GROUNDWATER EXTRACTION AND TREATMENT SYSTEM ANNUAL OPERATIONS REPORT FOR THE PERIOD JANUARY 1, 2013, THROUGH DECEMBER 31, 2013 FORMER YORK NAVAL ORDNANCE PLANT

Leidos Project 2603200245 / 2000 / 100

Prepared for:

Harley-Davidson Motor Company Operations, Inc.

York, PA

March 2014

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Groundwater Extraction and Treatment System
Annual Operations Report
for the Period
January 1, 2013, Through December 31, 2013
Former York Naval Ordnance Plant

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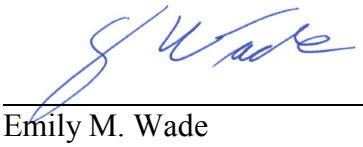
Respectfully submitted,



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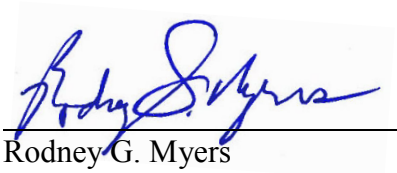

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cfm	-	cubic feet per minute
1,1-DCE	-	1,1-dichloroethene
cis-1,2-DCE	-	cis-1,2-dichloroethene
EPA	-	United States Environmental Protection Agency
fYNOP	-	former York Naval Ordnance Plant
GAC	-	granular-activated carbon
gpd	-	gallons per day
gpm	-	gallons per minute
GSC	-	Groundwater Sciences Corporation
GWTS	-	groundwater extraction and treatment system
Harley-Davidson	-	Harley-Davidson Motor Company Operations, Inc.
lbs/day	-	pounds per day
Leidos	-	Leidos Engineering, LLC
NB4	-	North Building 4
NPBA	-	Northeast Property Boundary Area
NPDES	-	National Pollutant Discharge Elimination System
PADEP	-	Pennsylvania Department of Environmental Protection
PCE	-	tetrachloroethene
ppm	-	parts per million
PTA	-	packed tower aerator
PVC	-	polyvinyl chloride
RI	-	Remedial Investigation
SAIC	-	SAIC Energy, Environment & Infrastructure, LLC
SRBC	-	Susquehanna River Basin Commission
TCA	-	1,1,1-trichloroethane
TCE	-	trichloroethene
µg/L	-	micrograms per liter
VOCs	-	volatile organic compounds
WPL	-	West Parking Lot
YCIDA	-	York County Industrial Development Authority

EXECUTIVE SUMMARY

This report is a summary of the groundwater extraction and treatment system (GWTS) operations and maintenance during the calendar year 2013 for the former York Naval Ordnance Plant (fYNOP). The GWTS is located at the Harley-Davidson Motor Company Operations, Inc. (Harley-Davidson) facility in York, Pennsylvania, and has been in operation since November 1990. The system operated smoothly, with a few planned interruptions during the report period of January 1, 2013, through December 31, 2013. The West Parking Lot (WPL) system was shut down for a three-week monitoring event during late April/early May. The Northeast Property Boundary Area (NPBA) and lift station systems were shut down for evaluation during the latter half of the year. The entire GWTS was shut down for monitoring during the last five weeks of the year. The GWTS was designed to accomplish the following:

1. Prevent off-site groundwater and contaminant migration in the NPBA.

2. Remove volatile organic compound (VOC)-impacted groundwater in the 1,1,1-trichloroethane (TCA) Tank Area near former Building 2.

3. Prevent off-site migration of contaminants in groundwater in the WPL Area.

4. Collect groundwater from the Building 3 Dewatering (Lift Station) Area's groundwater interceptor trench system, preventing VOC-impacted groundwater from discharging to the surface or into the building.

The extraction system consists of fifteen (15) active extraction wells: nine (9) in the NPBA, one (1) in the TCA Tank Area, four (4) in the WPL/North Building 4 (NB4) Area, and the Building 3 Dewatering Area's interceptor trench system including one (1) well CW-19.

During 2013, Harley-Davidson continued groundwater remedial investigation (RI) studies under the work plan entitled Field Sampling Plan for Part II of the Supplemental Remedial Investigation, Former York Naval Ordnance Plant, dated April 2012 (Groundwater Sciences Corporation (GSC). Three shutdowns of the GWTS were conducted as part of this work plan. Details and approvals for the shutdowns were facilitated via separate addendums to the field sampling plan. The addendums were:

- Addendum No. 6, issued March 20, 2013 – Northern Property Boundary Area (NPBA) Extraction System Monitored Shutdown (for the NPBA system shutdown).
- Addendum No. 7, issued March 20, 2013 – Building 3 Footer Drain Monitored Shutdown (for the Lift Station system shutdown).
- Addendum No. 11, issued October 21, 2013 – Groundwater Tracer Studies (for the WPL/West Campus and entire GWTS shutdown).

Several significant maintenance and groundwater treatment-related modifications or repairs were conducted during the 2013 report period. These included:

- Completing a vibration analysis on the packed tower aerator (PTA) blower. The blower was dynamically balanced and new sheaves were installed.

- Repairing the PTA influent pump.
- Treating 51,730 gallons of groundwater generated during drilling activities as part of the Part 2 Supplemental Remedial Investigation (RI) Groundwater Investigation work.
- Cleaning and repairing of the effluent discharge pumps.
- Replacing granular-activated carbon (GAC) in the off-gas treatment system.

Approximately 1,321 pounds of VOCs were removed by the GWTS during the time period of January through December 2013. The total amount of groundwater extracted during this 12-month reporting period was approximately 154 million gallons. Since initiation of the program, approximately 42,480 pounds of VOCs have been removed.

Groundwater elevation data collected in August and November 2013 indicate that operation of groundwater extraction wells at the TCA Tank and WPL areas resulted in areas of groundwater table depression that capture or minimize off-site migration of VOC-impacted groundwater. The NPBA extraction wells were not pumping during the August and November water level measurement events as part of the Addendum No. 6 NPBA Extraction System Monitored Shutdown study.

The combined influent total VOC concentrations in captured groundwater averaged 1,053 micrograms per liter (µg/L) during 2013. Trichloroethene (TCE), tetrachloroethene (PCE), cis-1,2-dichloroethene (cis-1,2-DCE), and TCA are the predominant VOCs in the influent groundwater entering the PTA. The PTA effluent was sampled and reported four times in 2013. The treatment system effluent has maintained non-detectable concentrations of target VOCs during this reporting period.

During 2013, the extraction wells were sampled for priority pollutant VOCs in May (NPBA), June (CW-8 and WPL), and September 2013. Site-wide water levels measured in August and November 2013 showed little variation in the configuration of the site groundwater table. Water levels measured in August were generally one to two feet higher compared to November.

Historically, VOC concentrations in the site-wide extraction wells have shown a generally decreasing trend. Concentrations in the NPBA extraction wells continued to support this trend during 2013. The VOC concentrations in the TCA Tank Area extraction well (CW-8) have exhibited a decreasing concentration trend since June 1996, with negligible TCA concentrations, but total VOC concentrations have stabilized in the 400 to 900 µg/L range since 2001. VOC concentrations have generally decreased at the WPL extraction wells since May 1994. During this time, most of the WPL extraction wells have exhibited a relatively flat or gradual decreasing concentration trend for the most prevalent VOC in this area (TCE). In 2013, CW-9 had increased levels of PCE and TCE for the September 2013 sampling event.

1.0 INTRODUCTION

This report presents a summary of the operating record for the former York Naval Ordnance Plant (fYNOP) groundwater extraction and treatment system (GWTS), extraction well quality, and groundwater level data monitored at the site during 2013. The fYNOP facility is located at the Harley-Davidson Motor Company Operations, Inc. (Harley-Davidson) York facility and on the York County Industrial Development Authority (YCIDA) property in Springettsbury Township, York, Pennsylvania, as shown on Figure 1-1. This report covers the 12-month period from January 1 through December 31, 2013.

The west campus area (encompassing the West Parking Lot [WPL] and 1,1,1-trichloroethane [TCA] systems) was sold to YCIDA on June 14, 2012. Harley-Davidson has retained responsibility for the cleanup and established an easement agreement with YCIDA (1445 Eden Road, York, Pennsylvania) to continue remediation, monitoring, and maintenance activities. The fYNOP facility now includes properties owned by Harley-Davidson and YCIDA (see property boundaries shown on Figure 1-2).

At the fYNOP, groundwater is extracted from 14 active pumping wells (CW-1, CW-1A, CW-2 through CW-7, CW-7A, CW-8, CW-9, CW-13, CW-15A, and CW-17) operating in 3 separate areas designated as the Northeast Property Boundary Area (NPBA), the WPL Area (including the North Building 4 [NB4] Area), and the TCA Tank Area. Groundwater is also extracted from a subsurface gravity drainage system located along the upgradient (eastern) perimeter of Harley-Davidson's production facility (Building 3). This collection system, known as the Building 3 Dewatering System, was implemented in 2002 and consists of approximately 800 feet of deep interceptor trench, approximately 600 feet of shallow interceptor trench (toe drain), and a collection well CW-19 (inactive since setup). The locations of these collection systems are shown on Figure 1-2.

All extracted groundwater is piped to a central treatment system located in the groundwater treatment building (Building 41A) for processing through a packed tower aerator (PTA) system prior to discharge to the Codorus Creek, designated as Outfall No. 003 (see Figures 1-1 and 1-2). Figure 1-3 presents a schematic flow diagram for this treatment system. A chemical sequestering agent (Redux 525) injection system was installed to reduce mineral fouling of the GWTS PTA and effluent discharge pumps and components in June 2010 and has continued to operate throughout 2013. PTA off-gases are treated by a granular-activated carbon (GAC) filter system for removal of volatile organic compounds (VOCs) before being discharged to the atmosphere.

In November 1990, ten extraction wells in the NPBA and TCA Tank Areas were brought on-line while ongoing studies were performed in the WPL. The WPL Area groundwater extraction system was brought on-line in May 1994. Finally, the Building 3 dewatering system was brought on-line using a float system to transfer water to the GWTS in January 2004.

On December 2, 1993, the National Pollutant Discharge Elimination System (NPDES) permit No. PA0085677 was issued for the system. The most current permit renewal was issued by the Pennsylvania Department of Environmental Protection (PADEP) on November 22, 2010. Since June 2007, treated groundwater has been collected in a wet well located immediately northwest of Building 41A (refer to Figure 1-2). From the wet well, groundwater is pumped through a force main to Outfall 003 located along the Codorus Creek.

The parent company of SAIC Energy, Environment & Infrastructure, LLC (SAIC) separated into two companies, effective September 27, 2013, resulting in a name change from SAIC to Leidos Engineering, LLC (Leidos). The data presented in this annual report were collected by Leidos (formerly SAIC) under contract to Harley-Davidson and are summarized in the following chapter format:

- Chapter 2.0, Geology and Hydrogeology, summarizes the hydrogeologic conditions of the site.
- Chapter 3.0, Site-Wide Groundwater Monitoring, summarizes groundwater levels and quality.
- Chapter 4.0, Groundwater Extraction and Treatment System, describes the design capacity of the system and presents the record of influent and effluent water quality. The VOC loading to the PTA and GAC unit also is presented.
- Chapter 5.0, NPBA Groundwater Extraction System, summarizes water levels and VOC concentrations for each extraction well in the NPBA. System performance is evaluated based upon observed trends in the data.
- Chapter 6.0, TCA Tank Area Groundwater Extraction System, describes operation and performance of extraction well CW-8 located in this area. Water levels and VOC concentration data are used to evaluate system performance.
- Chapter 7.0, West Parking Lot Groundwater Extraction System, describes the operation of extraction wells in this area. System performance, water level data, and VOC trends are presented.
- Chapter 8.0, Building 3 Dewatering System, describes the operation of the groundwater collection system in this area.

2.0 GEOLOGY AND HYDROGEOLOGY

Two geologic rock formations underlie the site. Solution-prone (karst) gray carbonate bedrock (limestone and dolostone) underlies the flat lowland (western) portion of the site. Quartzitic sandstone underlies the more steeply sloping hills or upland area present on the eastern part of the site. Groundwater flow is generally westward, from the upland area at the eastern part of the site toward Codorus Creek. A detailed discussion of the geology and hydrogeology is included in a document prepared by Groundwater Sciences Corporation (GSC) in September 2011 entitled "Supplemental Remedial Investigation Groundwater Report (Part 1)." Ongoing investigations are continuing in Part 2 of the Supplemental Groundwater Remedial Investigation.

3.0 SITE-WIDE GROUNDWATER MONITORING

The groundwater monitoring program at the fYNOP site for this year consisted of:

- Measuring depth to water in all available monitoring and observation wells twice during the year (Table A-1 found in Appendix A).

- Sampling and chemical analysis of water from the collection wells twice during the year (Table A-2 found in Appendix A).

3.1 Groundwater Flow Direction

The depth to water was measured in site-wide groundwater wells two times during the reporting period (August 28, 2013, and November 25, 2013). These measurements were taken from approximately 200 monitoring points in August and November 2013 (including two surface water locations in Codorus Creek). Newly constructed monitoring wells were installed in 2013 as part of the Supplemental Remedial Investigation Groundwater Part 2 and other investigations. The depths to water at each monitoring point for these events were converted to groundwater elevations and are presented in Table A-1 (found in Appendix A). Figures 3-1 and 3-2 identify the location of each well that was available or measured, including the classification as a groundwater extraction well (see the green symbol of a circle with a cross and two quadrants filled in) or a groundwater monitoring well (see the symbol of a circle with a cross and all quadrants empty).

Several water levels could not be collected in August. A trailer was parked over MW-118, and wells MW-28 and MW-160 could not be located. In November, monitoring wells MW-18S/D had packers in the wellheads, MW-16D was artesian, MW-28 could not be located, and a trailer was parked over MW-118. Residential well RW-2 was not gauged because the property owner forgot to unlock the basement door to access the wellhead.

Figures 3-1 and 3-2 present the interpreted shallow groundwater table from water levels measured on August 28 and November 25, 2013, respectively. The groundwater contours presented on these maps were generated using only water levels collected from wells screened in the shallow portion of the aquifer. The general configuration of the water table in the eastern half of the site indicates a gradient toward the west-southwest. The water table gradient beneath the eastern portion of the site, underlain by sandstone, is relatively steep. The water table gradient in the western half of the site is generally westward, toward Codorus Creek. The water table gradient beneath the western portion of the site, underlain by limestone bedrock, is relatively flat.

A significantly large area centered on the production facility (Building 3) does not have monitoring wells, and CW-19 (located within Building 3) was constructed above the normal groundwater surface elevation and is normally dry. Groundwater contours in this area were adjusted to account for known surface seeps and the elevations of groundwater depression trenches actively collecting groundwater at the time of the survey. The trench locations and elevations are also shown on Figures 3-1 and 3-2.

The August and November 2013 groundwater table contours are generally similar. In normal precipitation years, June water levels would be declining after winter recharge ceased in May. December water levels generally increase due to groundwater recharge, which starts when trees drop their leaves in October/November. Amount and timing of precipitation events result in the variations that are noted from year to year. A brief summary of seasonal water level fluctuations is presented below by bedrock aquifer type (also refer to Table 3-1, Table 3-2, and Figure 3-3):

- The water levels in the eastern portion of the site that is underlain by sandstone were approximately one foot higher in August 2013 compared to November 2013. This determination was made using data for wells in areas that are not affected by the NPBA extraction wells.

- Water levels in the limestone aquifer were generally one to two feet higher in August 2013 compared to November 2013. The month of August was wetter than average, whereas November was slightly drier than normal in 2013 compared to an average year (refer to Table 3-1).

4.0 GROUNDWATER EXTRACTION AND TREATMENT SYSTEM

The GWTS serves to remediate groundwater containing dissolved VOCs that is recovered from five areas of the site: NPBA, TCA Tank, NB4, WPL, and the Building 3 dewatering system.

4.1 System Description

Extraction wells within the NPBA, TCA Tank Area, NB4, and the WPL groundwater extraction areas remove groundwater by means of electric submersible pumps. At Building 3, a lift station pump removes water from a series of collection trenches. The pumping water level within each extraction well is maintained by liquid level probes and control circuitry between the “on” and “off” probes. This produces an area of drawdown and groundwater capture. The extracted groundwater is conveyed via underground piping to the treatment system where the dissolved VOCs are removed from the groundwater.

The groundwater treatment system is housed in a 30-foot by 40-foot building (Building 41A). The process flow diagram for the system is presented on Figure 1-3. The treatment system consists of a 2,600-gallon equalization tank; a 5-foot-diameter by 47-foot-high PTA capable of treating 400 gallons per minute (gpm) of groundwater; and a 10,000-pound vapor-phase GAC unit for PTA off-gas treatment.

Extracted groundwater is pumped from the equalization tank at a maximum flow rate of 400 gpm to the top of the PTA. Redux 525 sequestering agent is injected into this flow at an approximate rate of 20 parts per million (ppm). Groundwater is then distributed evenly over the top of the polypropylene packing and flows down through the packed section of the PTA, while a 4,000-cubic-foot-per-minute (cfm) centrifugal blower draws air up through the PTA column. The VOCs are effectively “stripped” from the water and then adsorbed to the GAC in the air-phase. The treated groundwater flows by gravity to a wet well (effluent pump station) located on the north side of Building 41A where it is pumped approximately 1,600 feet via an 8-inch underground force main to Outfall No. 003 and discharged to Codorus Creek (see Figure 1-2).

The groundwater treatment system is equipped with a PC-based RSView® monitoring system. The RSView® software was upgraded from version 32-7.1 to 32-7.6 in 2012. Remote computer terminals are located in both Harley-Davidson and Leidos offices where extraction well pumping rates and treatment processes can be monitored. System and extraction well pumping rates are adjusted at the site. System data, recorded in an Access® data base (via the RSView® monitoring system) during 2013, are included in Appendix B.

4.2 System Maintenance and Modifications

Twice a month, system inspections are performed on the groundwater treatment system at the Harley-Davidson facility. The purpose of these inspections is to ensure effective operation of the system. A summary of operation and maintenance data recorded during these visits is included in Appendix C. Items reviewed during each visit include the following:

- Check for system alarms.
- Inspect control panels.
- Check water conveyance line pressures.
- Check pressure differential across the stripping tower.
- Check piping and pumps for leaks.
- Clean Y-strainers of buildup, etc., as necessary.
- Check and record amperage draws on all motors (quarterly).
- Record flow rates on recovery wells and transfer pump.

Significant maintenance and groundwater treatment-related modifications or repairs were identified and addressed during the report period. A brief summary is presented below:

- The effluent pumps were removed one at a time to be cleaned and repaired. The repairs included general pump maintenance and replacing damaged parts.

- Treated 51,730 gallons of groundwater from the Part 2 Supplemental Remedial Groundwater Investigation that was conducted in 2013. The groundwater was collected during drilling and groundwater sampling activities.

- Control Systems 21 completed a calibration check on all flow meters associated with the GWTS. The flow meter calibrations were submitted to the Susquehanna River Basin Commission (SRBC) in June 2013.

