2018 Third Quarter Groundwater Monitoring Report

July – September 2018

Claremont Polychemical Corporation Site

505 Winding Road
150 Winding Road (Groundwater Treatment Facility)
Old Bethpage, Nassau County, New York 11804
Contract/WA No. D0076025-28; Site No. 130015

Prepared for:

New York State
Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway Albany, New York 12233

October 1, 2018

This page is intentionally left blank

Contents

Tables

Figures

Attachments (following figures)

1 Introduction

This quarterly groundwater monitoring report prepared by Henningson, Durham & Richardson Architecture and Engineering, P.C. (HDR) presents groundwater sampling analytical results for the third quarter (July through September) of 2018 and supporting information on the history, groundwater extraction and treatment (GWE&T) system configuration and hydrogeologic conditions at the Claremont Polychemical Corporation Site (NYSDEC Site #130015); hereinafter referred to as CPC or the "Site" (Figure 1). The groundwater monitoring event and the preparation of this deliverable are part of the on-going site management activities associated with Work Assignment #28 under contract D007625 and includes the following:

- Brief overview of historical Site activities;
- Discussion of the on-site GWE&T system including discharge monitoring;
- Hydrological data;
- Brief description of the field activities;
- Analytical results of monitoring well sampling, specifically those for chlorinated volatile organic compounds (VOCs) including trends and plume evaluation; and
- Conclusions and Recommendations.

2 Site Background

2.1 Site History

Claremont Polychemical Corporation, a former manufacturer of pigments for plastics and inks, coated metal flakes, and vinyl stabilizers, operated at the Site from 1966 to 1980. According to the "Second Five-Year Review Report for Claremont Polychemical Corporation" prepared by the Environmental Protection Agency (EPA), dated March 2014, during its operation, CPC disposed of liquid waste in three leaching basins and deposited solid wastes and treatment sludges in drums or in aboveground metal tanks. The principal wastes generated were organic solvents, resins, and wash wastes (mineral spirits). A solvent recovery system (steam distillation), two pigment dust collectors and a sump were located inside the Process Building. Five concrete treatment basins, each with a capacity of 5,000 gallons which contained sediments and water, were to the west of the building. Six aboveground tanks, three of which contained wastes, were located east of the building. Other features included an underground tank farm, construction and demolition debris, dry wells and a water supply well (EPA 2014).

In 1979, the Nassau County Department of Health (NCDH) found 2,000 to 3,000 drums of inks, resins, and organic solvents throughout the Site during a series of inspections. Inspectors identified releases associated with damaged or mishandled drums in several areas including one larger release located east of the Process Building (referred to as the "spill area"). CPC sorted and removed the drums in 1980 (EPA 2014). In October 1980, the New York State Department of Environmental Conservation (NYSDEC) ordered CPC to commence clean-up activities at the Site. CPC did not perform the clean-up activities required by NYSDEC and CPC ceased operations at the Site in 1980 (EPA 2014). EPA proposed the Site for listing on the National Priorities List (NPL) in October 1984 (because of CPC's refusal to perform the clean-up) and CPC was subsequently listed on the NPL as a Superfund site in June 1986.

A Remedial Investigation Feasibility Study (RI/FS) was initiated in March 1988 under the oversight of the EPA. Surface and subsurface soil, groundwater, underground storage tanks, and the Process Building were sampled as part of the RI. The RI/FS reports were released to the public in August 1990. The RI/FS findings indicated that on-site soils contaminated with tetrachloroethylene (PCE), located in the former "spill area", constituted a potential threat to groundwater resources. The spill area is adjacent to and east of the former Process Building (Figure 1). Other VOCs including 2-butanone, toluene, xylene, 1,2-dichloroethene (DCE), trichloroethene (TCE), 1,1,1-trichloroethane (TCA), ethylbenzene, 1,2-dichloroethane (DCA), methylene chloride, and vinyl chloride were detected in groundwater at concentrations exceeding federal and state standards. EPA issued two Records of Decision (RODs) signed in September 1989 and September 1990 and two Explanations of Significant Differences (ESDs) signed in September 2000 and April 2003 since completion of the RI/FS. The operable units (OUs) addressed by the RODs and ESDs are described in Table 1.

Table 1 – CPC Operable Units

Operable Unit	Description	Status
OU-1	Treatment and removal of wastes in 14 underground storage tanks	14 USTs and contents removed. Achieved cleanup levels allowing for unlimited use and unrestricted exposure.
OU-2	Wastes stabilized during the Sept. 1988 removal action	Testing, consolidation, treatment, and disposal of wastes in containers and basins performed. Achieved unlimited use and unrestricted exposure, later changed to commercial/light industrial because of remaining contamination below the building. 2003 ESD added additional remedial actions for OU-2 under the former Process Building including an SVE system and using the building's concrete slab as a cap for cadmium contaminated soil.
OU-3	Soil contaminated with PCE at the "spill area"	Approximately 8,800 tons of PCE contaminated soils excavated, treated and backfilled on Site. Achieved cleanup levels allowing for unlimited use and unrestricted exposure.

Operable Unit	Description	Status
OU-4	Contaminated groundwater on the CPC property	Extraction and treatment of groundwater via metals precipitation, air stripping and carbon adsorption. On-site reinjection.
OU-5	Contaminated groundwater off of the CPC property.	Extraction and treatment of groundwater via air stripping and off-site reinjection using the Old Bethpage Landfill treatment system extraction wells south-southeast of the CPC Site.
OU-6	Decontamination of the former Process Building	Vacuuming and dusting surfaces, asbestos abatement, pressure washing walls and interior surfaces. Achieved cleanup levels allowing for unlimited use and unrestricted exposure.

A GWE&T system was installed on-site by the EPA and Army Corps of Engineers (ACOE) to hydraulically contain VOCs in groundwater as the OU-4 remedy. GWE&T system operation began in February 2000, reportedly pumping and treating over 400 gallons per day (gpd). SAIC Inc. operated and maintained the GWE&T system, collected plant effluent samples and performed quarterly groundwater sampling at 41 wells from 2000 to May 2011. In May 2011, the project was transferred from the ACOE/EPA to the NYSDEC. HRP Associates, Inc. performed the same scope of work as SAIC under contract to NYSDEC from May 2011 to August 2015. HDR, also under contract to NYSDEC, took over HRP's scope of work on September 1, 2015.

EPA issued an Explanation of Significant Differences (ESD) on September 29, 2000 that the Old Bethpage Landfill's (OBL) GWE&T was inadvertently capturing the CPC OU-5 off-site groundwater plume; therefore the OBL GWE&T would be used to capture the off-site plume instead of constructing a new treatment facility. At that time the Town of Oyster Bay owned and operated the OBL GWE&T (USEPA 2000).

The Town of Oyster Bay operated the OBL GWE&T under a Municipal Response Action Reimbursement Agreement for treating the contaminated groundwater associated with CPC OU-5 from January 1997 through January 2007, followed by a State Assistance Contract (SAC No. C303223) from January 2007 through 2017. The NYSDEC terminated the SAC with the Town of Oyster Bay in August 2016 in a Site Transfer Agreement that outlined the schedule, terms, and responsibilities of the transfer (NYSDEC 2016).

NYSDEC's Division of Environmental Remediation (DER) issued HDR Work Assignment (WA# 28) under contract D007625 for CPC OU-5. The purpose of the assignment was to transfer operations, maintenance, and monitoring of the OBL/CPC OU-5 GWE&T from Town of Oyster Bay's consultant Lockwood, Kessler & Barlett, Inc. (LKB) to HDR. In October 2016, the OU-4 GWE&T was shut down, and HDR took over the operation of the OBL/OU-5 GWE&T. At that time, NYSDEC had also given the Town of Oyster Bay permission to discontinue treatment for the OBL plume which involved shutting down recovery wells RW-1 and RW-2. HDR continued operations, maintenance and monitoring activities (collectively Site Management or SM) for CPC OU-5 consisting of former OBL GWE&T recovery wells RW-3, RW-4 and RW-5 for the period October 1, 2016 through February

28, 2018. Amendment #1 was approved April 16, 2018 for HDR to extend the operations and maintenance of the treatment facility through February 2019.

2.2 Location

The CPC site is located on a 9.5-acre parcel in an industrial section of Old Bethpage, Nassau County, New York (Figure 1). The former 35,000 square foot Process Building, demolished in 2012, was the only building historically on the property. The concrete slab from this building remains. The 5,200 square foot GWE&T system building was constructed as part of the OU-4 remedy. The OU-4 GWE&T system was shut down on October 1, 2016 and has not been in operation since that time.

The OU-5 GWE&T system is located across the street at 150 Winding Road within the Town of Oyster Bay Solid Waste Disposal Complex (OBSWDC). The OU-5 GWE&T system includes a groundwater recovery system, water conveyance system, discharge system, monitoring wells, air stripper, and a 3,100 square foot facility for monitoring and controlling the system. The treated effluent discharges to Recharge Basin No. 1 located west of the OBL. Secondary discharge is directed to a recharge basin west of the Bethpage State Park Black Course for golf course irrigation in the summer. The five extraction/recovery well pump houses (RW-1, RW-2, RW-3, RW-4 and RW-5) are located on the Bethpage Black Course (Figure 2).

The CPC Site lies approximately 800 feet west of the border between Nassau and Suffolk Counties and is accessed via Winding Road on the property’s western border. Adjacent properties include (Figure 1):

- South and Southeast - Bethpage State Park and golf course;
- East – State University of New York (SUNY) - Farmingdale Campus;
- West – OBSWDC and OU-5 GWE&T; and
- North – Commercial and Light Industrial.

The OBSWDC includes the closed OBL, solid waste transfer operations and the OU-5 GWE&T system currently operated by HDR under contract to NYSDEC. The Nassau County Fireman’s Training Center (FTC), which has also contributed to soil and groundwater contamination in the area, is located approximately 500 feet south of the OBL portion of the OBSWDC. FTC had a GWE&T system that ceased operations in 2013 having achieved the cleanup objectives. The closest residences are approximately one-half mile from the Site, immediately west of the OBL. The nearest public supply well is located 3,500 feet northwest of the Site.

2.3 Site Hydrogeological Setting

The CPC site is underlain primarily by sand with interbedded, discontinuous silt and lignitic clay lenses. Upper glacial aquifer deposits are mostly absent in the area, rather the Magothy Formation is the uppermost geologic unit with a thickness of approximately 750 feet. The Raritan clay below acts as a barrier between the Magothy and Lloyd aquifers.

Sixteen wells were added to the CPC monitoring program as a result of the transition on October 1, 2016 to the OU-5 GWE&T system (Figure 2). The first quarter 2018 synoptic water level round includes Nassau County DPW monitoring wells including the Fireman's Training Center wells to the west. A synoptic round of depth to groundwater measurements was collected on June 6, 2018 (Attachment B). The average water table elevation across the site is 59.67 feet (vertical datum NAVD88). Depths to groundwater (DTW) in June 2018 ranged from 24.79 feet (well MW-11B) to 104.14 feet (well EW-11D) below ground surface (bgs).

The "Claremont Polychemical Superfund Site Long-Term Groundwater Monitoring Old Bethpage, New York" report dated December 2001 prepared by SAIC indicated historical gradients ranging from 0.001-0.002 feet/year and horizontal flow velocities of 0.43 feet/day or 157 feet/year (Ebasco, 1990).

Groundwater contour maps produced from the June 2018 DTW measurements show that groundwater flows in the south-southeast direction in the shallow upper glacial aquifer (Figure 3). The contour map produced from wells screened in the deeper Magothy aquifer depicts a south-southeast flow direction (Figure 4 and 5). The recent contour maps are generally consistent with previous maps produced from the CPC wells and from investigations by others.

3 Groundwater Extraction and Treatment System

A description of the GWE&T system and a review of its contaminant recovery and hydraulic control effectiveness are provided below.

3.1 Groundwater Extraction and Treatment System Description

The OU-5 GWE&T system was originally designed to capture and treat organic contaminants associated with the contaminated groundwater plume identified as a result of the disposal of hazardous substances at the Old Bethpage Landfill site (NYDEC Site No. 130001). The system consists of groundwater recovery through three extraction wells, water conveyance, treatment via an air stripper and discharge to recharge basins. Each of the system components are discussed below.

GWE&T System Extraction Wells

The groundwater collection system originally consisted of five extraction wells known as RW-1, RW-2, RW-3, RW-4 and RW-5 approximately 800 feet apart located in Bethpage State Park Black Golf Course south of the CPC site (Figure 2). The recovery wells were designed with the total maximum pumping capacity of 1.76 million gpd and a designed flow of 1.5 million gpd to the treatment system (LKB, 1993). Table 2 provides extraction well screen intervals and total depths.

Table 2 – Extraction Well Construction Details

Well	Total Depth (ft)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
RW-1*	280	185	265
RW-2*	290	230	271

Well	Total Depth (ft)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)
RW-3	275	163	255
RW-4	270	147	250
RW-5	283	153	263

*RW-1 and RW-2 captured the OBL plume which has been remediated. These wells are no longer online or operated for purposes of groundwater remediation.

Recovery wells RW-1 and RW-2 were petitioned to be discontinued by the Town of Oyster Bay prior to the transition to HDR operating the OU-5 GWE&T (Town of Oyster Bay, 2016). These recovery wells historically had non-detectable or very low values for total VOCs, and did not capture the CPC off-site plume. The individual VOC results were lower than their Consent Decree and Class GA standards as stated in the LKB Quarterly Remedial Action Report dated June 2016. On October 2, 2016 at the direction of the NYSDEC, RW-1 and RW-2 were taken off-line.

Prior to October 2017, the system's average influent flow rate was 628 gallons per minute (gpm), or 904,396 gpd, and the average effluent flow rate was 624 gpm, or 899,233 gpd. In October 2017, pump failures stemming from a possible power surge resulted in substantial system downtime and, thus, decreased average flow rates for influent (539 gpm, or 775,450 gpd) and effluent (532 gpm, or 765,700 gpd). The suspected power surge also caused process control issues that precluded automatic operation of the system.

As such, the system was only run manually and only during working hours from November 2017 through July 2018. Average system flow rates on days when the system was operating were 1,080 gpm in July, 922 gpm in August, and 793 gpm in September. The restricted operation of the system in manual mode, along with the process alarms and interlock gauges not functioning required oversight of the facility while online. In early July, NYSDEC instructed HDR to add a second shift operator to accommodate NYS Parks, Recreation and Historic Preservation (Parks) request for additional irrigation water for the golf course. Also, recovery wells RW-1 and RW-2 were brought on-line to increase the water level in Basin 33 from which Parks obtains its irrigation water. On September 6, 2018, the control system was fully functional and RW-1 and RW-2 were taken off-line. Refer to the Monthly O&M reports for July through September 2018 for details on the status of GWE&T system upgrades, issues encountered, and impacts on system operations and performance.

<u>GWE&T System Path of Remediation</u>

Groundwater is pumped from five extraction wells; designated RW-1, RW-2, RW-3, RW-4 and RW-5, installed in 1992 at what was then the leading edge of the off-site VOC plume from the OBL. The combined flow from the five extraction wells is directed through common conveyance piping to the air stripper wet-well. A triplex pump arrangement delivers the collected groundwater into the top of the air stripper, which contains packing media. As the groundwater passes through and saturates the packing, it contacts air that is directed from the bottom of the air stripper via the blower. Dissolved VOCs pass from the liquid phase (groundwater) into the gas phase (air), and exit the stripper through a stack. Non-volatile organic compounds and inorganic contaminants, if any, are not removed by the treatment system.

The effluent is directed into a receiving wet-well, where another triplex pump arrangement delivers it to two recharge basins. The primary recharge basin, Recharge Basin No. 1, contains a system of eight diffusion wells and is located upgradient of the OBL. The secondary recharge basin is Town Recharge Basin No. 33, which is located on Winding Road west of the Bethpage Black Course. The secondary basin receives effluent in the summer that is used beneficially for watering the golf course.

The GWE&T system is staffed by a plant manager/operator working 40-hour weeks, and an autodialer (telemetry unit) is installed to contact the plant manager in case of plant alarms. Typical response time is 30 minutes. The plant manager can monitor the plant remotely from FactoryTalk View Site Edition Client control system and make adjustments to the system operations.

<u>GWE&T System Operating Permits</u>

Water Permit

The OU-5 GWE&T operates under a State Pollutant Discharge Elimination System (SPDES) permit equivalency dated October 24, 2012 which was valid until May 11, 2016. A permit equivalency renewal application was submitted to the NYSDEC Bureau of Water Permits on March 30, 2016, and is pending approval. Effluent Limitations and Monitoring Requirements outlined in the permit are enforced by the NYSDEC Division of Environmental Remediation, Remedial Bureau E.

Air Permit

An air permit is not required for the GWE&T system operation since 6 NYCRR Part 375-1.7 states that "no permit is required when the substantive compliance is achieved as indicated by the NYSDEC approval of the workplan." Emissions from the air stripper have historically been negligible and are compliant with air guideline concentrations.

3.2 Groundwater Extraction and Treatment System Performance Evaluation

3.2.1 Flow Rate

Since startup, the OU-4 GWE&T system treated more than approximately 2.41 billion gallons of groundwater associated with the CPC site until operation was suspended and transitioned to the OU-5 plant. The OU-5 GWE&T system historically operated at a rate of approximately one million gpd. During the first quarter of 2018 (January through March), the OU-5 GWE&T experienced substantial downtime, due to a suspected power surge and the resultant loss of continuous, automatic operations in the fourth quarter of 2017 followed by a faulty PLC in the first quarter of 2018. As such, the system processed only 7.14 million gallons at an average daily flow rate of 581 gpd for January, 224,455 gpd for February, and 241,778 gpd for March for the days in which the system was operating, compared to 34.9 million gallons at 381,589 gpd in the previous quarter. During the second quarter of 2018, the system processed 22.2 million gallons at an average daily flow rate of 313,000 for April, 356,909 for May, and 444,291 for June. In June, both RW-1 and

RW-2 were turned back on for part of the month, after having been off in both April and May. RW-1 was turned on daily from June 19 until the end of June. RW-2 was turned on only on June 29. During the third quarter of 2018, the system processed 66.7 million gallons at an average daily flow rate of 797,503 for July, 846,876 for August, and 1,129,630 for September. Daily flow readings are provided in the O&M reports submitted monthly to NYSDEC (refer to the September 2018 O&M report for the most recent data). A summary of the flow in each recovery well is included in Table 3.

Table 3 – Recovery Well Flow Summary for Third Quarter 2018

Location	July Total Flow (gallons)	August Total Flow (gallons)	September Total Flow (gallons)
RW-1	2,870,881	--	--
RW-2	4,331,730	--	--
RW-3	3,938,778	*	*
RW-4	3,706,173	*	*
RW-5	3,349,512	*	*
Total Influent	14,629,895	19,875,670	31,358,310
Total Effluent	7,529,000	19,478,157	30,500,000

* PLC and control system in various states of rewiring. The flow from each recovery well pump is not displayed or recorded until upgrade finalized.

The volume of treated water discharged by the GWE&T system to the recharge basins is determined daily from readings of the magnetic flow meter on the plant effluent line. The difference between the total influent and total effluent is due to a calibration error in the existing flow meters. The recharge basins are designed to receive 1.5 million gpd of effluent; during the third quarter of 2018, Basin 33 received on average approximately 625,078 gpd. Plant effluent is currently discharging to Recharge Basin No. 33 beginning on April 17, 2018 for the summer months. Plant effluent was directed to Recharge Basin No. 1 in the winter months.

3.2.2 Groundwater Extraction and Treatment System Contaminant Removal

To quantify the treatment system contaminant removal rate, HDR reviewed available GWE&T system influent and effluent analytical results from monthly operation and maintenance records. The OU-4 GWE&T system removed 8.1 kg during its 2016 operational period, and 947 kg cumulatively from 2002 until the first week of October 2016, when it was taken offline. Most of the mass removed by the OU-4 GWE&T system was TCE (749 kilograms or 1,651 pounds) and PCE (170 kilograms or 375 pounds). Since October 1, 2016, when HDR took over operations of the OU-5 GWE&T system, approximately 163.35 kilograms (360.13 pounds) of TCE and 20.11 kilograms (44.33 pounds) of PCE have been removed by the OU-5 system. The operator prior to October 1, 2016 did not calculate VOC load, or track the contaminants of concern cumulatively over time. The LKB reports provided to HDR did not include historical data for daily flow rates.

Table 4 – VOC Mass Removed per Quarter in 2017 and 2018 (kg)

	Quarter 2 2017	Quarter 3 2017	Quarter 4 2017	Quarter 1 2018	Quarter 2 2018	Quarter 3 2018	Cumulative Totals (Since HDR Assumed Operations)
OU-4 GWE&T	offline	offline	offline	offline	offline	offline	947
OU-5 GWE&T	40.16	50.55	15.24	1.64	4.54	12.12	170.13

3.2.3 Groundwater Extraction and Treatment System Discharge Monitoring

System effluent samples are collected quarterly for the following analyses: VOCs, semi-volatiles (BNA), metals, total dissolved solids (TDS), total Kjehldahl nitrogen (TKN), cyanide, and anions. Effluent data for select VOC compounds (PCE, TCE, and 1,1-DCE) and semi-volatiles (BNA) are analyzed to evaluate compliance with effluent discharge limits. Figure 6 shows that effluent concentrations for the main contaminants, PCE and TCE, were below permissible discharge limits of 5 µg/l at the OU-5 GWE&T system during the third quarter of 2018._In addition, the effluent concentrations of iron (575 µg/l) and manganese (185 µg/l) were both under the permissible levels of 600 µg/l in the third quarter of 2018. System effluent pH through the third quarter remained above or equal to the 6.50 su minimum requirement with average readings of 6.95 in July, 6.85 in August, and 6.74 in September. Refer to the September O&M report for additional information on remediation system performance and daily operations.

4 Groundwater Monitoring Program

A network of 43 monitoring wells is used to monitor the groundwater quality and effectiveness of the GWE&T system (Figure 2). On September 10-11, 2018, HDR sampled 41 of the 43 monitoring wells (SW-1 was dry at the time of sampling, and MW-6A had insufficient water to collect a sample). OU-4 monitoring wells sampled were DW-1, DW-2, EW-5, EW-7C, EW-7D, and WT-01. OU 5 wells sampled were BP-3A, BP-3B, BP-3C, EW-1A, EW-1B, EW-1C, EW-2A, EW-2B, EW-2C, EW-2D, EW-4A, EW-4B, EW-4C, EW-4D, EW-11D, EW-12D, EW-14D, LF-1, M-30B-R, MW-5B, MW-6B, MW-6C, MW-6D, MW-6E, MW-6F, MW-7B-R, MW-8A, MW-8B, MW-8C, MW-9B, MW-9C, MW-10D, MW-11A, MW-11B, and OBS-1. A description of the groundwater sampling event and results is provided below.

4.1 Hydrological Data

Depth to water measurements were collected on September 7, 2018 (see Attachment B). DTW during this event ranged from 26.03 feet bgs (at well MW-11B) to 105.05 feet bgs (at well EW-11D). Potentiometric surfaces were calculated by subtracting the DTW from each measurement from the top of casing elevation. HDR plotted the water levels and sketched the water table contours of the upper Magothy and the potentiometric surface in the middle and lower Magothy aquifers. These data show the groundwater flow direction is south-southeast at the water table (Figure 3), middle Magothy (Figure 4) and in the lower Magothy (Figure 5). The effect on the aquifer from pumping of the OU-5 extraction wells is observed from the slight bends in otherwise straight potentiometric surface contours nearest the OU-4 extraction wells in the upper and lower Magothy.

