3-NITROANILINE	5	<5.0 U
4,6-DINITRO-2-METHYLPHENOL	NL	<10.0 U
4-BROMOPHENYL-PHENYLETHER	NL	<5.0 U
4-CHLORO-3-METHYLPHENOL	NL	<5.0 U
4-CHLOROANILINE	5	<5.0 U
4-CHLOROPHENYL-PHENYLETHER	NL	<5.0 U
4-NITROANILINE	5	<5.0 U
4-NITROPHENOL	NL	<10.0 U
ACENAPHTHENE	NL	<5.0 U
ACENAPHTHYLENE	NL	<5.0 U
ACETOPHENONE	NL	<5.0 U
ANTHRACENE	NL	<5.0 U
ATRAZINE	7.5	<5.0 U
BENZALDEHYDE	NL	<5.0 U
BENZO[A]ANTHRACENE	NL	<5.0 U
BENZO[A]PYRENE	NL	<5.0 U
BENZO[B]FLUORANTHENE	NL	<5.0 U
BENZO[G,H,I]PERYLENE	NL	<5.0 U
BENZO[K]FLUORANTHENE	NL	<5.0 U
BIS(2-CHLOROETHOXY)METHANE	5	<5.0 U
BIS(2-CHLOROETHYL)ETHER	1	***<5.0 U***
BIS(2-ETHYLHEXYL)PHTHALATE	5	<5.0 U
BUTYLBENZYLPHTHALATE	NL	<5.0 U
CAPROLACTAM	NL	<5.0 U
CARBAZOLE	NL	<5.0 UJ
CHRYSENE	NL	<5.0 U
DIBENZ[A,H]ANTHRACENE	NL	<5.0 U
DIBENZOFURAN	NL	<5.0 U
DIETHYLPHTHALATE	NL	<5.0 U
DIMETHYL PHTHALATE	NL	<5.0 U
DI-N-BUTYLPHTHALATE	50	<5.0 U
DI-N-OCTYLPHTHALATE	NL	<5.0 U
FLUORANTHENE	NL	<5.0 U
FLUORENE	NL	<5.0 U
HEXACHLOROBENZENE	0.04	***<5.0 U***
HEXACHLOROBUTADIENE	0.5	***<5.0 U***

ANALYTICAL DATA SUMMARY
RE137 POST-DEVELOPMENT BASELINE MARCH 28, 2017
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value (Note 1)	RE137
Sample Date		3/28/2017
Sample ID		RE137-GW-032817-INF
Sample type code		N
SVOCs 8270D	**(ug/L)**	**(ug/L)**
HEXACHLOROCYCLOPENTADIENE	5	<5.0 U
HEXACHLOROETHANE	5	<5.0 U
INDENO[1,2,3-CD]PYRENE	NL	<5.0 U
ISOPHORONE	NL	<5.0 U
NAPHTHALENE	NL	<5.0 U
NITROBENZENE	0.4	***<5.0 U***
N-NITROSODINPROPYLAMINE	NL	<5.0 U
N-NITROSODIPHENYLAMINE	NL	<5.0 U
PENTACHLOROPHENOL	1	***<10.0 UJ***
PHENANTHRENE	NL	<5.0 U
PHENOL	1	***<5.0 U***
PYRENE	NL	<5.0 U

ANALYTICAL DATA SUMMARY
RE137 POST-DEVEOPMENT BASELINE MARCH 28, 2017
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location				NYSDEC Groundwater Guidance or Standard Value (Note 1)	RE137
Sample Date					3/28/2017
Sample ID					RE137-GW-032817-INF
Sample type code					N
Method	**Analyte**	**Fraction**	**Units**	**(ug/L)**	
2540C	TOTAL DISSOLVED SOLIDS	N	mg/L	500	**55.0**
2540D	TOTAL SUSPENDED SOLIDS	N	mg/L	NL	<10.0 U
350.1	AMMONIA	N	mg/L	2000	<0.10 U
351.2	NITROGEN, TOTAL	N	mg/L	NL	<0.10 U
4500_H+_B	PH	N	PH	NL	**4.4 J**
6010C	ALUMINUM	Dissolved	ug/L	NL	<200 U
6010C	ALUMINUM	N	ug/L	NL	<200 U
6010C	ANTIMONY	Dissolved	ug/L	3	***<60.0 U***
6010C	ANTIMONY	N	ug/L	3	***<60.0 U***
6010C	ARSENIC	Dissolved	ug/L	25	<10.0 U
6010C	ARSENIC	N	ug/L	25	<10.0 U
6010C	BARIUM	Dissolved	ug/L	1000	<200 U
6010C	BARIUM	N	ug/L	1000	<200 U
6010C	BERYLLIUM	Dissolved	ug/L	NL	<5.0 U
6010C	BERYLLIUM	N	ug/L	NL	<5.0 U
6010C	CADMIUM	Dissolved	ug/L	5	<2.5 U
6010C	CADMIUM	N	ug/L	5	<2.5 U
6010C	CALCIUM	Dissolved	ug/L	NL	**3430**
6010C	CALCIUM	N	ug/L	NL	**3470**
6010C	CHROMIUM, TOTAL	Dissolved	ug/L	50	<10.0 U
6010C	CHROMIUM, TOTAL	N	ug/L	50	<10.0 U
6010C	COBALT	Dissolved	ug/L	NL	<50.0 U
6010C	COBALT	N	ug/L	NL	<50.0 U
6010C	COPPER	Dissolved	ug/L	200	<25.0 U
6010C	COPPER	N	ug/L	200	<25.0 U
6010C	IRON	Dissolved	ug/L	300	**171**
6010C	IRON	N	ug/L	300	**311**
6010C	LEAD	Dissolved	ug/L	25	<5.0 U
6010C	LEAD	N	ug/L	25	<5.0 U
6010C	MAGNESIUM	Dissolved	ug/L	NL	**1270**
6010C	MAGNESIUM	N	ug/L	NL	**1320**
6010C	MANGANESE	Dissolved	ug/L	300	**11.0**
6010C	MANGANESE	N	ug/L	300	**11.8**
6010C	NICKEL	Dissolved	ug/L	100	<40.0 U
6010C	NICKEL	N	ug/L	100	<40.0 U
6010C	POTASSIUM	Dissolved	ug/L	NL	<5000 U
6010C	POTASSIUM	N	ug/L	NL	<5000 U
6010C	SELENIUM	Dissolved	ug/L	10	<10.0 U
6010C	SELENIUM	N	ug/L	10	<10.0 U
6010C	SILVER	Dissolved	ug/L	50	<10.0 U
6010C	SILVER	N	ug/L	50	<10.0 U
6010C	SODIUM	Dissolved	ug/L	20000	**12600**
6010C	SODIUM	N	ug/L	20000	**12900**
6010C	THALLIUM	Dissolved	ug/L	NL	<10.0 U
6010C	THALLIUM	N	ug/L	NL	<10.0 U
6010C	VANADIUM	Dissolved	ug/L	NL	<50.0 U
6010C	VANADIUM	N	ug/L	NL	<50.0 U
6010C	ZINC	Dissolved	ug/L	NL	**44.0**
6010C	ZINC	N	ug/L	NL	**44.4**
7470A	MERCURY	Dissolved	ug/L	0.7	<0.20 U
7470A	MERCURY	N	ug/L	0.7	<0.20 U
SM5210B	BIOCHEMICAL OXYGEN DEMAND	N	mg/L	NL	<2.0 U

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.

Several volatile organic compound samples were diluted to bracket the concentration of the analyte within the calibration range of the instrument, therefore, raising the reporting limit for that sample.