- Performed break-through monitoring of the GAC to determine when to complete the GAC change-out. Spent GAC was removed and replaced in January, March, and October 2013.

4.3 Groundwater Withdrawal and VOC Removal

Table 4-1 presents recorded groundwater withdrawal and total VOC removal that have been accomplished through operation of the GWTS. A system-wide total of approximately 42,480 pounds of VOCs have been removed since the groundwater treatment system began operation in November 1990. On average, prior to start-up of the WPL system in May 1994, approximately 131 gpm of groundwater and 1.2 pounds per day (lbs/day) of total VOCs were being extracted by the system. Since the WPL system became operational, the average groundwater pumping rate from 1995 through December 2013 was approximately 278 gpm.

The total amount of groundwater extracted during the period from January 1 through December 31, 2013, was approximately 146 million gallons (an average of 398,676 gallons per day [gpd] or 277 gpm). The 2013 extraction volumes are approximately 5 percent lower than the previous year (2012) when the average flows were approximately 419,739 gpd (or 291 gpm). This decrease is attributable to a few planned interruptions during 2013, including shutdown of the WPL system for a three-week monitoring event during late April/early May; monitored shutdown of the NPBA and lift station systems during the latter half of the year; shutdown of the entire GWTS for a monitoring study during the last five weeks of the year; and a few minor maintenance-related shutdowns. The GWTS was shut down for a total of approximately 4.4 days in 2013 due to maintenance activities and 43.5 days for the planned studies as

part of the ongoing Supplemental Groundwater Remedial Investigation – Part 2. PADEP was notified of these activities, in accordance with NPDES requirements.

Quarterly PTA influent analyses (shown in Table A-3, Appendix A), along with the measured extraction volumes, are used to calculate the mass of VOCs removed from site groundwater during the reporting period (see Figure 4-1). Using these data, the total estimated mass of VOCs removed from January through December 2013 was 1,321 pounds. This mass removal rate is approximately 14 percent lower than the value calculated during 2012 (approximately 1,525 pounds). This decrease in mass removal rate can be attributed to the decrease in flows and a lower overall average influent concentration for 2013 (1,053 micrograms per liter [µg/L]) compared to 2012 (1,186 µg/L). The calculated VOC mass removal rates (lbs/day) extracted by the GWTS for the last five calendar years are shown below:

- 2013 – 3.6 lbs/day
- 2012 – 4.2 lbs/day
- 2011 – 3.3 lbs/day
- 2010 – 3.8 lbs/day
- 2009 – 4.3 lbs/day

From the time that groundwater remediation began in November 1990 until start-up of the WPL extraction system in May 1994, the PTA influent concentrations averaged approximately 750 µg/L of total VOCs. Following start-up of the WPL system, the average total VOC concentration spiked above 10,000 µg/L and then asymptotically decreased to a base level. The average total VOC concentration detected in the PTA influent samples during the 2013 reporting period was 1,053 µg/L. The trend in PTA influent total VOC chemistry is illustrated on Figure 4-1. Figure 4-2 shows PTA influent chemistry trends since the start of pumping for tetrachloroethene (PCE), TCA, trichloroethene (TCE), and 1,1-dichloroethene (1,1-DCE). For the first time, PCE (instead of TCE) was the slightly dominant VOC in the influent chemistry during 2013.

The PTA effluent was sampled and reported four times during 2013. Analytical testing results for the 2013 PTA effluent and influent sampling are presented in Table A-3 (Appendix A). The treatment system effluent has maintained non-detectable concentrations of target VOCs during this reporting period.

On a quarterly basis, Harley-Davidson submits data to the SRBC regarding nonconsumptive groundwater withdrawal associated with the groundwater treatment system in accordance with dockets 19900715-1 and 19980901-1. The groundwater withdrawal dockets were modified on March 18, 2010. Information provided to the SRBC includes daily groundwater withdrawal totals (i.e., groundwater volumes extracted) from all collection wells and the overall system influent groundwater quality. The most recent submittal to the SRBC occurred in January 2014.

5.0 NPBA GROUNDWATER EXTRACTION SYSTEM

Groundwater extraction at the NPBA commenced in November 1990. Nine groundwater extraction wells (CW-1, CW-1A, CW-2, CW-3, CW-4, CW-5, CW-6, CW-7, and CW-7A) located on the Harley-Davidson property pump to the NPBA control building where individual pumping rates are controlled and measured. The groundwater from each well is combined to a common 3-inch-diameter pipe, which transmits the water a distance of approximately 2,000 feet to the groundwater treatment system.

5.1 System Operational Conditions

The majority of the NPBA extraction wells operated continuously until the wells were shut down on June 19, 2013, for the remainder of the year for the Addendum No. 6 NPBA Extraction System Monitored shutdown study. The NPBA wells were started for a short duration in September 2013 to conduct sampling and on occasion may have encountered periods of interrupted pumping during the first half of the year due to maintenance of the system.

Table 5-1 presents a record of monthly groundwater withdrawals for each extraction well for this reporting period. During 2013, the NPBA extraction system removed approximately 2.7 million gallons of groundwater at an average rate of approximately 459,268 gallons per month (a period of 6 months), or 10.5 gpm. This volume is slightly lower than the withdrawal from the NPBA reported for 2012 (12.5 gpm). Figure 5-1 presents a graphical comparison of the 2013 monthly total volumes of groundwater pumped from the NPBA with respect to the other on-site systems. Overall, the NPBA pumped approximately 3.9 percent of the total volume of groundwater withdrawn at the site.

Measured groundwater levels for 2013 are presented in Table A-1. The NPBA extraction system was not operating during the August and November 2013 site-wide water levels due to the Addendum No. 6 NPBA Extraction System Monitored Shutdown study. The groundwater contour maps, shown on Figures 3-1 and 3-2, depict non-pumping conditions for the NPBA wells. Additionally, Table 5-2 summarizes monthly measurements of water levels for extraction wells in the NPBA during active pumping in 2013. This table also includes design “pump on” and “pump off” water level elevations. The NPBA wells require frequent flow adjustments to maintain a balanced number of pump cycles, which is controlled by the pumping rate of each well. When a flow rate is too low for current conditions, it results in water levels above the “pump on” elevation and a high-level alarm.

In 2013, groundwater levels were measured in the groundwater extraction wells on a monthly basis (while the system was running) to help determine if proper groundwater drawdown was being maintained. During 2013, up to two wells were noted during two months to be above the designed drawdown range. It should be noted that these low-flow extraction wells are generally more difficult to maintain, due to constant minor flow adjustments to the extraction wells.

Maintenance

Leidos replaced several groundwater extraction well pump ends and acid-cleaned the underground conveyance piping during the report period. Check valves, Y-strainers, chlorination of CW-3 and CW-6, and other components of the groundwater extraction system are maintained on a twice-per-month

schedule. The current maintenance program has been sufficient to keep the system operational. A brief summary of several maintenance issues addressed in 2013 is presented below:

- A new pump end was installed at CW-4 in February 2013.
- A new pump end was installed at CW-6 in June 2013.
- The underground groundwater conveyance lines were acid-cleaned in April 2013.

5.2 Groundwater Chemistry

With the exception of CW-6, the dominant VOC found in the NPBA extraction wells is TCE with concentrations ranging from 1.5 µg/L (CW-7, September 16, 2013) to 160 µg/L (CW-7A, September 16, 2013). PCE was the dominant VOC found at extraction well CW-6 at a concentration of 120 µg/L (May 20, 2013) and 36 µg/L (September 16, 2013). Historical trends of TCE in the NPBA are shown on Figure 5-2. Historical VOC trends for each collection well are shown on Figures 5-3 through 5-11. The groundwater quality analysis from the 2013 extraction well sampling data is presented in Table A-2 (Appendix A).

6.0 TCA TANK AREA GROUNDWATER EXTRACTION SYSTEM

In response to a release of TCA from a former solvent supply tank, groundwater extraction was initiated in November 1990 from CW-8, located at the southeast corner of former Building 91 (now owned by YCIDA). Pumping was initiated to prevent TCA migration and remove VOCs from the groundwater in this area. Groundwater extraction was initiated in February 1995 from CW-16 to contain and remediate groundwater beneath the former degreaser area located inside former Building 2, 150 feet east of CW-8. Groundwater from the TCA Tank Area is conveyed a distance of approximately 1,500 feet through a 3-inch-diameter underground pipe (rerouted/installed in 2011) to the groundwater treatment system.

Initially, extraction well CW-8 was pumped at a rate higher than necessary to maintain capture. The early goal was to reverse the direction of migration prior to initiation of groundwater pumping in the WPL, which would have potentially pulled the western edge of the TCA Tank plume further west, dispersing the concentrated source area. Prior to pumping of the WPL, the groundwater treatment plant, which was designed to handle water from the WPL, had excess capacity. Thus, the capacity was utilized to address the TCA Tank plume. When the WPL extraction system came on-line in May 1994, the pumping rate of CW-8 was reduced to a level that maintains capture of the TCA Tank Area plume.

In June 2002, extraction well CW-16 was removed from service. The pump at this well had failed. Because of the difficulty of servicing CW-16 due to its location in a congested manufacturing area and the ability of CW-8 to influence this vicinity, it was decided to discontinue groundwater extraction from this well (CW-16).

In July 2011, extraction well CW-8 conveyance piping, electric, and communications were rerouted from overhead in former Building 2 to underground running along the west side of former Building 4. The conveyance piping, electric, and communications were rerouted due to the demolition of former Building 2 in late 2011.

In August 2012, extraction well CW-8 was shut down, and the pump assembly was pulled due to air-rotary drilling adjacent to the wellhead. The drilling was part of the Supplemental Remedial Investigation Groundwater Part 2 work. Following drilling, and prior to reinstallation of the pump, CW-8 was redeveloped, using pumping and surging methods at the end of October 2012. Upon restart of CW-8, pumping rates were increased from approximately 100 gpm to 120 to 130 gpm to maintain the same drawdown and are believed to be a result of the redevelopment activities.

6.1 System Operational Conditions

Except for CW-8 being off-line between April 26, 2013, and May 14, 2013, for a WPL shutdown study, and during the last five weeks of the year for the Addendum No. 11 Groundwater Tracer studies, the extraction well operated the majority of the time during the reporting period. Table 5-1 presents a record of monthly groundwater withdrawals from extraction well CW-8. During 2013, approximately 54 million gallons of groundwater were extracted from the TCA Tank Area, averaging approximately 4.9 million gallons per month (11 months) with an average pumping rate of 111 gpm. An average of approximately 84 gpm was calculated for the previous report period in 2012.

The groundwater contour maps (Figures 3-1 and 3-2) indicate water level conditions that existed during active pumping at CW-8 on August 28 and November 22, 2013. The water level at CW-8 was noted to be approximately three to four feet below the elevation measured in nearby wells during the August and November site-wide groundwater level measurement events. Additionally, Table 5-2 summarizes measurements of water levels for the CW-8 extraction well in the TCA Tank Area. The table also lists design "pump on" and "pump off" water level elevations.

During September 2013, the observed water level in CW-8 was below the design drawdown level for this well. The observed water level at CW-8 was generally within the designed range for the remainder of 2013 (excluding the month the well was off-line).

Based on the monthly total flow data (for 11 months of operation), the CW-8 daily extraction rate averaged approximately 161,130 gpd. This value equates to a monthly average of 4.9 million gallons, which represents a 25 percent increase from 2012 (3.7 million gallons per month). This well usually operated at its maximum capacity in 2013. Extraction well CW-8 did not operate for 62 days in 2013, compared to 90 days in 2012. Overall, CW-8 pumped approximately 36 percent of the total volume of groundwater withdrawn at the site in 2013.

Maintenance

Other than the pump shutdown activity reported above, there were no unscheduled maintenance actions for CW-8 during 2013. Extraction well CW-8 operated as designed throughout the report period with only shutdown interruptions for nearby well development and shutdown studies (described above).

6.2 Groundwater Chemistry

As groundwater pump and treat progressed in the TCA Tank Area, the dominant VOC present in the area shifted from TCA to TCE. TCA concentrations in collection wells CW-8 and CW-16 are shown on Figure 6-1. TCE concentrations in collection wells CW-8 and CW-16 are shown on Figure 6-2. On June 17, 2013, the TCA concentration was 92 µg/L; whereas TCE and cis-1,2-dichloroethene (cis-1,2-DCE) concentrations were 180 µg/L and 210 µg/L, respectively for CW-8. On September 16, 2013, the TCA, TCE, and cis-1,2-DCE concentrations at CW-8 were 22 µg/L, 140 µg/L, and 160 µg/L, respectively. The predominant VOC concentrations in collection well CW-8 are shown on Figure 6-3. The groundwater quality analysis from the 2013 extraction well sampling data is presented in Table A-2 (Appendix A).

7.0 WEST PARKING LOT GROUNDWATER EXTRACTION SYSTEM

Three groundwater extraction wells (CW-9, CW-13, and CW-17) operate in the WPL Area of the YCIDA property. One additional extraction well (CW-15A) is located near the exterior northwest corner of former Building 4. These four wells are referred to as the WPL wells. The purpose of the WPL groundwater extraction system is to prevent off-site migration of groundwater containing dissolved VOCs and to control the migration of VOCs in a plume located near the northwest corner of former Building 4. Groundwater extraction from the WPL wells is conducted via underground piping to the GWTS in Building 41A. The wells are individually piped to the GWTS so that flow control, flow measurements, and water samples may be obtained for each well at this central location. Water is piped the following distances from the wells to the treatment plant: CW-9 (1,320 feet), CW-13 (890 feet), CW-15A (310 feet), and CW-17 (590 feet).

Extraction wells CW-9, CW-13, CW-14, and CW-15A began operation in May 1994, and CW-17 began operation in September 1995. Well CW-17 was a replacement extraction well for CW-14, which was discontinued due to excessive sediment buildup in the well.

7.1 System Operational Conditions

The WPL system was off-line between April 26, 2013, and May 14, 2013, for a WPL shutdown study and for Addendum No. 11 Groundwater Tracer studies (November 25, 2013, to present). Otherwise, the extraction wells operated the majority of the time during the reporting period.

Approximately 92 million gallons of groundwater were extracted from the WPL Area during 2013 (see Table 5-1), averaging approximately 8.4 million gallons per month over an 11-month period (191 gpm). This groundwater extraction rate represents a 4.7 percent decrease from 2012 when the extraction rate was approximately 200 gpm. A graphical comparison of the WPL groundwater extraction volumes to the other site extraction systems is presented on Figure 5-1. Overall, the WPL wells pumped approximately 62 percent of the total volume of groundwater withdrawn at the site.

The groundwater contour maps (Figures 3-1 and 3-2) show the effect that the groundwater extraction system imposed on the water table at the WPL Area on August 28, 2013, and November 25, 2013. Groundwater contours from both measurement periods indicate a general area of groundwater surface depression surrounding the WPL Area.

Table 5-2 summarizes measurements of water levels for the WPL extraction wells. The table also lists design “pump on” and “pump off” water level elevations. A review of Table 5-2 indicates that during 2013, the water levels in WPL wells were generally close to the designed range. One groundwater extraction well was noted in April, June, September, and October to be above the designated drawdown range. Extraction well CW-15A was above the designated drawdown range in October. The flow rates were increased in the extraction wells to maintain the appropriate drawdown.

Maintenance

The WPL wells operated as designed throughout the report period with interruptions for maintenance, repairs, and shutdown studies, as identified above. The current maintenance program has maintained reliable operation of extraction wells CW-9, CW-13, CW-15A, and CW-17. A brief summary of maintenance issues addressed in 2013 is presented below:

- In March 2013, a new pump end was installed at CW-15A.
- In May 2013, new wye strainers were installed in CW-9, CW-13, and CW-17.
- In September 2013, a new pump motor and pump end were installed at CW-9.
- In November 2013, a piping leak was repaired near the pitless adapter in CW-17.

7.2 Groundwater Chemistry

Historical concentrations of VOCs in the WPL collection wells are shown on Figures 7-1 through 7-5. The dominant VOC is TCE with concentrations ranging from 61 µg/L (September 16, 2013, at CW-17) to 6,700 µg/L (September 16, 2013, at CW-15A). Extraction well CW-15A had the highest concentration of PCE (1,600 µg/L). The groundwater quality analysis from the 2013 extraction well sampling data is presented in Table A-2 (Appendix A).

8.0 BUILDING 3 DEWATERING SYSTEM

Harley-Davidson started excavation activities for the Softail production plant, now referred to as the Building 3 production plant, in 2001. This facility was constructed in the eastern portion of the site, in the vicinity of the former test track. Due to the potential for shallow VOC-impacted groundwater to discharge to the surface and to the lowest floor of the facility, a permanent groundwater collection system was designed as part of the project. The permanent groundwater collection system for the Building 3 site consists of a shallow interceptor trench (or toe drain), a deep interceptor trench and drain, and a capture well (CW-19). All three components of the groundwater collection system are designed to flow to a pumping station. From the pumping station, the groundwater is transported via underground piping to the groundwater treatment facility located in Building 41A (see Figure 1-2).

Groundwater collection via this system was initiated in March 2002. During 2013, this system collected 430,660 gallons of groundwater (refer to Table 5-1). This groundwater recovery rate represents a 134 percent decrease from 2012, when the annual recovery rate was 1,005,930 gallons, and is due to the dewatering system being shut down on June 19, 2013, for the Addendum No. 7 Building 3 Footer Drain Monitored Shutdown study. A graphical comparison of the dewatering system groundwater extraction volumes to the other site extraction systems is presented on Figure 5-1. Overall, the dewatering system recovered approximately 0.3 percent of the total volume of groundwater withdrawn at the site.

8.1 Toe Drain System

The northeast corner of the Building 3 site was identified as the area with the most potential for groundwater to discharge to the surface after final grading. To prevent the potential for human contact with the groundwater, a toe drain was installed at the bottom of the slope cut. This was designed to collect groundwater from this area, thus lowering the groundwater levels and minimizing surface discharges downgradient of the toe drain. The toe drain was constructed as a shallow (approximately four-foot-deep) gravity flow trench drain filled with gravel and four-inch perforated polyvinyl chloride (PVC) piping. The toe drain trench was lined with geotextile fabric to minimize sedimentation of the piping. An impermeable layer was placed on top of the trench to reduce infiltration of surface water into the drain. During site-wide restructuring activities in 2010, the hillside was cut further to allow the northern expansion of the building. The toe drain was reinstalled along the new toe of the slope (approximately 110 feet to the north of the former toe drain) on October 26, 2010.

A hillside interceptor system was installed on the east hillside and connected to the south end of the toe drain in May 2011. The interceptor system was installed to direct water from a seep in the hillside to the slope drain and to stabilize the hillside. The interceptor system was shaped like a “T.” Additional hillside stabilization work was completed in 2012. The 2011 interceptor system and “T” were removed, and new PVC interceptor drains were installed at various points on the hillside and covered with a gabion blanket system. The 2012 hillside stabilization drains were initially directed to discharge to the surface but were redirected to discharge to the local stormwater drains during 2013. A toe drain plug was installed at the lift station connection during the Addendum No. 7 study on June 19, 2013, preventing any toe drain discharge during the remainder of 2013.