The potentiometric surface of the middle Magothy depicts a general south-southeast flow, with a notable pumping influence observed near and immediately down gradient from the OU5 recovery wells, RW-1 through RW-5 (Figure 4). Overall, groundwater elevations and inferred groundwater flow direction based on groundwater elevation contours were consistent with previous data.

4.2 Groundwater Sample Collection

The monitoring well and extraction well groundwater samples were collected on September 10-11, 2018. The groundwater samples were collected using passive diffusion bags (PDBs) inserted at mid-point in the screens in each monitoring well.[1] Each PDB bag was retrieved, pierced with a decontaminated sharp object and the water inside was collected in VOC vials with septum caps, and preserved with hydrochloric acid (HCl). The VOC vials are labeled, recorded on a chain of custody, and placed in a cooler with ice. New PDBs were installed at the mid-point of the screens of each monitoring well for the next scheduled sampling event.

Forty-four samples (including two field duplicates and one trip blank) were submitted to Test America Laboratory, of Edison, New Jersey, an NYSDOH ELAP-approved laboratory (#12028), to be analyzed for VOCs via EPA Method 8260. A list of wells sampled and analytical results are presented in Table 5 and Attachment A.

4.3 Groundwater Analytical Results

Third quarter 2018 groundwater sampling exceedances are summarized on Table 5 and are plotted in trend charts in Figures 7 through 27; process water sampling results are shown in trend charts in Figures 6 and 28.

[1] PDBs were first used for the May 2012 OU-4 sampling event. The fourth quarter of 2016 was the first time PDBs were used in OU-5 monitoring wells.

Table 5 – Monitoring Well VOC Exceedances – Third Quarter 2018

Well	PCE	TCE	cis-1,2-DCE	1,1-DCE	1,1,1-TCA	1,2-DCA	1,1-DCA	Benzene	Chloro benzene	1,4 Dichloro benzene
BP-3B	**150**	**7.9**	**45**	0.50 J	0.64 J	ND	**5.0**	ND	ND	ND
BP-3C	**150**	**8.2**	**46**	0.44 J	0.53 J	ND	**5.1**	ND	ND	ND
DW-1	**6.5**	1.5	**11**	ND	ND	ND	ND	ND	ND	ND
EW-2C	0.3 J	4.0	0.46 J	0.14 J	ND	ND	ND	ND	ND	ND
EW-2D	0.53 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
EW-4A	**19**	4.9	**73**	0.12 J	ND	ND	ND	ND	ND	ND
EW-4B	1.1	**5.8**	0.33 J	0.19 J	ND	ND	ND	ND	ND	ND
EW-4C	**9.5**	**50**	1.2	0.22 J	0.30 J	ND	ND	ND	ND	ND
EW-4D	**6**	1.2	ND	ND	ND	ND	ND	ND	ND	ND
EW-7C	**10**	**200**	3.4	0.34 J	0.47 J	ND	0.31 J	ND	ND	ND
EW-12D	**28**	**290**	**8.8**	**5.5**	4.0	ND	2.7	ND	ND	ND
EW-14D	2.6	**100**	0.84 J	**8.7**	**7.6**	**2**	0.28 J	ND	ND	ND
MW-06B	ND	ND	0.38 J	ND	ND	ND	ND	0.88 J	2.5	2.1
MW-06C	ND	ND	0.66 J	ND	ND	ND	ND	ND	0.40 J	ND
MW-06D	ND	ND	ND	ND	ND	ND	ND	0.56 J	1.1	**3.7**
MW-06E	ND	ND	ND	ND	ND	ND	ND	**4**	**9.4**	ND
MW-7B-R	**11**	**390**	**23**	4.7	3.5	ND	0.57 J	ND	ND	ND
MW-08A	4.3	0.42 J	0.38 J	ND	ND	ND	ND	ND	ND	ND
MW-09B	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND
MW-10D	0.82 J	1.1	0.26 J	ND	ND	**0.68 J**	ND	ND	ND	ND
MW-11A	3.0	4.3	**37**	0.62 J	0.64 J	ND	4.5	ND	ND	ND
MW-11B	ND	1.0	**20**	0.99 J	1.3	ND	**5.5**	ND	ND	ND

Results units are µg/l. Bold, underlined, italicized results are exceedances of the NYSDEC Part 703 Class GA criteria. See Attachment A for complete analytical results and comparison criteria. PCE – tetrachloroethylene; TCE – trichloroethylene; cis-1,2-DCE – cis-1,2-dichloroethylene; 1,1-DCE – 1,1-dichloroethene; 1,1,1-TCA – 1,1,1-trichloroethane; 1,2-DCA – 1,2-dichloroethane; 1,1-DCA – 1,1-dichloroethane; ND – not detected; J – estimated value.

4.3.1 Evaluation of Plumes

The groundwater contamination distribution was evaluated by creating sample location pie chart figures for the contaminants PCE, TCE, 1,1-Dichloroethene, trans-1,2-Dichloroethene, cis-1,2-Dichloroethylene, and vinyl chloride in cross section (Figures 31 and 32) and plan view (Figure 33). The horizontal and vertical distribution of PCE and TCE continues to demonstrate a shallow PCE plume comingled with a deeper TCE plume. Figures 29 and 30 depict the horizontal plume location with isoconcentration lines in plan view for PCE and TCE.

OU-4 on-site plume. This plume originates on the CPC site with the highest PCE concentrations historically measured at well SW-1, a water table well. Currently, the on-site plume is predominantly PCE with concentrations an order of magnitude greater than those of TCE (Figure 8). In 2015, PCE showed an increasing trend in well SW-1, with spikes in the second quarter (210 µg/l) and in the fourth (190 µg/l). However in 2016, the PCE concentration steadily decreased from 150 µg/l during the first quarter down to 30 µg/L in the fourth. SW-1 has not been sampled since 2016 due to it being dry. At well EW-4C, TCE is the dominant contaminant of concern and decreased from 110 µg/l in the first quarter of 2017 to 9.5 µg/l in the third quarter of 2018 (Figure 12).

Off-site plume upgradient of CPC site. This plume—which was partially captured by the OU-4 GWE&T during its operational period—is detected as far upgradient as the EW-7-series well cluster and stretches to the southeast into OU5 as far as well MW-7B-R. The plume is predominantly TCE, with TCE concentrations typically an order of magnitude greater than those of PCE (Figures 14 and 15). TCE-dominant wells include: EW-7C, EW-7D, EW-4B, EW-12D, EW-14D, MW-7B-R, EW-5, EW-1C, and EW-1B. In the first quarter of 2018, TCE concentrations decreased from 250 µg/L (fourth quarter of 2017) to 200 µg/l, and then to 95 µg/L in the second quarter. TCE concentrations returned to 200 µg/L in the third quarter of 2018. The overall trend in TCE concentrations since 2011 has been decreasing in the EW-7 well cluster (Figure 14 and 15). MW-7B-R has the highest TCE concentration compared to other wells in the second and third quarters of 2018 at 270 µg/l and 390 µg/l respectively. MW-7B-R TCE concentrations have been generally trending downward since the OU-4 plant was shut down.

Well EW-14D. Groundwater contamination at EW-14D is high in TCE, similar to the off-site, upgradient plume (see Figure 18). The PCE concentration is below the criterion of 5 µg/l. Well EW-14D has the greatest variability in TCE concentrations of all of the wells. In the first quarter of 2018, concentrations decreased to 29 µg/l (from 250 µg/l in the fourth quarter of 2017), increased to 59 µg/l in the second quarter, and further increased to 100 µg/l in the third quarter (Figure 18).

Southern Area. This location is centered on the BP-3 series wells far south of the CPC site (Figures 19 through 21). The PCE concentrations at all three wells are higher than those for TCE. In BP-3A, concentrations were below the criterion of 5 µg/l for both PCE and TCE in the third quarter of 2018 (Table 5). The source of groundwater contamination at the BP-3 series wells is currently being investigated.

Cross Sections. Two cross section figures depict the contaminants of concern along two transects (Figures 31 and 32). Cross section A-A' (Figure 31) begins at DW-1 and continues along the direction of groundwater flow (south-southeast) to the BP-3-series wells. The PCE-dominant plume is at a higher elevation than the TCE-dominant plume in the vicinity of the CPC site and moves south-southeast to well MW-08A. PCE is detected deeper in the BP-3-series wells, which are the farthest downgradient wells from the CPC site.

Cross section B-B' (Figure 32) begins east of A-A' at the EW-7-series wells and continues along the direction of groundwater flow to well MW-7B-R. PCE concentrations observed in wells in this cross section are below the 5 µg/l standard in the EW-2 series wells and at wells DW-2, EW-5, EW-4B, EW-4D, and EW-7D.

4.3.2 Comparison to Historical Groundwater Quality

Figures 6 through 28 illustrate the historical trends for VOC concentrations in multiple wells. Table 6 summarizes the concentration trends of PCE and TCE in each of the wells.

Table 6 – PCE and TCE Concentration Trends in Select Monitoring Wells

Well	Screen Depth	Location	PCE Trend	TCE Trend	Figure
CPC Plume Wells					
DW-1	93-98	South-southwest of CPC	Increasing	Slightly decreasing	Figure 7
EW-1A	65-75	Southwest of CPC	Slightly decreasing	Slightly increasing	Figure 8
EW-5	165-175	South-southeast of CPC	Slightly increasing	Decreasing	Figure 9
Off-Site Plume(s) Wells					
EW-4A	100-115	East of CPC	Increasing	Increasing	Figure 10
EW-4B	120-130	East of CPC	Slightly decreasing	Slightly decreasing	Figure 11
EW-4C	145-155	East of CPC	Increasing	Slightly decreasing	Figure 12
EW-4D	285-295	East of CPC	Slightly Decreasing	Decreasing	Figure 13
EW-7C	189-199	Upgradient, North of CPC	Slightly decreasing	Slightly decreasing	Figure 14
EW-7D	273-283	Upgradient, North of CPC	Decreasing	Decreasing	Figure 15
MW-10D	346-351	Southeast of CPC	Decreasing	Decreasing	Figure 16
EW-12D	209-219	East of CPC	Increasing	Increasing	Figure 17
EW-14D	185-195	Southeast of CPC	Slightly increasing	Slightly decreasing	Figure 18
BP-3A	54-74	South-southeast of CPC	Slightly decreasing	Slightly decreasing	Figure 19
BP-3B	215-235	South-southeast of CPC	Increasing	Increasing	Figure 20
BP-3C	280-300	South-southeast of CPC	Increasing	Slightly decreasing	Figure 21
MW-11A	140-145	South-southeast of CPC	Increasing	Increasing	Figure 22
MW-11B	240-245	South-southeast of CPC	Slightly increasing	Slightly increasing	Figure 23
MW-7B-R	230-235	South-southeast of CPC	Decreasing	Decreasing	Figure 24
Extraction Wells and Plant Influent					
RW-3	163-255	Extraction well south-southeast of CPC	Decreasing	Decreasing	Figure 25
RW-4	147-250	Extraction well south-southeast of CPC	Decreasing	Decreasing	Figure 26

Well	Screen Depth	Location	PCE Trend	TCE Trend	Figure
RW-5	153-263	Extraction well south-southeast of CPC	Decreasing	Decreasing	Figure 27
ASF-CP	NA	Plant influent	Slightly decreasing	Increasing	Figure 28

Decreasing trends indicate mass removal from groundwater in the area around the well. Increasing and stable trends indicate partial capture and/or additional source(s) contributing to groundwater contamination in the area of the well.

5 Conclusions and Recommendations

5.1 Conclusions

The third quarter 2018 groundwater monitoring event at the CPC site covering both OU-4 and OU-5 included collection of 43 groundwater samples (41 normal and 2 field duplicates from 41 groundwater monitoring wells). Analysis of the data has resulted in the following conclusions:

- A groundwater plume of VOCs, primarily PCE, originates proximate to the former Process Building (on-site plume). The OU-4 GWE&T system previously captured most of the PCE plume, reducing the concentration of site contaminants in groundwater. HDR is monitoring the well network to observe the effects of the OU-4 shut down. No conclusions on the capture of the CPC PCE plume can be made until the Remedial System Optimization task is conducted.
- An off-site, upgradient plume consisting mostly of TCE originates to the north or northwest of the former CPC site. The TCE contamination was only partially captured by the CPC OU-4 GWE&T system. This system was turned off the first week in October 2016.
- 12.12 kilograms (26.72 pounds) of total VOCs were removed during the third quarter of 2018 via operation of the OU-5 GWE&T system. This removal rate and that of the first and second quarters of 2018 (1.64 kg or 3.62 pounds and 4.54 kg or 10.01 pounds, respectively) are significantly lower than each of the four quarters of 2017 (average 33.92 kg, or 78.78 pounds per quarter). This is due to the reduced system uptime and flow rates following breakdowns of various system components and running the system in manual mode.
- Contaminant concentrations in effluent groundwater samples collected during the reporting period met discharge limits.
- The results from the third quarter 2018 groundwater sampling event show the following compounds detected above the NYSDEC Part 703 Class GA groundwater criteria: PCE, TCE, cis-1,2-DCE, 1,1-DCE, 1,1,1-TCA, 1,2-DCA, 1,1-DCA, 1,4-dichlorobenzene, benzene, 1,4-dichlorobenzene, and chlorobenzene.
- In BP-3C, PCE concentrations have been stable at 60 µg/L, 65 µg/L and 50 µg/l in the first, second and third quarters, respectively.

- In 2016, monitoring well EW-12D exhibited significant contaminant concentration increases between the third and fourth quarter, including cis-1,2-DCE from 2.3 µg/l to 17 µg/l, PCE from 3.3 µg/l to 35 µg/l, TCE from 17 µg/l to 210 µg/l, and TCA from 3.1 µg/l to 37 µg/l. These results were the highest concentrations since 2011, which is the earliest data made available to HDR. In 2018, PCE increased to 27 µg/L in the first quarter, fell to 16 µg/L in the second quarter, and increased to 28 µg/l in the third quarter. Cis-1,2-DCE concentrations were stable at 8.3 µg/L, 5 µg/L and 8.8 µg/l in the first, second and third quarters of 2018, respectively. TCA concentrations have also been stable at 4.2 µg/L, 2.7 µg/L and 4 µg/l. TCE concentrations varied substantially from 240 µg/L in the first quarter, 110 µg/L in the second, and 290 µg/l in the third quarter.
- The highest TCE concentration in monitoring well MW-7B-R was 900 µg/l in the first quarter of 2017. The concentration decreased during each successive quarter of 2017, down to 170 µg/l in the first quarter of 2018, up to 270 µg/L in the second quarter, and increasing to 390 µg/l in the third quarter of 2018.
- The groundwater flow at the site is predominately south-southeast with no regionally significant changes observed from the flow direction during operation of the OU-4 GWE&T system.

5.2 Recommendations

In order for the GWE&T system to continue to operate effectively, HDR recommended replacement of components of the OU-5 GWE&T system to achieve continuous operations without run-time interruption, with the highest priority repair being the PLC control and communication system. This work is nearing completion. The surge protector system was replaced and is functioning. Replacement/re-packing of process pump seals was also completed.

Once the above activities have been completed, the Remedial System Optimization task can proceed to refine the limits of the system capture zone.

6 References

Ebasco Services Inc. “Draft final remedial investigation report, Claremont Polychemical Superfund Site, Old Bethpage, New York.” Lyndhurst, NJ, 1990.

Ebasco Services Inc. “Draft final feasibility study, Claremont Polychemical Superfund Site, Old Bethpage, New York.” Lyndhurst, NJ, 1990.

Lockwood Kessler and Bartlett (LB). “Groundwater Remediation Program at the Old Bethpage Solid Waste Disposal Complex Operations and Maintenance Manual” Town of Oyster Bay, NY, 1993.

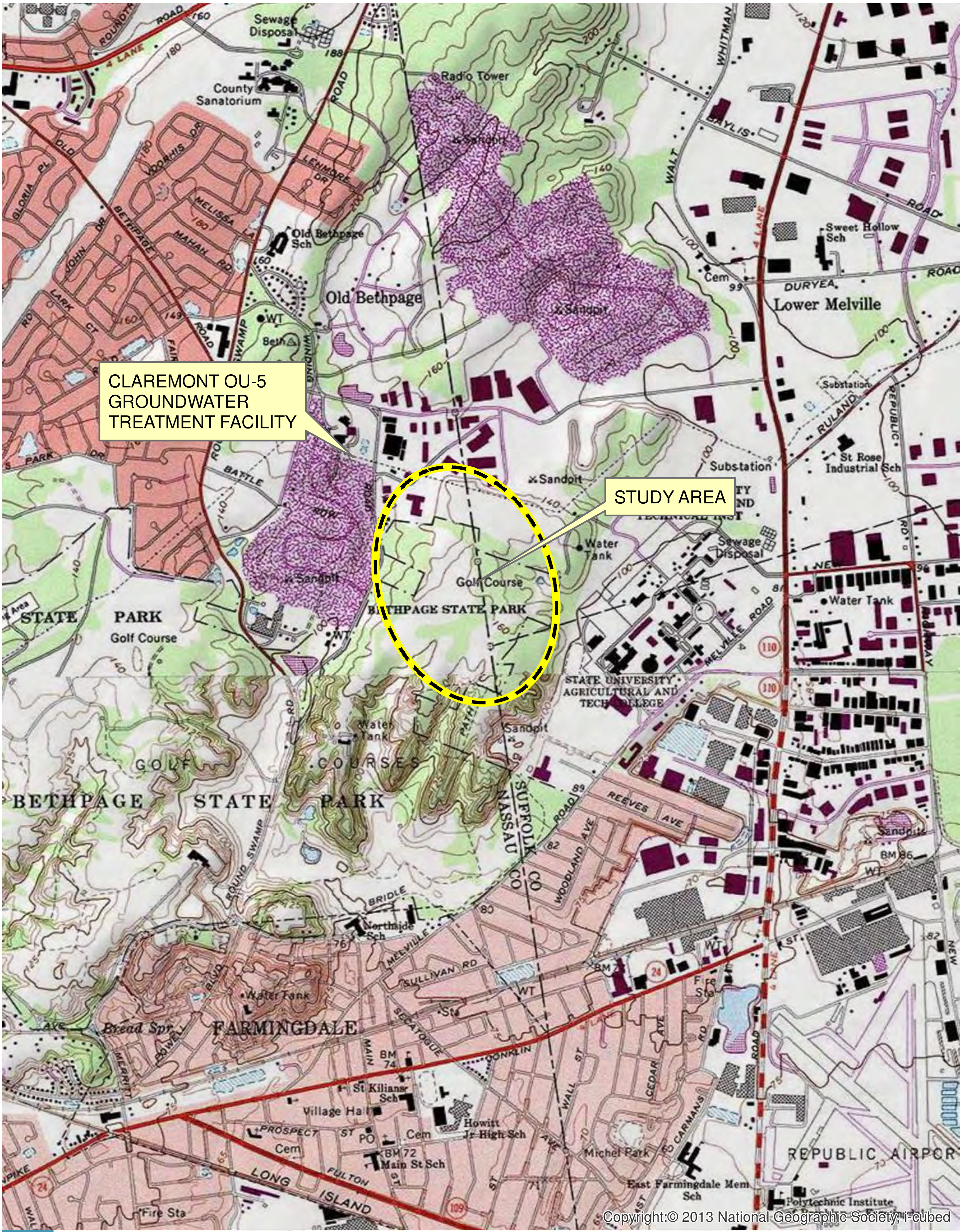
NYSDEC, “Stipulation agreement Between the New York State Department of Environmental Conservation, and The Town of Oyster Bay, for Transfer of Remedial Action responsibilities, as outlined in State Assistance Contract No. C303223, to State-Lead Operation and Maintenance, for the Claremont Polychemical Site, Operable Unit – Five” New York, 2016.

US Army Corps of Engineers. “Claremont Polychemical Superfund Site Long-term Groundwater Monitoring Old Bethpage, New York.” 2001.

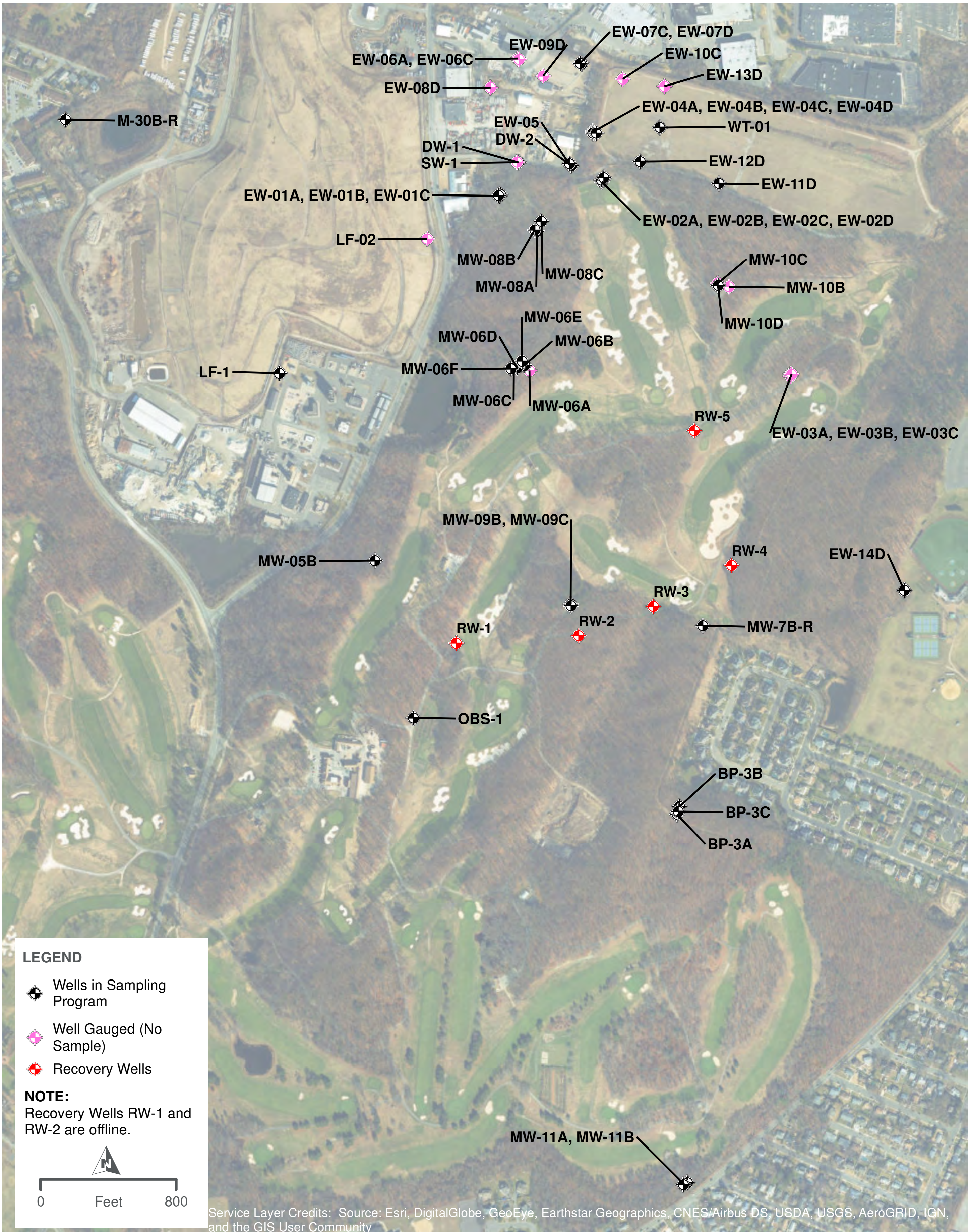
US Environmental Protection Agency, Region 2. “Explanation of Significant Differences Claremont Polychemical Corporation Superfund Site, Town of Oyster Bay, Nassau County, New York.” New York, NY, 2001.