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/11/2017	4/11/2017	4/11/2017	4/11/2017
Sample ID			RE137-INF-041117-0830	RE137-EFF-041117-0835	RE137-INF-041117-1400	RE137-EFF-041117-1405
Sample type code			N	N	N	N
VOC 8260C	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1,1-TRICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2,2-TETRACHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	**33.4**	<1.0 U	**24.6 J**	<1.0 UJ
1,1,2-TRICHLOROETHANE	1	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHANE	5	5	***<10.0 UJ***	<1.0 UJ	***<10.0 U***	<1.0 UJ
1,1-DICHLOROETHENE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2,4-TRICHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DIBROMOETHANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
1,2-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROPROPANE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,3-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,4-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
2-BUTANONE	50	NL	<10.0 UJ	<1.0 UJ	<10.0 UJ	<1.0 UJ
2-HEXANONE	50	NL	<10.0 UJ	<1.0 UJ	<10.0 U	<1.0 U
4-METHYL-2-PENTANONE	NL	NL	<10.0 UJ	<1.0 UJ	<10.0 U	<1.0 U
ACETONE	50	NL	<50.0 UJ	<5.0 UJ	<50.0 U	<5.0 U
BENZENE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
BROMODICHLOROMETHANE	50	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
BROMOFORM	50	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 UJ
BROMOMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 U***	<1.0 UJ
CARBON DISULFIDE	60	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 UJ
CARBON TETRACHLORIDE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROFORM	7	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 U***	<1.0 U
CIS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
DIBROMOCHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
DICHLORODIFLUOROMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 U***	<1.0 U
ETHYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ISOPROPYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
M- AND P-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL ACETATE	NL	NL	<10.0 UJ	<1.0 UJ	<10.0 U	<1.0 UJ
METHYL CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL TERT-BUTYL ETHER	10	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYLENE CHLORIDE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
O-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
STYRENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TETRACHLOROETHENE	5	5	***<10.0 U***	<1.0 U	***<10.0 UJ***	<1.0 UJ
TOLUENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRICHLOROETHENE	5	5	**1950**	<1.0 U	**1670**	<1.0 U
TRICHLOROFLUOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 UJ***	<1.0 UJ
VINYL CHLORIDE	2	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 U***	<1.0 U
XYLENES, TOTAL	5	NL	***<20.0 U***	<2.0 U	***<20.0 U***	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/11/2017	4/11/2017	4/12/2017	4/12/2017
Sample ID			RE137-INF-041117-2000	RE137-EFF-041117-2005	RE137-INF-041217-0205	RE137-EFF-041217-0210
Sample type code			N	N	N	N
VOC 8260C	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1,1-TRICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2,2-TETRACHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	**25.3 J**	<1.0 UJ	**21.0 J**	<1.0 UJ
1,1,2-TRICHLOROETHANE	1	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHANE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHENE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2,4-TRICHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DIBROMOETHANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
1,2-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROPROPANE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,3-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,4-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
2-BUTANONE	50	NL	<10.0 UJ	<1.0 UJ	<10.0 UJ	<1.0 UJ
2-HEXANONE	50	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
4-METHYL-2-PENTANONE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
ACETONE	50	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
BENZENE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
BROMODICHLOROMETHANE	50	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
BROMOFORM	50	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
BROMOMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CARBON DISULFIDE	60	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
CARBON TETRACHLORIDE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROFORM	7	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
DIBROMOCHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
DICHLORODIFLUOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ETHYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ISOPROPYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
M- AND P-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL ACETATE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL TERT-BUTYL ETHER	10	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYLENE CHLORIDE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
O-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
STYRENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TETRACHLOROETHENE	5	5	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
TOLUENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRICHLOROETHENE	5	5	**1680**	<1.0 U	**1590**	<1.0 U
TRICHLOROFLUOROMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
VINYL CHLORIDE	2	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
XYLENES, TOTAL	5	NL	***<20.0 U***	<2.0 U	***<20.0 U***	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/12/2017	4/12/2017	4/12/2017	4/12/2017
Sample ID			RE137-INF-041217-0800	RE137-EFF-041217-0805	RE137-INF-041217-1400	RE137-EFF-041217-1405
Sample type code			N	N	N	N
VOC 8260C	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1,1-TRICHLOROETHANE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
1,1,2,2-TETRACHLOROETHANE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	**30.6 J**	<1.0 UJ	**29.4 J**	<1.0 UJ
1,1,2-TRICHLOROETHANE	1	5	**1.4**	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHANE	5	5	**1.6**	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHENE	5	5	**5.8**	<1.0 U	***<10.0 U***	<1.0 U
1,2,4-TRICHLOROBENZENE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	NL	***<1.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DIBROMOETHANE	NL	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
1,2-DICHLOROBENZENE	3	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROETHANE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROPROPANE	1	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
1,3-DICHLOROBENZENE	3	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
1,4-DICHLOROBENZENE	3	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
2-BUTANONE	50	NL	<1.0 UJ	<1.0 U	<50.0 U	<5.0 U
2-HEXANONE	50	NL	<1.0 U	<1.0 U	<50.0 U	<5.0 U
4-METHYL-2-PENTANONE	NL	NL	<1.0 U	<1.0 U	<50.0 U	<5.0 U
ACETONE	50	NL	<5.0 U	<5.0 U	<50.0 U	<5.0 U
BENZENE	1	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
BROMODICHLOROMETHANE	50	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
BROMOFORM	50	NL	<1.0 U	<1.0 UJ	<10.0 UJ	<1.0 UJ
BROMOMETHANE	5	NL	<1.0 U	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
CARBON DISULFIDE	60	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
CARBON TETRACHLORIDE	5	5	**2.5**	<1.0 U	***<10.0 U***	<1.0 U
CHLOROBENZENE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
CHLOROETHANE	5	NL	<1.0 U	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
CHLOROFORM	7	NL	**1.8**	<1.0 U	***<10.0 U***	<1.0 U
CHLOROMETHANE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,2-DICHLOROETHENE	5	NL	**4.5**	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	NL	***<1.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CYCLOHEXANE	NL	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
DIBROMOCHLOROMETHANE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
DICHLORODIFLUOROMETHANE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
ETHYLBENZENE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
ISOPROPYLBENZENE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
M- AND P-XYLENE	NL	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL ACETATE	NL	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL CYCLOHEXANE	NL	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL TERT-BUTYL ETHER	10	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
METHYLENE CHLORIDE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
O-XYLENE	NL	NL	<1.0 U	<1.0 U	<10.0 U	<1.0 U
STYRENE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
TETRACHLOROETHENE	5	5	**3.9 J**	<1.0 U	***<10.0 U***	<1.0 U
TOLUENE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,2-DICHLOROETHENE	5	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,3-DICHLOROPROPENE	0.4	NL	***<1.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRICHLOROETHENE	5	5	**1770**	<1.0 U	**1970**	<1.0 U
TRICHLOROFLUOROMETHANE	5	NL	<1.0 UJ	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
VINYL CHLORIDE	2	NL	<1.0 U	<1.0 U	***<10.0 U***	<1.0 U
XYLENES, TOTAL	5	NL	<2.0 U	<2.0 U	***<20.0 U***	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/12/2017	4/12/2017	4/13/2017	4/13/2017
Sample ID			RE137-INF-041217-2000	RE137-EFF-041217-2005	RE137-INF-041317-0205	RE137-EFF-041317-0210
Sample type code			N	N	N	N
VOC 8260C	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1,1-TRICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2,2-TETRACHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	**27.3 J**	<1.0 UJ	**27.7 J**	<1.0 UJ
1,1,2-TRICHLOROETHANE	1	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHANE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHENE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2,4-TRICHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DIBROMO-3-CHLOROPROPANE	0.04	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DIBROMOETHANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