8.2 Deep Trench Drain

During construction of the original Building 3, a deep trench drain was installed along the eastern perimeter of the building foundation due to the high probability of groundwater levels encountering the lower floor of the facility. The deep trench drain is sloped to gravity drain to a lift station, located along the north-central edge of the Building 3 expansion. The depth of the trench drain varies from 25 feet at the south end to approximately 29 feet near the lift station. Four clean-outs were installed along the 760-foot length of trenching. The deep trench drain was constructed of six-inch perforated PVC piping in a trench filled with coarse gravel. Prior to installation of the piping and drainage course, the trench was lined with a geotextile fabric to minimize sediment mixing with the gravel. During the Building 3 expansion work, one of the deep clean-outs was abandoned, one was maintained inside the expanded building, and the southernmost clean-out was extended beneath the southern building expansion.

8.3 Capture Well (CW-19)

A capture well (CW-19) and force main were installed adjacent to the paint sludge pit area of the production plant, within the basement of Building 3. The paint sludge pit area consists of a 27-foot-deep pit used to house the paint sludge holding tank. CW-19 was installed seven feet deeper than the pit so that the well could be programmed to begin pumping prior to the groundwater level reaching the elevation of the bottom of the pit. The force main was installed to transfer groundwater captured in the well to the lift station. The force main was installed with a slope toward the lift station so that groundwater does not remain in the line after the well pump stops running. Groundwater has not been detected in this well. The lowering of groundwater from the deep trench effectively keeps the groundwater below the depth of CW-19. CW-19 did not operate in 2013, including the Addendum No. 7 shutdown period.

8.4 Lift Station

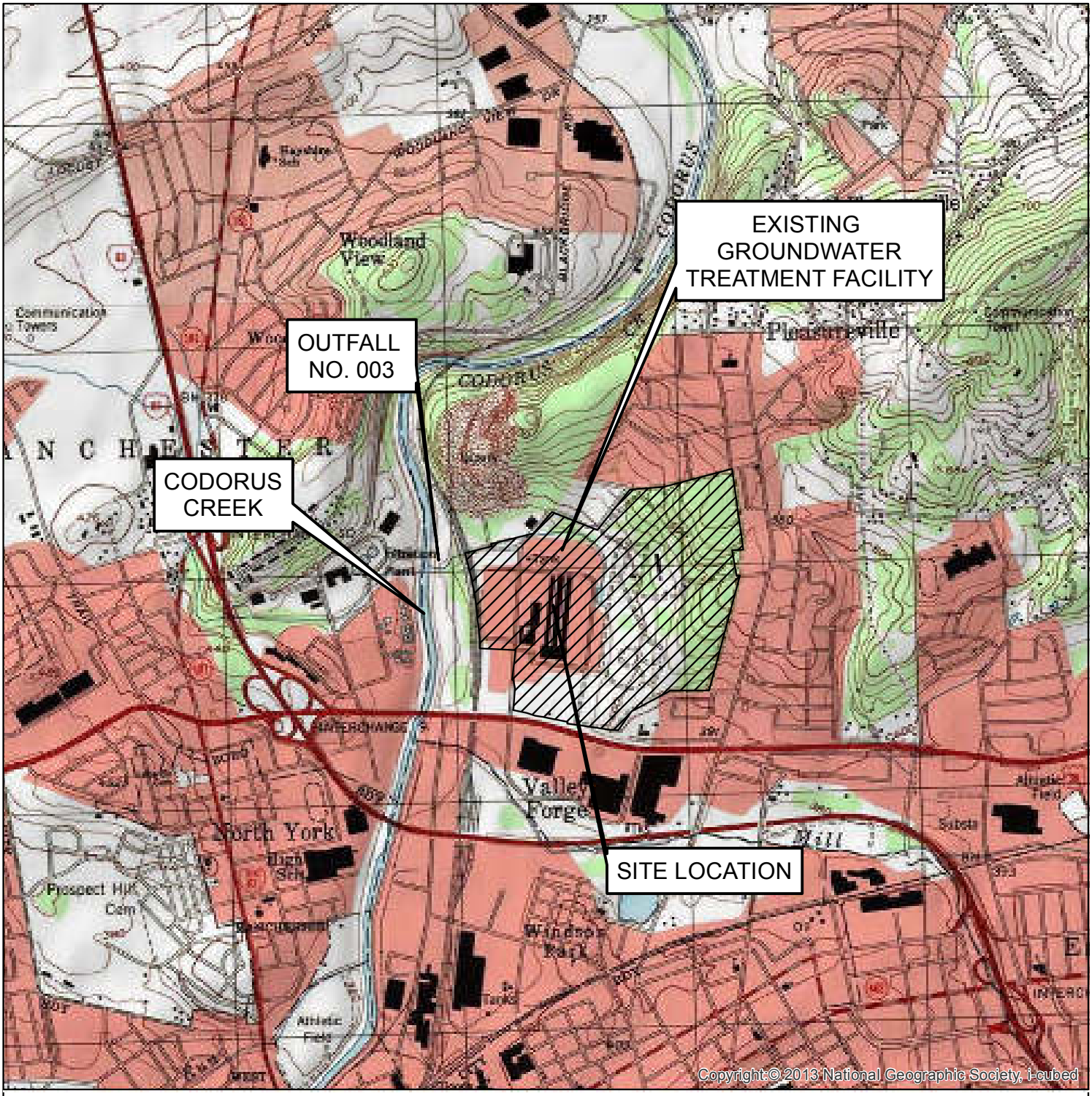
The lift station is located north of Building 3. The lift station conveys groundwater to the groundwater treatment plant in Building 41A. The lift station controls are automated using a float controller, and pump operation can be monitored and deactivated remotely.

8.5 Groundwater Chemistry

Sampling of groundwater collected by the lift station was initially performed in June 2003 in response to a reporting requirement for the SRBC. Groundwater samples were collected from the deep drain of the lift station in May and September. The toe drain could not be sampled because a packer was installed in the drain for the Addendum No. 7 Building 3 Footer Drain Monitored Shutdown study in April 2013.

A review of the May and September 2013 lift station sampling results indicated that only one VOC (TCE) was reported at 0.48 µg/L and 0.63 µg/L, respectively, in the deep drain samples (the samples had an estimated “J” data qualifier). None of the reported detections in the deep drain samples exceeded any of the PADEP or United States Environmental Protection Agency (EPA) thresholds. The sampling results for the deep drain are shown in Table A-2 (Appendix A).

FIGURES



2,000 1,000 0 2,000 Feet

N

Pennsylvania

QUADRANGLE LOCATION

FORMER YORK NAVAL ORDNANCE PLANT

1425 EDEN ROAD, YORK, PENNSYLVANIA

Site Location Map

drawn	JEB	checked	EMW	approved	RGM
date	1/30/2014	date	1/30/2014	date	1/30/2014

figure no. **1-1**

job no. 2603200245/2000/100

file no. Site_Map_20131231

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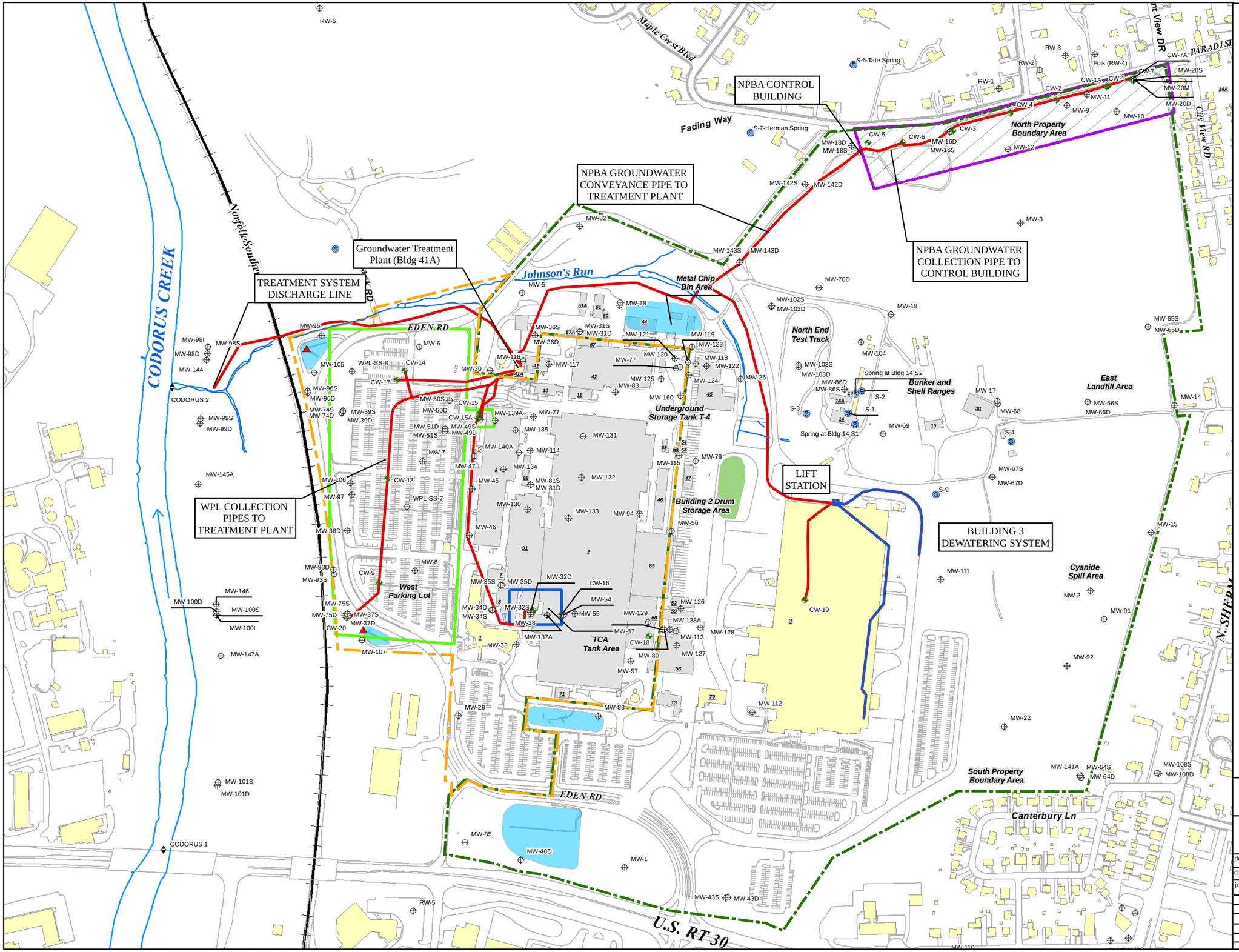

Legend

- Monitoring Well and Designation
- Extraction Well and Designation
- Stream Gauge and Designation
- Spring
- Vortechnic Outlet Structure
- York County Industrial Development Authority
- Harley-Davidson Motor Company Operations, Inc
- Groundwater Interceptor Trenches
- Treatment System Features
- NPBA Area
- TCA Area
- WPL Area
- Surface Water
- Existing Building
- Removed Building
- Roads Curb Boundary
- Railroad
- Fire Water Pond
- Stormwater Basin

N

NOTE:
1. *Base data (Buildings, Building Boundaries, Roads and Curbs) from NuTec Survey conducted in 2006.*

0 200 400 800
SCALE IN FEET

FORMER YORK NAVAL ORDNANCE PLANT
1425 Eden Rd York, Pa 17402

GROUNDWATER TREATMENT SYSTEM LOCATION

drawn RAM	checked EMW	approved RGM	figure no. 1-2
date 01/30/2013	date 01/23/2013	date 01/23/2013	
job no. 2603200245/2000/100		file no. Fig_2_Site_Map_20130131	

initials	date	revision
JMG	01/30/2013	Property Bounds and Symbols
JMG	02/12/2013	Stormwater basins/sw pts
JEB	1/30/2014	Updated to Leidos logo

leidos

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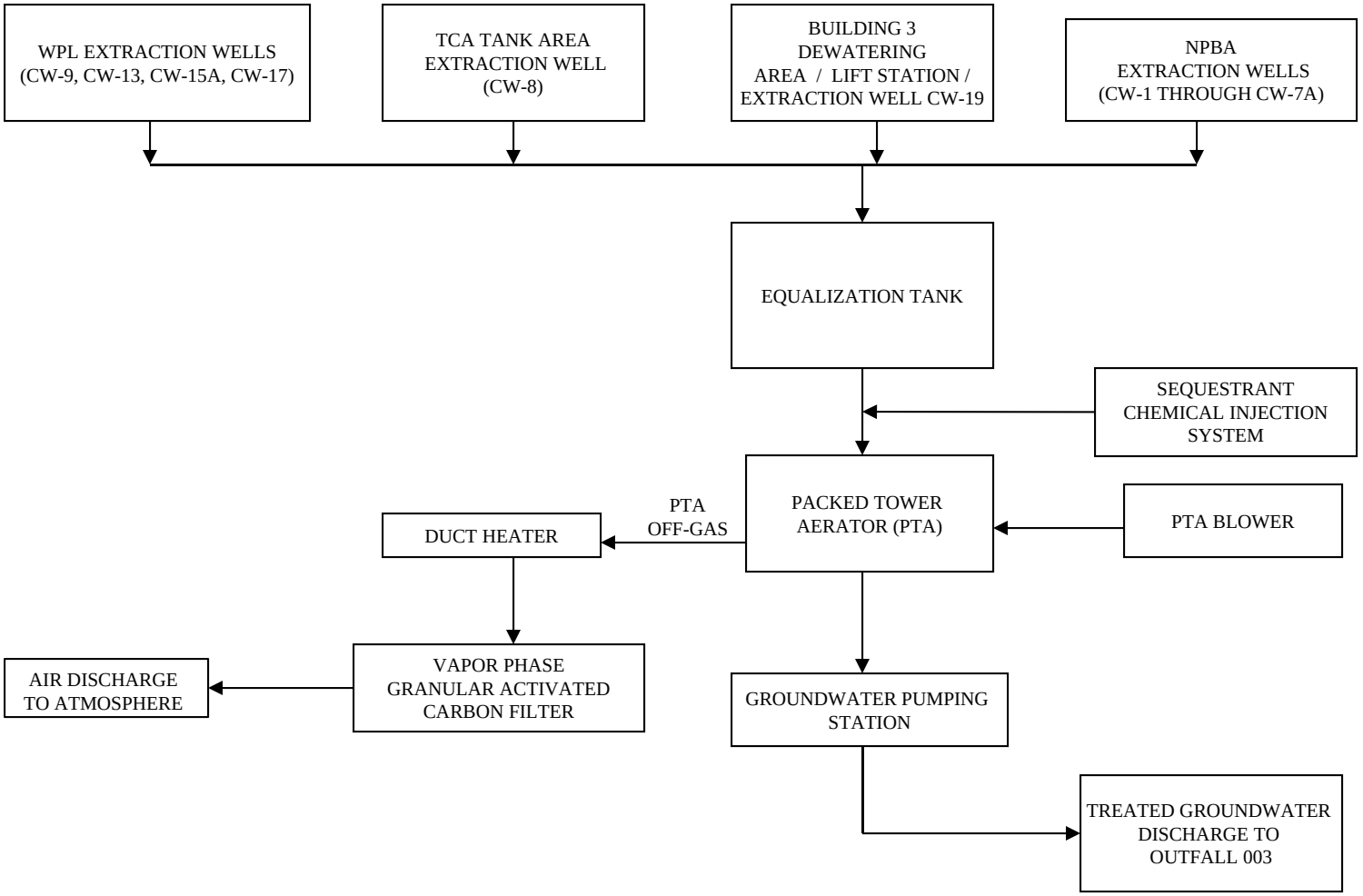
FIGURE 1-3
GROUNDWATER TREATMENT SYSTEM FLOW DIAGRAM
Former York Naval Ordnance Plant



FORMER YORK NAVAL ORDNANCE PLANT GROUNDWATER WITHDRAWAL, AUGUST 28, 2013		
WELL ID	DAILY FLOW (GALLONS)	AVERAGE DAILY PUMPING RATE (GPM)
CW-1	0	0
CW-1A	0	0
CW-2	0	0
CW-3	0	0
CW-4	0	0
CW-5	0	0
CW-6	0	0
CW-7	0	0
CW-7A	0	0
CW-8	184379	128.0
CW-9	82402	57.2
CW-13	112256	78.0
CW-15A	2717	1.9
CW-17	94919	65.9
LIFTSTATION	0	0

Legend

- Building 3 Lift Station
- Staff Gauge/Stream Gauge
- Monitoring Well and Designation
- Collection Well
- Residential Well
- Groundwater Elevation Contour Sink (Feet)
- Inferred Groundwater Elevation Contour (Feet)
- Groundwater Elevation Contour (Feet)
- York County Industrial Development Authority
- Harley-Davidson Motor Company Operations, Inc
- Bedrock Contact (Antietam Quartzite and Vintage Dolomite)
- Groundwater Interceptor Trenches
- Surface Water
- Existing Building
- Removed Building
- Roads Curb Boundary
- Fire Water Pond
- Stormwater Basin

N

NOTE:
1. *Base data (Buildings, Building Boundaries, Roads and Curbs, and Contour Lines) from NuTec Survey conducted in 2006.*
2. *Gauging data from the 8/28/2013 gauging event.*
3. *The shallow groundwater elevation was used when contouring at well pairs. Elevations from deep wells are presented for comparison only.*

0 250 500 1,000 Feet

FORMER YORK NAVAL ORDNANCE PLANT
1425 EDEN ROAD, YORK, PA 17402

GROUNDWATER ELEVATION CONTOUR MAP AUGUST 2013

drawn TAY	checked	approved	figure no. 3-1
date 2/3/2014	date	date	
job no. 26032001 41-1000-100		file no. Fig_GW_Cont_Aug_13	

initials	date	revision

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FORMER YORK NAVAL ORDNANCE PLANT GROUNDWATER WITHDRAWAL, NOVEMBER 25, 2013		
WELL ID	DAILY FLOW (GALLONS)	AVERAGE DAILY PUMPING RATE (GPM)
CW-1	0	0
CW-1A	0	0
CW-2	0	0
CW-3	0	0
CW-4	0	0
CW-5	0	0
CW-6	0	0
CW-7	0	0
CW-7A	0	0
CW-8	97481	125.0
CW-9	52407	67.2
CW-13	60227	77.2
CW-15A	1321	1.7
CW-17	19137	24.5
LIFTSTATION	0	0

Note:
The GWTS only ran for 13 hours before it was shutdown on November 25, 2013.