US Environmental Protection Agency, Region 2. “Explanation of Significant Differences Claremont Polychemical Corporation Superfund Site, Town of Oyster Bay, Nassau County, New York.” New York, NY, 2003.

US Environmental Protection Agency. “Second Five-Year Review Report for the Claremont Polychemical Corporation Superfund Site.” New York, NY, 2014.



CLAREMONT OU-5
GROUNDWATER
TREATMENT FACILITY
STUDY AREA
Old Bethpage
Lower Melville
Radio Tower
County Sanatorium
Sewage Disposal
Old Bethpage Sch
Sweet Hollow Sch
St Rose Industrial Sch
Golf Course
BETHPAGE STATE PARK
STATE PARK
GOLF COURSES
BETHPAGE STATE PARK
STATE UNIVERSITY AGRICULTURAL AND TECH COLLEGE
SUFFOLK CO
NASSAU CO
FARMINGDALE
Northside Sch
St Kilians Sch
Village Hall
Howitt Jr High Sch
Main St Sch
Michel Park
East Farmingdale Mem Sch
Polytechnic Institute
REPUBLIC AIRPOR
Water Tank
Sandpit
Copyright:© 2013 National Geographic Society, i-cubed



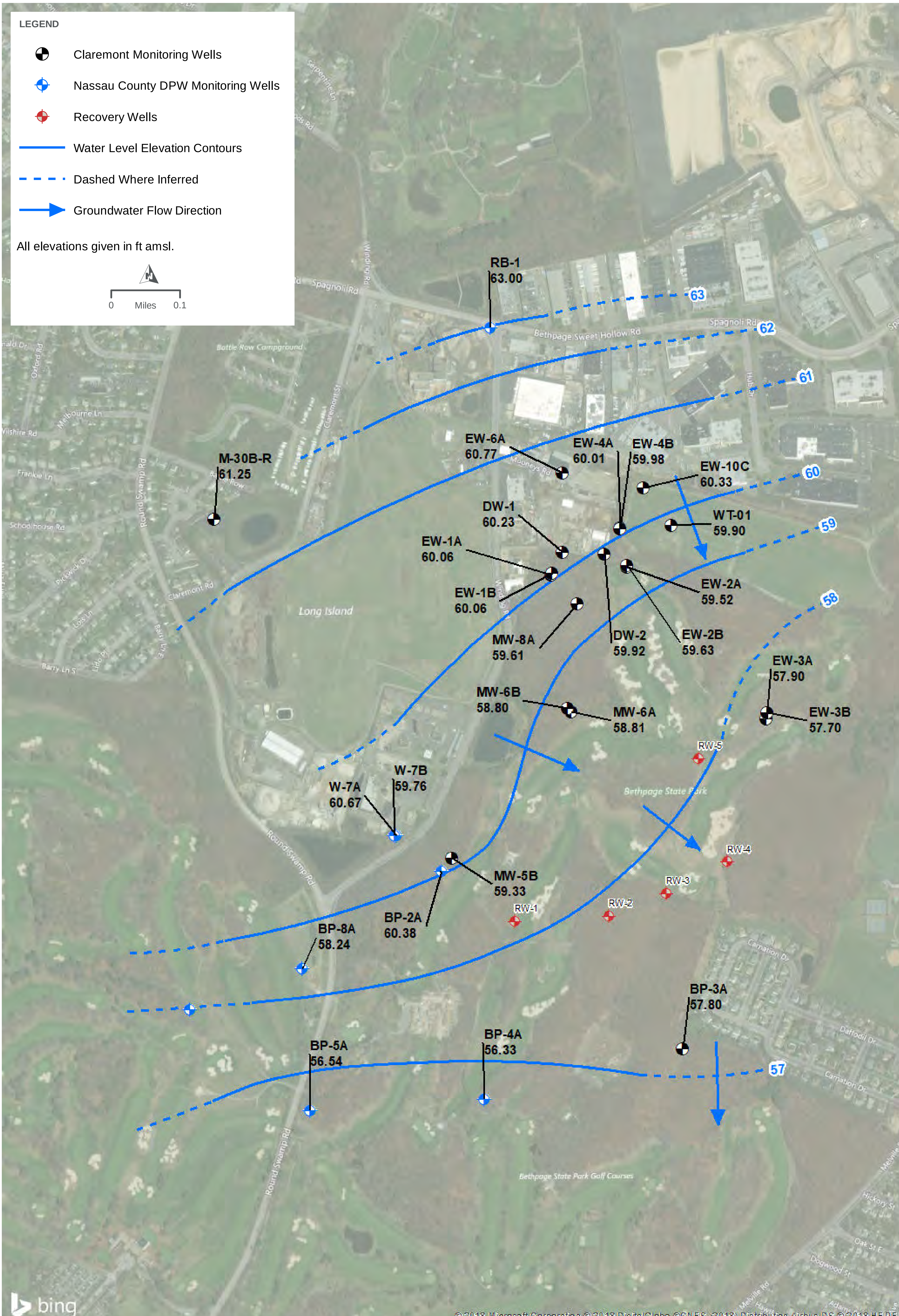
HDR
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

WELLS SAMPLED

CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 2

PATH: \\NJ-MAHWAH\ACTIVEPROJECTS\275962\7.0_GIS_MODELS\7.2_WORK_IN_PROGRESS\MAP_DOCS\2018_Q3\FIG2_SAMPLELOCATION.MXD - USER: CWEAVER - DATE: 10/3/2018



FDR

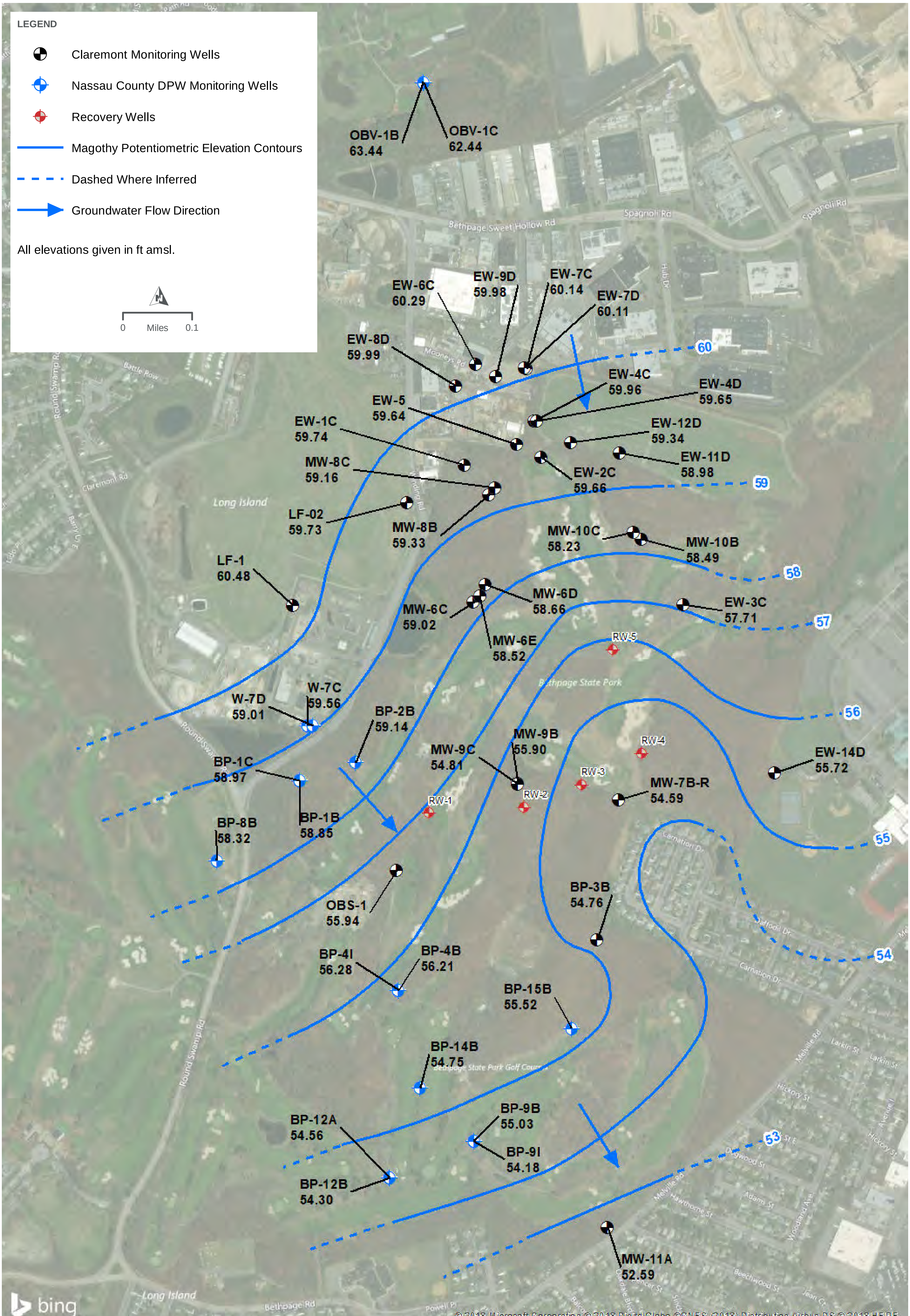
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SEPTEMBER 2018 POTENTIOMETRIC SURFACE - UPPER MAGOTHY

CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 3

PATH: \\NJ-MAHWAH\ACTIVEPROJECTS\275962\7.0_GIS_MODELS\7.2_WORK_IN_PROGRESS\MAP_DOCS\2018_Q3\FIG3_WATERTABLE_UPPERMAGOTHY.MXD - USER: CWEAVER - DATE: 10/24/2018



FDR

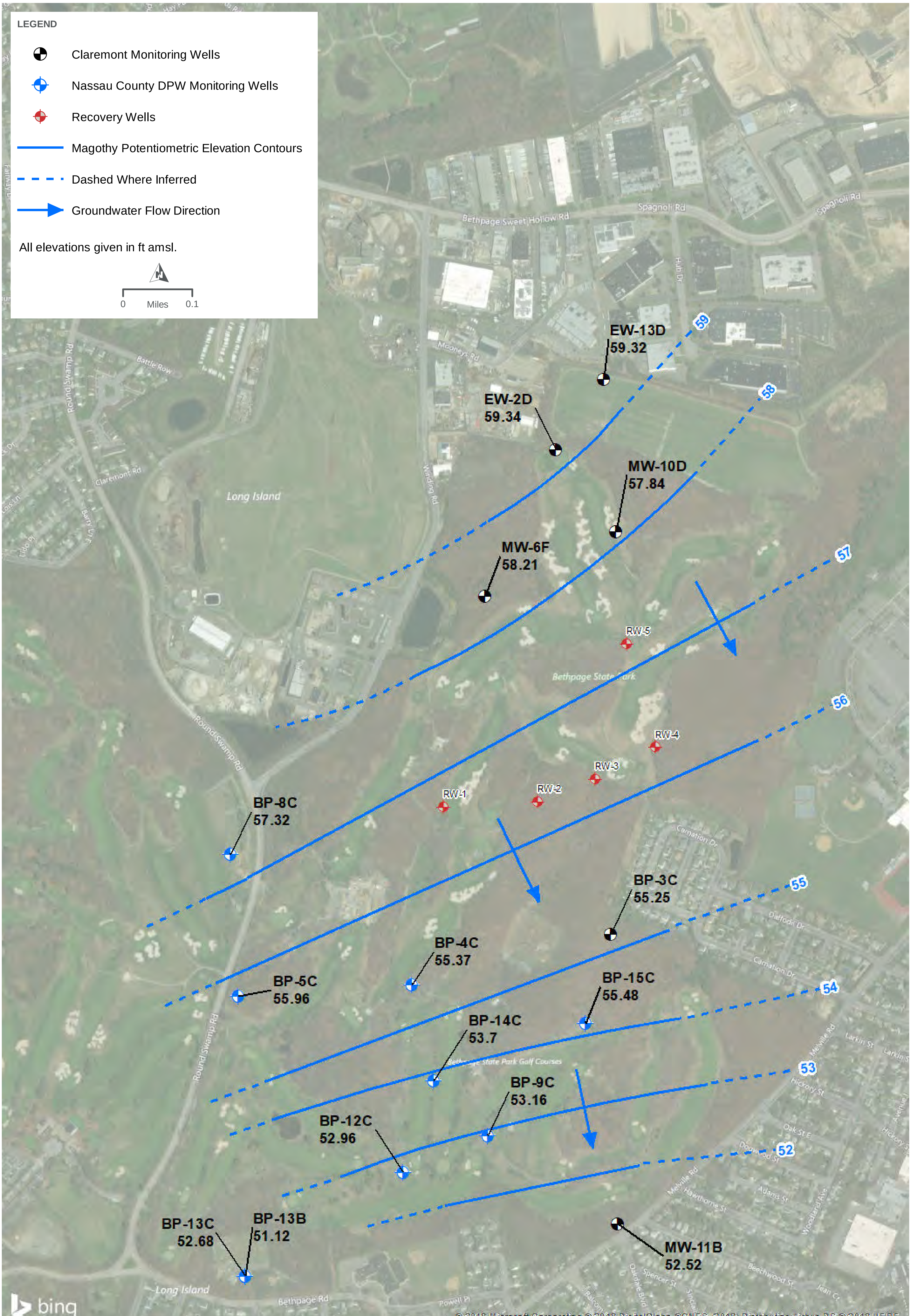
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SEPTEMBER 2018 POTENTIOMETRIC SURFACE - MIDDLE MAGOTHY

CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 4

PATH: \\NJ-MAHWAH\ACTIVEPROJECTS\275962\7.0_GIS_MODELS\7.2_WORK_IN_PROGRESS\MAP_DOCS\2018_Q3\FIG4_WATERTABLE_MIDDLEMAGOTHY.MXD - USER: CWEAVER - DATE: 10/24/2018



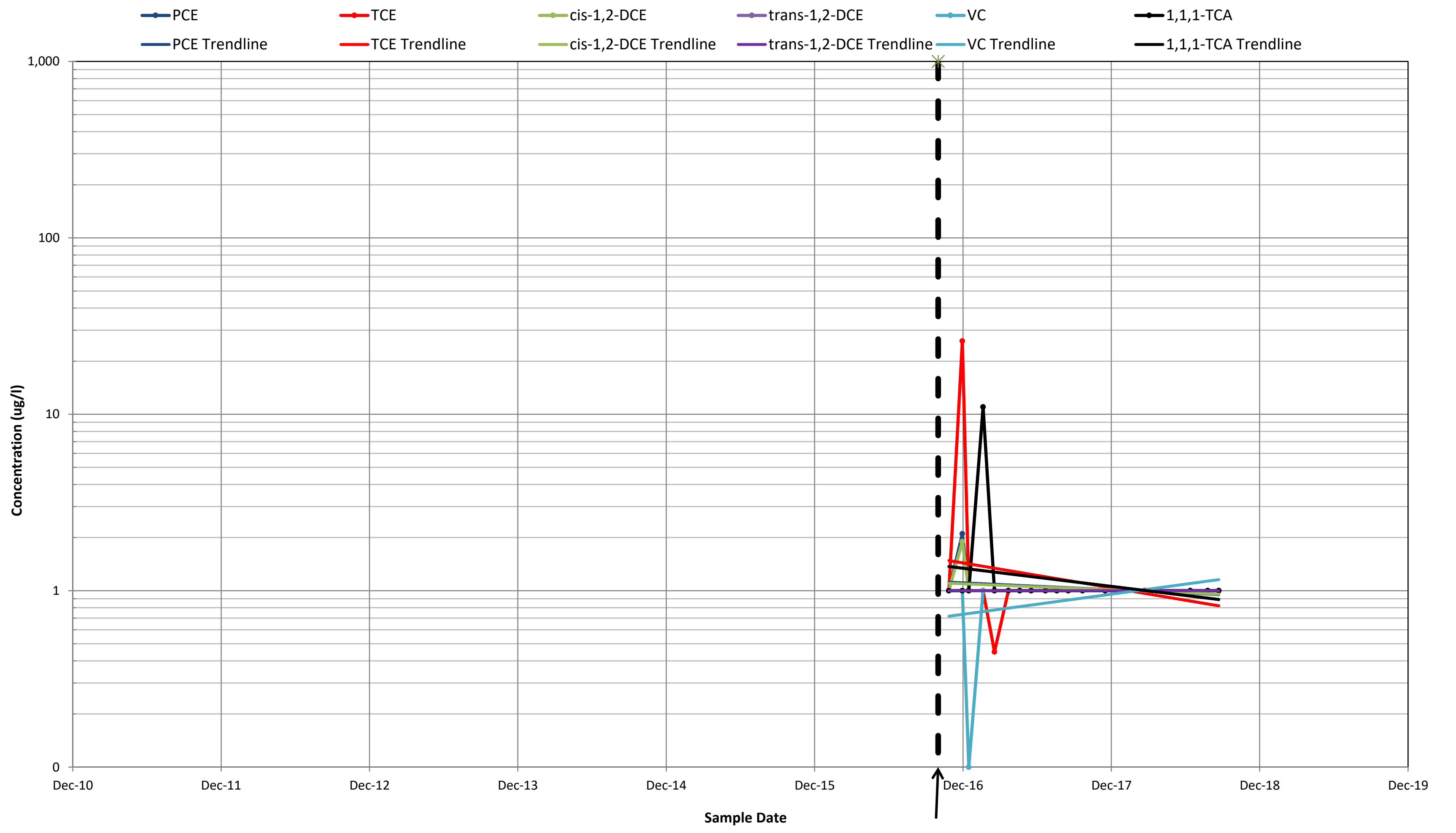
FDR | NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

SEPTEMBER 2018 POTENTIOMETRIC SURFACE - LOWER MAGOTHY

CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 5

PATH: \\NJ-MAHWAH\ACTIVEPROJECTS\275962\7.0_GIS_MODELS\7.2_WORK_IN_PROGRESS\MAP_DOCS\2018_Q3\FIG5_WATERTABLE_LOWERMAGOTHY.MXD - USER: CWEAVER - DATE: 10/24/2018



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

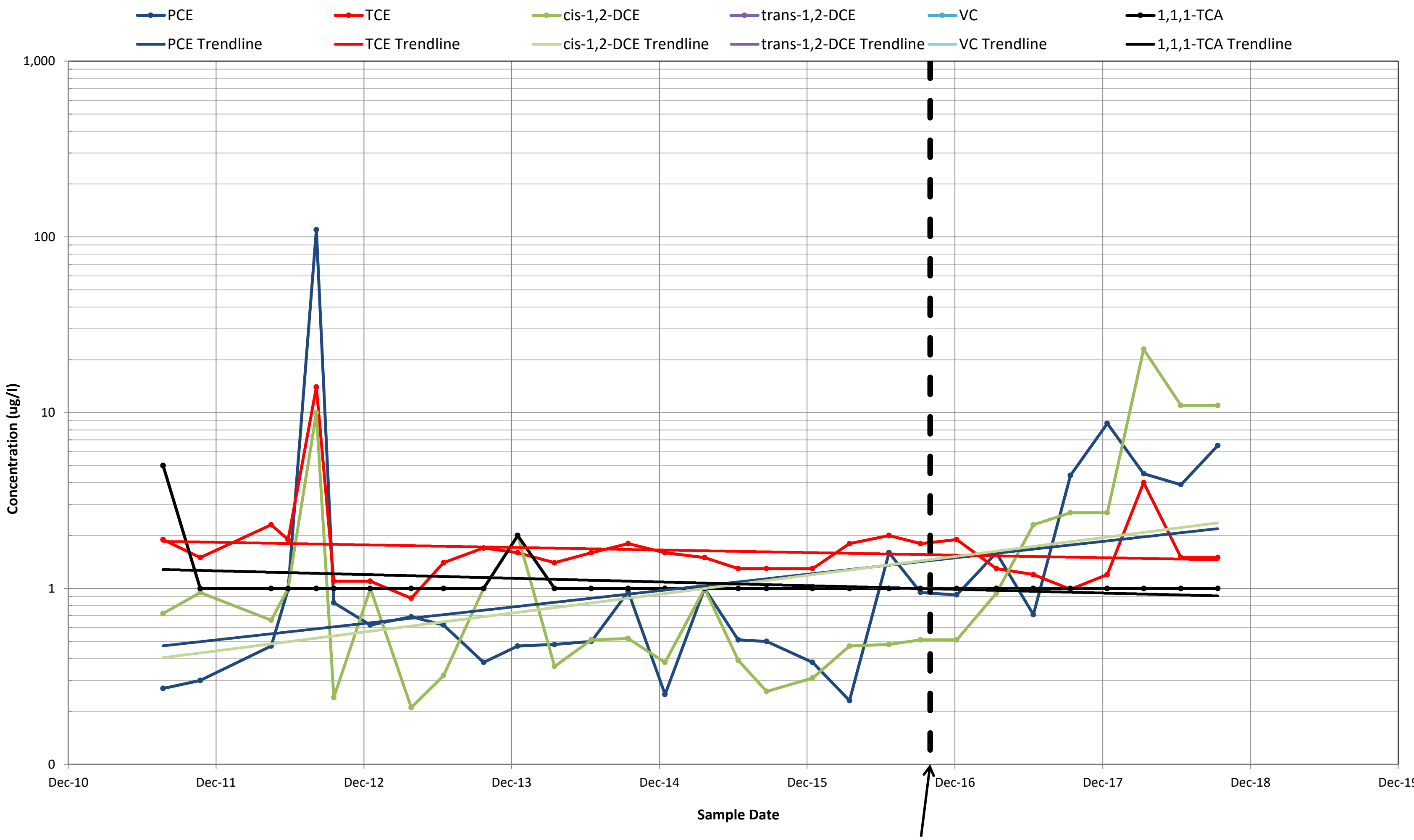
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
EFFLUENT
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
6