1,2-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROPROPANE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,3-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,4-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
2-BUTANONE	50	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
2-HEXANONE	50	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
4-METHYL-2-PENTANONE	NL	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
ACETONE	50	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
BENZENE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
BROMODICHLOROMETHANE	50	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
BROMOFORM	50	NL	<10.0 UJ	<1.0 UJ	<10.0 UJ	<1.0 UJ
BROMOMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
CARBON DISULFIDE	60	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
CARBON TETRACHLORIDE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
CHLOROFORM	7	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
DIBROMOCHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
DICHLORODIFLUOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ETHYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ISOPROPYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
M- AND P-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL ACETATE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL TERT-BUTYL ETHER	10	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYLENE CHLORIDE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
O-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
STYRENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TETRACHLOROETHENE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TOLUENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRICHLOROETHENE	5	5	**1970**	<1.0 U	**1970**	<1.0 U
TRICHLOROFLUOROMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
VINYL CHLORIDE	2	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
XYLENES, TOTAL	5	NL	***<20.0 U***	<2.0 U	***<20.0 U***	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/13/2017	4/13/2017	4/13/2017	4/13/2017
Sample ID			RE137-INF-041317-0805	RE137-EFF-041317-0810	RE137-INF-041317-1400	RE137-EFF-041317-1405
Sample type code			N	N	N	N
VOC 8260C	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1,1-TRICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2,2-TETRACHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	**32.9 J**	<1.0 UJ	**30.8**	<1.0 U
1,1,2-TRICHLOROETHANE	1	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHANE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHENE	5	5	**11.3**	<1.0 U	***<10.0 U***	<1.0 U
1,2,4-TRICHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 UJ***	<1.0 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	NL	***<10.0 U***	<1.0 U	***<10.0 UJ***	<1.0 UJ
1,2-DIBROMOETHANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
1,2-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROPROPANE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,3-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,4-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
2-BUTANONE	50	NL	<50.0 U	<5.0 U	<50.0 UJ	<5.0 UJ
2-HEXANONE	50	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
4-METHYL-2-PENTANONE	NL	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
ACETONE	50	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
BENZENE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
BROMODICHLOROMETHANE	50	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
BROMOFORM	50	NL	<10.0 UJ	<1.0 UJ	<10.0 UJ	<1.0 UJ
BROMOMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
CARBON DISULFIDE	60	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
CARBON TETRACHLORIDE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
CHLOROFORM	7	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
DIBROMOCHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 UJ***	<1.0 UJ
DICHLORODIFLUOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ETHYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ISOPROPYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
M- AND P-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL ACETATE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL TERT-BUTYL ETHER	10	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYLENE CHLORIDE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
O-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
STYRENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TETRACHLOROETHENE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TOLUENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRICHLOROETHENE	5	5	**1910**	<1.0 U	**1870**	<1.0 U
TRICHLOROFLUOROMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 U***	<1.0 U
VINYL CHLORIDE	2	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
XYLENES, TOTAL	5	NL	***<20.0 U***	<2.0 U	***<20.0 U***	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/13/2017	4/13/2017	4/14/2017	4/14/2017
Sample ID			RE137-INF-041317-2000	RE137-EFF-041317-2005	RE137-INF-041417-0205	RE137-EFF-041417-0210
Sample type code			N	N	N	N
VOC 8260C	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1,1-TRICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2,2-TETRACHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	**29**	<1.0 U	**28**	<1.0 U
1,1,2-TRICHLOROETHANE	1	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHANE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,1-DICHLOROETHENE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2,4-TRICHLOROBENZENE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
1,2-DIBROMOETHANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
1,2-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,2-DICHLOROPROPANE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,3-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
1,4-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
2-BUTANONE	50	NL	<50.0 UJ	<5.0 UJ	<50.0 UJ	<5.0 UJ
2-HEXANONE	50	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
4-METHYL-2-PENTANONE	NL	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
ACETONE	50	NL	<50.0 U	<5.0 U	<50.0 U	<5.0 U
BENZENE	1	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
BROMODICHLOROMETHANE	50	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
BROMOFORM	50	NL	<10.0 UJ	<1.0 UJ	<10.0 UJ	<1.0 UJ
BROMOMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
CARBON DISULFIDE	60	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
CARBON TETRACHLORIDE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
CHLOROFORM	7	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
DIBROMOCHLOROMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ	***<10.0 UJ***	<1.0 UJ
DICHLORODIFLUOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ETHYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
ISOPROPYLBENZENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
M- AND P-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL ACETATE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYL TERT-BUTYL ETHER	10	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
METHYLENE CHLORIDE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
O-XYLENE	NL	NL	<10.0 U	<1.0 U	<10.0 U	<1.0 U
STYRENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TETRACHLOROETHENE	5	5	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TOLUENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRANS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
TRICHLOROETHENE	5	5	**1820**	<1.0 U	**1970**	<1.0 U
TRICHLOROFLUOROMETHANE	5	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
VINYL CHLORIDE	2	NL	***<10.0 U***	<1.0 U	***<10.0 U***	<1.0 U
XYLENES, TOTAL	5	NL	***<20.0 U***	<2.0 U	***<20.0 U***	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137
Sample Date			4/14/2017	4/14/2017
Sample ID			RE137-INF-041417-0810	RE137-EFF-041417-0815
Sample type code			N	N
VOC 8260C	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1,1-TRICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U
1,1,2,2-TETRACHLOROETHANE	5	NL	***<10.0 U***	<1.0 U
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	5	5	**31.3**	<1.0 U
1,1,2-TRICHLOROETHANE	1	5	***<10.0 U***	<1.0 U
1,1-DICHLOROETHANE	5	5	***<10.0 U***	<1.0 U
1,1-DICHLOROETHENE	5	5	***<10.0 U***	<1.0 U
1,2,4-TRICHLOROBENZENE	5	NL	***<10.0 UJ***	<1.0 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.04	NL	***<10.0 UJ***	<1.0 UJ
1,2-DIBROMOETHANE	NL	NL	<10.0 U	<1.0 U
1,2-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U
1,2-DICHLOROETHANE	5	NL	***<10.0 U***	<1.0 U
1,2-DICHLOROPROPANE	1	NL	***<10.0 U***	<1.0 U
1,3-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U
1,4-DICHLOROBENZENE	3	NL	***<10.0 U***	<1.0 U
2-BUTANONE	50	NL	<50.0 UJ	<5.0 UJ
2-HEXANONE	50	NL	<50.0 U	<5.0 U
4-METHYL-2-PENTANONE	NL	NL	<50.0 U	<5.0 U
ACETONE	50	NL	<50.0 U	<5.0 U
BENZENE	1	NL	***<10.0 U***	<1.0 U
BROMODICHLOROMETHANE	50	NL	<10.0 U	<1.0 U
BROMOFORM	50	NL	<10.0 UJ	<1.0 UJ
BROMOMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ
CARBON DISULFIDE	60	NL	<10.0 U	<1.0 U
CARBON TETRACHLORIDE	5	5	***<10.0 U***	<1.0 U
CHLOROBENZENE	5	NL	***<10.0 U***	<1.0 U
CHLOROETHANE	5	NL	***<10.0 UJ***	<1.0 UJ
CHLOROFORM	7	NL	***<10.0 U***	<1.0 U
CHLOROMETHANE	5	NL	***<10.0 U***	<1.0 U
CIS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U
CIS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U
CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U
DIBROMOCHLOROMETHANE	5	NL	***<10.0 UJ***	<1.0 UJ
DICHLORODIFLUOROMETHANE	5	NL	***<10.0 U***	<1.0 U
ETHYLBENZENE	5	NL	***<10.0 U***	<1.0 U
ISOPROPYLBENZENE	5	NL	***<10.0 U***	<1.0 U
M- AND P-XYLENE	NL	NL	<10.0 U	<1.0 U
METHYL ACETATE	NL	NL	<10.0 U	<1.0 U
METHYL CYCLOHEXANE	NL	NL	<10.0 U	<1.0 U
METHYL TERT-BUTYL ETHER	10	NL	<10.0 U	<1.0 U
METHYLENE CHLORIDE	5	NL	***<10.0 U***	<1.0 U
O-XYLENE	NL	NL	<10.0 U	<1.0 U
STYRENE	5	NL	***<10.0 U***	<1.0 U
TETRACHLOROETHENE	5	5	***<10.0 U***	<1.0 U
TOLUENE	5	NL	***<10.0 U***	<1.0 U
TRANS-1,2-DICHLOROETHENE	5	NL	***<10.0 U***	<1.0 U
TRANS-1,3-DICHLOROPROPENE	0.4	NL	***<10.0 U***	<1.0 U
TRICHLOROETHENE	5	5	**1740**	<1.0 U
TRICHLOROFLUOROMETHANE	5	NL	***<10.0 U***	<1.0 U
VINYL CHLORIDE	2	NL	***<10.0 U***	<1.0 U
XYLENES, TOTAL	5	NL	***<20.0 U***	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/11/2017	4/11/2017	4/11/2017	4/11/2017