Legend

- Building 3 Lift Station
- Staff Gauge/Stream Gauge
- Monitoring Well and Designation
- Collection Well
- Residential Well
- Groundwater Elevation Contour Sink (Feet)
- Inferred Groundwater Elevation Contour (Feet)
- Groundwater Elevation Contour (Feet)
- York County Industrial Development Authority
- Harley-Davidson Motor Company Operations, Inc
- Bedrock Contact (Antietam Quartzite and Vintage Dolomite)
- Groundwater Interceptor Trenches
- Surface Water
- Existing Building
- Removed Building
- Roads Curb Boundary
- Fire Water Pond
- Stormwater Basin

N

NOTE:
1. *Base data (Buildings, Building Boundaries, Roads and Curbs, and Contour Lines) from NuTec Survey conducted in 2006.*
2. *Gauging data from the 11/25/2013 gauging event.*
3. *The shallow groundwater elevation was used when contouring at well pairs. Elevations from deep wells are presented for comparison only.*

0 250 500 1,000 Feet

FORMER YORK NAVAL ORDNANCE PLANT
1425 EDEN ROAD, YORK, PA 17402

GROUNDWATER ELEVATION CONTOUR MAP NOVEMBER 2013

drawn TAY	checked	approved	figure no.
date 2/3/2013	date	date	3-2
job no. 2603200141-1000-100		file no. Fig_GW_Cont_Nov_13	

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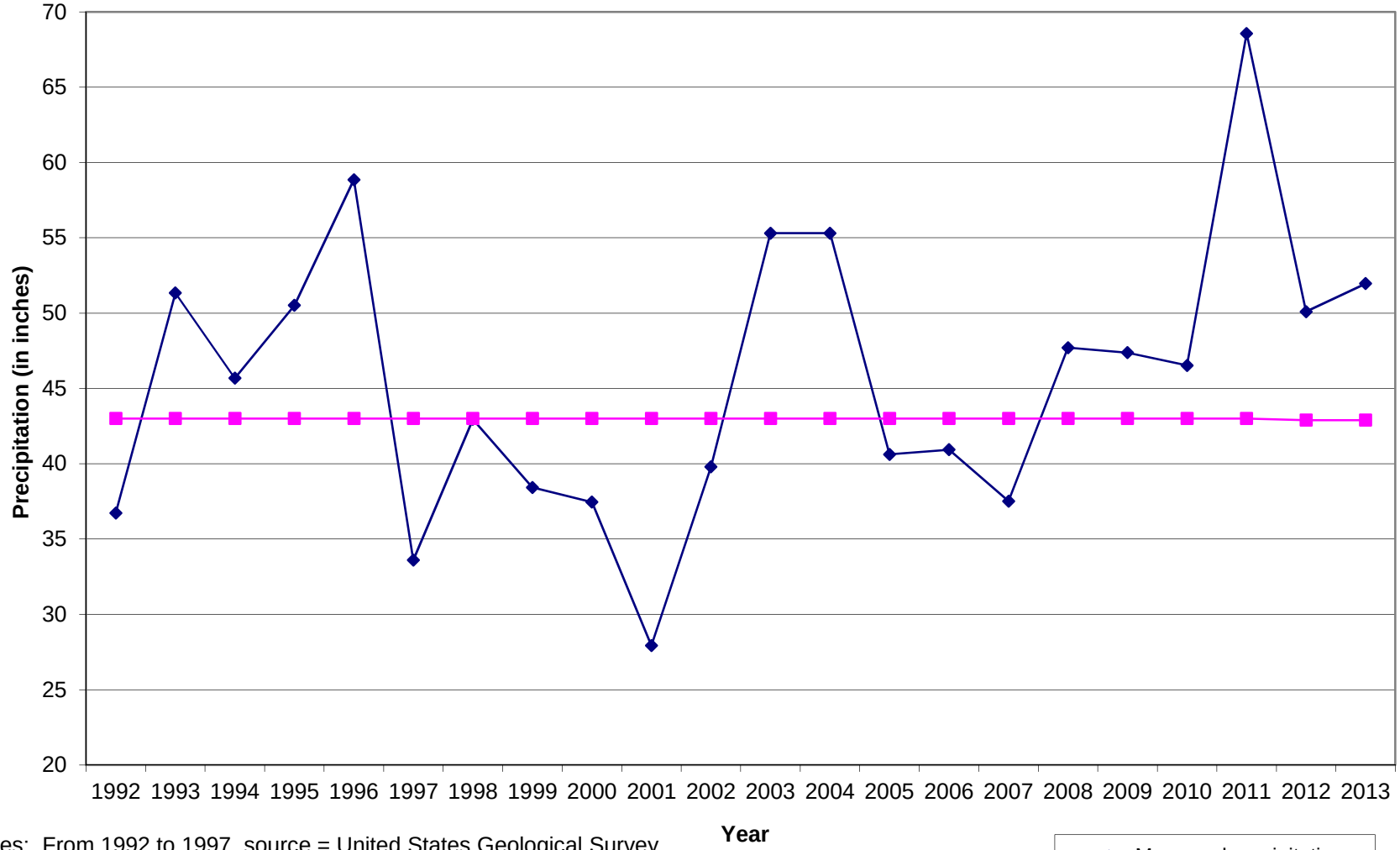
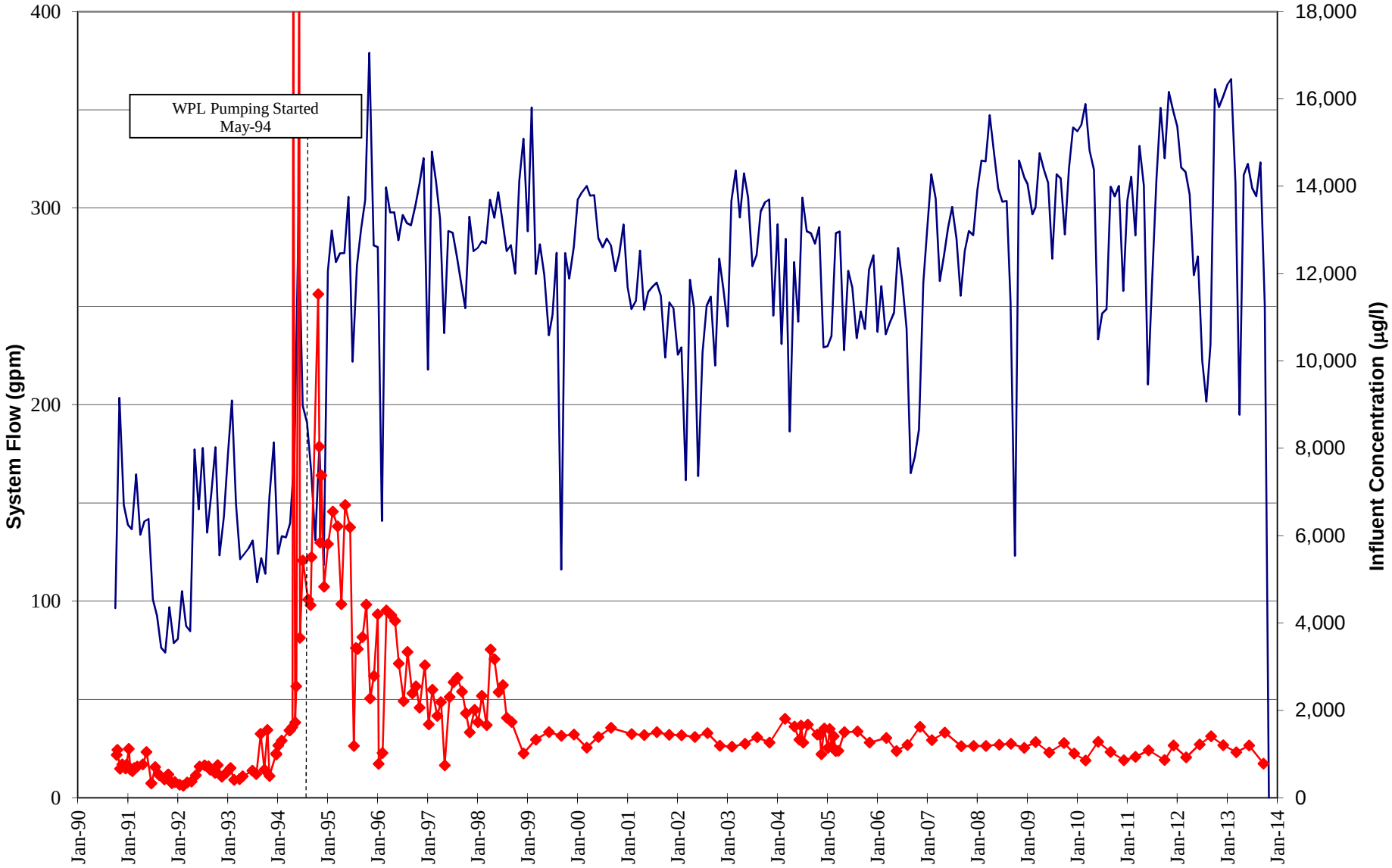
Figure 3-3
Annual Historical Precipitation Data for York, PA
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402



Notes: From 1992 to 1997, source = United States Geological Survey
From 1998 to 2002, source = Accuweather.com
From 2003 to 2013, source = Harley-Davidson and weather underground (wunderground.com)
Normal precipitation for York, PA is from the National Climatic Data Center

Figure 4-1
Packed Tower Aerator Influent Chemistry - Total VOC Concentration
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402



Note: GWTS was shutdown on November 25, 2013 for a PADEP and USEPA approved shut-down monitoring study.

Figure 4-2
Packed Tower Aerator Influent Chemistry for NPDES Discharge Permit Required Compounds
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

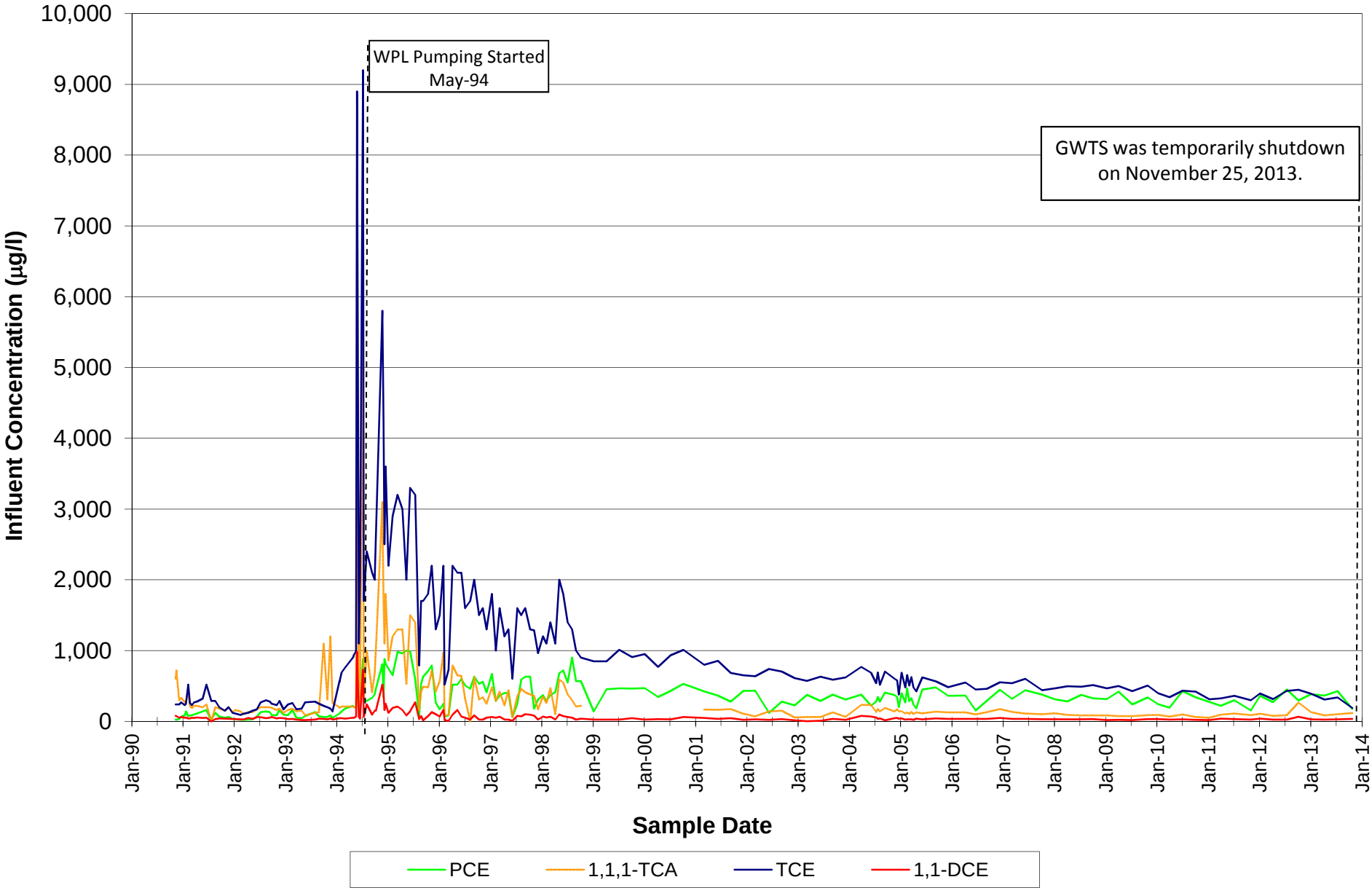
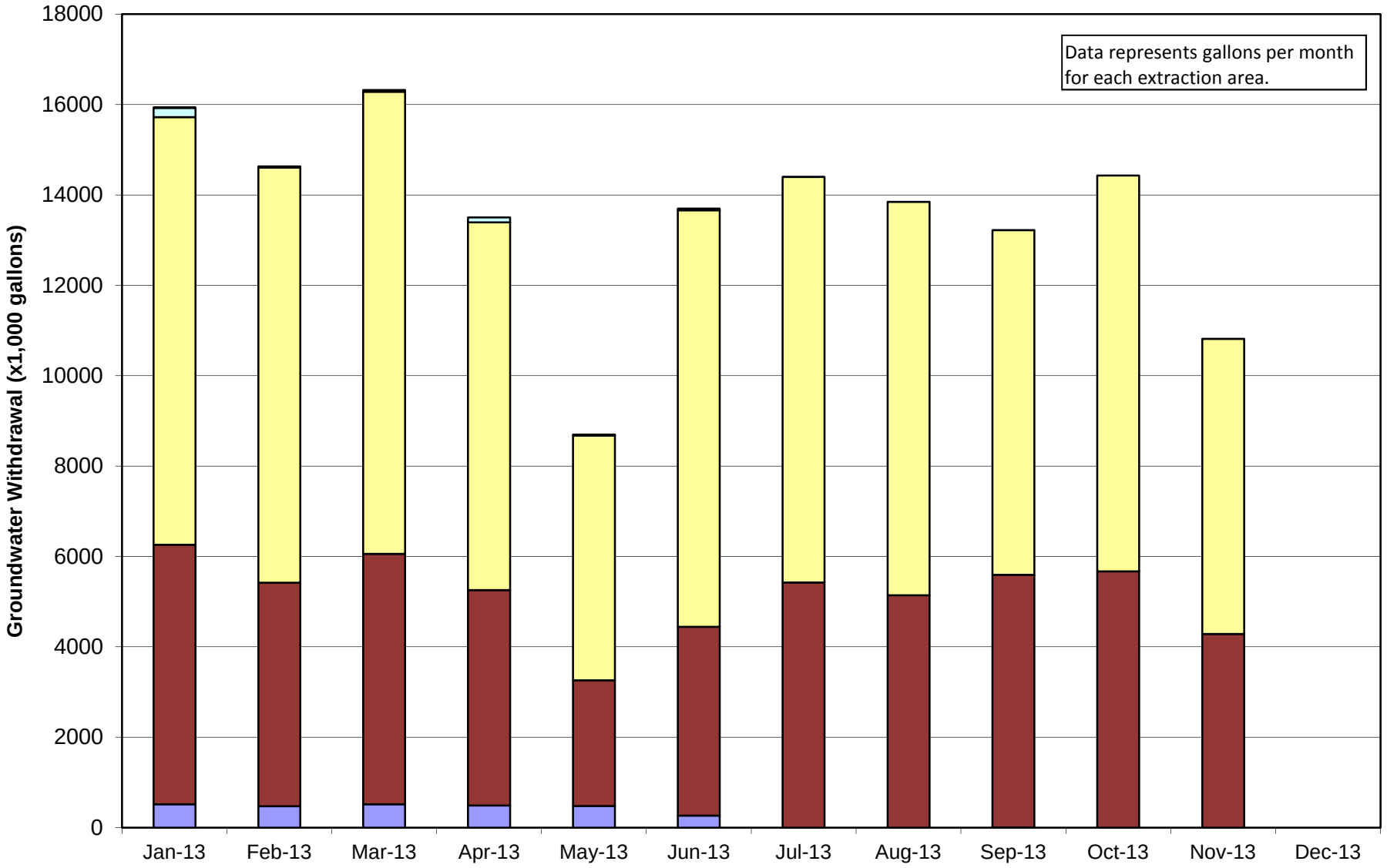


Figure 5-1
2013 Groundwater Withdrawals
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402



Note: GWTS was shutdown on November 25, 2013 for a PADEP and USEPA approved shutdown monitoring study.

Note: NPBA was shutdown on June 19, 2013 for a PADEP and USEPA approved shutdown monitoring study.