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

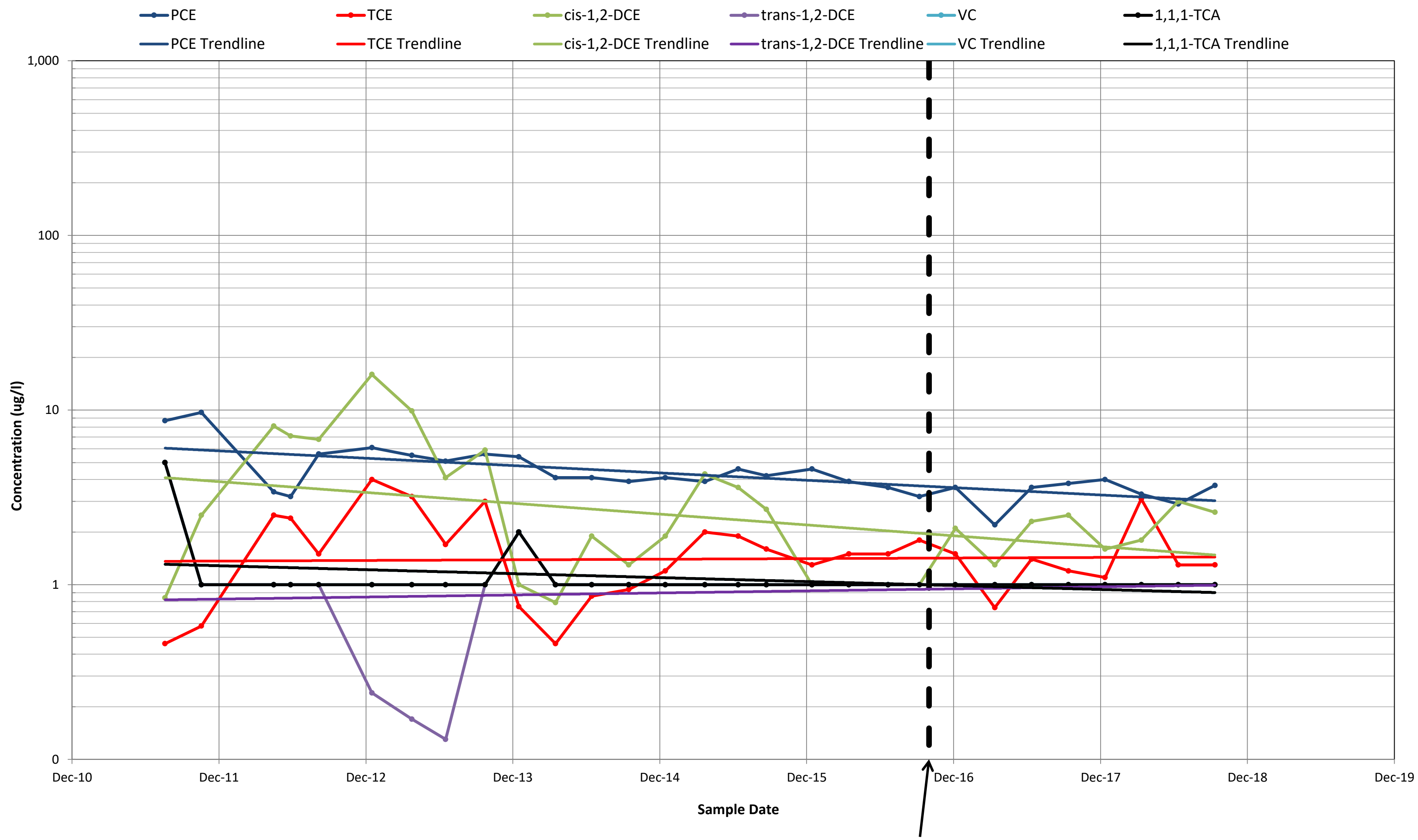
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL DW-1
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
7



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

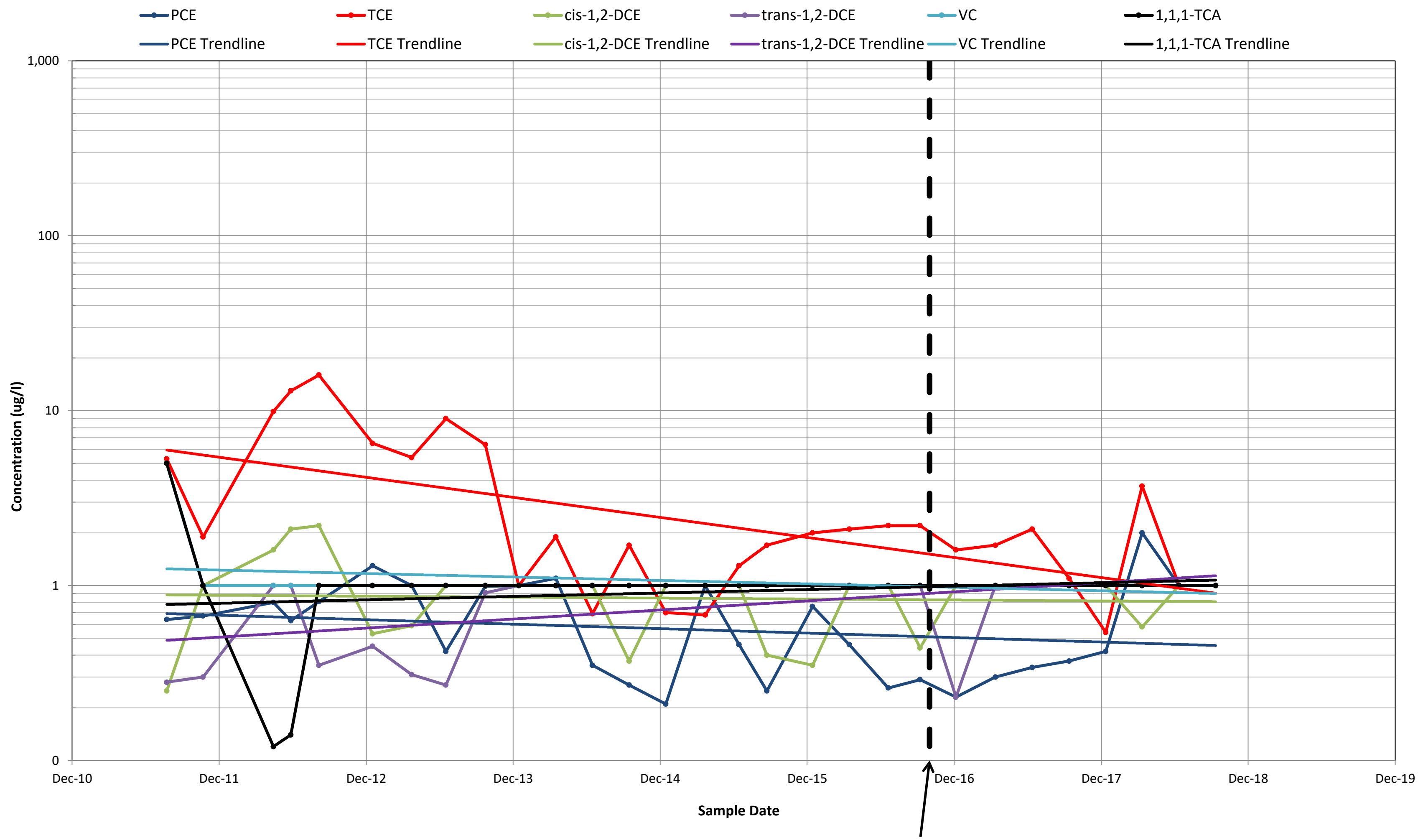
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL EW-1A
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
8



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

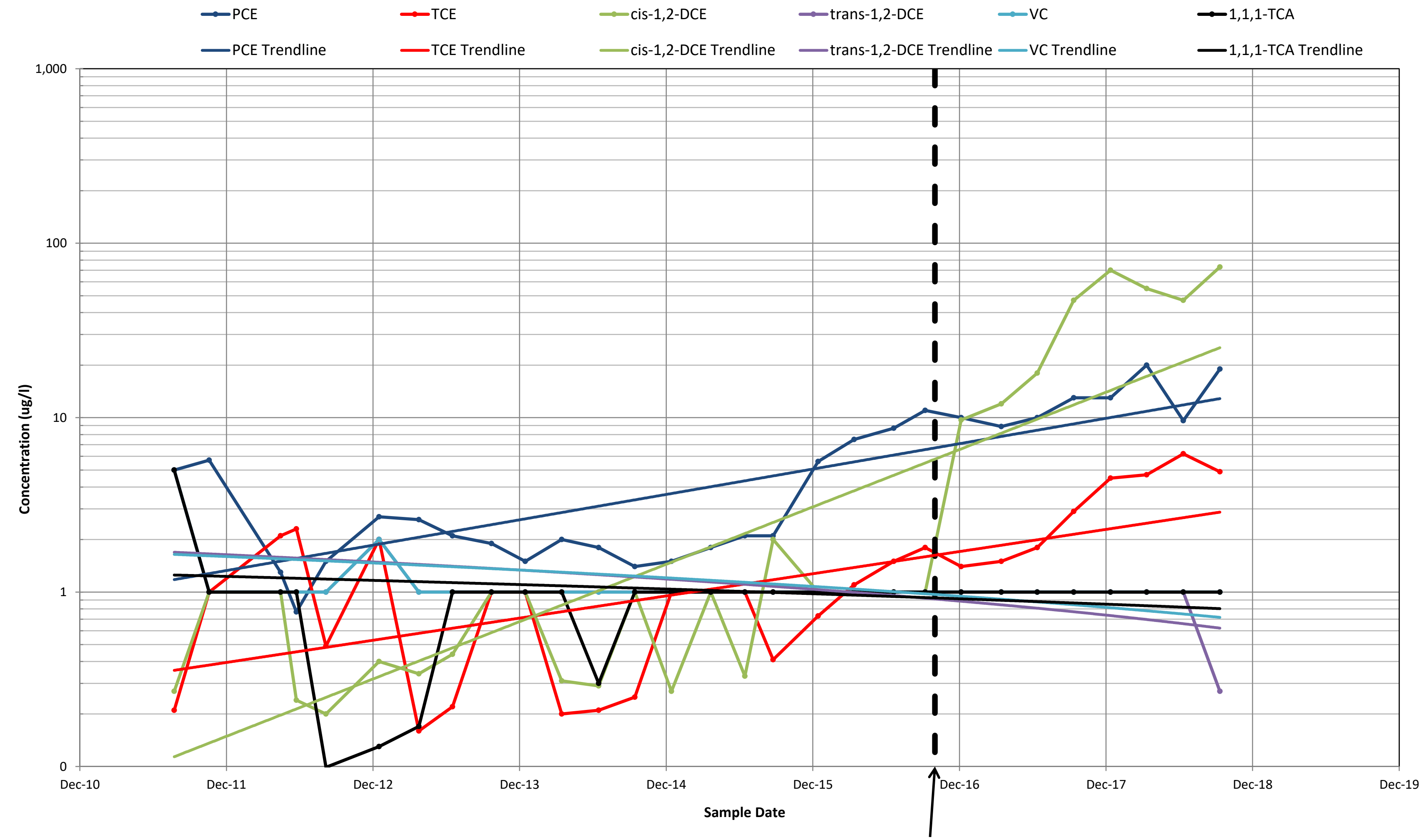
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL EW-5
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
9



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

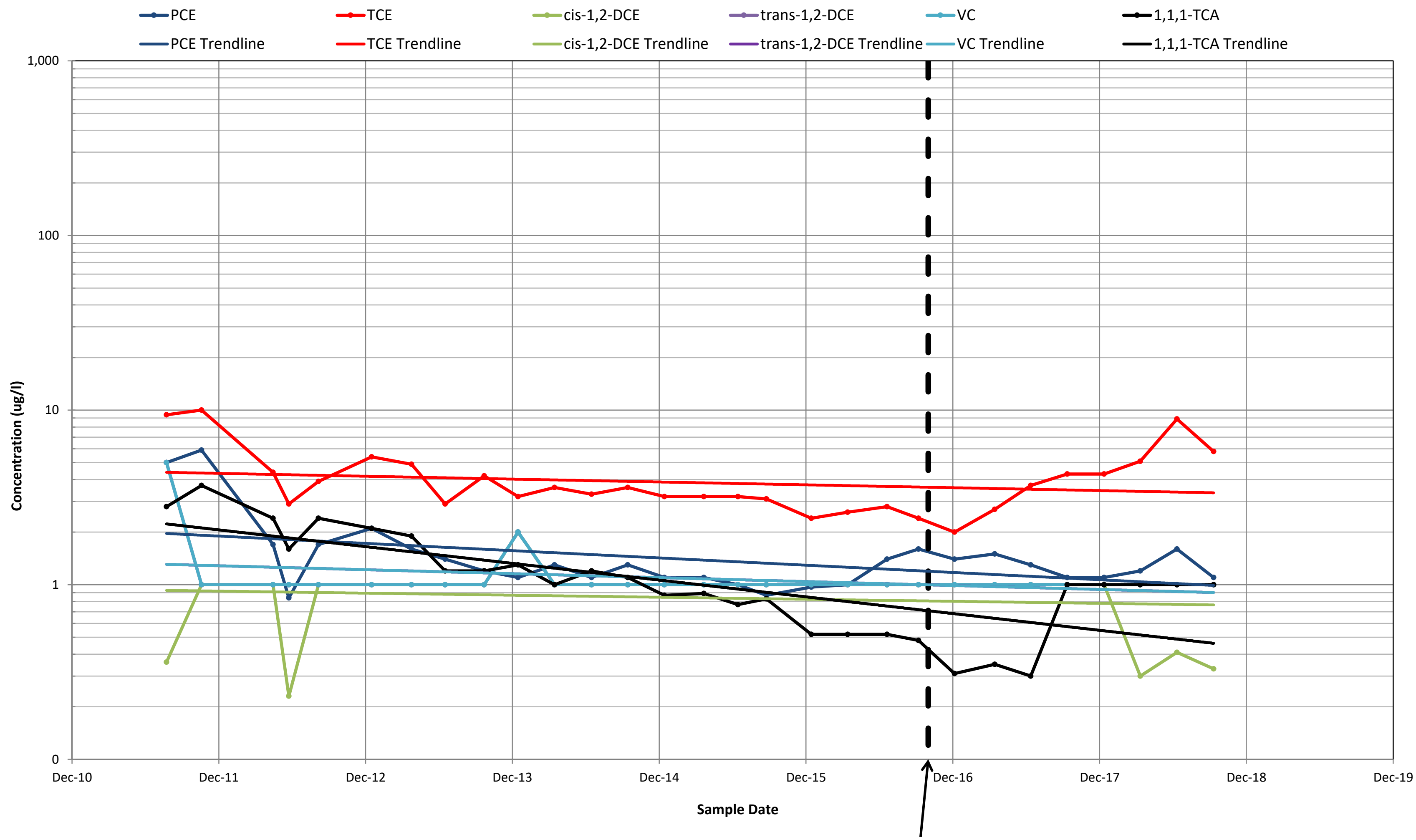
CHLORINATED VOC CONCENTRATIONS
WELL EW-4A
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

10



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

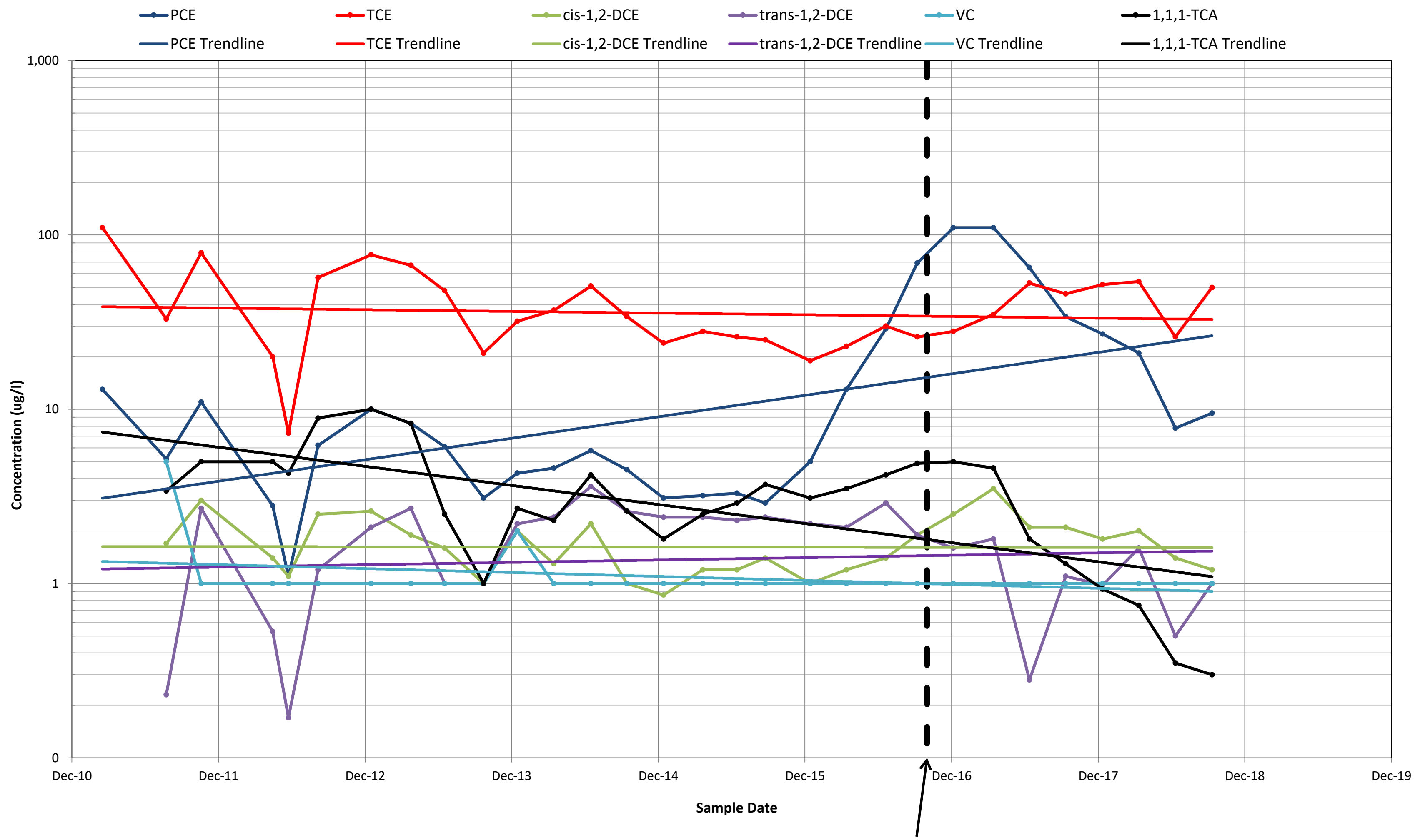
CHLORINATED VOC CONCENTRATIONS
WELL EW-4B
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

11



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

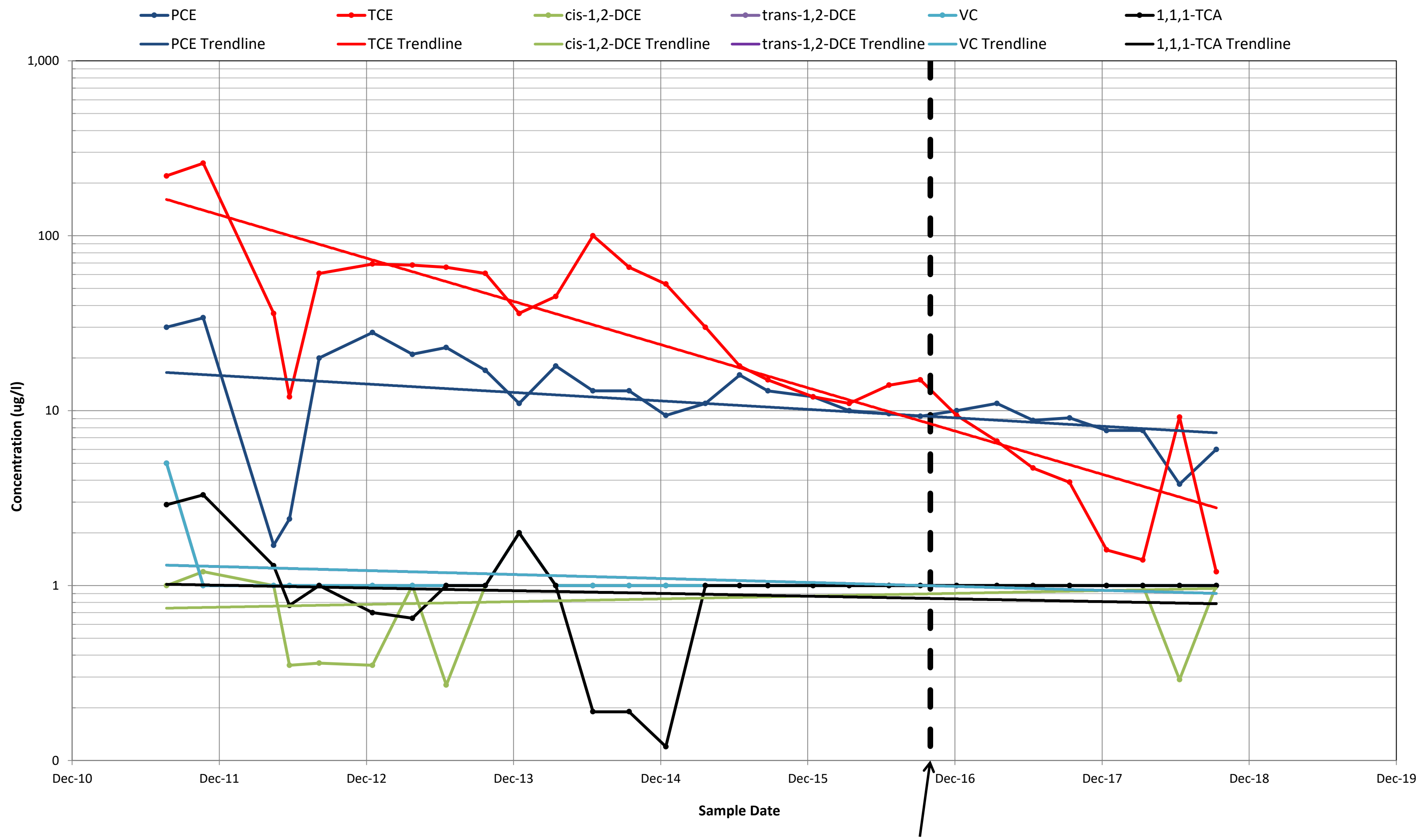
CHLORINATED VOC CONCENTRATIONS
WELL EW-4C
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

12



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

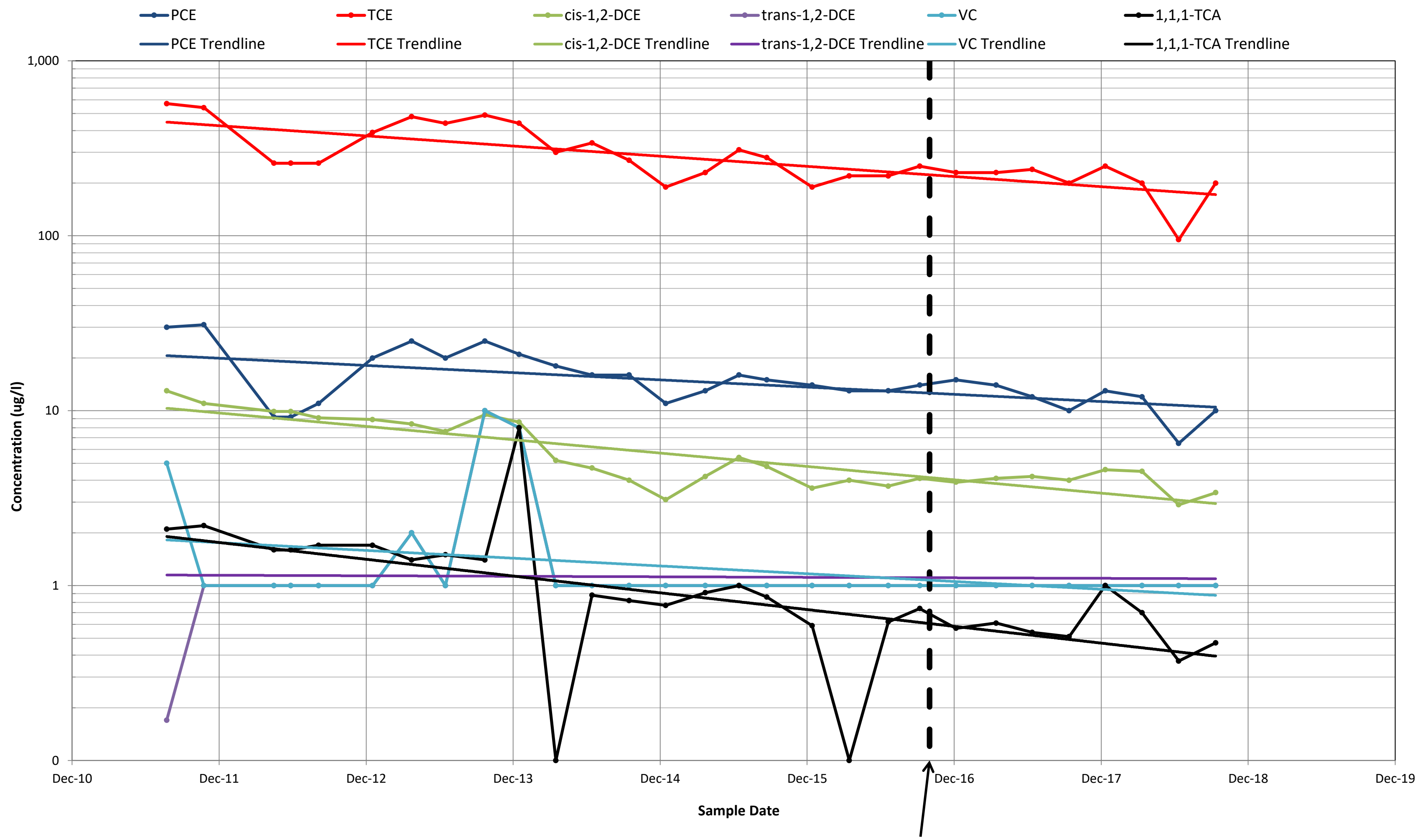
CHLORINATED VOC CONCENTRATIONS
WELL EW-4D
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