Sample ID			RE137-INF-041117-0830	RE137-EFF-041117-0835	RE137-INF-041117-1400	RE137-EFF-041117-1405
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1-BIPHENYL	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,2'-OXYBIS(1-CHLOROPROPANE)	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,5-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,6-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DICHLOROPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DIMETHYLPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DINITROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
2,4-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,6-DINITROTOLUENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 UJ	<5.0 UJ
2-CHLORONAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLNAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3- AND 4-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3,3-DICHLOROBENZIDINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4,6-DINITRO-2-METHYLPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
4-BROMOPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLORO-3-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
ACENAPHTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACENAPHTHYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACETOPHENONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ATRAZINE	7.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZALDEHYDE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[B]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[G,H,I]PERYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[K]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHOXY)METHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHYL)ETHER	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-ETHYLHEXYL)PHTHALATE	5	NL	**12.0**	<5.0 U	<5.0 U	<5.0 U
BUTYLBENZYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CAPROLACTAM	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CARBAZOLE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CHRYSENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZ[A,H]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZOFURAN	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIETHYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIMETHYL PHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-BUTYLPHTHALATE	50	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-OCTYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBENZENE	0.04	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBUTADIENE	0.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/11/2017	4/11/2017	4/11/2017	4/11/2017
Sample ID			RE137-INF-041117-0830	RE137-EFF-041117-0835	RE137-INF-041117-1400	RE137-EFF-041117-1405
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
HEXACHLOROCYCLOPENTADIENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 UJ	<5.0 UJ
HEXACHLOROETHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
INDENO[1,2,3-CD]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ISOPHORONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NITROBENZENE	0.4	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODINPROPYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODIPHENYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PENTACHLOROPHENOL	1	NL	<10.0 UJ	<10.0 UJ	<10.0 UJ	<10.0 UJ
PHENANTHRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/11/2017	4/11/2017	4/12/2017	4/12/2017
Sample ID			RE137-INF-041117-2000	RE137-EFF-041117-2005	RE137-INF-041217-0205	RE137-EFF-041217-0210
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1-BIPHENYL	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,2'-OXYBIS(1-CHLOROPROPANE)	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,5-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,6-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DICHLOROPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DIMETHYLPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DINITROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
2,4-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,6-DINITROTOLUENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 UJ	<5.0 UJ
2-CHLORONAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLNAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3- AND 4-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3,3-DICHLOROBENZIDINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4,6-DINITRO-2-METHYLPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
4-BROMOPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLORO-3-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
ACENAPHTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACENAPHTHYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACETOPHENONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ATRAZINE	7.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZALDEHYDE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[B]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[G,H,I]PERYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[K]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHOXY)METHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHYL)ETHER	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-ETHYLHEXYL)PHTHALATE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BUTYLBENZYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CAPROLACTAM	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CARBAZOLE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CHRYSENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZ[A,H]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZOFURAN	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIETHYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIMETHYL PHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-BUTYLPHTHALATE	50	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-OCTYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBENZENE	0.04	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBUTADIENE	0.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/11/2017	4/11/2017	4/12/2017	4/12/2017
Sample ID			RE137-INF-041117-2000	RE137-EFF-041117-2005	RE137-INF-041217-0205	RE137-EFF-041217-0210
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
HEXACHLOROCYCLOPENTADIENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 UJ	<5.0 UJ
HEXACHLOROETHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
INDENO[1,2,3-CD]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ISOPHORONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NITROBENZENE	0.4	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODINPROPYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODIPHENYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PENTACHLOROPHENOL	1	NL	<10.0 UJ	<10.0 UJ	<10.0 UJ	<10.0 UJ
PHENANTHRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/12/2017	4/12/2017	4/12/2017	4/12/2017
Sample ID			RE137-INF-041217-0800	RE137-EFF-041217-0805	RE137-INF-041217-1400	RE137-EFF-041217-1405
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1-BIPHENYL	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,2'-OXYBIS(1-CHLOROPROPANE)	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,5-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,6-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DICHLOROPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DIMETHYLPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DINITROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
2,4-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,6-DINITROTOLUENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 U	<5.0 U
2-CHLORONAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLNAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3- AND 4-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3,3-DICHLOROBENZIDINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4,6-DINITRO-2-METHYLPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
4-BROMOPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLORO-3-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 UJ	<10.0 UJ
ACENAPHTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACENAPHTHYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACETOPHENONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ATRAZINE	7.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZALDEHYDE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[B]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[G,H,I]PERYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[K]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHOXY)METHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHYL)ETHER	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-ETHYLHEXYL)PHTHALATE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BUTYLBENZYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CAPROLACTAM	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CARBAZOLE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CHRYSENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZ[A,H]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZOFURAN	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIETHYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIMETHYL PHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-BUTYLPHTHALATE	50	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-OCTYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBENZENE	0.04	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBUTADIENE	0.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/12/2017	4/12/2017	4/12/2017	4/12/2017
Sample ID			RE137-INF-041217-0800	RE137-EFF-041217-0805	RE137-INF-041217-1400	RE137-EFF-041217-1405
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
HEXACHLOROCYCLOPENTADIENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 UJ	<5.0 UJ
HEXACHLOROETHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
INDENO[1,2,3-CD]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ISOPHORONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NITROBENZENE	0.4	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODINPROPYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODIPHENYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PENTACHLOROPHENOL	1	NL	<10.0 UJ	<10.0 UJ	<10.0 U	<10.0 U
PHENANTHRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/12/2017	4/12/2017	4/13/2017	4/13/2017
Sample ID			RE137-INF-041217-2000	RE137-EFF-041217-2005	RE137-INF-041317-0205	RE137-EFF-041317-0210
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1-BIPHENYL	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,2'-OXYBIS(1-CHLOROPROPANE)	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,5-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,6-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DICHLOROPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DIMETHYLPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DINITROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
2,4-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,6-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLORONAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLNAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3- AND 4-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3,3-DICHLOROBENZIDINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4,6-DINITRO-2-METHYLPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
4-BROMOPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLORO-3-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROPHENOL	NL	NL	<10.0 UJ	<10.0 UJ	<10.0 UJ	<10.0 UJ
ACENAPHTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACENAPHTHYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACETOPHENONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ATRAZINE	7.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZALDEHYDE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[B]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[G,H,I]PERYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[K]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHOXY)METHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHYL)ETHER	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-ETHYLHEXYL)PHTHALATE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BUTYLBENZYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CAPROLACTAM	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CARBAZOLE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CHRYSENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZ[A,H]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZOFURAN	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIETHYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIMETHYL PHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-BUTYLPHTHALATE	50	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-OCTYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBENZENE	0.04	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBUTADIENE	0.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/12/2017	4/12/2017	4/13/2017	4/13/2017
Sample ID			RE137-INF-041217-2000	RE137-EFF-041217-2005	RE137-INF-041317-0205	RE137-EFF-041317-0210
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
HEXACHLOROCYCLOPENTADIENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 UJ	<5.0 UJ
HEXACHLOROETHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
INDENO[1,2,3-CD]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ISOPHORONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NITROBENZENE	0.4	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODINPROPYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODIPHENYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PENTACHLOROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
PHENANTHRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/13/2017	4/13/2017	4/13/2017	4/13/2017
Sample ID			RE137-INF-041317-0805	RE137-EFF-041317-0810	RE137-INF-041317-1400	RE137-EFF-041317-1405
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1-BIPHENYL	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,2'-OXYBIS(1-CHLOROPROPANE)	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,5-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,6-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DICHLOROPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DIMETHYLPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DINITROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
2,4-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,6-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLORONAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLNAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3- AND 4-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3,3-DICHLOROBENZIDINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4,6-DINITRO-2-METHYLPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
4-BROMOPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLORO-3-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROPHENOL	NL	NL	<10.0 UJ	<10.0 UJ	<10.0 UJ	<10.0 UJ
ACENAPHTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACENAPHTHYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACETOPHENONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ATRAZINE	7.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZALDEHYDE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[B]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[G,H,I]PERYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[K]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHOXY)METHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHYL)ETHER	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-ETHYLHEXYL)PHTHALATE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BUTYLBENZYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CAPROLACTAM	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CARBAZOLE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CHRYSENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZ[A,H]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZOFURAN	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIETHYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIMETHYL PHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-BUTYLPHTHALATE	50	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-OCTYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBENZENE	0.04	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBUTADIENE	0.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/13/2017	4/13/2017	4/13/2017	4/13/2017
Sample ID			RE137-INF-041317-0805	RE137-EFF-041317-0810	RE137-INF-041317-1400	RE137-EFF-041317-1405
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
HEXACHLOROCYCLOPENTADIENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 UJ	<5.0 UJ
HEXACHLOROETHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
INDENO[1,2,3-CD]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ISOPHORONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NITROBENZENE	0.4	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODINPROPYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODIPHENYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PENTACHLOROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
PHENANTHRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/13/2017	4/13/2017	4/14/2017	4/14/2017
Sample ID			RE137-INF-041317-2000	RE137-EFF-041317-2005	RE137-INF-041417-0205	RE137-EFF-041417-0210
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1-BIPHENYL	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,2'-OXYBIS(1-CHLOROPROPANE)	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,5-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4,6-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DICHLOROPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DIMETHYLPHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,4-DINITROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
2,4-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2,6-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLORONAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-CHLOROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLNAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
2-NITROPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3- AND 4-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3,3-DICHLOROBENZIDINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
3-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4,6-DINITRO-2-METHYLPHENOL	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
4-BROMOPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLORO-3-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-CHLOROPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROANILINE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
4-NITROPHENOL	NL	NL	<10.0 UJ	<10.0 UJ	<10.0 UJ	<10.0 UJ
ACENAPHTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACENAPHTHYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ACETOPHENONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ATRAZINE	7.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZALDEHYDE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[A]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[B]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[G,H,I]PERYLENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BENZO[K]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHOXY)METHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-CHLOROETHYL)ETHER	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BIS(2-ETHYLHEXYL)PHTHALATE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
BUTYLBENZYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CAPROLACTAM	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CARBAZOLE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
CHRYSENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZ[A,H]ANTHRACENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIBENZOFURAN	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIETHYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DIMETHYL PHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-BUTYLPHTHALATE	50	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