Figure 5-2
TCE in NPBA Extraction Wells
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

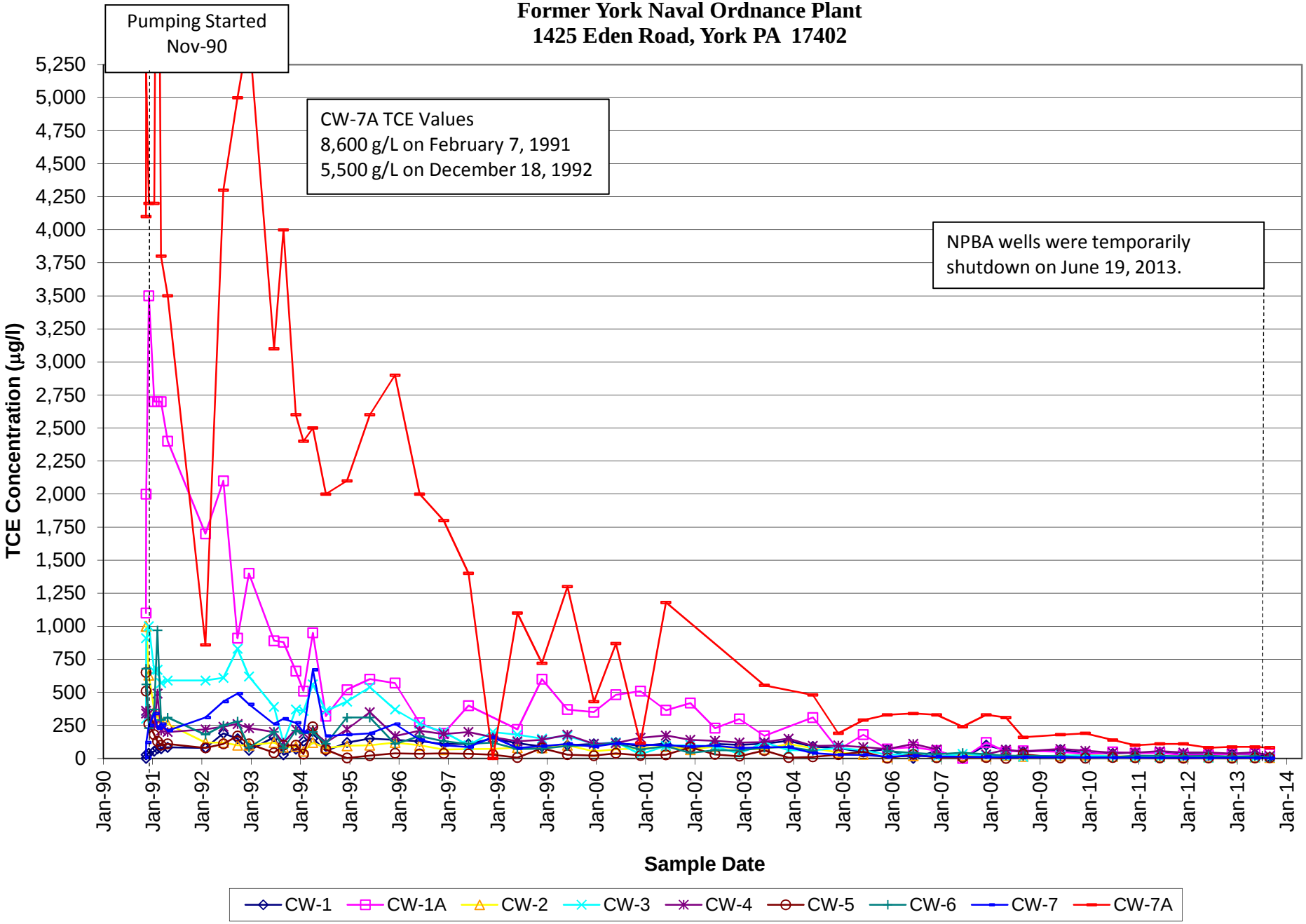


Figure 5-3
Predominant VOC Concentrations - Extraction Well CW-1
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

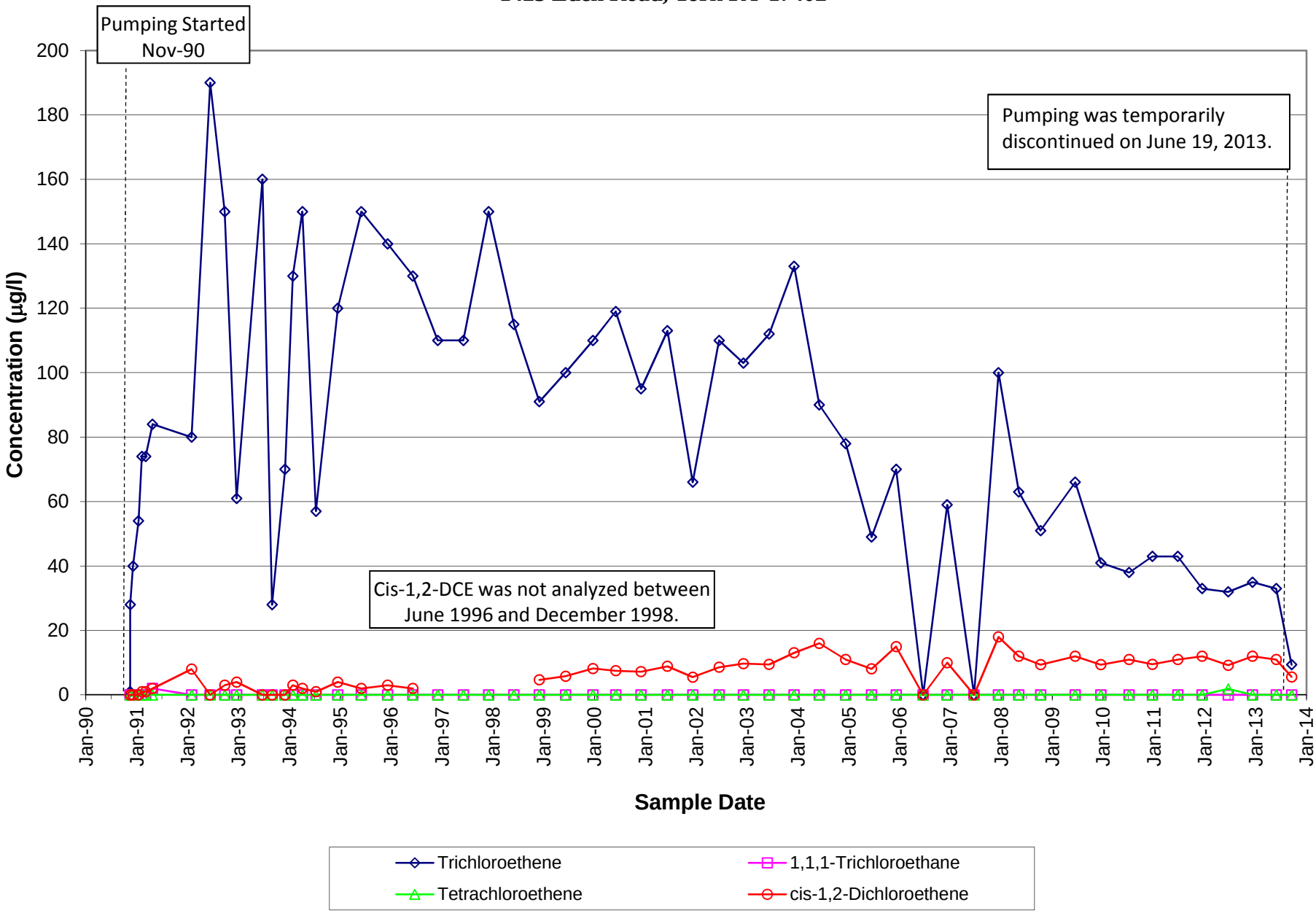


Figure 5-4
Predominant VOC Concentrations - Extraction Well CW-1A
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

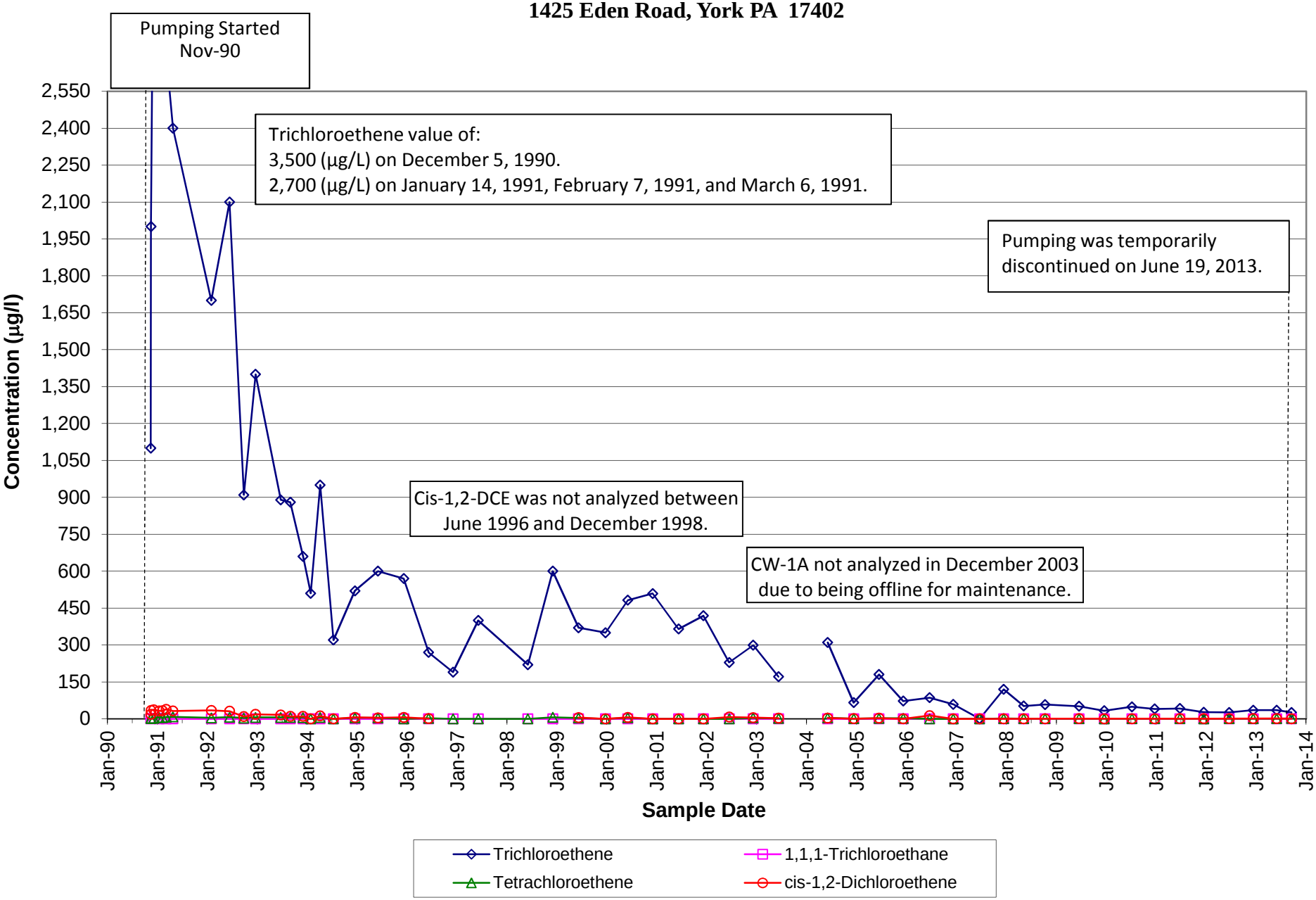


Figure 5-5
Predominant VOC Concentrations - Extraction Well CW-2
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

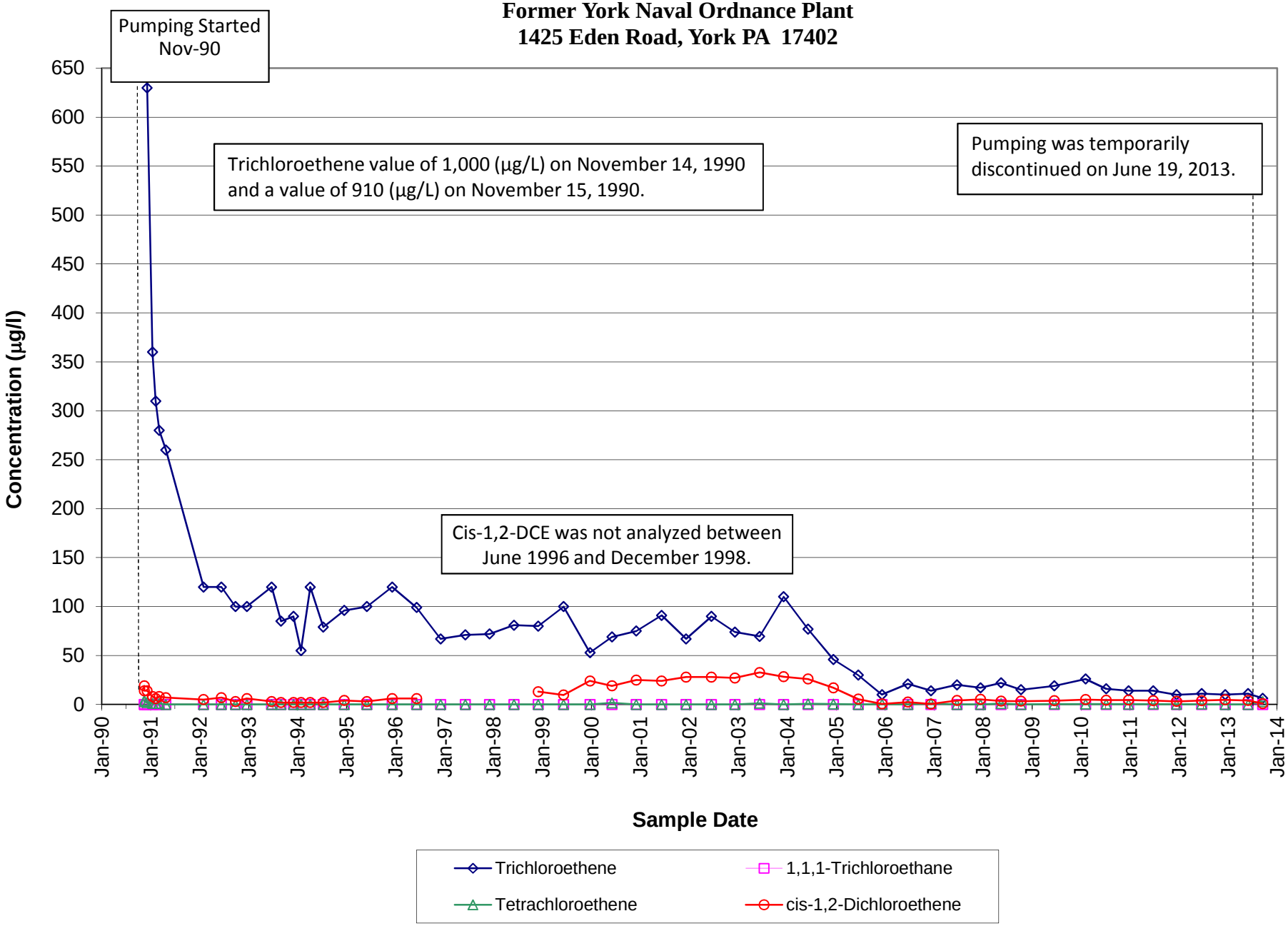


Figure 5-6
Predominant VOC Concentrations - Extraction Well CW-3
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

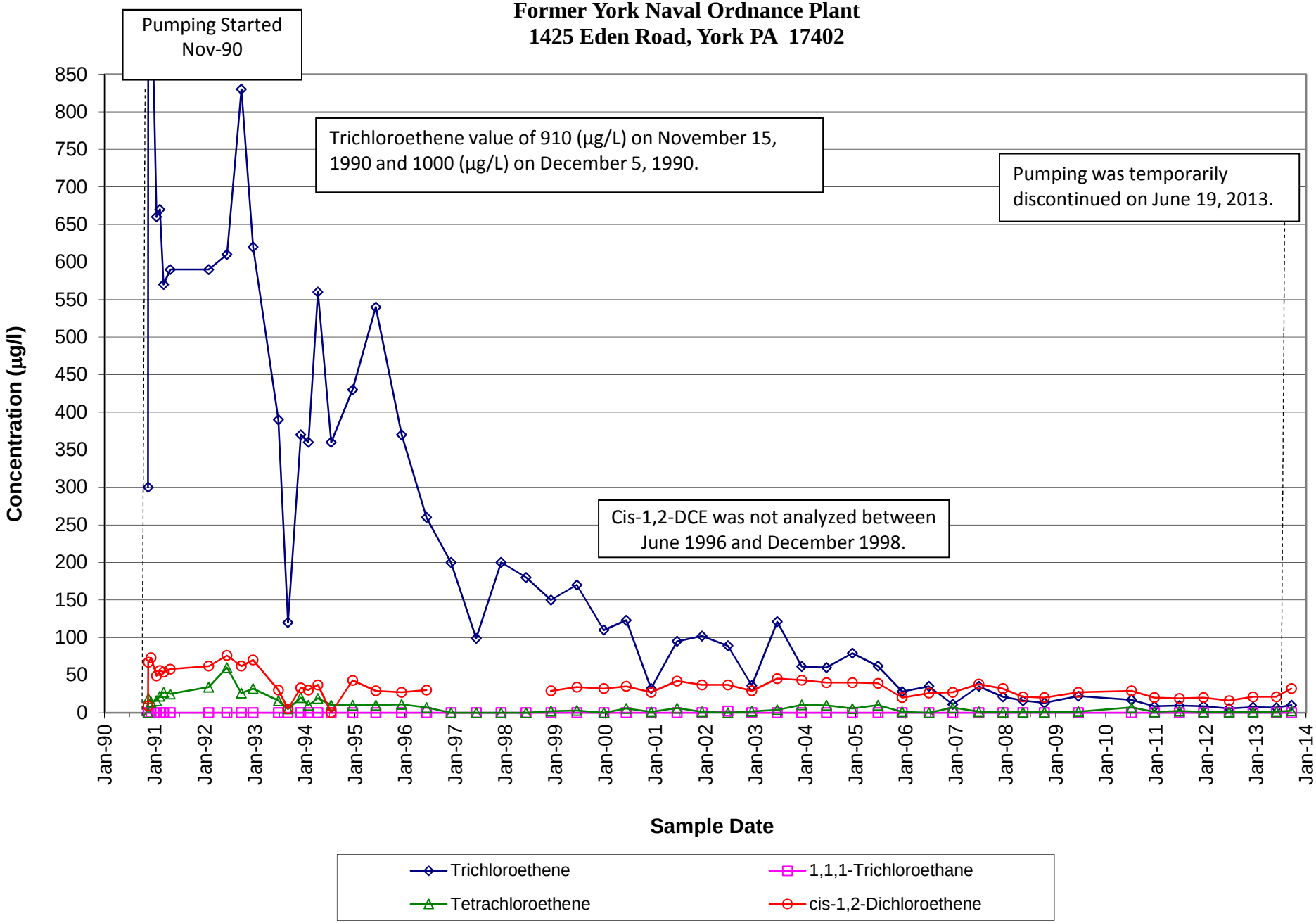


Figure 5-7
Predominant VOC Concentrations - Extraction Well CW-4
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