13



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

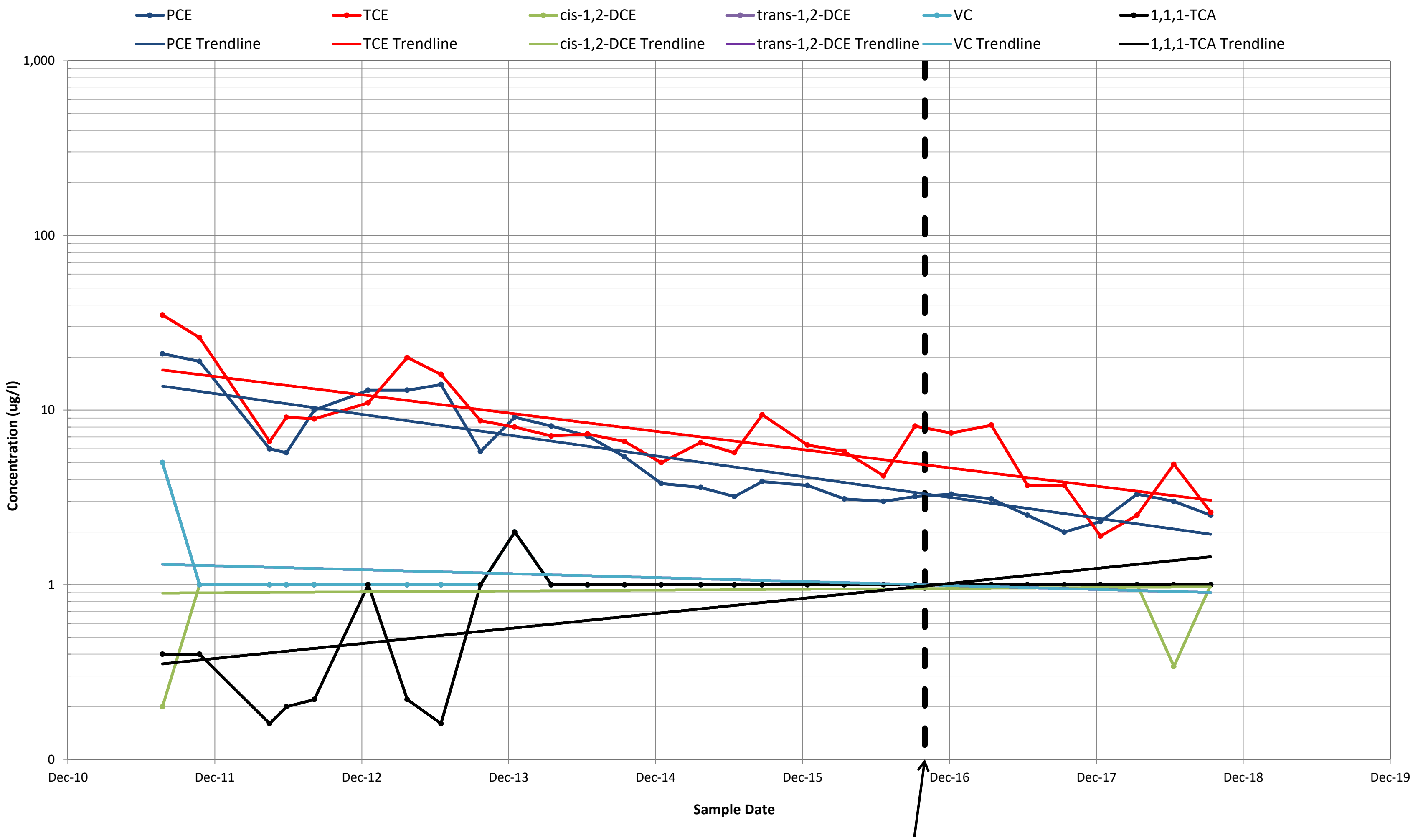
CHLORINATED VOC CONCENTRATIONS
WELL EW-7C
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

14



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

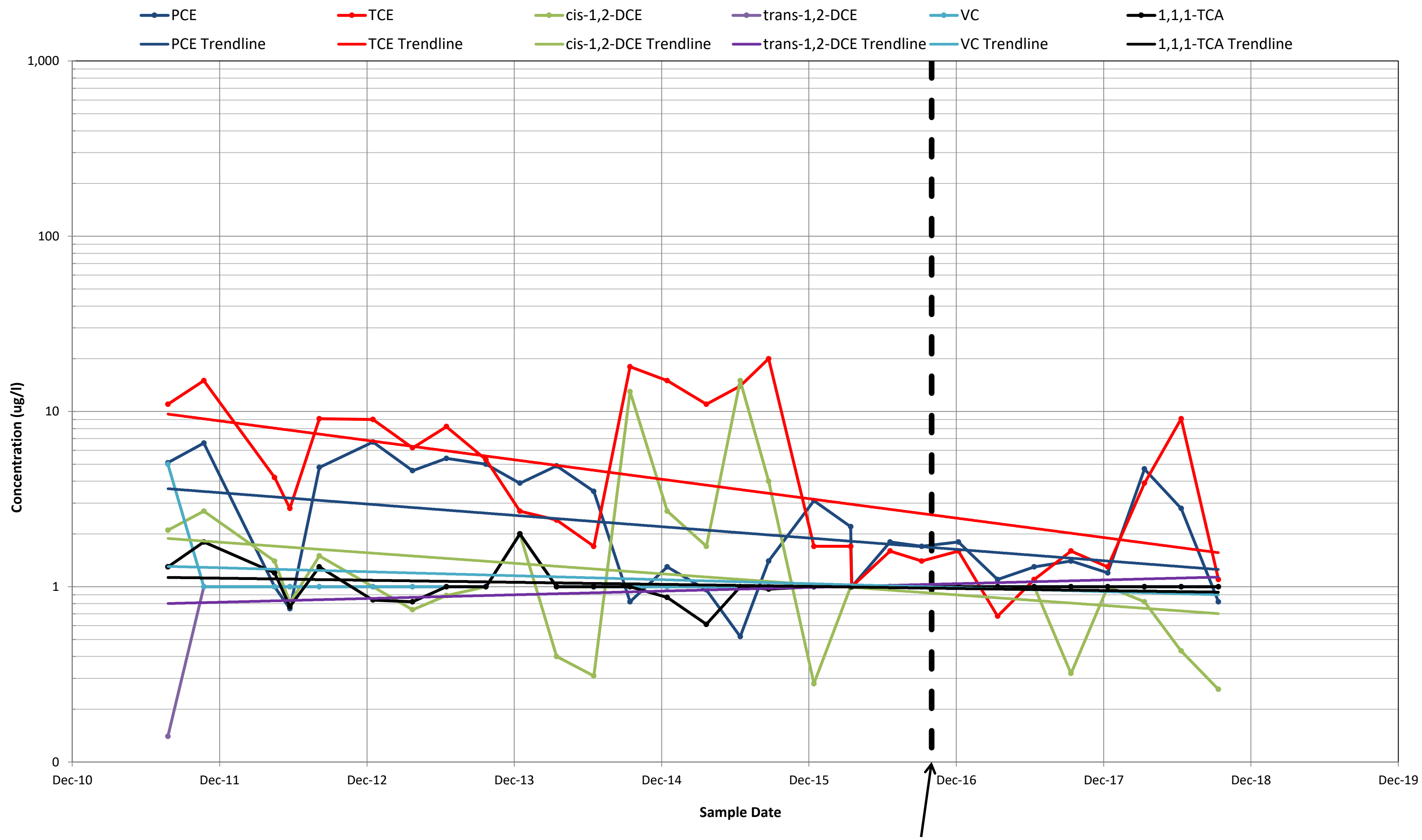
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL EW-7D
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
15



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

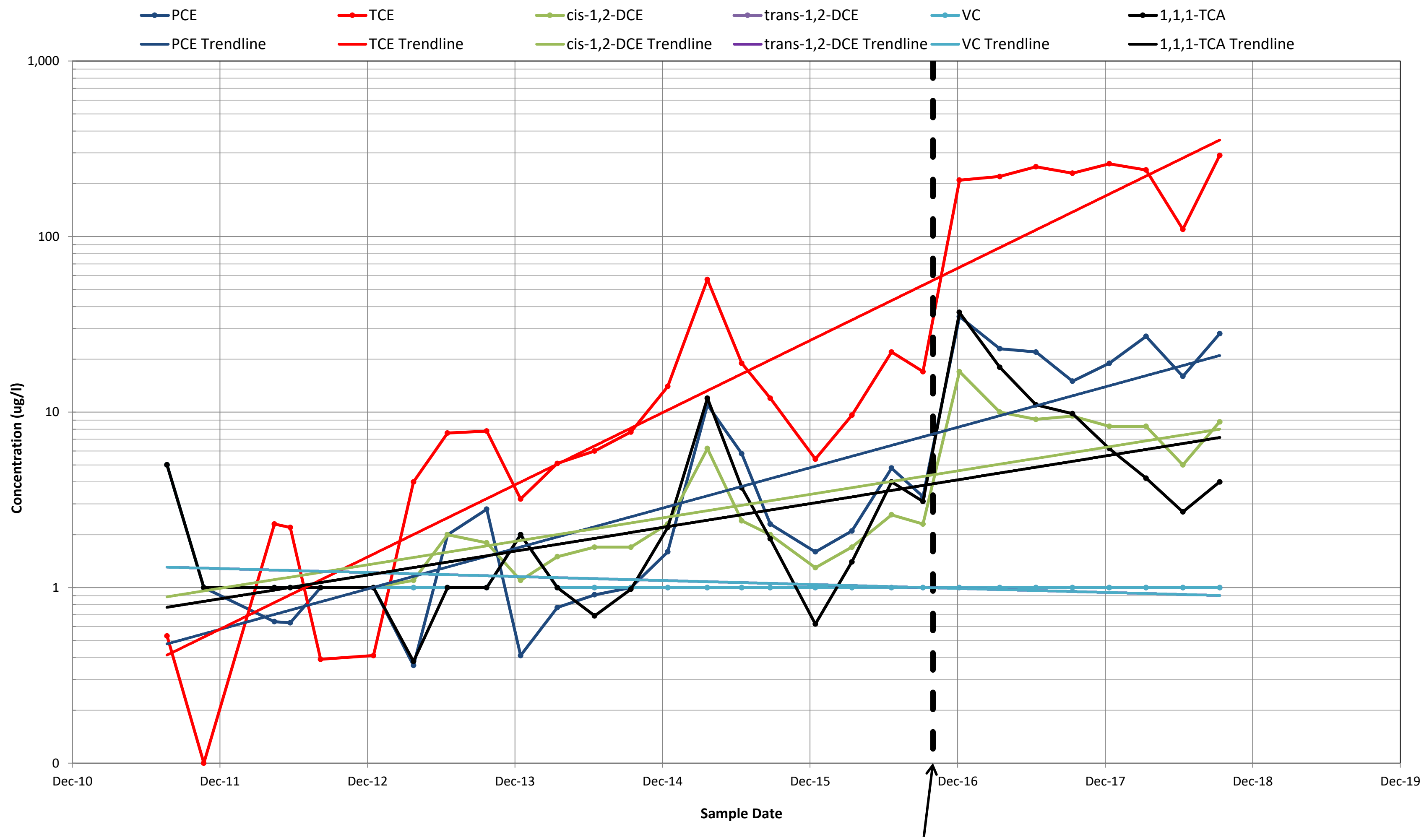
CHLORINATED VOC CONCENTRATIONS
WELL MW-10D
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

16



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

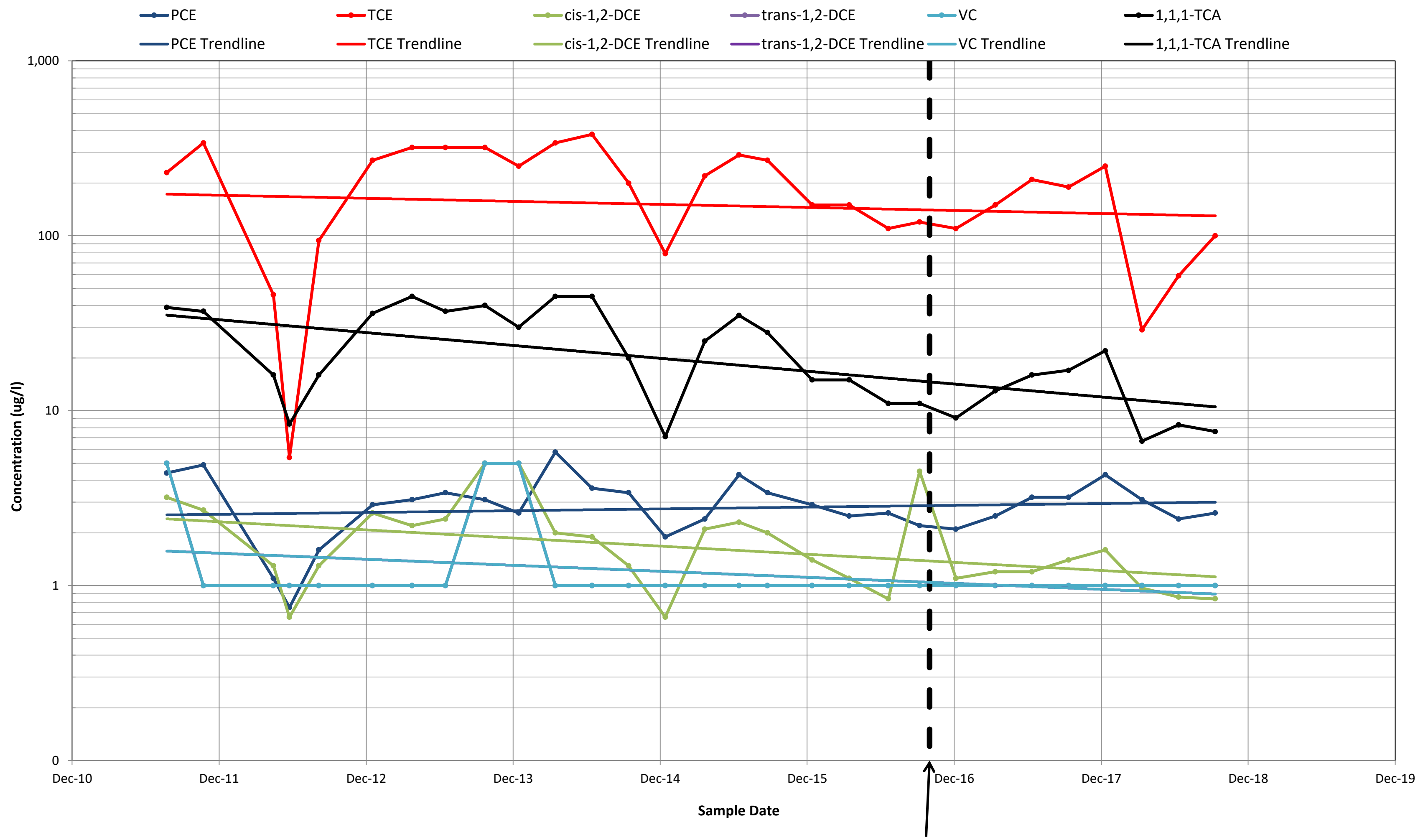
CHLORINATED VOC CONCENTRATIONS
WELL EW-12D
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

17



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

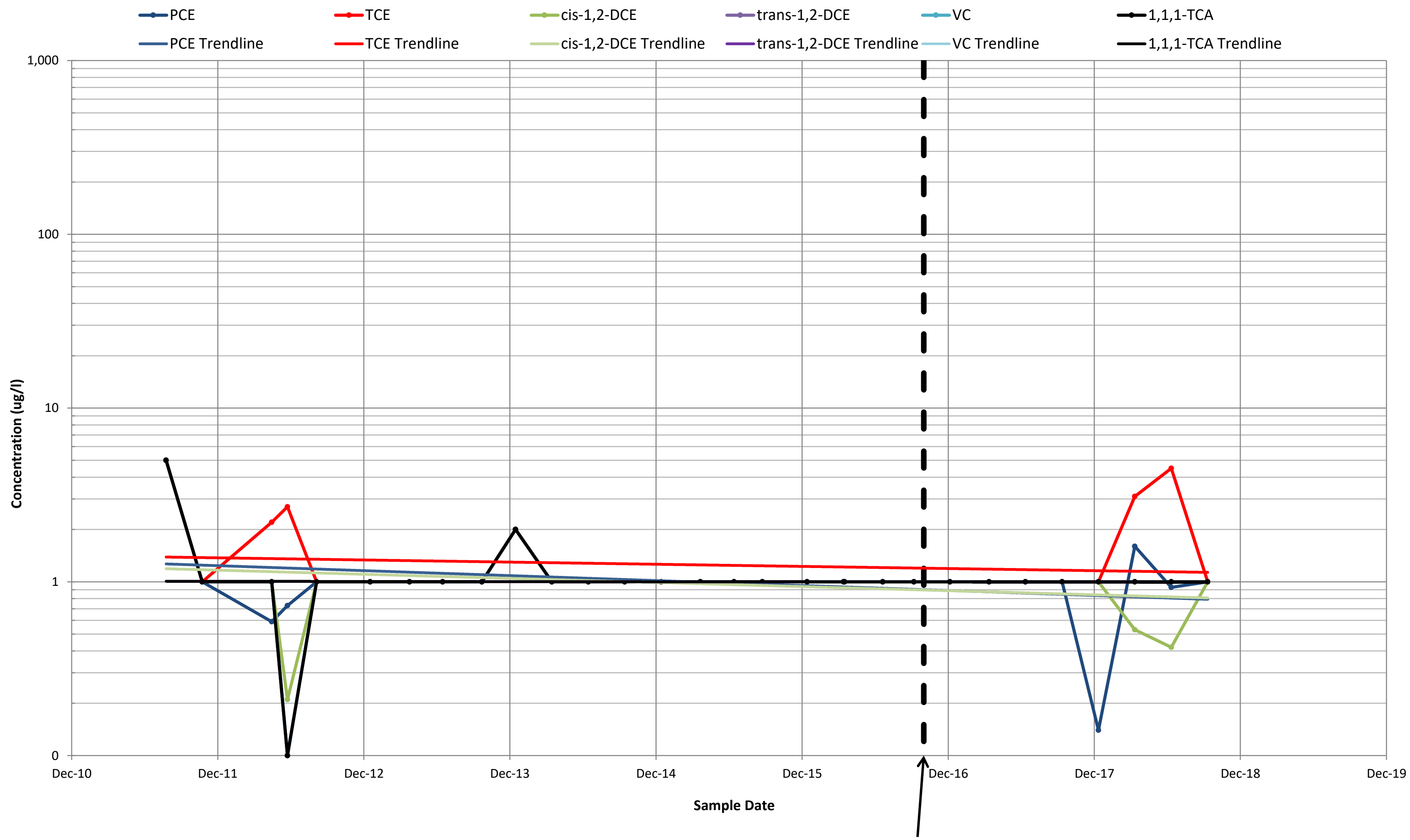
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL EW-14D
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
18



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

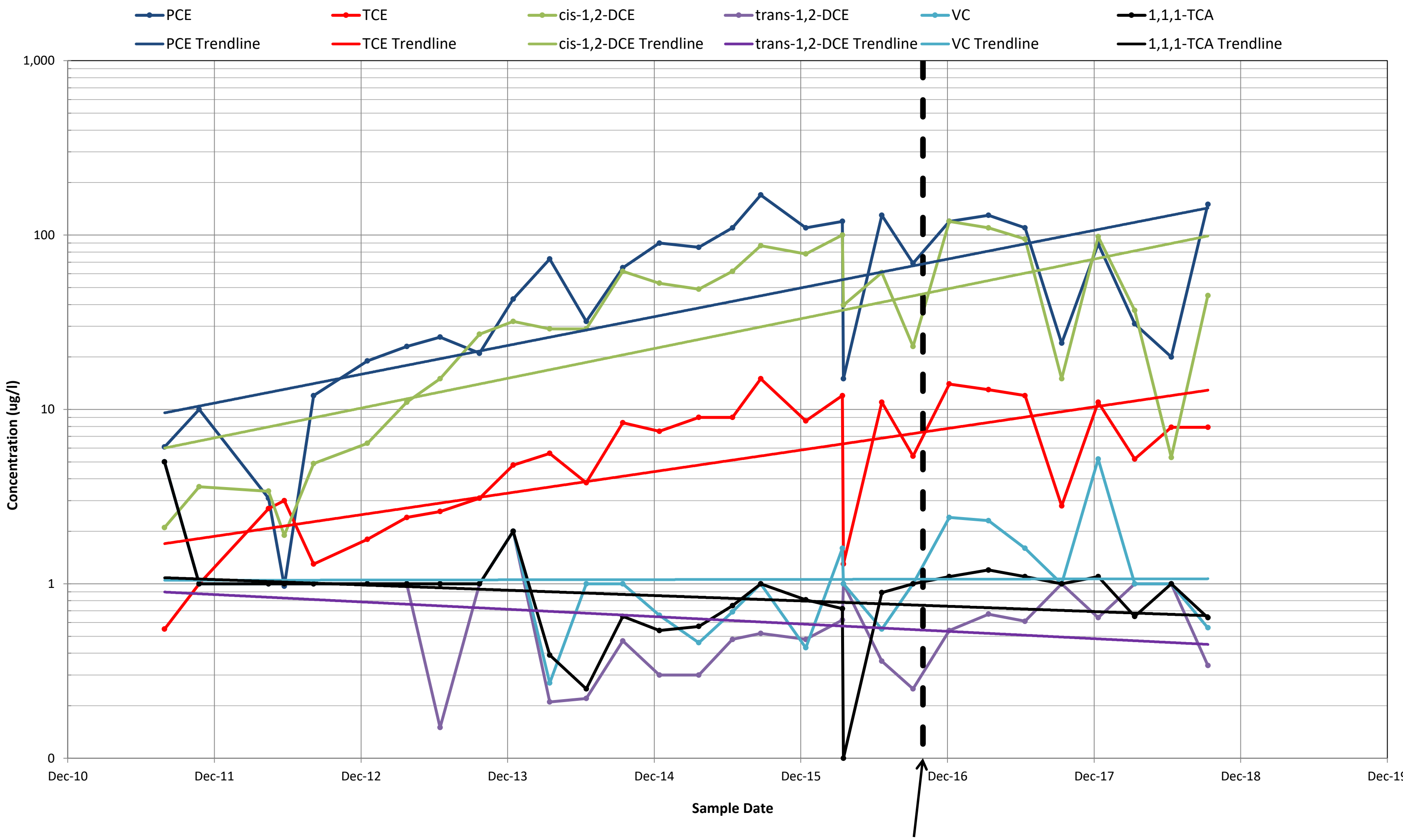
*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