DI-N-OCTYLPHTHALATE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORANTHENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
FLUORENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBENZENE	0.04	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
HEXACHLOROBUTADIENE	0.5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date			4/13/2017	4/13/2017	4/14/2017	4/14/2017
Sample ID			RE137-INF-041317-2000	RE137-EFF-041317-2005	RE137-INF-041417-0205	RE137-EFF-041417-0210
Sample type code			N	N	N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
HEXACHLOROCYCLOPENTADIENE	5	NL	<5.0 UJ	<5.0 UJ	<5.0 UJ	<5.0 UJ
HEXACHLOROETHANE	5	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
INDENO[1,2,3-CD]PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
ISOPHORONE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NAPHTHALENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
NITROBENZENE	0.4	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODINPROPYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
N-NITROSODIPHENYLAMINE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PENTACHLOROPHENOL	1	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
PHENANTHRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PHENOL	1	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
PYRENE	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137
Sample Date			4/14/2017	4/14/2017
Sample ID			RE137-INF-041417-0810	RE137-EFF-041417-0815
Sample type code			N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
1,1-BIPHENYL	5	NL	<5.0 U	<5.0 U
2,2'-OXYBIS(1-CHLOROPROPANE)	5	NL	<5.0 U	<5.0 U
2,4,5-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U
2,4,6-TRICHLOROPHENOL	NL	NL	<5.0 U	<5.0 U
2,4-DICHLOROPHENOL	1	NL	<5.0 U	<5.0 U
2,4-DIMETHYLPHENOL	1	NL	<5.0 U	<5.0 U
2,4-DINITROPHENOL	1	NL	<10.0 U	<10.0 U
2,4-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U
2,6-DINITROTOLUENE	5	NL	<5.0 U	<5.0 U
2-CHLORONAPHTHALENE	NL	NL	<5.0 U	<5.0 U
2-CHLOROPHENOL	NL	NL	<5.0 U	<5.0 U
2-METHYLNAPHTHALENE	NL	NL	<5.0 U	<5.0 U
2-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U
2-NITROANILINE	5	NL	<5.0 U	<5.0 U
2-NITROPHENOL	NL	NL	<5.0 U	<5.0 U
3- AND 4-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U
3,3-DICHLOROBENZIDINE	5	NL	<5.0 U	<5.0 U
3-NITROANILINE	5	NL	<5.0 U	<5.0 U
4,6-DINITRO-2-METHYLPHENOL	NL	NL	<10.0 U	<10.0 U
4-BROMOPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U
4-CHLORO-3-METHYLPHENOL	NL	NL	<5.0 U	<5.0 U
4-CHLOROANILINE	5	NL	<5.0 U	<5.0 U
4-CHLOROPHENYL-PHENYLETHER	NL	NL	<5.0 U	<5.0 U
4-NITROANILINE	5	NL	<5.0 U	<5.0 U
4-NITROPHENOL	NL	NL	<10.0 UJ	<10.0 UJ
ACENAPHTHENE	NL	NL	<5.0 U	<5.0 U
ACENAPHTHYLENE	NL	NL	<5.0 U	<5.0 U
ACETOPHENONE	NL	NL	<5.0 U	<5.0 U
ANTHRACENE	NL	NL	<5.0 U	<5.0 U
ATRAZINE	7.5	NL	<5.0 U	<5.0 U
BENZALDEHYDE	NL	NL	<5.0 U	<5.0 U
BENZO[A]ANTHRACENE	NL	NL	<5.0 U	<5.0 U
BENZO[A]PYRENE	NL	NL	<5.0 U	<5.0 U
BENZO[B]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U
BENZO[G,H,I]PERYLENE	NL	NL	<5.0 U	<5.0 U
BENZO[K]FLUORANTHENE	NL	NL	<5.0 U	<5.0 U
BIS(2-CHLOROETHOXY)METHANE	5	NL	<5.0 U	<5.0 U
BIS(2-CHLOROETHYL)ETHER	1	NL	<5.0 U	<5.0 U
BIS(2-ETHYLHEXYL)PHTHALATE	5	NL	<5.0 U	<5.0 U
BUTYLBENZYLPHTHALATE	NL	NL	<5.0 U	<5.0 U
CAPROLACTAM	NL	NL	<5.0 U	<5.0 U
CARBAZOLE	NL	NL	<5.0 U	<5.0 U
CHRYSENE	NL	NL	<5.0 U	<5.0 U
DIBENZ[A,H]ANTHRACENE	NL	NL	<5.0 U	<5.0 U
DIBENZOFURAN	NL	NL	<5.0 U	<5.0 U
DIETHYLPHTHALATE	NL	NL	<5.0 U	<5.0 U
DIMETHYL PHTHALATE	NL	NL	<5.0 U	<5.0 U
DI-N-BUTYLPHTHALATE	50	NL	<5.0 U	<5.0 U
DI-N-OCTYLPHTHALATE	NL	NL	<5.0 U	<5.0 U
FLUORANTHENE	NL	NL	<5.0 U	<5.0 U
FLUORENE	NL	NL	<5.0 U	<5.0 U
HEXACHLOROBENZENE	0.04	NL	<5.0 U	<5.0 U
HEXACHLOROBUTADIENE	0.5	NL	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location	NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137
Sample Date			4/14/2017	4/14/2017
Sample ID			RE137-INF-041417-0810	RE137-EFF-041417-0815
Sample type code			N	N
SVOCs 8270D	**(ug/L)**	**(ug/L)**	**(ug/L)**	**(ug/L)**
HEXACHLOROCYCLOPENTADIENE	5	NL	<5.0 UJ	<5.0 UJ
HEXACHLOROETHANE	5	NL	<5.0 U	<5.0 U
INDENO[1,2,3-CD]PYRENE	NL	NL	<5.0 U	<5.0 U
ISOPHORONE	NL	NL	<5.0 U	<5.0 U
NAPHTHALENE	NL	NL	<5.0 U	<5.0 U
NITROBENZENE	0.4	NL	<5.0 U	<5.0 U
N-NITROSODINPROPYLAMINE	NL	NL	<5.0 U	<5.0 U
N-NITROSODIPHENYLAMINE	NL	NL	<5.0 U	<5.0 U
PENTACHLOROPHENOL	1	NL	<10.0 U	<10.0 U
PHENANTHRENE	NL	NL	<5.0 U	<5.0 U
PHENOL	1	NL	<5.0 U	<5.0 U
PYRENE	NL	NL	<5.0 U	<5.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location				NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date						4/11/2017	4/11/2017	4/11/2017	4/11/2017
Sample ID						RE137-INF-041117-0830	RE137-EFF-041117-0835	RE137-INF-041117-1400	RE137-EFF-041117-1405
Sample type code						N	N	N	N
Method	**Analyte**	**Fraction**	**Units**						
2540C	TOTAL DISSOLVED SOLIDS	Total	mg/L	500	NL	**60.0**	**49.0**	**79.0**	**66.0**
2540D	TOTAL SUSPENDED SOLIDS	Total	mg/L	NL	NL	<10.0 U	<10.0 U	<4.0 U	<2.0 U
350.1	AMMONIA	Total	mg/L	2000	NL	**0.13**	<0.10 U	<0.10 U	<0.10 U
351.2	NITROGEN, TOTAL	Total	mg/L	NL	NL	<0.10 U	<0.10 U	<0.10 U	<0.10 U
4500_H+_B	PH	Total	PH	NL	6.0 - 9.0	**4.1 J**	**6.1 J**	**4.3 J**	**5.0 J**
6010C	ALUMINUM	Dissolved	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ALUMINUM	Total	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ANTIMONY	Dissolved	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ANTIMONY	Total	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ARSENIC	Dissolved	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	ARSENIC	Total	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	BARIUM	Dissolved	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BARIUM	Total	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BERYLLIUM	Dissolved	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	BERYLLIUM	Total	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	CADMIUM	Dissolved	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CADMIUM	Total	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CALCIUM	Dissolved	ug/L	NL	NL	**3200**	**5190**	**3270**	**4250**
6010C	CALCIUM	Total	ug/L	NL	NL	**3330**	**6610**	**3250**	**4300**
6010C	CHROMIUM, TOTAL	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	CHROMIUM, TOTAL	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	COBALT	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COBALT	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COPPER	Dissolved	ug/L	200	NL	<25.0 U	**38.4**	<25.0 U	**160**
6010C	COPPER	Total	ug/L	200	NL	<25.0 U	**57.9**	<25.0 U	**181**
6010C	IRON	Dissolved	ug/L	300	Monitor	**189**	<100 U	**192**	<100 U
6010C	IRON	Total	ug/L	300	Monitor	**257**	**327**	**241**	<100 U
6010C	LEAD	Dissolved	ug/L	25	NL	<5.0 U	**7.7**	<5.0 U	<5.0 U
6010C	LEAD	Total	ug/L	25	NL	<5.0 U	**34.9**	<5.0 U	<5.0 U
6010C	MAGNESIUM	Dissolved	ug/L	NL	NL	**1240**	**1260**	**1230**	**1280**
6010C	MAGNESIUM	Total	ug/L	NL	NL	**1250**	**1310**	**1300**	**1320**
6010C	MANGANESE	Dissolved	ug/L	300	NL	**19.0**	**149**	<10.0 U	**72.7**
6010C	MANGANESE	Total	ug/L	300	NL	<10.0 U	**199**	<10.0 U	**72.3**
6010C	NICKEL	Dissolved	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	NICKEL	Total	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	POTASSIUM	Dissolved	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	POTASSIUM	Total	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	SELENIUM	Dissolved	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SELENIUM	Total	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SODIUM	Dissolved	ug/L	20000	NL	**11400**	**11700**	**10800**	**10700**
6010C	SODIUM	Total	ug/L	20000	NL	**12100**	**12500**	**11100**	**11300**
6010C	THALLIUM	Dissolved	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	THALLIUM	Total	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	VANADIUM	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	VANADIUM	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	ZINC	Dissolved	ug/L	NL	NL	**99.8**	**182**	**171**	**143**
6010C	ZINC	Total	ug/L	NL	NL	**60.7**	**135**	**37.2**	**69.4**
7470A	MERCURY	Dissolved	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
7470A	MERCURY	Total	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
SM5210B	BIOCHEMICAL OXYGEN DEMAND	Total	mg/L	NL	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location				NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date						4/11/2017	4/11/2017	4/12/2017	4/12/2017
Sample ID						RE137-INF-041117-2000	RE137-EFF-041117-2005	RE137-INF-041217-0205	RE137-EFF-041217-0210
Sample type code						N	N	N	N
Method	**Analyte**	**Fraction**	**Units**						
2540C	TOTAL DISSOLVED SOLIDS	Total	mg/L	500	NL	**58.0**	**58.0**	**61.0**	**73.0**
2540D	TOTAL SUSPENDED SOLIDS	Total	mg/L	NL	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U
350.1	AMMONIA	Total	mg/L	2000	NL	<0.10 U	<0.10 U	**0.11**	<0.10 U
351.2	NITROGEN, TOTAL	Total	mg/L	NL	NL	<0.10 U	<0.10 U	<0.10 U	<0.10 U
4500_H+_B	PH	Total	PH	NL	6.0 - 9.0	**4.1 J**	**4.7 J**	**4.0 J**	**4.4 J**
6010C	ALUMINUM	Dissolved	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ALUMINUM	Total	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ANTIMONY	Dissolved	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ANTIMONY	Total	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ARSENIC	Dissolved	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	ARSENIC	Total	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	BARIUM	Dissolved	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BARIUM	Total	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BERYLLIUM	Dissolved	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	BERYLLIUM	Total	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	CADMIUM	Dissolved	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CADMIUM	Total	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CALCIUM	Dissolved	ug/L	NL	NL	**3240**	**4030**	**3290**	**3860**
6010C	CALCIUM	Total	ug/L	NL	NL	**3310**	**4100**	**3140**	**3800**
6010C	CHROMIUM, TOTAL	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	CHROMIUM, TOTAL	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	COBALT	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COBALT	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COPPER	Dissolved	ug/L	200	NL	<25.0 U	**172**	<25.0 U	**156**