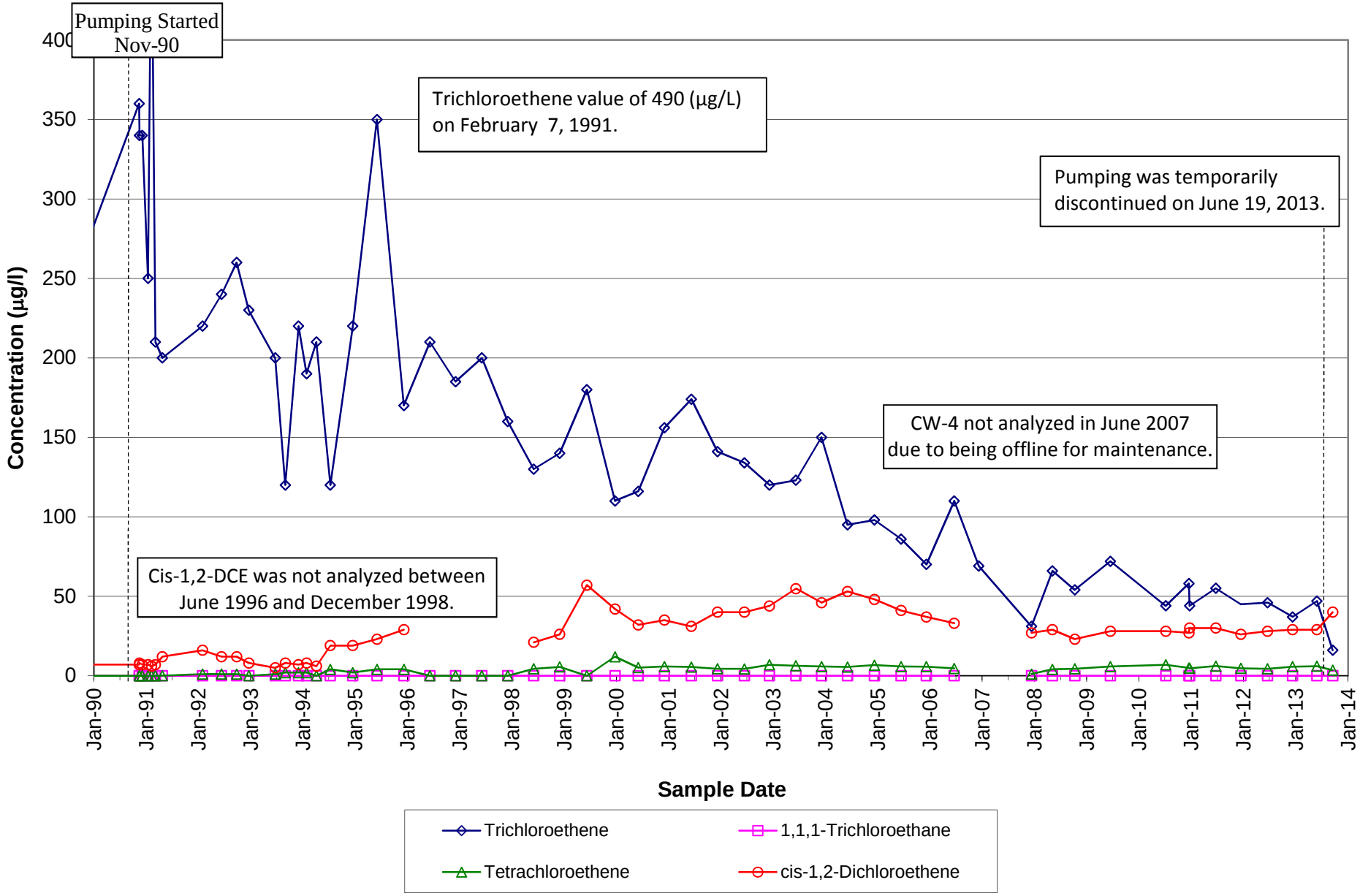


Figure 5-8
Predominant VOC Concentrations - Extraction Well CW-5
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

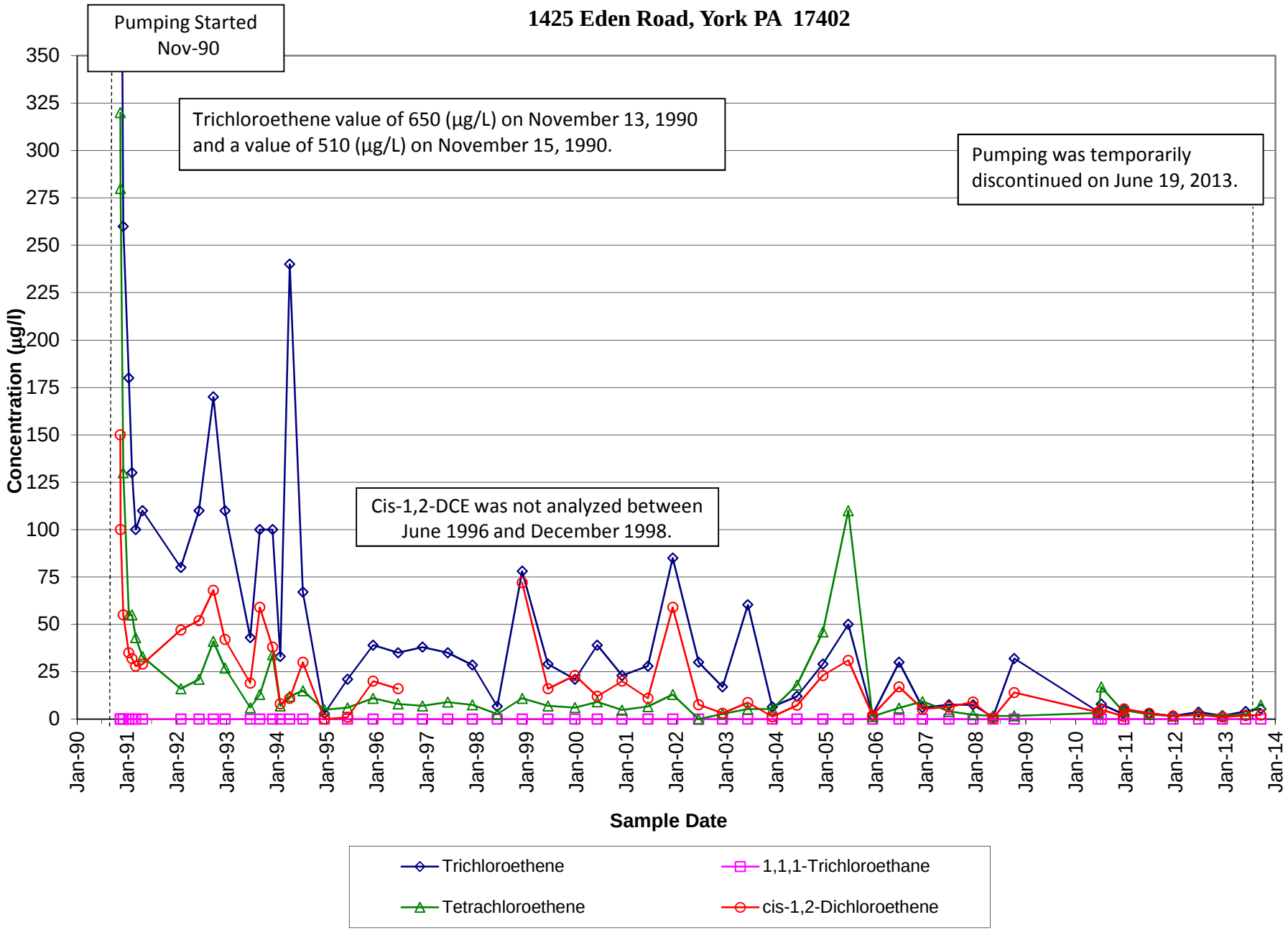


Figure 5-9
Predominant VOC Concentrations - Extraction Well CW-6
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

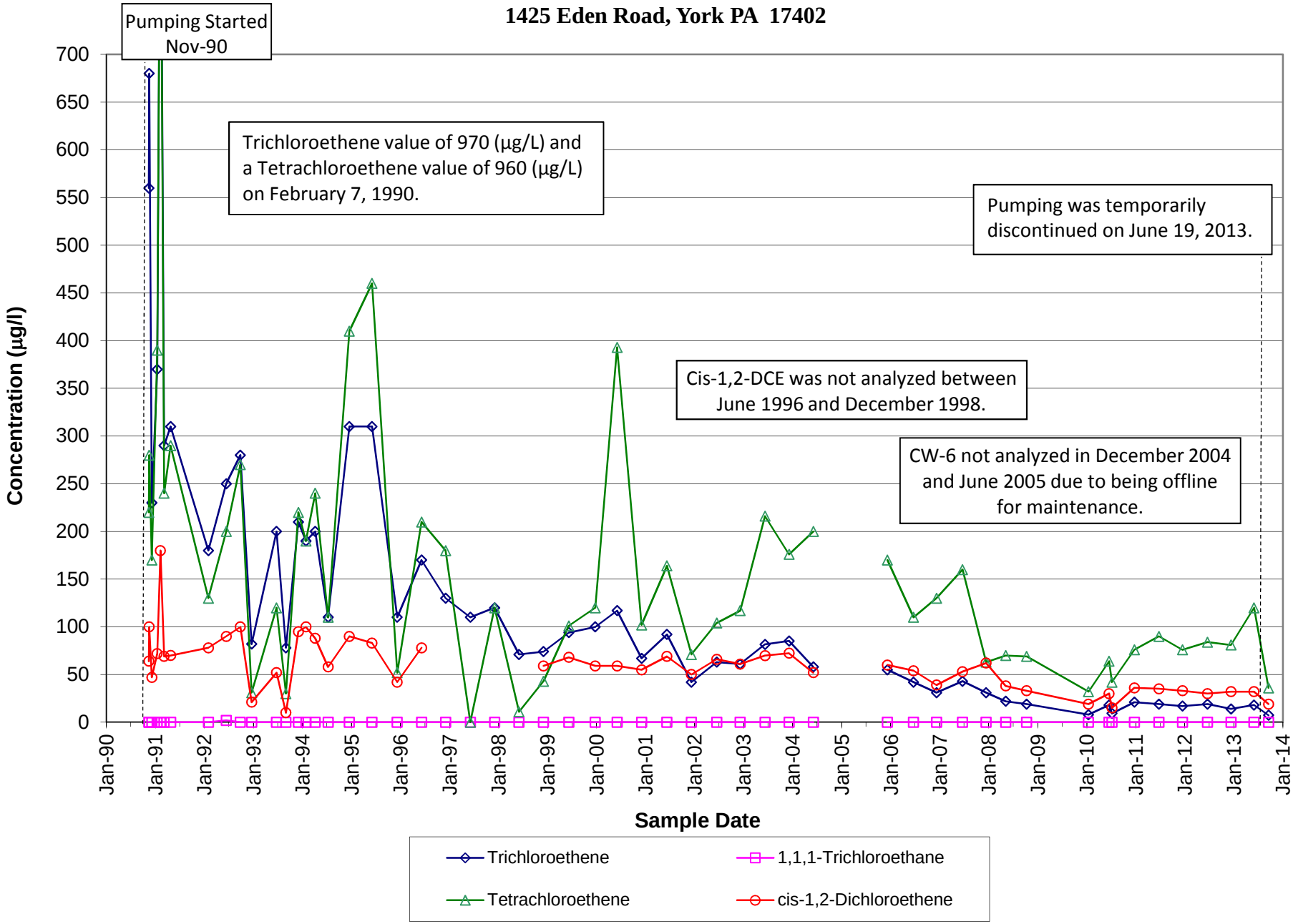


Figure 5-10
Predominant VOC Concentrations - Extraction Well CW-7
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

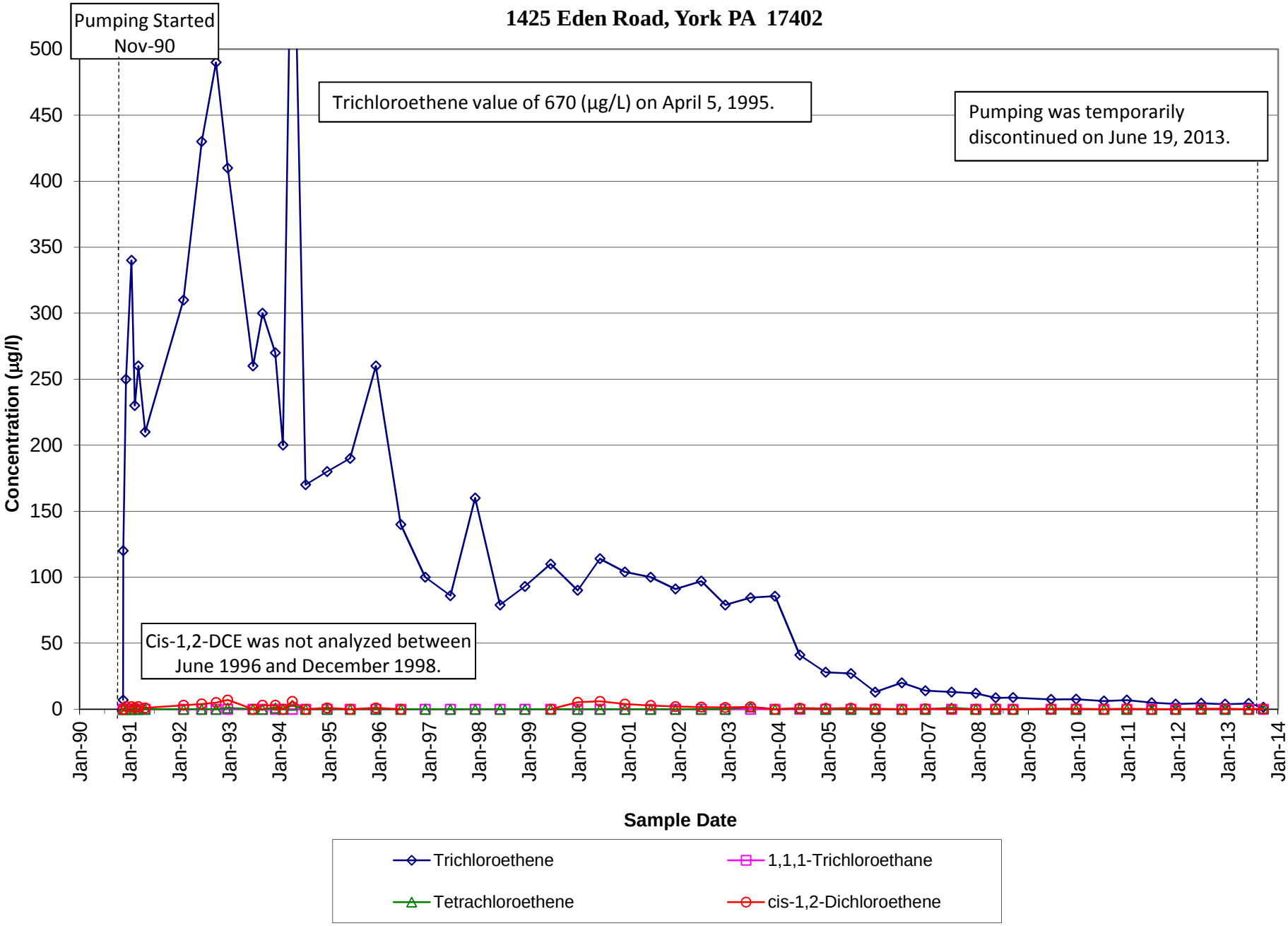


Figure 5-11
Predominant VOC Concentrations - Extraction Well CW-7A
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

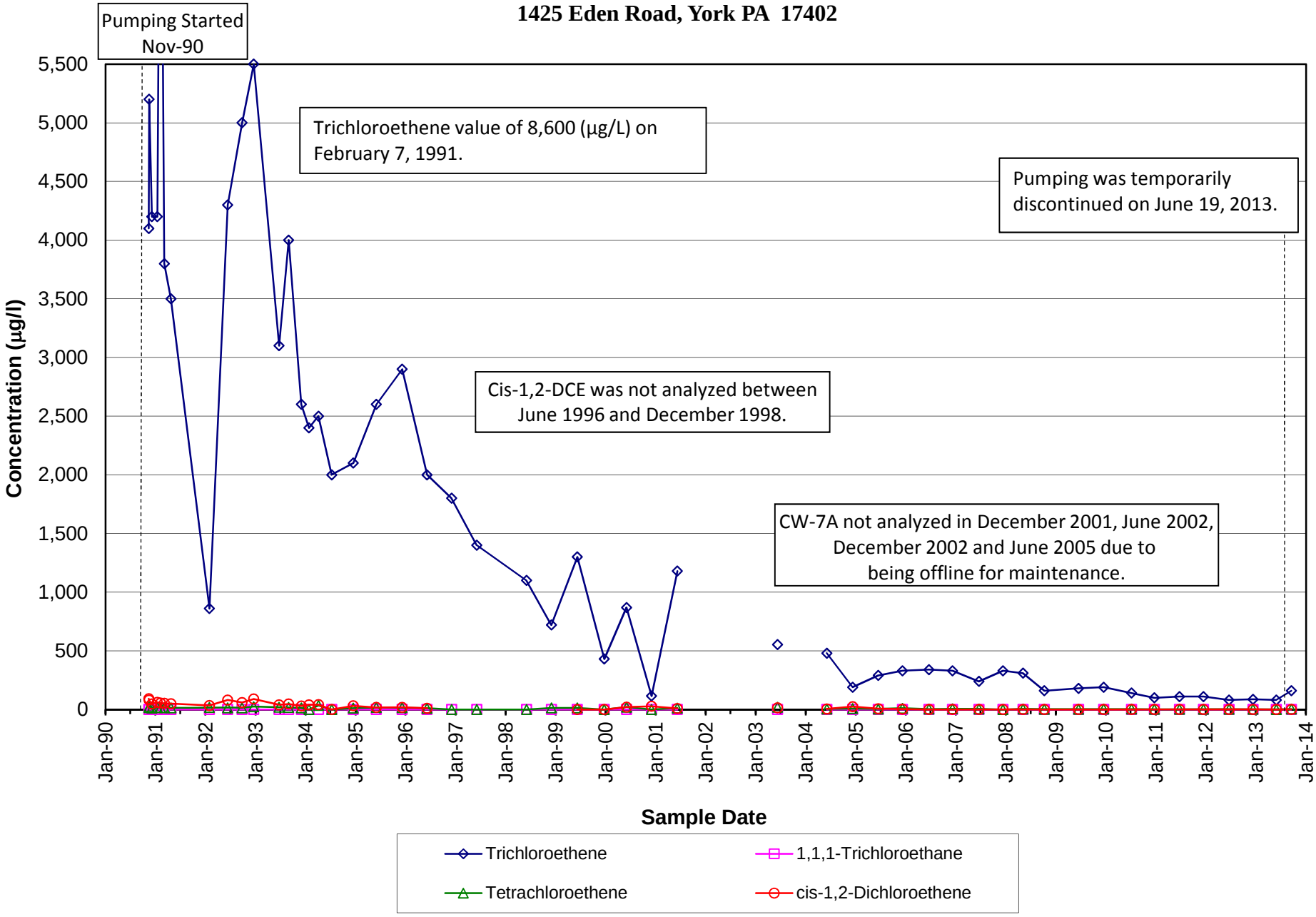


Figure 6-1
TCA in TCA Tank Area Extraction Wells
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