CHLORINATED VOC CONCENTRATIONS
WELL BP-3A
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
19



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

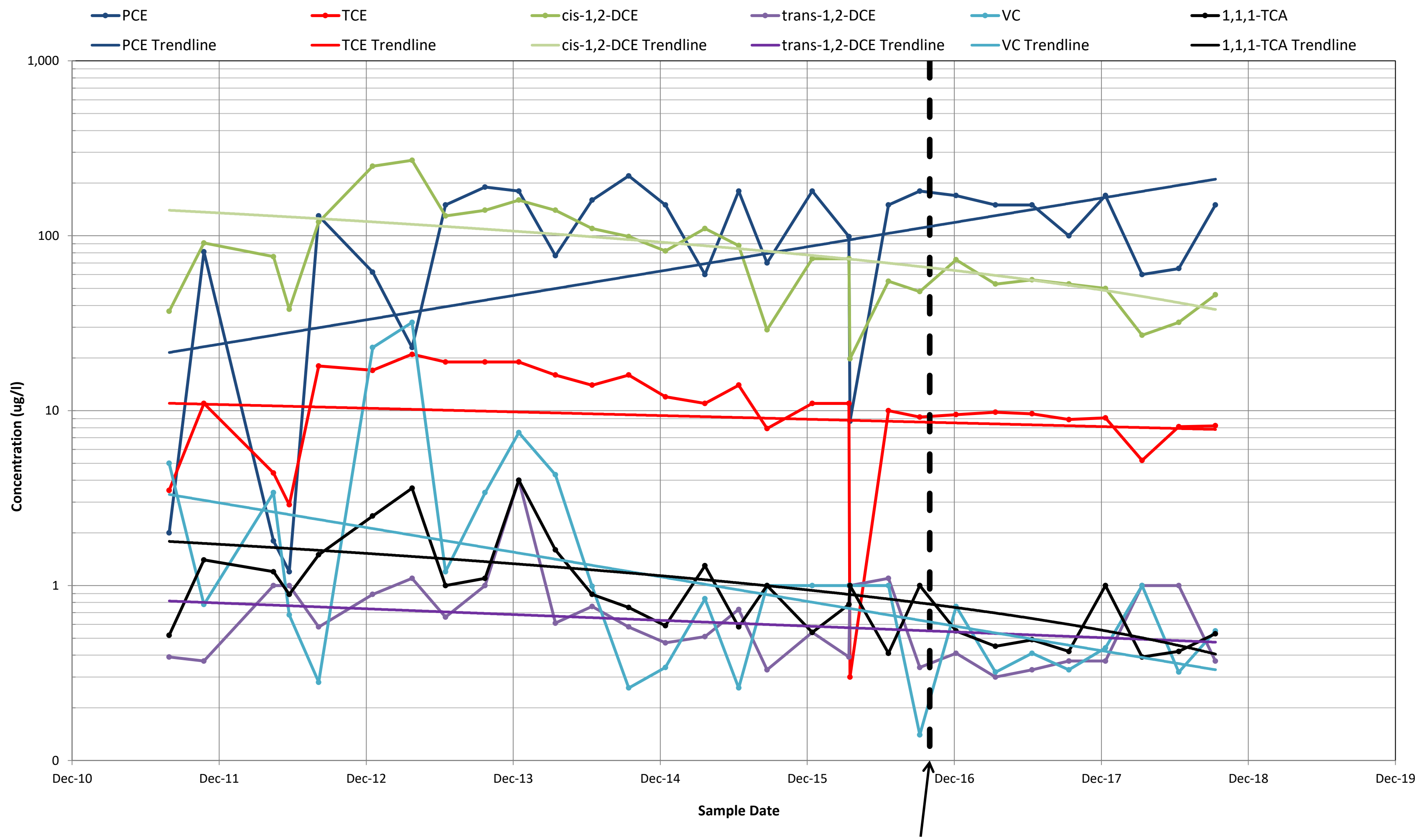
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL BP-3B
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
20



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

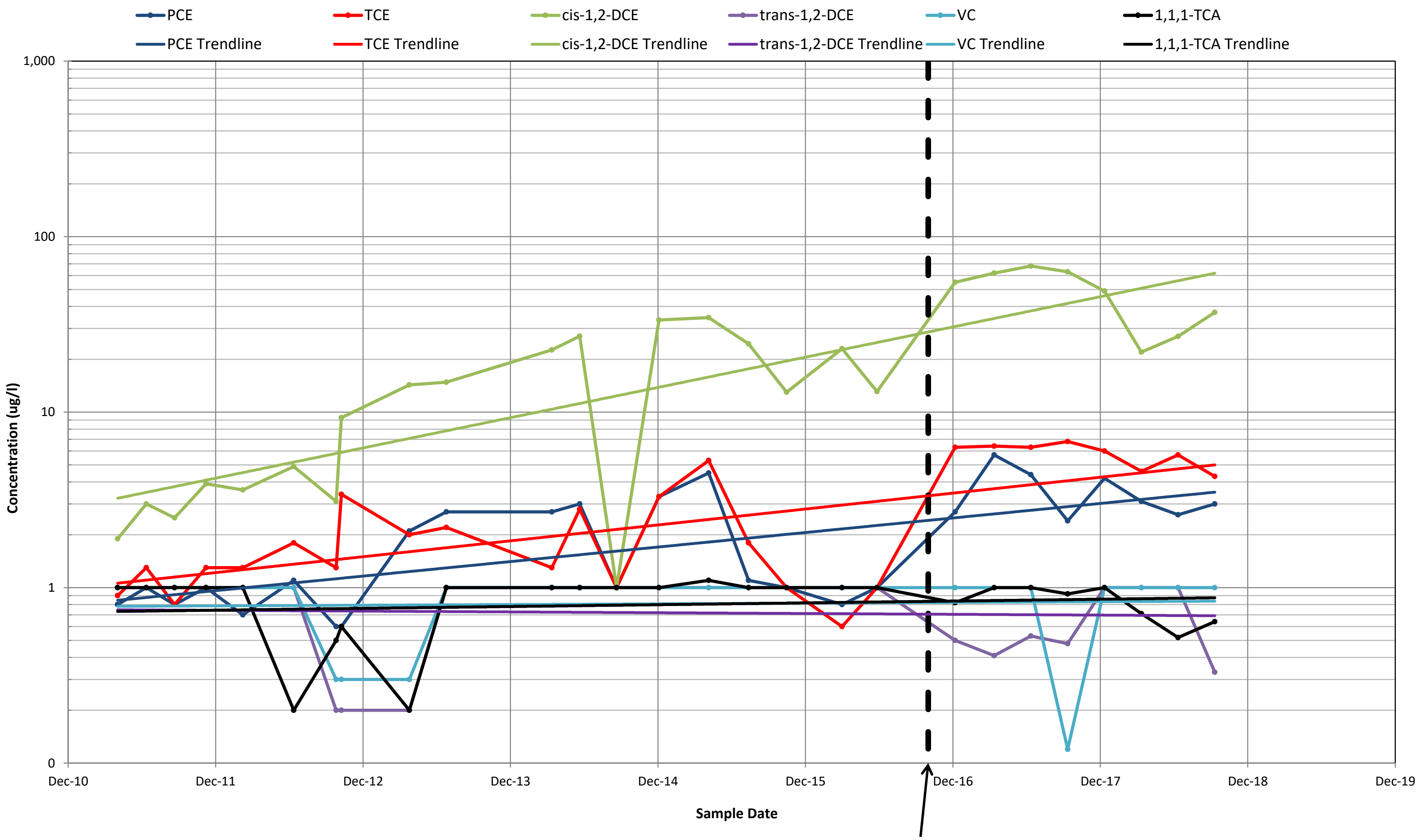
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL BP-3C
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
21



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

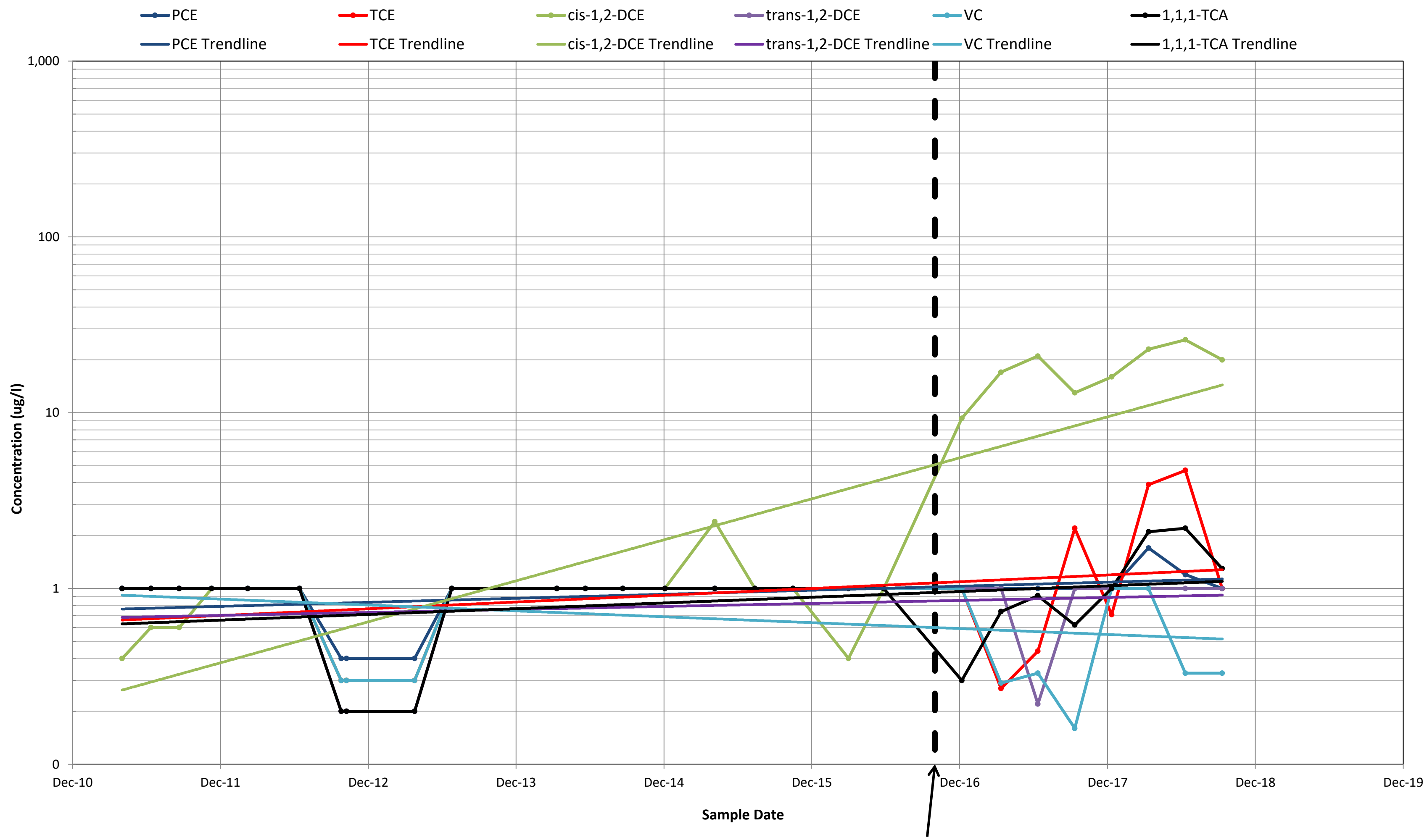
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL MW-11A
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
22



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

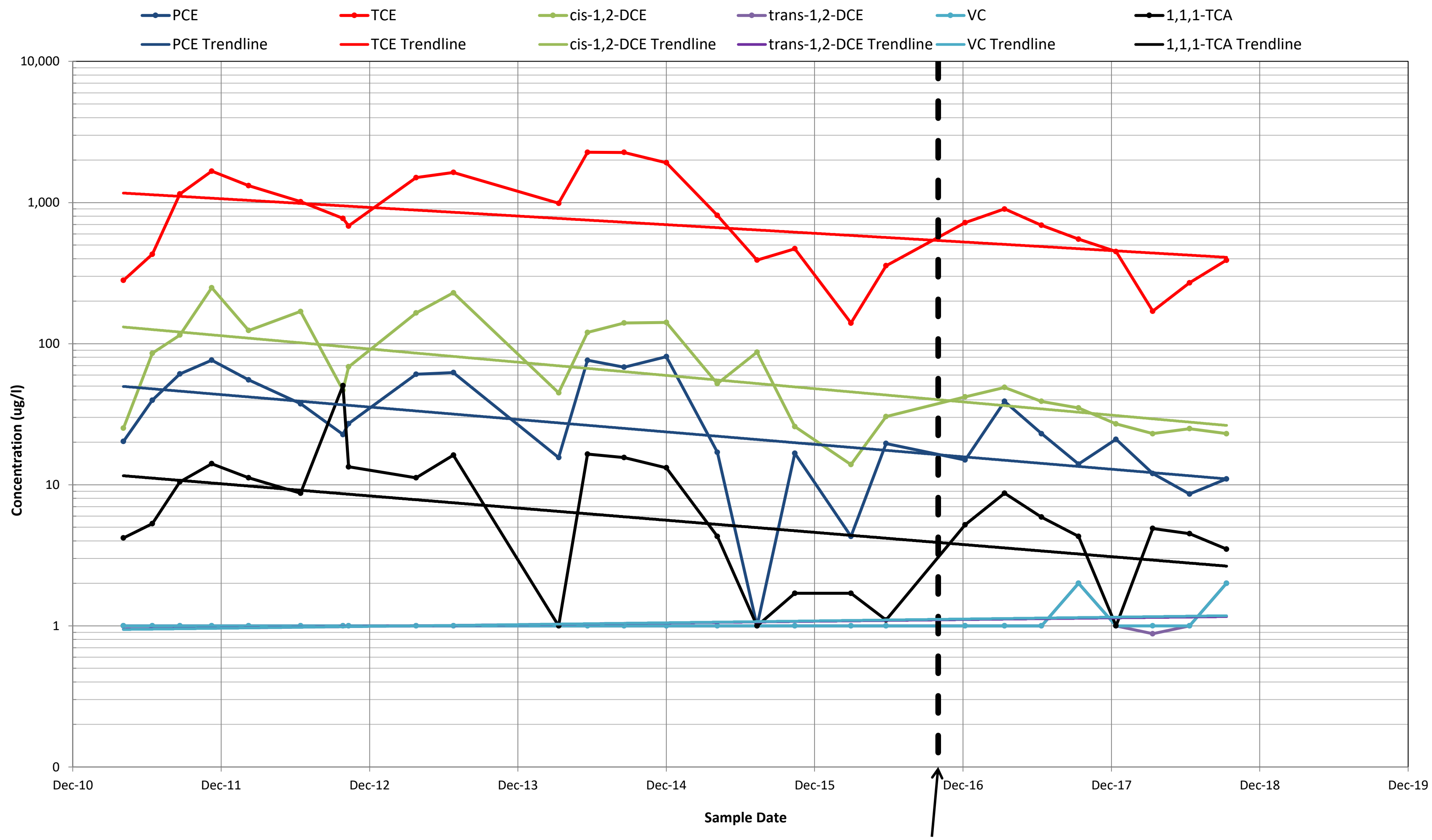
CHLORINATED VOC CONCENTRATIONS
WELL MW-11B
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

23



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

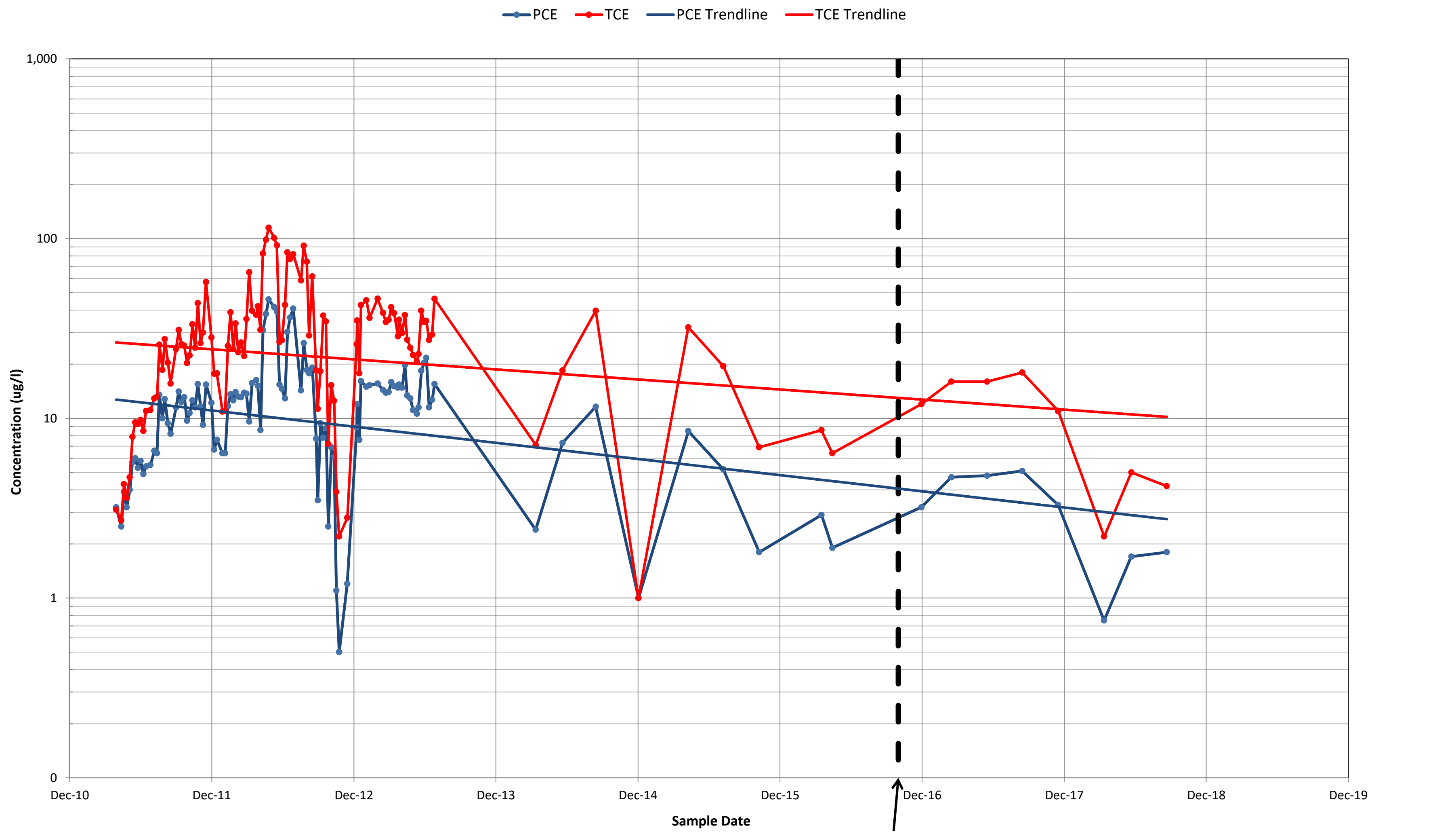
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

CHLORINATED VOC CONCENTRATIONS
WELL MW-7B-R
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
24



NYSDEC 703 Class GA: PCE, TCE = 5 ug/l
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

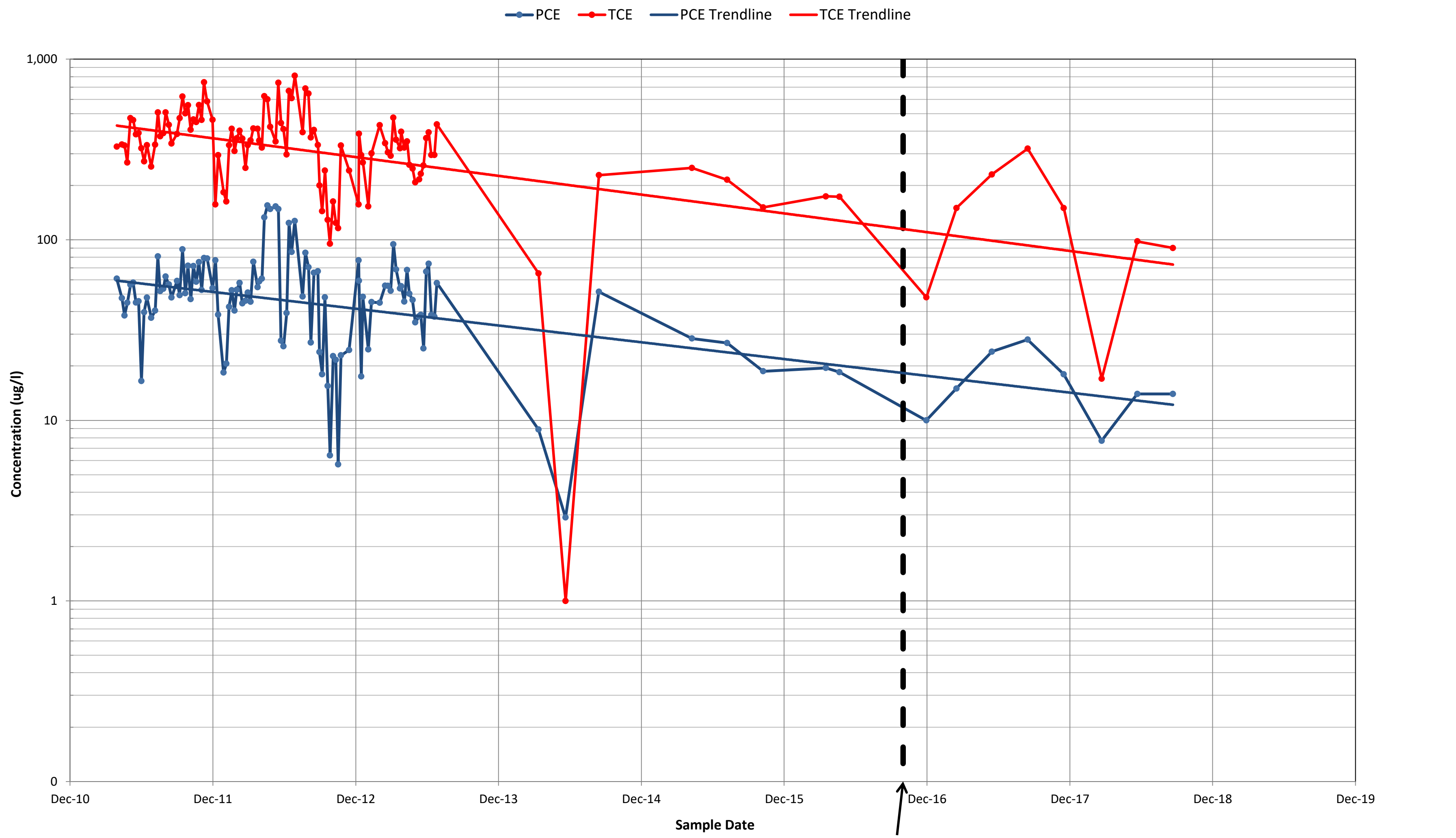
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

PCE AND TCE CONCENTRATIONS
WELL RW-3
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
25



NYSDEC 703 Class GA: PCE, TCE = 5 ug/l
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