6010C	COPPER	Total	ug/L	200	NL	<25.0 U	**186**	<25.0 U	**168**
6010C	IRON	Dissolved	ug/L	300	Monitor	**191**	<100 U	**185**	<100 U
6010C	IRON	Total	ug/L	300	Monitor	**225**	<100 U	**214**	<100 U
6010C	LEAD	Dissolved	ug/L	25	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	LEAD	Total	ug/L	25	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	MAGNESIUM	Dissolved	ug/L	NL	NL	**1280**	**1280**	**1270**	**1270**
6010C	MAGNESIUM	Total	ug/L	NL	NL	**1340**	**1320**	**1260**	**1290**
6010C	MANGANESE	Dissolved	ug/L	300	NL	<10.0 U	**52.0**	<10.0 U	**39.3**
6010C	MANGANESE	Total	ug/L	300	NL	<10.0 U	**51.1**	<10.0 U	**37.2**
6010C	NICKEL	Dissolved	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	NICKEL	Total	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	POTASSIUM	Dissolved	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	POTASSIUM	Total	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	SELENIUM	Dissolved	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SELENIUM	Total	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SODIUM	Dissolved	ug/L	20000	NL	**10600**	**10500**	**10500**	**10400**
6010C	SODIUM	Total	ug/L	20000	NL	**11300**	**11300**	**10700**	**10800**
6010C	THALLIUM	Dissolved	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	THALLIUM	Total	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	VANADIUM	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	VANADIUM	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	ZINC	Dissolved	ug/L	NL	NL	**62.1**	**66.3**	**44.4**	**53.2**
6010C	ZINC	Total	ug/L	NL	NL	**36.1**	**64.5**	**31.1**	**45.0**
7470A	MERCURY	Dissolved	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
7470A	MERCURY	Total	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
SM5210B	BIOCHEMICAL OXYGEN DEMAND	Total	mg/L	NL	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location				NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date						4/12/2017	4/12/2017	4/12/2017	4/12/2017
Sample ID						RE137-INF-041217-0800	RE137-EFF-041217-0805	RE137-INF-041217-1400	RE137-EFF-041217-1405
Sample type code						N	N	N	N
Method	**Analyte**	**Fraction**	**Units**						
2540C	TOTAL DISSOLVED SOLIDS	Total	mg/L	500	NL	**55.0**	**55.0**	**67.0**	**63.0**
2540D	TOTAL SUSPENDED SOLIDS	Total	mg/L	NL	NL	<2.0 U	<2.0 U	<4.0 U	<4.0 U
350.1	AMMONIA	Total	mg/L	2000	NL	<0.10 U	<0.10 U	**0.18**	**0.23**
351.2	NITROGEN, TOTAL	Total	mg/L	NL	NL	<0.10 U	<0.10 U	<0.10 U	<0.10 U
4500_H+_B	PH	Total	PH	NL	6.0 - 9.0	**4.3 J**	**4.4 J**	**4.4 J**	**4.6 J**
6010C	ALUMINUM	Dissolved	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ALUMINUM	Total	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ANTIMONY	Dissolved	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ANTIMONY	Total	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ARSENIC	Dissolved	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	ARSENIC	Total	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	BARIUM	Dissolved	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BARIUM	Total	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BERYLLIUM	Dissolved	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	BERYLLIUM	Total	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	CADMIUM	Dissolved	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CADMIUM	Total	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CALCIUM	Dissolved	ug/L	NL	NL	**3260**	**3730**	**3310**	**3720**
6010C	CALCIUM	Total	ug/L	NL	NL	**3160**	**3740**	**3190**	**3560**
6010C	CHROMIUM, TOTAL	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	CHROMIUM, TOTAL	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	COBALT	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COBALT	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COPPER	Dissolved	ug/L	200	NL	<25.0 U	**154**	**42.4**	**161**
6010C	COPPER	Total	ug/L	200	NL	<25.0 U	**160**	<25.0 U	**155**
6010C	IRON	Dissolved	ug/L	300	Monitor	**176**	<100 U	**152**	<100 U
6010C	IRON	Total	ug/L	300	Monitor	**209**	<100 U	**201**	<100 U
6010C	LEAD	Dissolved	ug/L	25	NL	<5.0 U	**6.2**	<5.0 U	<5.0 U
6010C	LEAD	Total	ug/L	25	NL	<5.0 U	**5.2**	<5.0 U	**7.5**
6010C	MAGNESIUM	Dissolved	ug/L	NL	NL	**1280**	**1280**	**1250**	**1290**
6010C	MAGNESIUM	Total	ug/L	NL	NL	**1310**	**1270**	**1260**	**1280**
6010C	MANGANESE	Dissolved	ug/L	300	NL	<10.0 U	**32.9**	<10.0 U	**28.5**
6010C	MANGANESE	Total	ug/L	300	NL	<10.0 U	**31.7**	<10.0 U	**26.6**
6010C	NICKEL	Dissolved	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	NICKEL	Total	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	POTASSIUM	Dissolved	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	POTASSIUM	Total	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	SELENIUM	Dissolved	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SELENIUM	Total	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SODIUM	Dissolved	ug/L	20000	NL	**10600**	**10400**	**10400**	**10400**
6010C	SODIUM	Total	ug/L	20000	NL	**10700**	**11100**	**11000**	**10900**
6010C	THALLIUM	Dissolved	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	THALLIUM	Total	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	VANADIUM	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	VANADIUM	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	ZINC	Dissolved	ug/L	NL	NL	**80.8**	**126**	**222**	**60.0**
6010C	ZINC	Total	ug/L	NL	NL	**42.4**	**54.8**	**33.4**	**63.2**
7470A	MERCURY	Dissolved	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
7470A	MERCURY	Total	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
SM5210B	BIOCHEMICAL OXYGEN DEMAND	Total	mg/L	NL	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location				NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date						4/12/2017	4/12/2017	4/13/2017	4/13/2017
Sample ID						RE137-INF-041217-2000	RE137-EFF-041217-2005	RE137-INF-041317-0205	RE137-EFF-041317-0210
Sample type code						N	N	N	N
Method	**Analyte**	**Fraction**	**Units**						
2540C	TOTAL DISSOLVED SOLIDS	Total	mg/L	500	NL	**52.0**	**72.0**	**69.0**	**72.0**
2540D	TOTAL SUSPENDED SOLIDS	Total	mg/L	NL	NL	<4.0 U	<4.0 U	<4.0 U	<4.0 U
350.1	AMMONIA	Total	mg/L	2000	NL	**0.13**	**0.11**	<0.10 U	<0.10 U
351.2	NITROGEN, TOTAL	Total	mg/L	NL	NL	<0.10 U	<0.10 U	<0.10 U	<0.10 U
4500_H+_B	PH	Total	PH	NL	6.0 - 9.0	**4.3 J**	**4.5 J**	**4.1 J**	**4.3 J**
6010C	ALUMINUM	Dissolved	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ALUMINUM	Total	ug/L	NL	NL	<200 U	<200 U	<200 U	**942**
6010C	ANTIMONY	Dissolved	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ANTIMONY	Total	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ARSENIC	Dissolved	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	ARSENIC	Total	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	BARIUM	Dissolved	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BARIUM	Total	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BERYLLIUM	Dissolved	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	BERYLLIUM	Total	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	CADMIUM	Dissolved	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CADMIUM	Total	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CALCIUM	Dissolved	ug/L	NL	NL	**3330**	**3680**	**3300**	**3660**
6010C	CALCIUM	Total	ug/L	NL	NL	**3200**	**3570**	**3170**	**3440**
6010C	CHROMIUM, TOTAL	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	CHROMIUM, TOTAL	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	COBALT	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COBALT	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COPPER	Dissolved	ug/L	200	NL	**28.0**	**142**	<25.0 U	**124**
6010C	COPPER	Total	ug/L	200	NL	<25.0 U	**136**	<25.0 U	**113**
6010C	IRON	Dissolved	ug/L	300	Monitor	**163**	<100 U	**166**	<100 U
6010C	IRON	Total	ug/L	300	Monitor	**190**	<100 U	**179**	<100 U
6010C	LEAD	Dissolved	ug/L	25	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	LEAD	Total	ug/L	25	NL	<5.0 U	<5.0 U	<5.0 U	**5.4**
6010C	MAGNESIUM	Dissolved	ug/L	NL	NL	**1290**	**1280**	**1280**	**1280**
6010C	MAGNESIUM	Total	ug/L	NL	NL	**1310**	**1290**	**1290**	**1290**
6010C	MANGANESE	Dissolved	ug/L	300	NL	<10.0 U	**25.8**	<10.0 U	**22.8**
6010C	MANGANESE	Total	ug/L	300	NL	<10.0 U	**24.4**	<10.0 U	**20.7**
6010C	NICKEL	Dissolved	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	NICKEL	Total	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	POTASSIUM	Dissolved	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	POTASSIUM	Total	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	SELENIUM	Dissolved	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SELENIUM	Total	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SODIUM	Dissolved	ug/L	20000	NL	**10400**	**10400**	**10400**	**10400**
6010C	SODIUM	Total	ug/L	20000	NL	**11200**	**11200**	**11200**	**11000**
6010C	THALLIUM	Dissolved	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	THALLIUM	Total	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	VANADIUM	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	VANADIUM	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	ZINC	Dissolved	ug/L	NL	NL	**37.8**	**53.9**	**36.0**	**52.0**
6010C	ZINC	Total	ug/L	NL	NL	**44.3**	**58.7**	**39.3**	**47.9**
7470A	MERCURY	Dissolved	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
7470A	MERCURY	Total	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
SM5210B	BIOCHEMICAL OXYGEN DEMAND	Total	mg/L	NL	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location				NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date						4/13/2017	4/13/2017	4/13/2017	4/13/2017
Sample ID						RE137-INF-041317-0805	RE137-EFF-041317-0810	RE137-INF-041317-1400	RE137-EFF-041317-1405
Sample type code						N	N	N	N
Method	**Analyte**	**Fraction**	**Units**						
2540C	TOTAL DISSOLVED SOLIDS	Total	mg/L	500	NL	**74.0**	**72.0**	**27.0**	**35.0**
2540D	TOTAL SUSPENDED SOLIDS	Total	mg/L	NL	NL	<4.0 U	<4.0 U	<4.0 U	<4.0 U
350.1	AMMONIA	Total	mg/L	2000	NL	<0.10 U	<0.10 U	<0.10 U	<0.10 U
351.2	NITROGEN, TOTAL	Total	mg/L	NL	NL	<0.10 U	<0.10 U	<0.10 U	<0.10 U
4500_H+_B	PH	Total	PH	NL	6.0 - 9.0	**4.1 J**	**4.3 J**	**4.2 J**	**4.3 J**