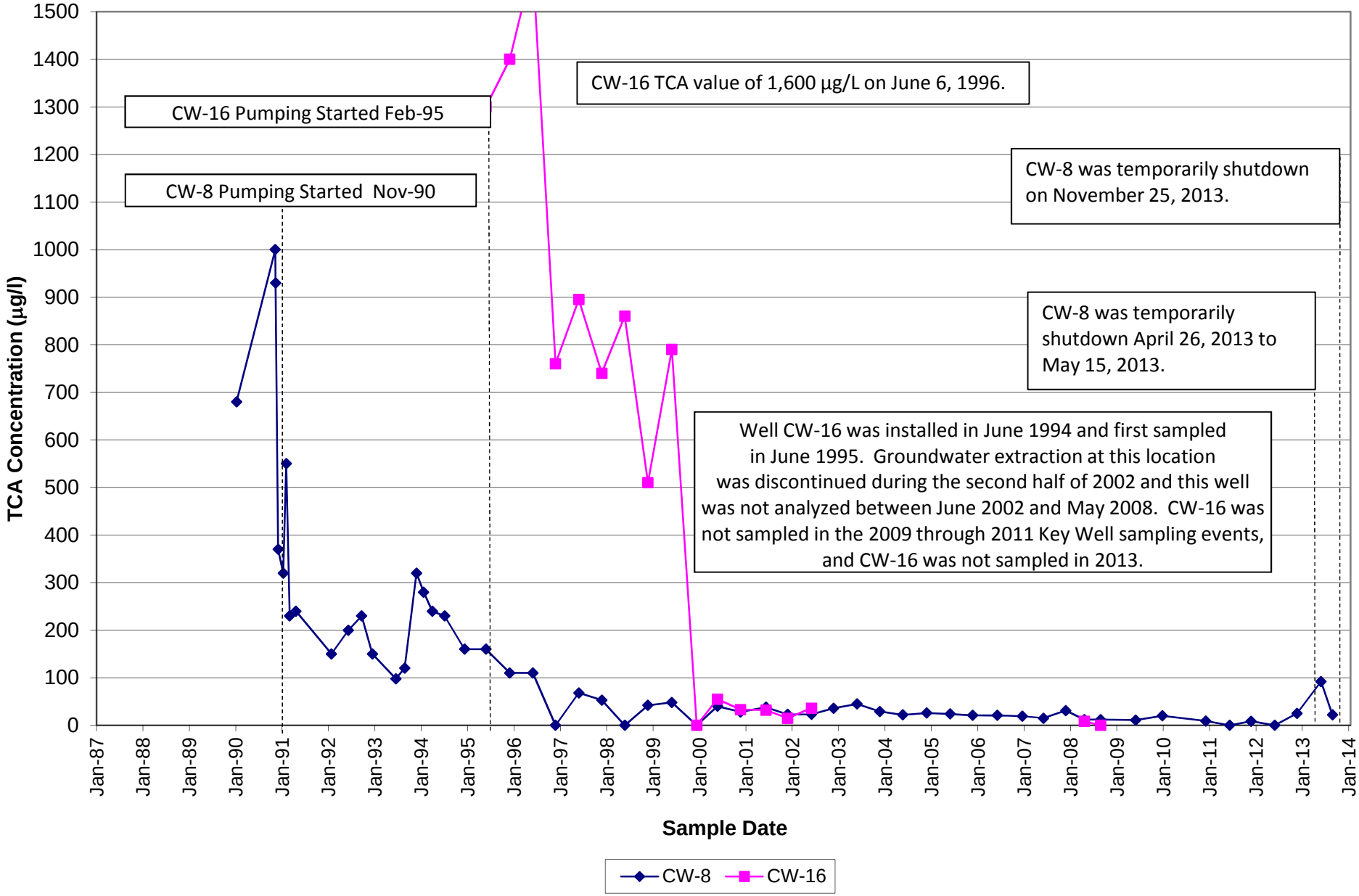


Figure 6-2
TCE in TCA Tank Area Extraction Wells
Former York Naval Ordnance Plant
1425 Eden Road, York

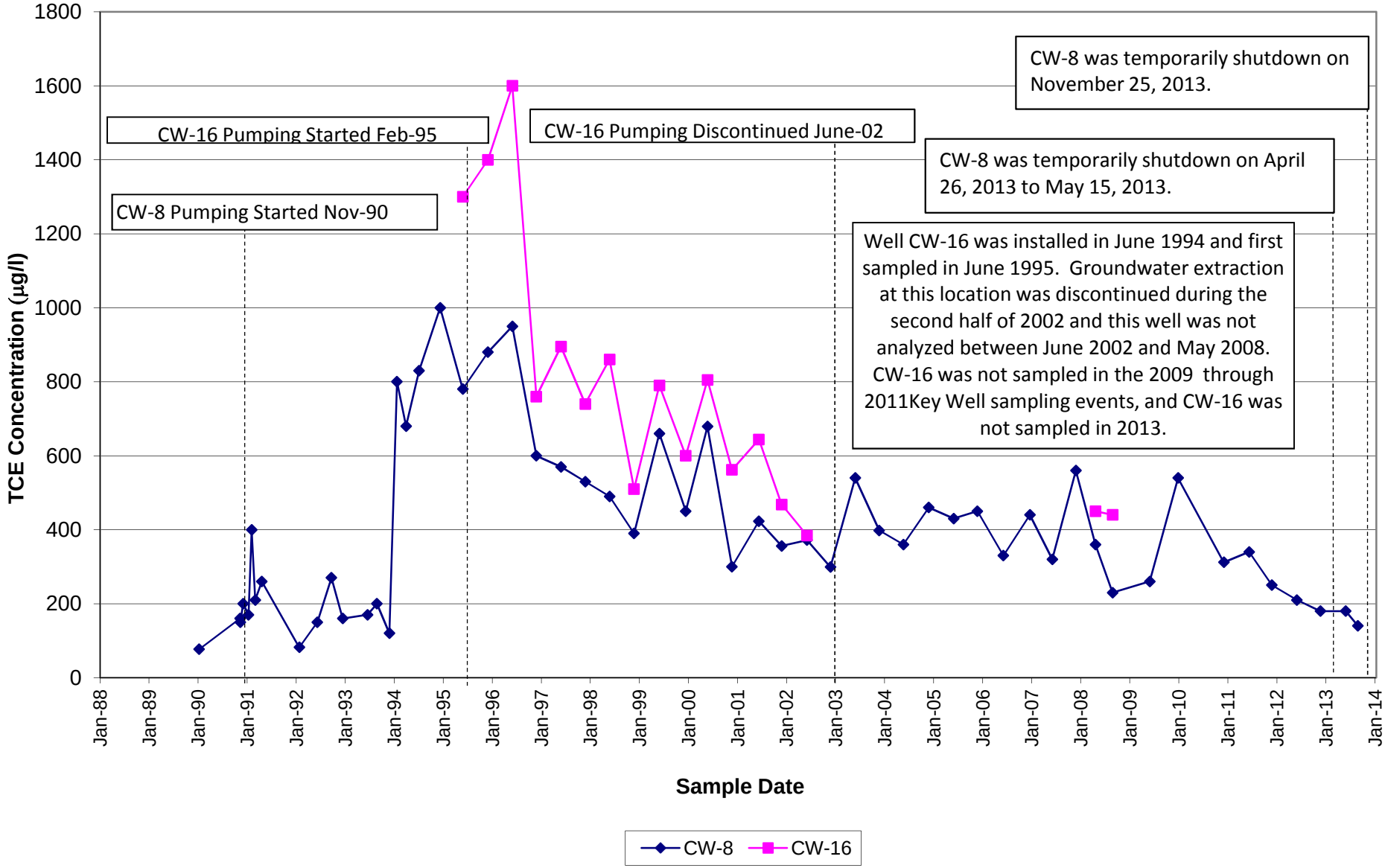


Figure 6-3
Predominant VOC Concentrations - Extraction Well CW-8
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

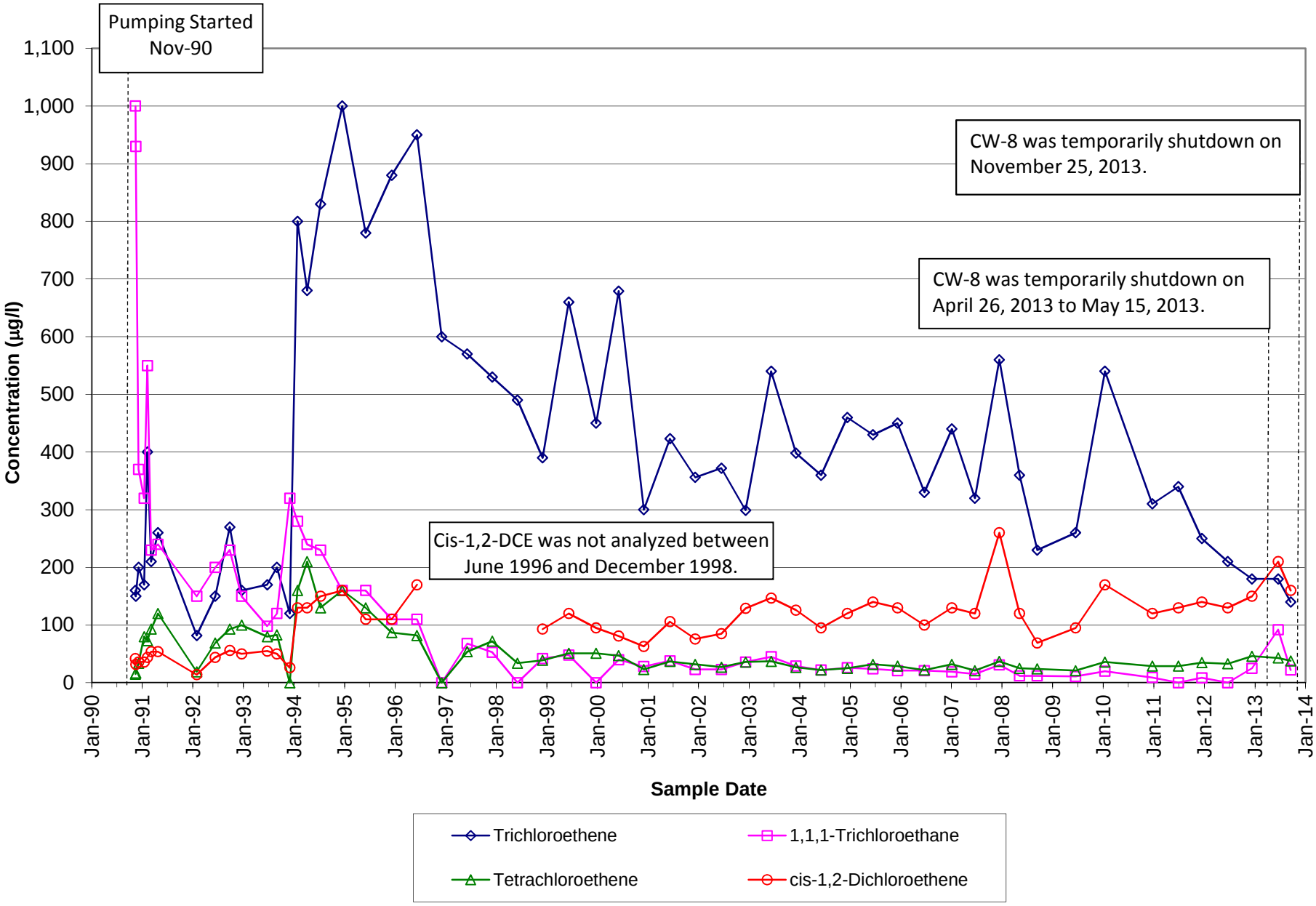


Figure 7-1
TCE in WPL Extraction Wells
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

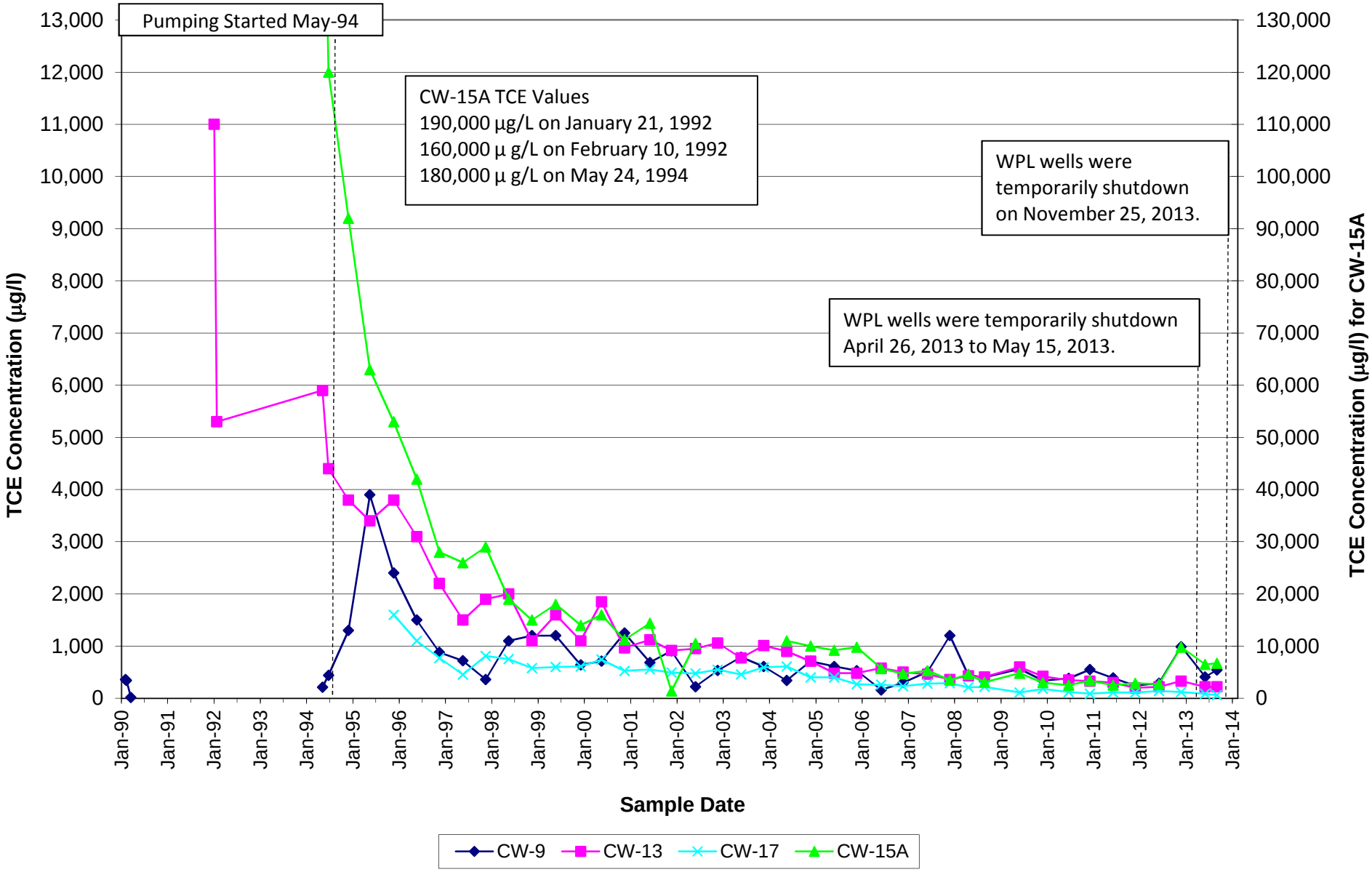


Figure 7-2
Predominant VOC Concentrations - Extraction Well CW-9
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

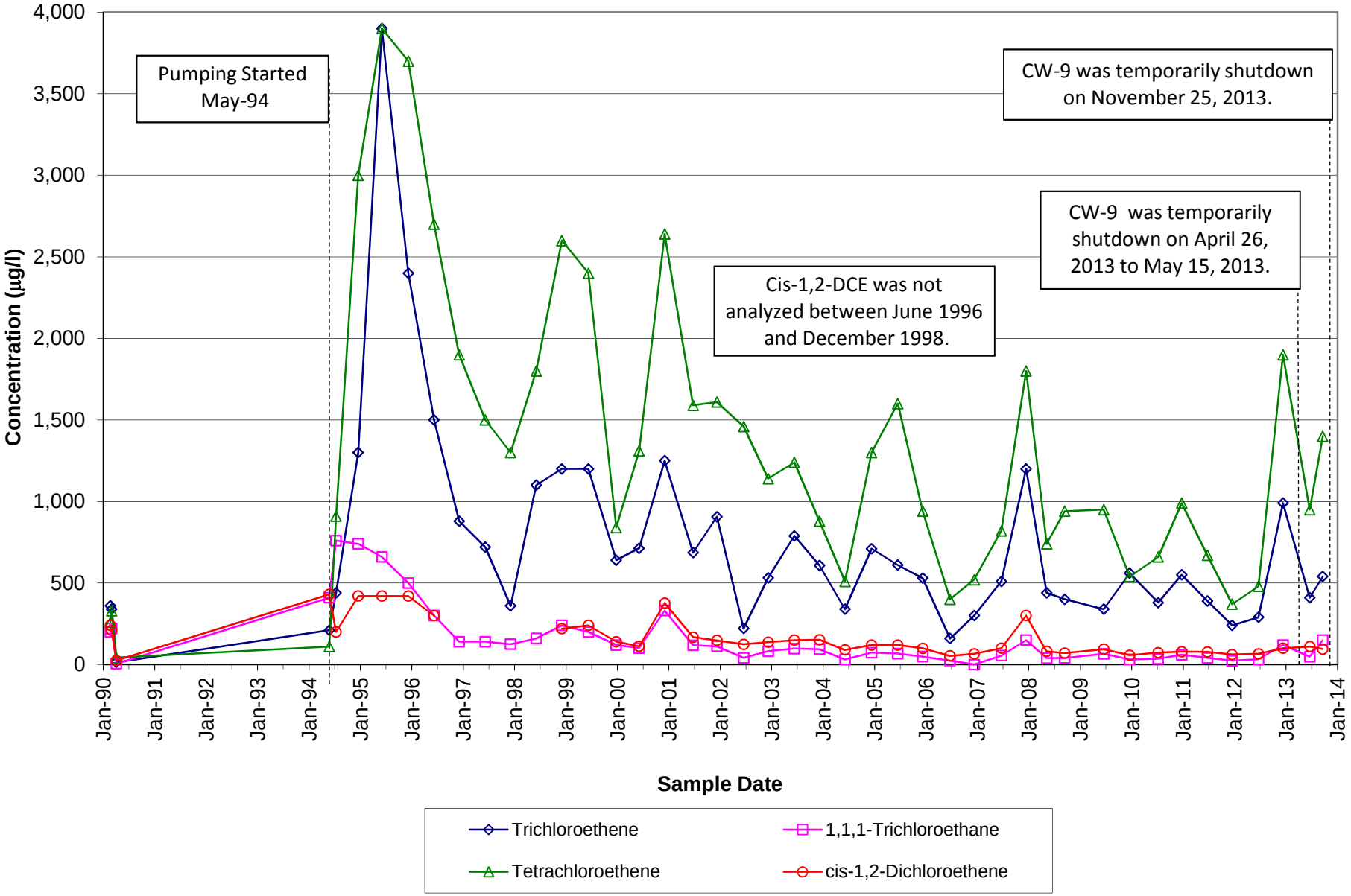


Figure 7-3
Predominant VOC Concentrations - Extraction Well CW-13
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