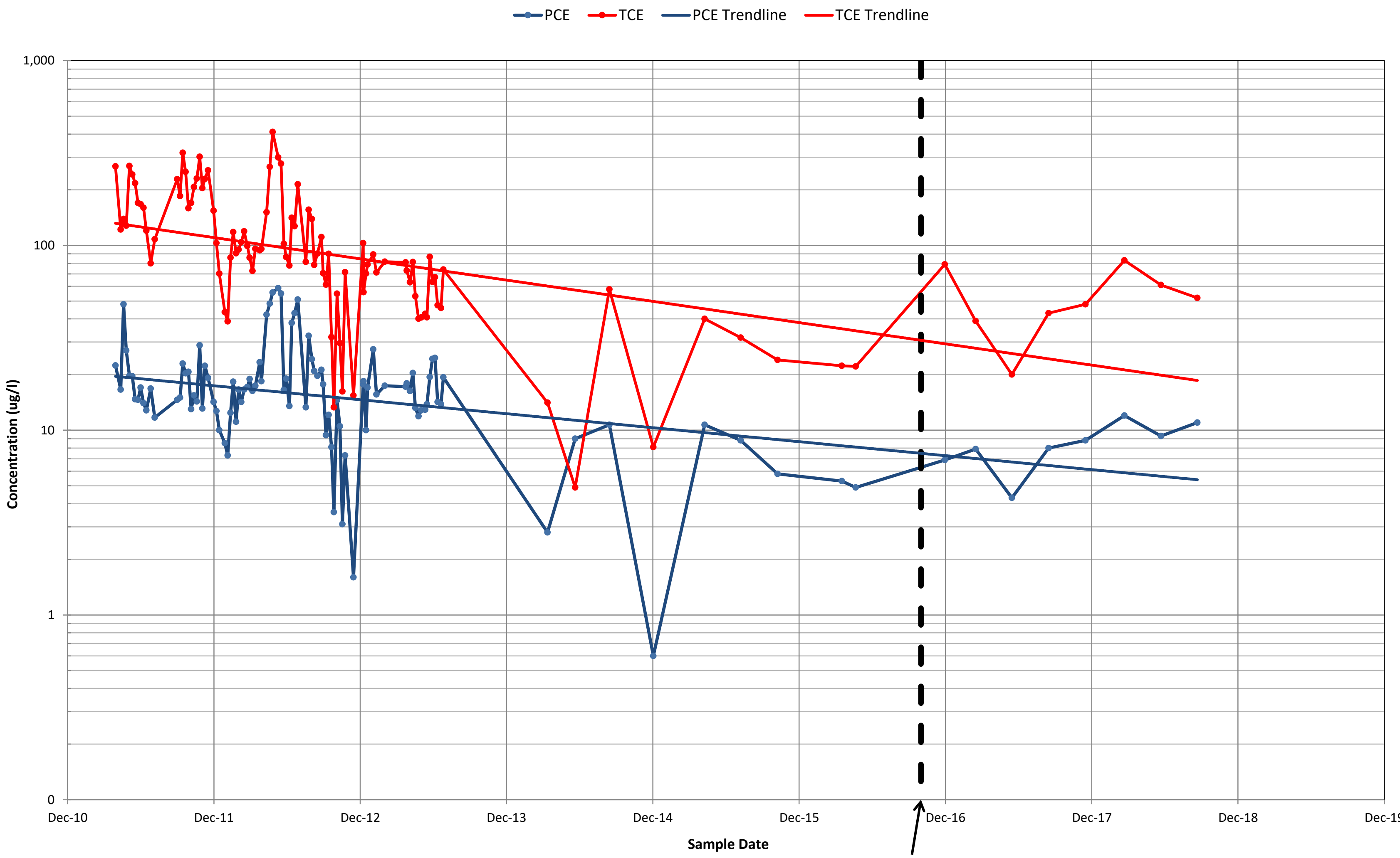
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

PCE AND TCE CONCENTRATIONS
WELL RW-4
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
26



NYSDEC 703 Class GA: PCE, TCE = 5 ug/l
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

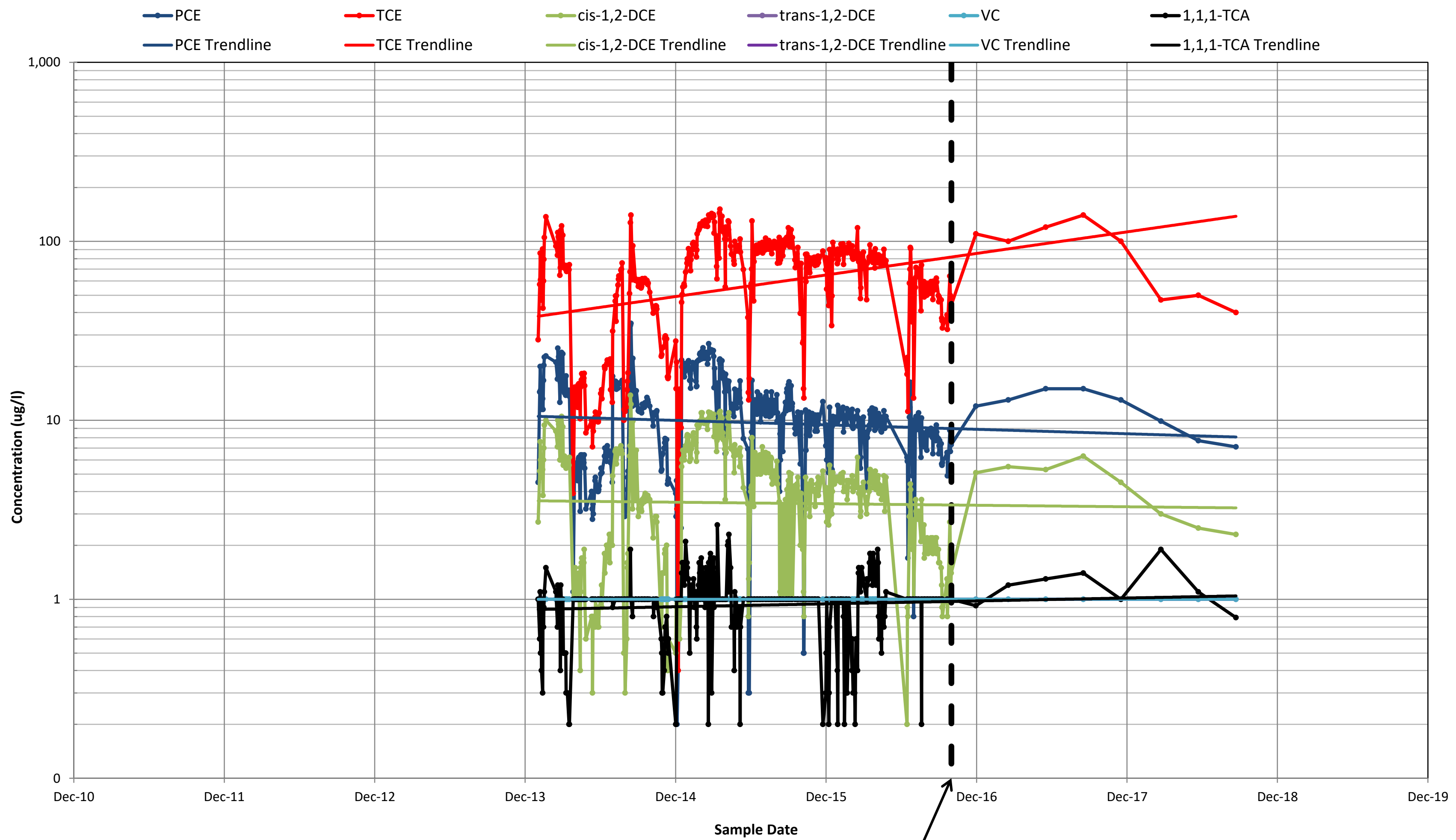
NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

PCE AND TCE CONCENTRATIONS
WELL RW-5
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE
SEPTEMBER 2018

FIGURE
27



NYSDEC 703 Class GA: PCE, TCE, trans-1,2-DCE, cis-1,2-DCE , 1,1,1-DCE = 5 ug/l; VC = 2 ug/l;
Detection limits used to display non-detect results. How some reporting limits were generated is unknown.

*On-site groundwater extraction and treatment transitioned from the OU4 treatment facility to the OU5 treatment facility as of October 1, 2016.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

HDR

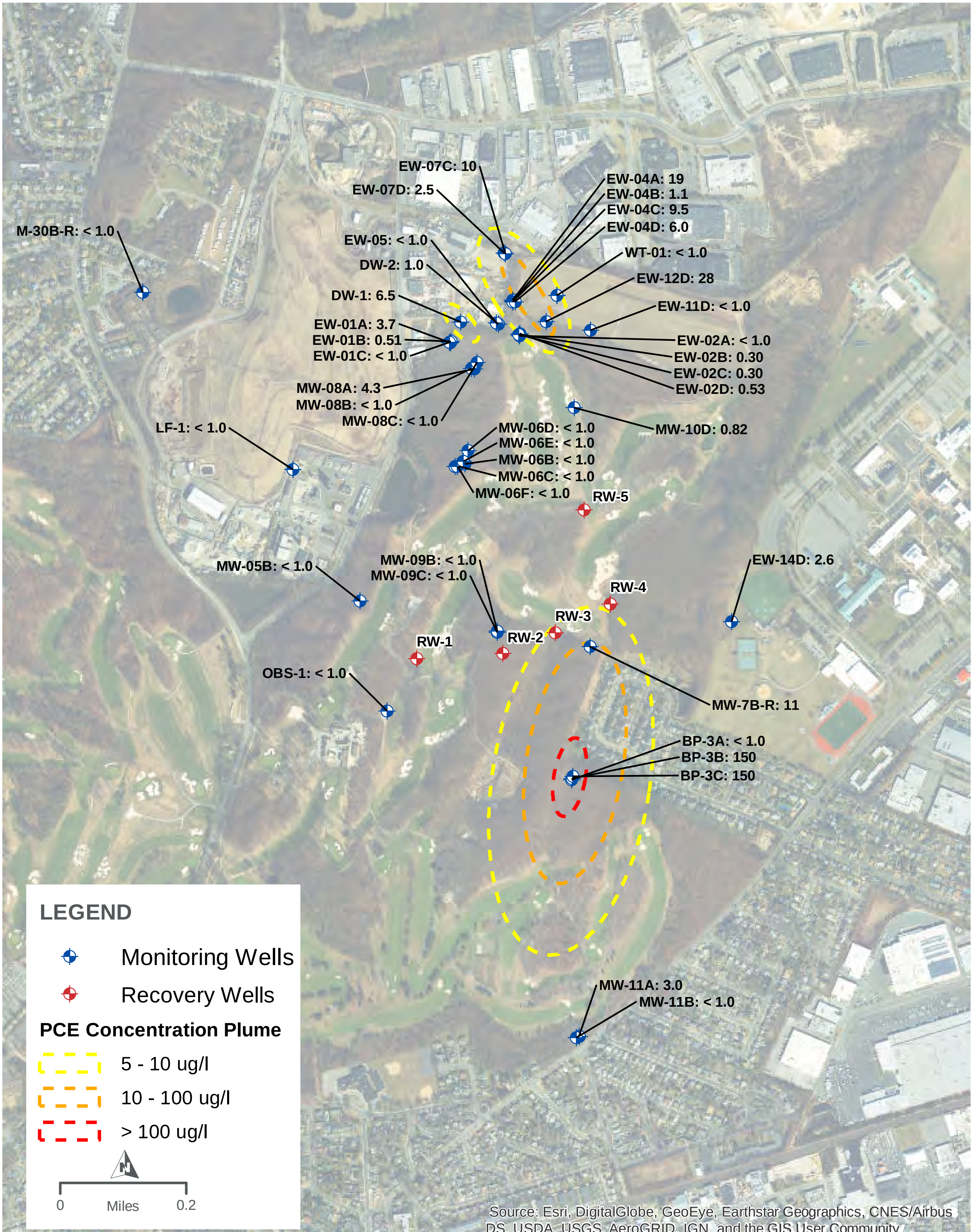
CHLORINATED VOC CONCENTRATIONS
WELL OU5 Influent
CLAREMONT POLYCHEMICAL CORPORATION OPERABLE UNIT 5
NYSDEC SITE #130015

DATE

SEPTEMBER 2018

FIGURE

28



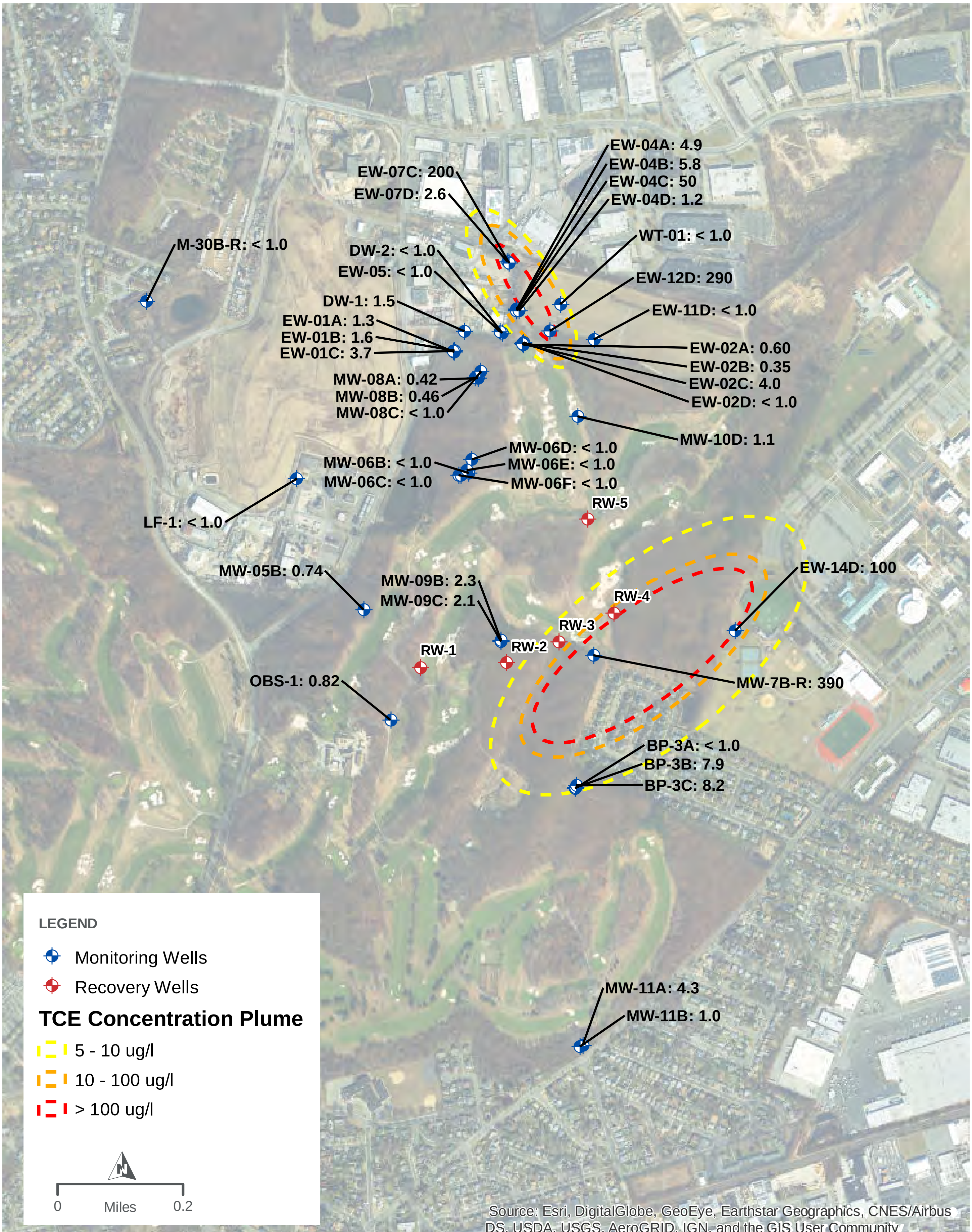
New York State Department of Environmental Conservation

SEPTEMBER 2018 TETRACHLOROETHENE (PCE) PLUME

CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 29

PATH: \\NJ-MAHWAH\ACTIVEPROJECTS\275962\7.0_GIS_MODELS\7.2_WORK_IN_PROGRESS\MAP_DOCS\2018_Q3\FIG29_PCEPLUME.MXD - USER: CWEAVER - DATE: 10/24/2018



HDR

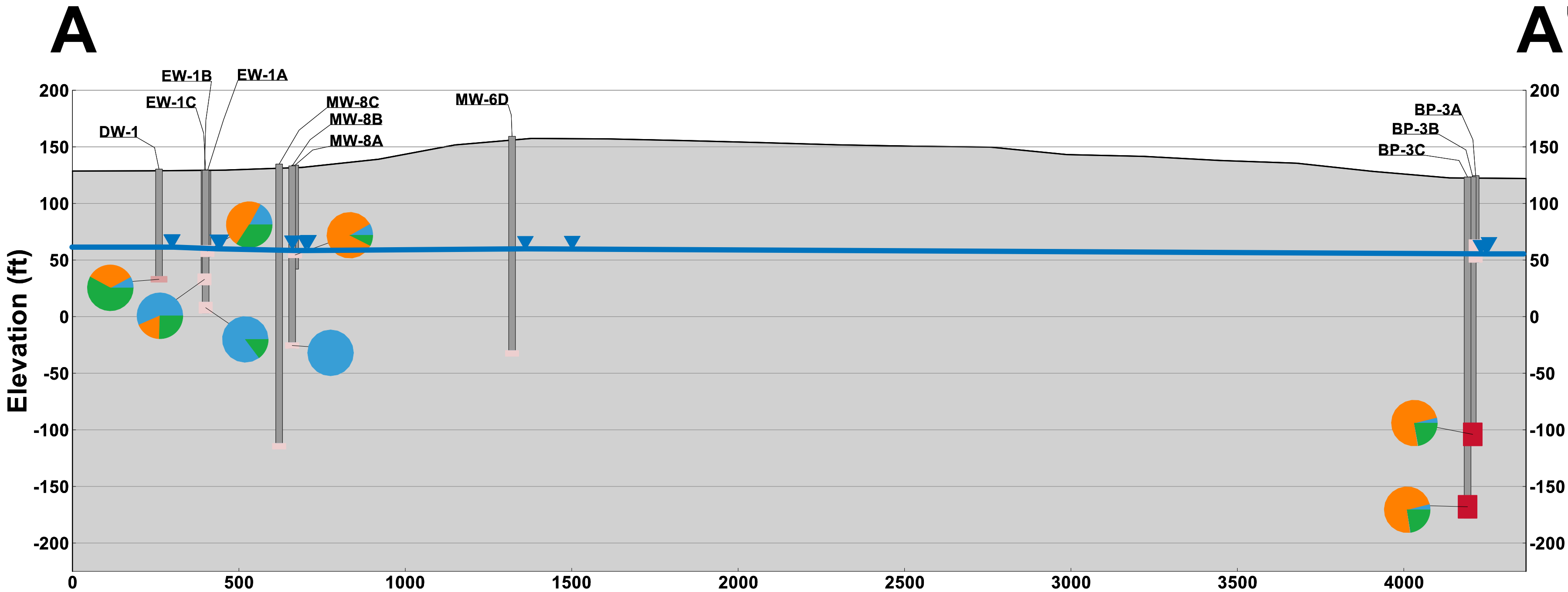
New York State Department of Environmental Conservation

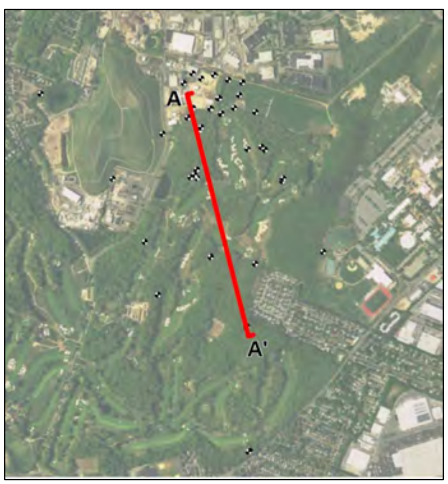
SEPTEMBER 2018 TRICHLOROETHENE (TCE) PLUME

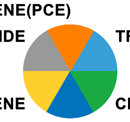
CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 30

PATH: \\NJ-MAHWAH\ACTIVEPROJECTS\275962\7.0_GIS_MODELS\7.2_WORK_IN_PROGRESS\MAP_DOCS\2018_Q3\FIG30_TCEPLUME.MXD - USER: CWEAVER - DATE: 10/24/2018







Wells

- Casing
- Sceen Interval
- *Groundwater Elevation (ft amsl)*

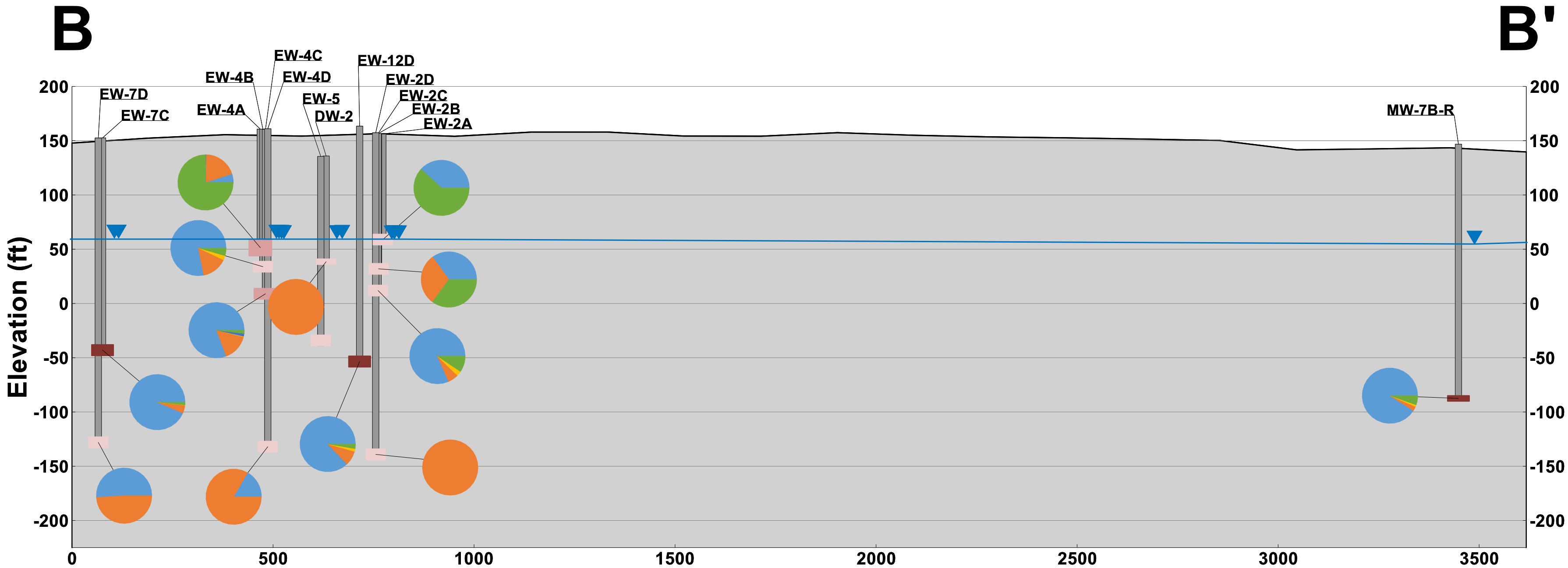
Sum of CVOCs (ug/l)