6010C	ALUMINUM	Dissolved	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ALUMINUM	Total	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ANTIMONY	Dissolved	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ANTIMONY	Total	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ARSENIC	Dissolved	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	ARSENIC	Total	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	BARIUM	Dissolved	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BARIUM	Total	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BERYLLIUM	Dissolved	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	BERYLLIUM	Total	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	CADMIUM	Dissolved	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CADMIUM	Total	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CALCIUM	Dissolved	ug/L	NL	NL	**3260**	**3620**	**3190**	**3330**
6010C	CALCIUM	Total	ug/L	NL	NL	**3040**	**3340**	**3140**	**3480**
6010C	CHROMIUM, TOTAL	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	CHROMIUM, TOTAL	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	COBALT	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COBALT	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COPPER	Dissolved	ug/L	200	NL	<25.0 U	**117**	<25.0 U	**101**
6010C	COPPER	Total	ug/L	200	NL	<25.0 U	**105**	<25.0 U	**113**
6010C	IRON	Dissolved	ug/L	300	Monitor	**152**	<100 U	**133**	<100 U
6010C	IRON	Total	ug/L	300	Monitor	**168**	<100 U	**175**	<100 U
6010C	LEAD	Dissolved	ug/L	25	NL	<5.0 U	<5.0 U	<5.0 U	**7.7**
6010C	LEAD	Total	ug/L	25	NL	<5.0 U	<5.0 U	<5.0 U	**13.7**
6010C	MAGNESIUM	Dissolved	ug/L	NL	NL	**1280**	**1270**	**1240**	**1230**
6010C	MAGNESIUM	Total	ug/L	NL	NL	**1220**	**1240**	**1250**	**1320**
6010C	MANGANESE	Dissolved	ug/L	300	NL	<10.0 U	**20.9**	<10.0 U	**18.2**
6010C	MANGANESE	Total	ug/L	300	NL	<10.0 U	**18.3**	<10.0 U	**18.7**
6010C	NICKEL	Dissolved	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	NICKEL	Total	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	POTASSIUM	Dissolved	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	POTASSIUM	Total	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	SELENIUM	Dissolved	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SELENIUM	Total	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SODIUM	Dissolved	ug/L	20000	NL	**10300**	**10300**	**10400**	**10500**
6010C	SODIUM	Total	ug/L	20000	NL	**10800**	**10900**	**10800**	**11000**
6010C	THALLIUM	Dissolved	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	THALLIUM	Total	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	VANADIUM	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	VANADIUM	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	ZINC	Dissolved	ug/L	NL	NL	**35.0**	**47.1**	**51.5**	**71.0**
6010C	ZINC	Total	ug/L	NL	NL	**32.9**	**46.2**	**39.1**	**67.6**
7470A	MERCURY	Dissolved	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
7470A	MERCURY	Total	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
SM5210B	BIOCHEMICAL OXYGEN DEMAND	Total	mg/L	NL	NL	**8.0**	<2.0 U	<2.0 U	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location				NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137	RE137	RE137
Sample Date						4/13/2017	4/13/2017	4/14/2017	4/14/2017
Sample ID						RE137-INF-041317-2000	RE137-EFF-041317-2005	RE137-INF-041417-0205	RE137-EFF-041417-0210
Sample type code						N	N	N	N
Method	**Analyte**	**Fraction**	**Units**						
2540C	TOTAL DISSOLVED SOLIDS	Total	mg/L	500	NL	**34.0**	**40.0**	**39.0**	**40.0**
2540D	TOTAL SUSPENDED SOLIDS	Total	mg/L	NL	NL	<4.0 U	<4.0 U	<4.0 U	<4.0 U
350.1	AMMONIA	Total	mg/L	2000	NL	<0.10 U	<0.10 U	<0.10 U	<0.10 U
351.2	NITROGEN, TOTAL	Total	mg/L	NL	NL	<0.10 U	<0.10 U	<0.10 U	<0.10 U
4500_H+_B	PH	Total	PH	NL	6.0 - 9.0	**4.1 J**	**4.2 J**	**4.0 J**	**4.2 J**
6010C	ALUMINUM	Dissolved	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ALUMINUM	Total	ug/L	NL	NL	<200 U	<200 U	<200 U	<200 U
6010C	ANTIMONY	Dissolved	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ANTIMONY	Total	ug/L	3	NL	<60.0 U	<60.0 U	<60.0 U	<60.0 U
6010C	ARSENIC	Dissolved	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	ARSENIC	Total	ug/L	25	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	BARIUM	Dissolved	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BARIUM	Total	ug/L	1000	NL	<200 U	<200 U	<200 U	<200 U
6010C	BERYLLIUM	Dissolved	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	BERYLLIUM	Total	ug/L	NL	NL	<5.0 U	<5.0 U	<5.0 U	<5.0 U
6010C	CADMIUM	Dissolved	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CADMIUM	Total	ug/L	5	NL	<2.5 U	<2.5 U	<2.5 U	<2.5 U
6010C	CALCIUM	Dissolved	ug/L	NL	NL	**3050**	**3300**	**3090**	**3180**
6010C	CALCIUM	Total	ug/L	NL	NL	**3210**	**3400**	**3200**	**3300**
6010C	CHROMIUM, TOTAL	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	CHROMIUM, TOTAL	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	COBALT	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COBALT	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	COPPER	Dissolved	ug/L	200	NL	<25.0 U	**91.5**	<25.0 U	**91.1**
6010C	COPPER	Total	ug/L	200	NL	<25.0 U	**96.4**	<25.0 U	**95.2**
6010C	IRON	Dissolved	ug/L	300	Monitor	**136**	<100 U	**126**	<100 U
6010C	IRON	Total	ug/L	300	Monitor	**170**	<100 U	**172**	<100 U
6010C	LEAD	Dissolved	ug/L	25	NL	<5.0 U	<5.0 U	<5.0 U	**7.2**
6010C	LEAD	Total	ug/L	25	NL	<5.0 U	<5.0 U	<5.0 U	**6.6**
6010C	MAGNESIUM	Dissolved	ug/L	NL	NL	**1280**	**1250**	**1200**	**1190**
6010C	MAGNESIUM	Total	ug/L	NL	NL	**1290**	**1270**	**1320**	**1260**
6010C	MANGANESE	Dissolved	ug/L	300	NL	<10.0 U	**16.6**	<10.0 U	**15.2**
6010C	MANGANESE	Total	ug/L	300	NL	<10.0 U	**16.8**	<10.0 U	**15.2**
6010C	NICKEL	Dissolved	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	NICKEL	Total	ug/L	100	NL	<40.0 U	<40.0 U	<40.0 U	<40.0 U
6010C	POTASSIUM	Dissolved	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	POTASSIUM	Total	ug/L	NL	NL	<5000 U	<5000 U	<5000 U	<5000 U
6010C	SELENIUM	Dissolved	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SELENIUM	Total	ug/L	10	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SILVER	Total	ug/L	50	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	SODIUM	Dissolved	ug/L	20000	NL	**10300**	**10400**	**10400**	**10000**
6010C	SODIUM	Total	ug/L	20000	NL	**10900**	**10800**	**10800**	**10600**
6010C	THALLIUM	Dissolved	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	THALLIUM	Total	ug/L	NL	NL	<10.0 U	<10.0 U	<10.0 U	<10.0 U
6010C	VANADIUM	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	VANADIUM	Total	ug/L	NL	NL	<50.0 U	<50.0 U	<50.0 U	<50.0 U
6010C	ZINC	Dissolved	ug/L	NL	NL	**50.6**	**59.2**	**51.8**	**61.8**
6010C	ZINC	Total	ug/L	NL	NL	**33.2**	**56.7**	**40.6**	**52.3**
7470A	MERCURY	Dissolved	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
7470A	MERCURY	Total	ug/L	0.7	NL	<0.20 U	<0.20 U	<0.20 U	<0.20 U
SM5210B	BIOCHEMICAL OXYGEN DEMAND	Total	mg/L	NL	NL	<2.0 U	<2.0 U	<2.0 U	<2.0 U

ANALYTICAL DATA DURING RE137 CONSTANT RATE TEST
2017 OU2 GROUNDWATER INVESTIGATION
NWIRP BETHPAGE, NY

Location				NYSDEC Groundwater Guidance or Standard Value **[applies to INF]** (Note 1)	Daily Maximum Discharge Limits for Groundwater Extraction & Treatment System **[applies to EFF]** (Note 2)	RE137	RE137
Sample Date						4/14/2017	4/14/2017
Sample ID						RE137-INF-041417-0810	RE137-EFF-041417-0815
Sample type code						N	N
Method	**Analyte**	**Fraction**	**Units**				
2540C	TOTAL DISSOLVED SOLIDS	Total	mg/L	500	NL	**29.0**	**47.0**
2540D	TOTAL SUSPENDED SOLIDS	Total	mg/L	NL	NL	<4.0 U	<4.0 U
350.1	AMMONIA	Total	mg/L	2000	NL	<0.10 U	<0.10 U
351.2	NITROGEN, TOTAL	Total	mg/L	NL	NL	<0.10 U	<0.10 U
4500_H+_B	PH	Total	PH	NL	6.0 - 9.0	**4.0 J**	**4.2 J**
6010C	ALUMINUM	Dissolved	ug/L	NL	NL	<200 U	<200 U
6010C	ALUMINUM	Total	ug/L	NL	NL	<200 U	<200 U
6010C	ANTIMONY	Dissolved	ug/L	3	NL	<60.0 U	<60.0 U
6010C	ANTIMONY	Total	ug/L	3	NL	<60.0 U	<60.0 U
6010C	ARSENIC	Dissolved	ug/L	25	NL	<10.0 U	<10.0 U
6010C	ARSENIC	Total	ug/L	25	NL	<10.0 U	<10.0 U
6010C	BARIUM	Dissolved	ug/L	1000	NL	<200 U	<200 U
6010C	BARIUM	Total	ug/L	1000	NL	<200 U	<200 U
6010C	BERYLLIUM	Dissolved	ug/L	NL	NL	<5.0 U	<5.0 U
6010C	BERYLLIUM	Total	ug/L	NL	NL	<5.0 U	<5.0 U
6010C	CADMIUM	Dissolved	ug/L	5	NL	<2.5 U	<2.5 U
6010C	CADMIUM	Total	ug/L	5	NL	<2.5 U	<2.5 U
6010C	CALCIUM	Dissolved	ug/L	NL	NL	**3060**	**3270**
6010C	CALCIUM	Total	ug/L	NL	NL	**3270**	**3370**
6010C	CHROMIUM, TOTAL	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U
6010C	CHROMIUM, TOTAL	Total	ug/L	50	NL	<10.0 U	<10.0 U
6010C	COBALT	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U
6010C	COBALT	Total	ug/L	NL	NL	<50.0 U	<50.0 U
6010C	COPPER	Dissolved	ug/L	200	NL	**67.4**	**83.4**
6010C	COPPER	Total	ug/L	200	NL	<25.0 U	**117**
6010C	IRON	Dissolved	ug/L	300	Monitor	**131**	<100 U
6010C	IRON	Total	ug/L	300	Monitor	**161**	<100 U
6010C	LEAD	Dissolved	ug/L	25	NL	<5.0 U	**5.1**
6010C	LEAD	Total	ug/L	25	NL	<5.0 U	**5.8**
6010C	MAGNESIUM	Dissolved	ug/L	NL	NL	**1230**	**1200**
6010C	MAGNESIUM	Total	ug/L	NL	NL	**1280**	**1300**
6010C	MANGANESE	Dissolved	ug/L	300	NL	<10.0 U	**15.7**
6010C	MANGANESE	Total	ug/L	300	NL	<10.0 U	**15.1**
6010C	NICKEL	Dissolved	ug/L	100	NL	<40.0 U	<40.0 U
6010C	NICKEL	Total	ug/L	100	NL	<40.0 U	<40.0 U
6010C	POTASSIUM	Dissolved	ug/L	NL	NL	<5000 U	<5000 U
6010C	POTASSIUM	Total	ug/L	NL	NL	<5000 U	<5000 U
6010C	SELENIUM	Dissolved	ug/L	10	NL	<10.0 U	<10.0 U
6010C	SELENIUM	Total	ug/L	10	NL	<10.0 U	<10.0 U
6010C	SILVER	Dissolved	ug/L	50	NL	<10.0 U	<10.0 U
6010C	SILVER	Total	ug/L	50	NL	<10.0 U	<10.0 U
6010C	SODIUM	Dissolved	ug/L	20000	NL	**10200**	**10400**
6010C	SODIUM	Total	ug/L	20000	NL	**11200**	**10800**
6010C	THALLIUM	Dissolved	ug/L	NL	NL	<10.0 U	<10.0 U
6010C	THALLIUM	Total	ug/L	NL	NL	<10.0 U	<10.0 U
6010C	VANADIUM	Dissolved	ug/L	NL	NL	<50.0 U	<50.0 U
6010C	VANADIUM	Total	ug/L	NL	NL	<50.0 U	<50.0 U
6010C	ZINC	Dissolved	ug/L	NL	NL	**105**	**68.6**
6010C	ZINC	Total	ug/L	NL	NL	**43.0**	**51.0**
7470A	MERCURY	Dissolved	ug/L	0.7	NL	<0.20 U	<0.20 U
7470A	MERCURY	Total	ug/L	0.7	NL	<0.20 U	<0.20 U
SM5210B	BIOCHEMICAL OXYGEN DEMAND	Total	mg/L	NL	NL	<2.0 U	<2.0 U