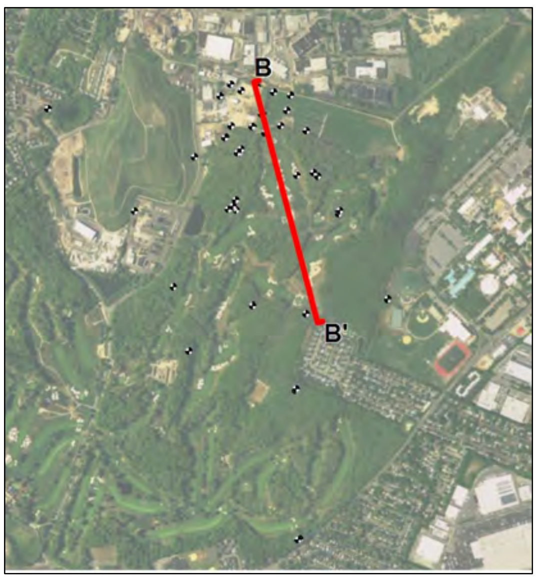
- 0 - 10
- 10 - 100
- 100 - 500
- 500 - 1000

NOTES:
- Capture distance to transect line is 250 feet.
- Pie Charts shown are for samples with results from the seleted constituents that were above the detection limit.
- Wells without a Pie Chart did not have reported results above the detection limit for the selected constituents.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

CROSS SECTION TRANSECT A
CLAREMONT POLYCHEMICAL CORPORATION
FIGURE 31





TETRACHLOROETHYLENE(PCE)
VINYL CHLORIDE
TRICHLOROETHYLENE (TCE)
1,1-DICHLOROETHENE
CIS-1,2-DICHLOROETHYLENE
TRANS-1,2-DICHLOROETHENE

Wells

Casing
Screen
Groundwater Elevation (ft amsl)

Sum of CVOCs (ug/l)

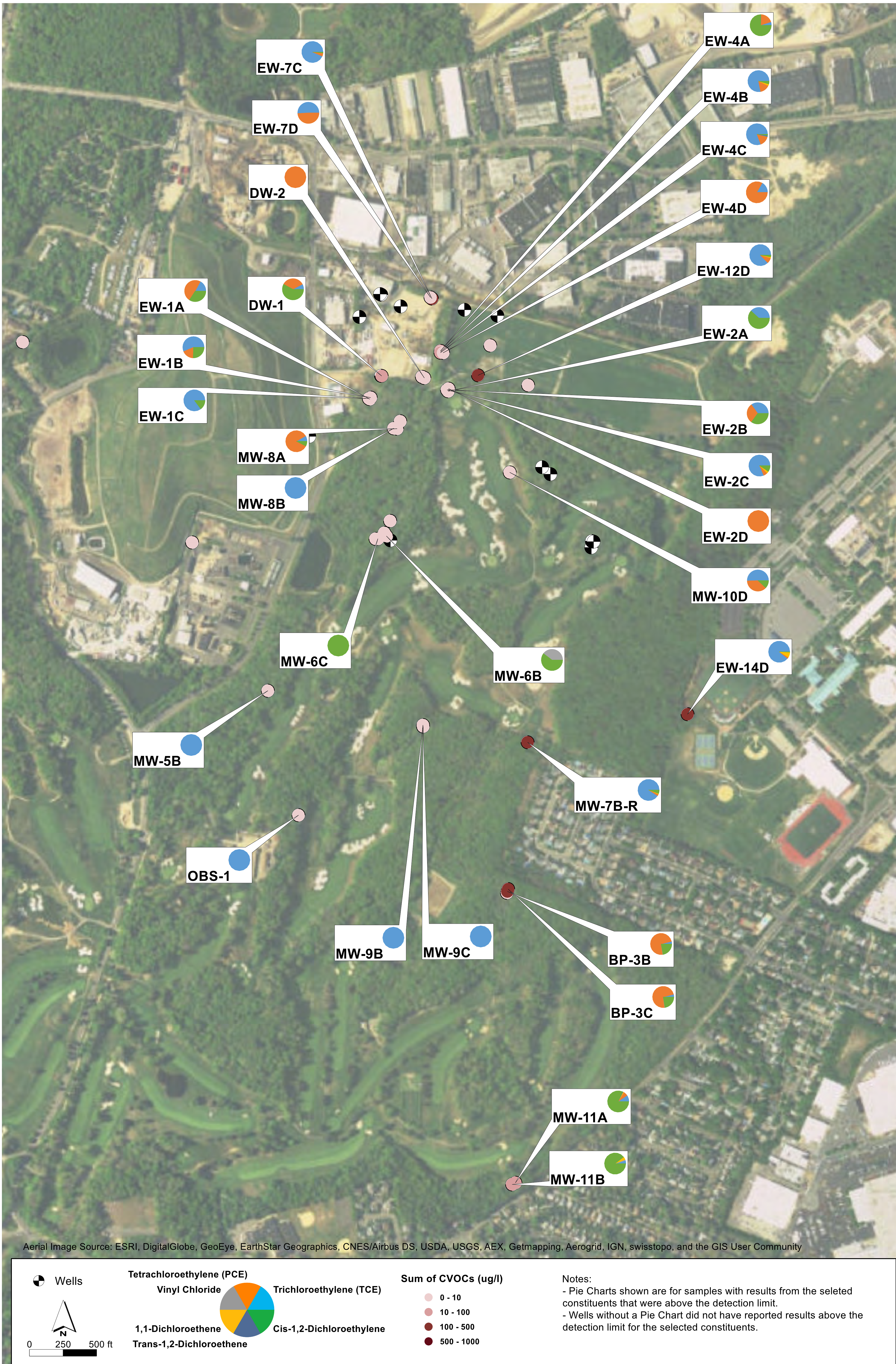
0 - 10
10 - 100
100 - 500
500 - 1000

NOTES:
- Capture distance to transect line is 250 feet.
- Pie Charts shown are for samples with results from the seleted constituents that were above the detection limit.
- Wells without a Pie Chart did not have reported results above the detection limit for the selected constituents.

HDR

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

CROSS SECTION TRANSECT B
CLAREMONT POLYCHEMICAL CORPORATION
FIGURE 32



HDR

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DETECTED CHLORINATED BREAKDOWN PRODUCTS
CLAREMONT POLYCHEMICAL CORPORATION

FIGURE 33

Attachment A
Summary of Analytical Results
September 2018 (3Q18) Sampling Event
Claremont Polychemical Superfund Site OU5
Old Bethpage, NY

Sample Description	Date Collected	Tetrachloroethylene (PCE)	Trichloroethylene (TCE)	Cis-1,2-Dichloroethylene	Trans-1,2-Dichloroethene	1,1-Dichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2-Trichloroethane	1,2-Dichloroethane	1,1-Dichloroethane	1,1,2-Trichloro-1,2,2-Trifluoroethane	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane (Ethylene Dibromide)	1,2-Dichlorobenzene	1,2-Dichloropropane	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dioxane (P-Dioxane)	2-Hexanone	Acetone	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Cis-1,3-Dichloropropene
CAS RN:		127-18-4	79-01-6	156-59-2	156-60-5	75-35-4	75-01-4	79-34-5	71-55-6	79-00-5	107-06-2	75-34-3	76-13-1	87-61-6	120-82-1	96-12-8	106-93-4	95-50-1	78-87-5	541-73-1	106-46-7	123-91-1	591-78-6	67-64-1	71-43-2	75-27-4	75-25-2	74-83-9	75-15-0	56-23-5	108-90-7	75-00-3	67-66-3	74-87-3	10061-01-5
Unit:		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
NYSDEC 703 Class GA:		5	5	5	5	5	2	5	5	1	0.6	5				0.04	0.0006	3	1	3	3	0.67		50	1			5	60	5	5	5	7	5	
BP-3A	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	27	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U
BP-3B	9/10/2018	150	7.9	45	0.34 J	0.50 J	0.56 J	< 1.0 U	0.64 J	< 1.0 U	< 1.0 U	5.0	0.76 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	40	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
BP-3C	9/10/2018	150	8.2	46	0.37 J	0.44 J	0.55 J	< 1.0 U	0.53 J	< 1.0 U	< 1.0 U	5.1	0.84 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	41	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
DW-1	9/11/2018	6.5	1.5	11	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	42	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
DW-2	9/11/2018	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	34	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-1A	9/11/2018	3.7	1.3	2.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	27	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U	< 1.0 U	< 1.0 U	0.36 J	< 1.0 U	< 1.0 U
EW-1A DUP	9/11/2018	3.7	1.1	2.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	26	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	0.41 J	< 1.0 U	< 1.0 U
EW-1B	9/11/2018	0.51 J	1.6	0.72 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	34	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-1C	9/11/2018	< 1.0 U	3.7	0.64 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	45	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-2A	9/10/2018	< 1.0 U	0.60 J	0.97 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	40	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.20 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-2B	9/10/2018	0.30 J	0.35 J	0.35 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	34	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-2C	9/10/2018	0.30 J	4.0	0.46 J	< 1.0 U	0.14 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	59	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-2D	9/10/2018	0.53 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	22	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-4A	9/10/2018	19	4.9	73	0.27 J	0.12 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	29	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-4B	9/10/2018	1.1	5.8	0.33 J	< 1.0 U	0.19 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	39	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.16 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-4C	9/10/2018	9.5	50	1.2	1.0	0.22 J	< 1.0 U	< 1.0 U	0.30 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	39	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-4D	9/10/2018	6.0	1.2	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	34	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U
EW-5	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	36	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-7C	9/11/2018	10	200	3.4	< 1.0 U	0.34 J	< 1.0 U	< 1.0 U	0.47 J	< 1.0 U	< 1.0 U	0.31 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	43	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-7D	9/11/2018	2.5	2.6	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	42	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-11D	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	36	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-12D	9/10/2018	28	290	8.8	< 1.0 U	5.5	< 1.0 U	< 1.0 U	4.0	< 1.0 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	24	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
EW-14D	9/10/2018	2.6	100	0.84 J	< 1.0 U	8.7	< 1.0 U	< 1.0 U	7.6	< 1.0 U	2.0	0.28 J	0.58 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	33	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.17 J	< 1.0 U	< 1.0 U	< 1.0 U	0.51 J	< 1.0 U	< 1.0 U
LF-1	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	37	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
M-30B-R	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	27	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-05B	9/10/2018	< 1.0 U	0.74 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	26	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-06B	9/11/2018	< 1.0 U	< 1.0 U	0.38 J	< 1.0 U	< 1.0 U	0.25 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.73 J	< 1.0 U	< 1.0 U	2.1	< 50 U	< 5.0 U	50	0.88 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	2.5	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-06C	9/11/2018	< 1.0 U	< 1.0 U	0.66 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	27	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.40 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-06D	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	33	0.56 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-06E	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.96 J	< 1.0 U	< 1.0 U	3.7	< 50 U	< 5.0 U	30	4.0	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	9.4	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-06F	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.59 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	29	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.82 J	< 1.0 U	< 1.0 U
MW-7B-R	9/10/2018	11	390	23	< 2.0 U	4.7	< 2.0 U	< 2.0 U	3.5	< 2.0 U	< 2.0 U	0.57 J	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 100 U	< 10 U	36	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	1.3 J	< 2.0 U	< 2.0 U
MW-08A	9/11/2018	4.3	0.42 J	0.38 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	37	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-08B	9/11/2018	< 1.0 U	0.46 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	36	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-08C	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	31	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-09B	9/10/2018	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	32	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-09C	9/10/2018	< 1.0 U	2.1	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	27	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-10D	9/11/2018	0.82 J	1.1	0.26 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.68 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	31	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-11A	9/10/2018	3.0	4.3	37	0.33 J	0.62 J	< 1.0 U	< 1.0 U	0.64 J	< 1.0 U	< 1.0 U	4.5	0.94 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	41	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
MW-11B	9/10/2018	< 1.0 U	1.0	20	< 1.0 U	0.99 J	0.33 J	< 1.0 U	1.3	< 1.0 U	< 1.0 U	5.5	0.98 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	24	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
OBS-1	9/10/2018	< 1.0 U	0.82 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	25	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.3	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
WT-01	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	37	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
WT-01 DUP	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	33	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U
Trip Blank	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 50 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U

Note: U = not detected; J = estimated value
Values in shaded cells exceed NYSDEC 703 Class GA criteria.

Attachment A
Summary of Analytical Results
September 2018 (3Q18) Sampling Event
Claremont Polychemical Superfund Site OU5
Old Bethpage, NY

Sample Description	Date Collected	Cyclohexane	Dibromochloromethane	Dichlorodifluoromethane	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl Acetate	Methyl Ethyl Ketone (2-Butanone)	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	Methylcyclohexane	Methylene Chloride	Styrene	Tert-Butyl Alcohol	Tert-Butyl Methyl Ether	Toluene	Trans-1,3-Dichloropropene	Trichlorofluoromethane	Xylenes, Total
CAS RN:		110-82-7	124-48-1	75-71-8	100-41-4	98-82-8	79-20-9	78-93-3	108-10-1	108-87-2	75-09-2	100-42-5	75-65-0	1634-04-4	108-88-3	10061-02-6	75-69-4	1330-20-7
Unit:		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
NYSDEC 703 Class GA:				5	5	5		50			5	5		10	5		5	5
BP-3A	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.1 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
BP-3B	9/10/2018	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.0 U	0.52 J	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	0.23 J	< 2.0 U
BP-3C	9/10/2018	< 1.0 U	< 1.0 U	2.3	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.0 U	0.38 J	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	0.21 J	< 2.0 U
DW-1	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	4.4 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
DW-2	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.1 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-1A	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.2 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-1A DUP	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.3 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-1B	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	4.3 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-1C	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.8 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-2A	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.1 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	2.7	< 1.0 U	< 1.0 U	< 2.0 U
EW-2B	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.8 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-2C	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.1 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-2D	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.9 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-4A	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-4B	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.5 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-4C	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.4 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-4D	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.3 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-5	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.0 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-7C	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.9 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	1.0	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-7D	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.2 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-11D	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.1 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-12D	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.8 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	0.80 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
EW-14D	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.6 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
LF-1	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.2 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
M-30B-R	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.4 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-05B	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.2 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-06B	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.6	< 5.0 U	2.7 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	1.1	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-06C	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.7 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-06D	9/11/2018	0.53 J	< 1.0 U	< 1.0 U	< 1.0 U	0.58 J	< 5.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	0.65 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-06E	9/11/2018	0.40 J	< 1.0 U	< 1.0 U	< 1.0 U	2.6	< 5.0 U	2.6 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	0.57 J	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-06F	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-7B-R	9/10/2018	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 10 U	5.0 J	< 10 U	< 2.0 U	< 2.0 U	< 2.0 U	< 20 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 4.0 U
MW-08A	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.8 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-08B	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.2 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-08C	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.2 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-09B	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.0 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-09C	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.7 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-10D	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	3.7 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
MW-11A	9/10/2018	< 1.0 U	< 1.0 U	4.1	< 1.0 U	< 1.0 U	< 5.0 U	5.6	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	1.5	< 2.0 U
MW-11B	9/10/2018	< 1.0 U	< 1.0 U	4.2	< 1.0 U	< 1.0 U	< 5.0 U	3.1 J	< 5.0 U	< 1.0 U	0.46 J	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	0.65 J	< 2.0 U
OBS-1	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
WT-01	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.5 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
WT-01 DUP	9/11/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	2.5 J	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U
Trip Blank	9/10/2018	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 10 U	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	< 2.0 U

Note: U = not detected; J = estimated value
Values in shaded cells exceed NYSDEC 703 Class GA criteria.

ATTACHMENT A

Full Labratory Delieverable available on Claremont OU4 Sharepoint Site.

ATTACHMENT B

Synoptic Water Level Data

Water Level Data Sheet

Claremont GWTF OU5

Old Bethpage, New York

Date of Recording:			Data Recorded By:		Katie Markowitz	
Well ID	**6-6-18 DTW Reading**	**Time**	**DTW**	**Riser Elevation**	**Water Elevation**	**Comments/Notes**
BP-3A	66.17	9:40	66.36	124.16	**57.80**	
BP-3B	67.08	9:45	68.43	123.19	**54.76**	
BP-3C	67.26	9:43	68.66	123.91	**55.25**	
DW-1	69.04	11:30	69.90	130.13	**60.23**	
DW-2	74.68	11:37	75.60	135.52	**59.92**	
EW-1A	67.87	11:21	68.69	128.75	**60.06**	
EW-1B	68.42	11:18	69.25	129.31	**60.06**	
EW-1C	68.46	11:24	69.42	129.16	**59.74**	
EW-2A	95.65	8:08	96.57	156.09	**59.52**	
EW-2B	95.97	8:10	96.87	156.50	**59.63**	
EW-2C	95.93	8:12	96.84	156.50	**59.66**	
EW-2D	96.72	8:15	97.78	157.12	**59.34**	
EW-3A	98.95	8:26	99.98	157.88	**57.90**	
EW-3B	99.12	8:28	100.29	157.99	**57.70**	
EW-3C	99.00	8:30	100.16	157.87	**57.71**	
EW-4A	99.64	10:16	100.57	160.58	**60.01**	
EW-4B	99.71	10:18	100.61	160.59	**59.98**	
EW-4C	99.44	10:20	100.37	160.33	**59.96**	
EW-4D	99.95	10:23	100.97	160.62	**59.65**	
EW-5	74.32	11:36	75.41	135.05	**59.64**	
EW-6A	67.46	12:27	68.15	128.92	**60.77**	DTB 75.0 ft, was dry previously
EW-6C	67.74	12:25	68.73	129.02	**60.29**	
EW-7C	91.33	12:35	92.31	152.45	**60.14**	
EW-7D	91.27	12:38	92.24	152.35	**60.11**	
EW-8D	69.24	11:44	70.22	130.21	**59.99**	
EW-9D	75.12	12:30	76.22	136.20	**59.98**	
EW-10C	98.54	10:26	99.47	159.80	**60.33**	
EW-11D	104.14	10:07	105.19	164.17	**58.98**	
EW-12D	102.99	10:11	104.00	163.34	**59.34**	
EW-13D	103.18	10:30	104.29	163.61	**59.32**	
EW-14D	43.69	9:22	44.86	100.58	**55.72**	
LF-1	49.35	12:18	50.04	109.83	**59.79**	
LF-02	56.70	12:49	57.45	117.18	**59.73**	
M-30BR	90.85	13:02	91.82	153.07	**61.25**	
MW-5B	76.97	8:00	77.66	136.99	**59.33**	
MW-6A	99.05	10:45	100.02	158.83	**58.81**	DTB 104.8 ? Was dry previously
MW-6B	99.28	11:02	100.22	159.02	**58.80**	
MW-6C	98.71	10:53	99.63	158.65	**59.02**	
MW-6D	99.34	10:56	100.35	159.01	**58.66**	
MW-6E	99.98	10:59	101.02	159.54	**58.52**	
MW-6F	99.40	10:48	100.50	158.71	**58.21**	
MW-7BR	90.07	8:38	91.68	146.27	**54.59**	
MW-8A	73.03	11:09	73.91	133.52	**59.61**	
MW-8B	72.55	11:06	73.51	132.84	**59.33**	
MW-8C	74.17	11:13	75.11	134.27	**59.16**	
MW-9B	93.87	8:45	95.88	151.78	**55.90**	
MW-9C	94.64	8:43	97.16	151.97	**54.81**	

MW-10B	100.31	8:20	101.41	159.90	**58.49**	
MW-10C	99.56	9:59	100.66	158.89	**58.23**	
MW-10D	100.56	9:56	101.83	159.67	**57.84**	
MW-11A	24.98	9:03	26.12	78.71	**52.59**	
MW-11B	24.79	9:05	25.91	78.43	**52.52**	
OBS-1	51.43	8:51	53.09	109.03	**55.94**	
SW-1	69.28	11:31	70.09	130.24	**60.15**	DTB 70.99 ft , was dry previously
WT-01	102.47	10:36	103.38	163.28	**59.90**	
55 wells						
New wells						
MW CPC-36		14:35	24.98			reading taken 9/10/18
MW CPC-37		14:45	29.24			reading taken 9/10/18

GROUNDWATER ELEVATIONS
BETHPAGE STATE PARK
WATER LEVEL MEASUREMENTS

September 7, 2018 **MF, JD, KF**

WELL	TIME	MEASURING POINT ELEV	DEPTH TO WATER		COMMENTS
BP-1A	NA	109.77	NA	109.77	*Lock frozen*
BP-1B	13:13	109.53	50.68	58.85	
BP-1C	13:15	109.37	50.40	58.97	
BP-2A	11:35	151.00	90.62	60.38	
BP-2B*	11:34	151.13	91.99	59.14	
BP-3A	NR	124.54	NR	124.54	*measured by HDR*
BP-3B	NR	123.57	NR	123.57	*measured by HDR*
BP-3C	NR	123.68	NR	123.68	*measured by HDR*
BP-4A	11:47	92.69	36.36	56.33	
BP-4B*	11:48	91.92	35.71	56.21	
BP-4C*	11:49	91.68	36.31	55.37	
BP-4I	11:46	92.10	35.82	56.28	
BP-5A	11:14	96.34	39.80	56.54	
BP-5B	NA	96.48	NA	96.48	*Lock frozen*
BP-5C	11:15	96.28	40.32	55.96	
BP-6A	10:45	102.55	43.91	58.64	
BP-6B	NA	102.58	NA	102.58	*Lock frozen*
BP-6C	NA	102.35	NA	102.35	*Lock frozen*
BP-7A	10:53	147.54	87.53	60.01	
BP-7B	10:52	148.76	88.89	59.87	
BP-7C	10:51	148.40	88.70	59.70	
BP-8A	13:35	89.88	31.64	58.24	
BP-8B	13:30	89.82	31.50	58.32	
BP-8C	13:40	89.53	32.21	57.32	
BP-9B*	12:50	85.09	30.06	55.03	
BP-9C*	12:52	84.88	31.72	53.16	
BP-9I	12:53	85.18	31.00	54.18	
BP-10B*	NR	81.21	NR	81.21	*RECORDER in WELL*
BP-10C*	NR	80.94	NR	80.94	*RECORDER in WELL*
BP-11	NA	81.76	NA	NA	*WELL BURIED*
BP-12A*	13:00	78.33	23.77	54.56	
BP-12B*	13:03	78.24	23.94	54.30	
BP-12C*	13:05	78.56	25.60	52.96	
BP-13B*	11:06	133.37	82.25	51.12	
BP-13C*	11:08	133.67	80.99	52.68	
BP-14B*	12:12	81.50	26.75	54.75	
BP-14C*	12:13	81.48	27.78	53.70	*REPLACE LOCK*
BP-15B	12:21	98.38	42.86	55.52	
BP-15C	12:20	98.45	42.97	55.48	
OBV-1B	10:27	157.26	93.82	63.44	
OBV-1C	10:29	156.69	94.25	62.44	
W-7A	14:40	104.44	43.77	60.67	
W-7B	14:35	104.55	44.79	59.76	
W-7C	14:45	104.68	45.12	59.56	
W-7D	14:30	104.58	45.57	59.01	
RB-1	14:20	135.02	72.02	63.00	
UM-1	14:55	115.64	53.92	61.72	
U-6A	14:05	153.94	89.32	64.62	
ORW-1	NA	147.68	NA	NA	*Vault Door Jammed*
ORW-2	11:40	97.88	41.40	56.48	
ORW-3	11:50	91.39	35.32	56.07	
ORW-4	12:05	88.88	33.41	55.47	
ORW-5A	11:21	100.38	47.94	52.44	
ORW-6	12:48	83.42	28.52	54.90	
ORW-7	12:38	76.14	22.36	53.78	

* = DEDICATOR PUMP IN WELL