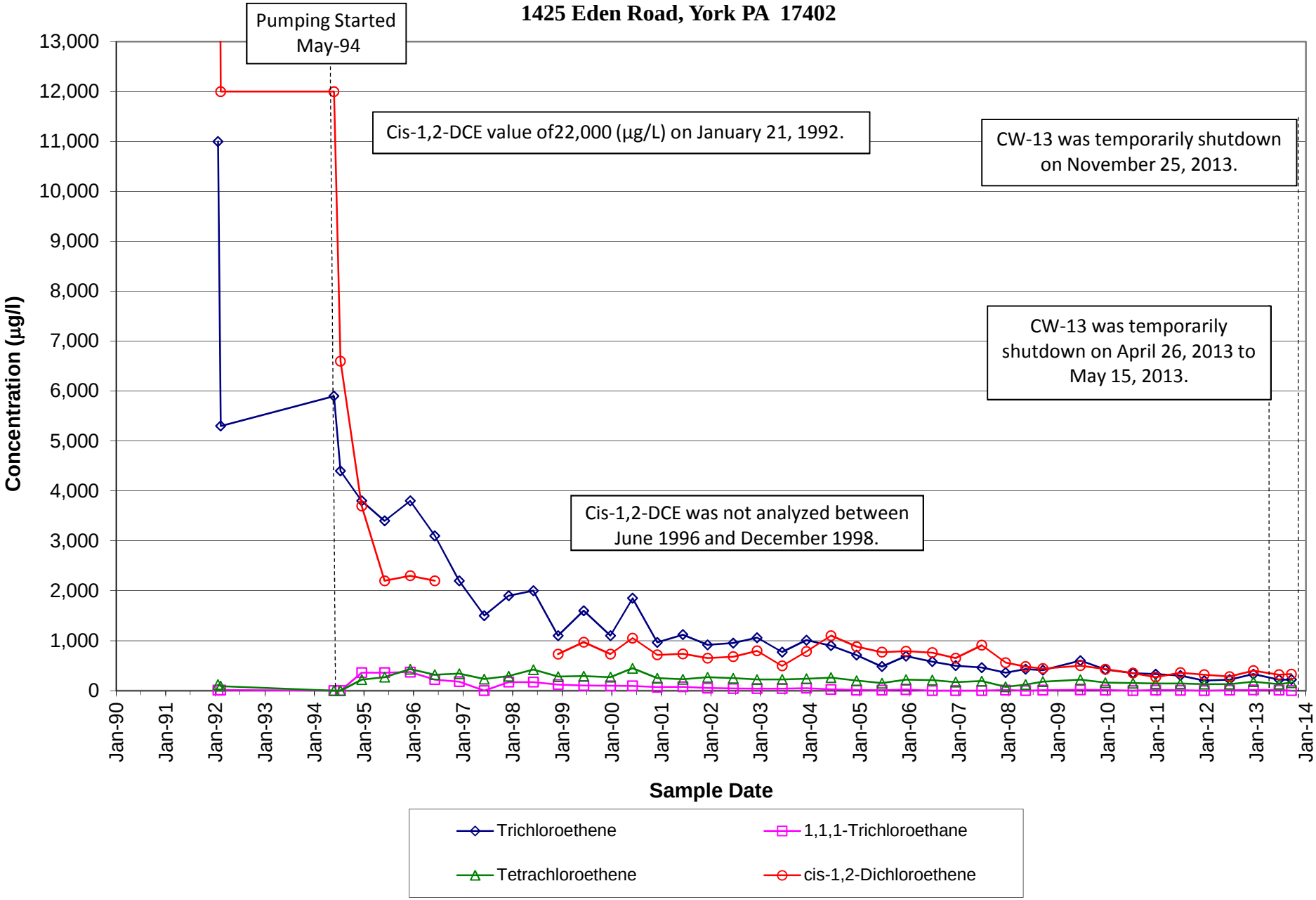


Figure 7-4
Predominant VOC Concentrations - Extraction Well CW-15A
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

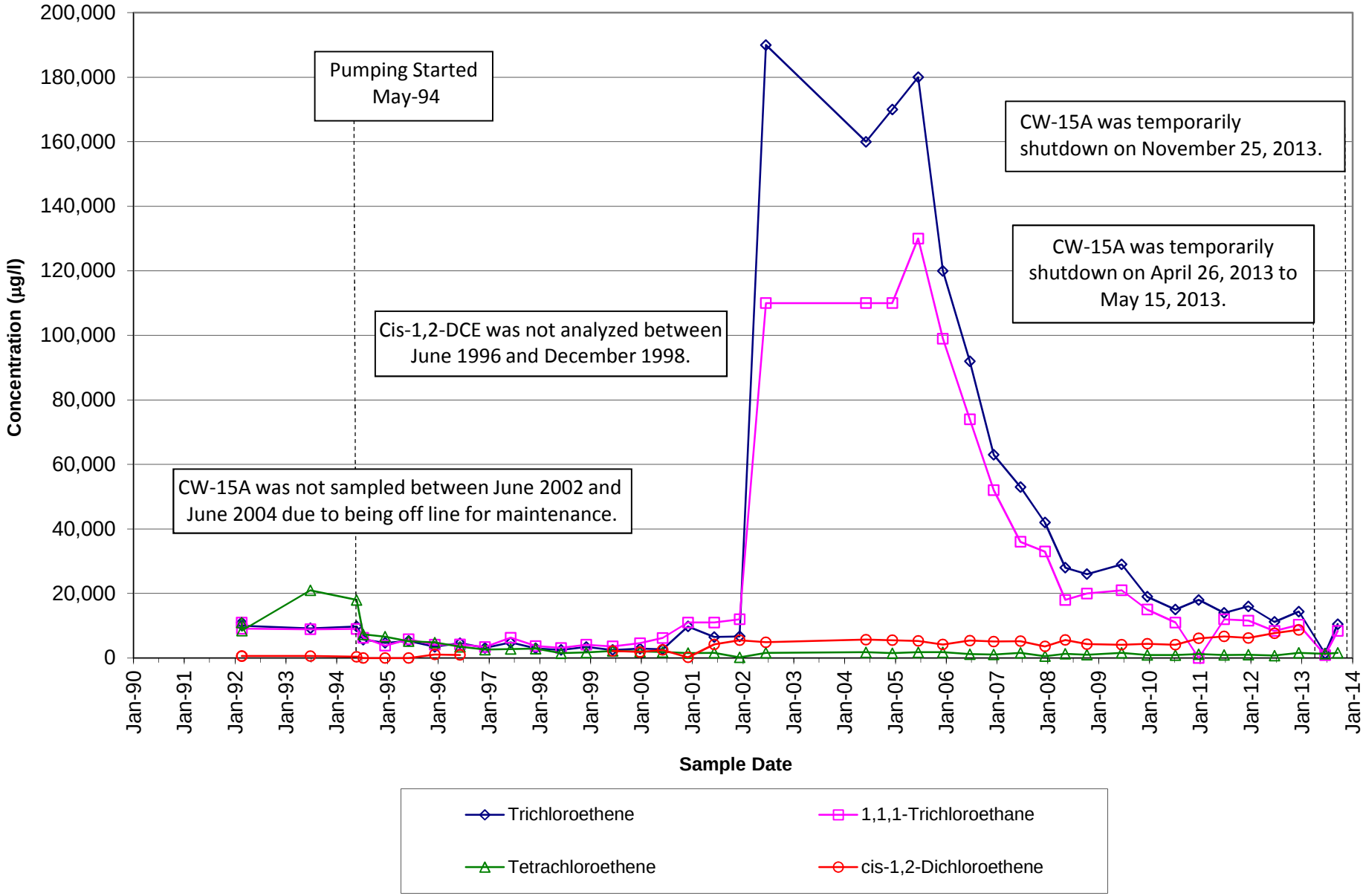
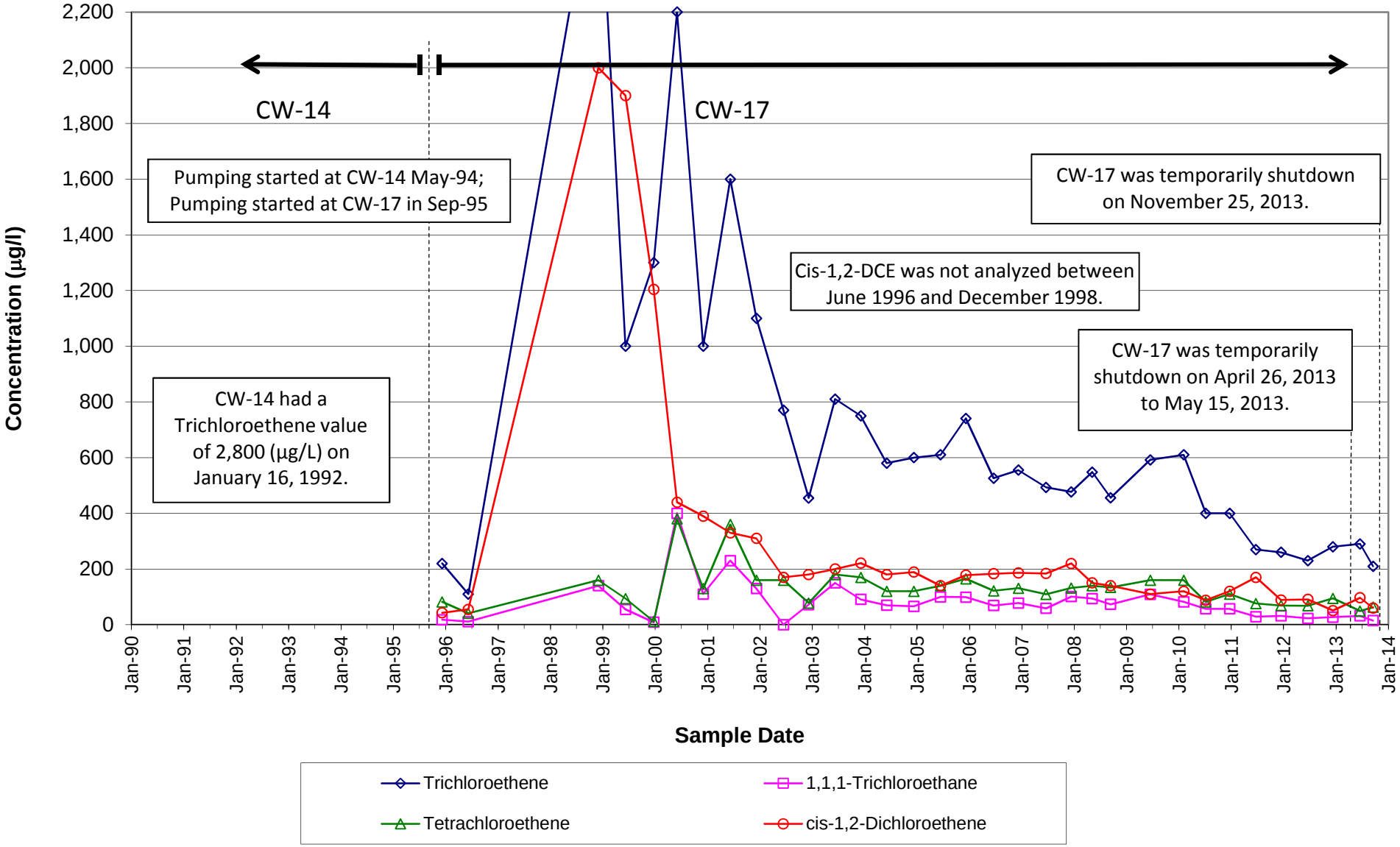


Figure 7-5
Predominant VOC Concentrations
Extraction Wells CW-14 and CW-17
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402



TABLES

Leidos Engineering, LLC
6310 Allentown Boulevard / Harrisburg, PA 17112 / 717.901.8100 leidos.com/engineering

TABLE 3-1
MONTHLY PRECIPITATION COMPARISON
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

Month	2013 Precipitation Amount (inches)	Normal Precipitation Amount (inches)
January	4.15	3.1
February	1.96	2.8
March	3.80	3.7
April	2.60	3.5
May	3.05	4.2
June	5.15	3.6
July	5.55	4.1
August	4.95	3.4
September	2.15	4.3
October	10.90	3.4
November	2.40	3.5
December	5.30	3.3
TOTALS:	51.96	42.90

Notes:

1. 2013 Precipitation data collected by Clean Harbors staff at the plant in York, PA.
2. Normal precipitation data for York, PA from National Climatic Data Center (NOAA). NOAA's 1981-2010 Climate Normals.

TABLE 3-2
ANNUAL HISTORICAL PRECIPITATION TOTALS
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

Calendar Year	Annual Rainfall (inches)
1992	36.73
1993	51.33
1994	45.68
1995	50.51
1996	58.85
1997	33.60
1998	42.95
1999	38.43
2000	37.45
2001	27.93
2002	39.80
2003	48.61
2004	55.30
2005	40.62
2006	40.93
2007	37.52
2008	47.70
2009	47.37
2010	46.53
2011	68.56
2012	50.09
2013	51.96

Notes:

1. Precipitation data for 1992 - 1997 from United States Geological Survey
2. Precipitation data for 1998 - 2002 from AccuWeather.com
3. Precipitation data for 2003 - 2013 from Harley-Davidson

TABLE 4-1
VOCs REMOVED FROM COLLECTED GROUNDWATER
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

JANUARY 1, 2013 - DECEMBER 31, 2013				
DATE	MONTHLY GROUNDWATER WITHDRAWAL (PTA Totalizer, gallons)	AVERAGE MONTHLY TOTAL VOCs (ppb)		ESTIMATED MONTHLY VOC REMOVAL (pounds)
Jan-13	15,112,135	1202		152
Feb-13	14,100,358	1202	*	142
Mar-13	16,160,280	1202	*	162
Apr-13	13,132,166	1038		114
May-13	8,705,865	1038	*	75
Jun-13	13,528,578	1038	*	117
Jul-13	14,265,001	1194		142
Aug-13	12,531,190	1194	*	125
Sep-13	13,067,317	1194	*	130
Oct-13	14,400,794	779		94
Nov-13	10,513,099	779	*	68
Dec-13	0	779	*	0
TOTAL	**145,516,783**	**NA**		**1,321**

NOTES:

1. * - No sample collected this month; concentration is the most recent
2. NA - Not Applicable

ANNUAL TOTALS		
YEAR	GROUNDWATER WITHDRAWAL (gallons)	ESTIMATED VOC REMOVAL (pounds)
1990 (NOV & DEC)	12,954,886	92
1991	62,458,393	357
1992	66,081,120	322
1993	72,198,940	421
1994	88,387,251	3,905
1995	141,357,856	5,572
1996	152,168,899	3,631
1997	150,246,400	2,675
1998	157,461,800	2,795
1999	133,687,100	1,464
2000	152,839,477	1,785
2001	134,557,249	1,659
2002	121,290,897	1269
2003	153,097,508	1,599
2004	140,725,167	1,786
2005	134,503,508	1,550
2006	125,192,364	1,295
2007	149,331,940	1,734
2008	155,341,655	1,560
2009	161,171,721	1,584
2010	159,042,802	1,388
2011	154,368,351	1,196
2012	153,624,656	1,519
2013	145,516,783	1,321
Total	**3,077,606,723**	**42,480**

TABLE 5-1
RECORD OF GROUNDWATER WITHDRAWALS
JANUARY 1, 2013 - DECEMBER 31, 2013
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

MONTH	NPBA WELLS (gallons)										TCA WELL (gallons)		WPL WELLS (gallons)					Building 3 De-Watering System	Treated Drilling Water (gallons)	MONTHLY TOTAL
	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A	SUBTOTAL	CW-8	SUBTOTAL	CW-9	CW-13	CW-15A	CW-17	SUBTOTAL			
Jan-13	75,550	5,374	15,073	121,659	68,051	36,367	127,699	34,735	31,971	516,479	5,741,874	5,741,874	2,960,280	3,269,293	112,822	3,119,020	9,461,415	203,140	19,030	15,941,938
Feb-13	66,522	5,942	11,038	116,604	55,513	38,994	114,823	28,612	35,511	473,559	4,944,649	4,944,649	2,955,289	3,001,913	96,743	3,130,814	9,184,759	28,540	0	14,631,507
Mar-13	70,240	6,817	17,013	125,741	62,645	49,869	119,961	26,093	40,177	518,556	5,537,689	5,537,689	3,323,636	3,341,802	98,168	3,461,033	10,224,640	41,100	0	16,321,985
Apr-13	69,920	6,437	11,085	111,874	73,636	35,808	109,633	35,580	39,056	493,029	4,765,234	4,765,234	2,693,958	2,736,908	93,251	2,608,145	8,132,262	112,360	0	13,502,885
May-13	69,199	5,030	9,148	117,018	76,954	25,307	110,356	34,378	33,543	480,933	2,781,791	2,781,791	1,785,943	1,842,238	56,466	1,726,309	5,410,956	23,290	0	8,696,970
Jun-13	37,427	2,721	980	68,228	41,248	12,918	66,846	20,964	17,479	268,811	4,172,672	4,172,672	3,043,560	3,304,760	95,441	2,776,828	9,220,589	22,230	17,370	13,701,672
Jul-13	0	0	0	0	0	0	0	0	0	0	5,425,748	5,425,748	2,676,652	3,451,753	92,367	2,749,783	8,970,555	0	3,960	14,400,263
Aug-13	0	0	0	0	0	0	0	0	0	0	5,139,969	5,139,969	2,704,398	3,138,263	84,028	2,777,944	8,704,632	0	3,010	13,847,612
Sep-13	456	59	152	826	1,047	212	930	292	270	4,244	5,589,830	5,589,830	2,129,209	3,368,663	79,979	2,048,505	7,626,356	0	1,970	13,222,400
Oct-13	0	0	0	0	0	0	0	0	0	0	5,670,763	5,670,763	2,899,462	3,517,222	86,208	2,256,592	8,759,484	0	0	14,430,247
Dec-13	0	0	0	0	0	0	0	0	0	0	4,288,738	4,288,738	2,413,796	2,769,772	63,844	1,275,626	6,523,038	0	6,390	10,818,166
Dec-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	389,314	32,380	64,489	661,950	379,094	199,475	650,248	180,654	198,007	2,755,611	54,058,958	54,058,958	29,586,183	33,742,587	959,317	27,930,599	92,218,686	430,660	51,730	149,515,645

VALUES ARE IN GALLONS FOR EACH EXTRACTION WELL

Notes: Monthly groundwater withdrawal value from Table 4-1 differs slightly from the monthly total in the last column above. The value in Table 4-1 is taken directly from the PTA totalizer, while the value in the last column of this table is the sum of the individual well totalizers.
--NPBA wells were temporarily disabled on June 19, 2013 for the FSP Addendum No. 6 study.
--Building 3 De-Watering System as temporarily disabled on June 19, 2013 for the FSP Addendum No. 7 study.
--NPBA wells enabled for sampling in September 2013 and disabled after sample was collected.
--GWTS was temporarily shutdown on November 25, 2013 for the FSP Addendum No. 11 study.

TABLE 5-2
GROUNDWATER EXTRACTION WELL PUMPING WATER LEVEL ELEVATIONS
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

Extraction System Location	Well No.	Reference Elevation (ft AMSL)	Range (ft AMSL)		Groundwater Elev. (ft AMSL)											
			Pump On (High)	Pump Off (Low)	1/30/2013	2/22/2013	3/25/2013	4/24/2013	5/30/2013	6/28/2013	7/26/2013	8/27/2013	9/30/2013	10/23/2013	11/25/2013	--
NPBA	CW-1	570.07	495.57	492.57	494.59	493.93	493.97	492.36	494.06	OL	OL	OL	OL	OL	OL	OL
	CW-1A	568.28	508.78	505.78	506.45	506.9	508.45	508.86	508.70	OL	OL	OL	OL	OL	OL	OL
	CW-2	556.95	483.45	480.45	479.26	481.15	481.69	482.11	481.78	OL	OL	OL	OL	OL	OL	OL
	CW-3	518.66	440.66	437.66	436.73	438.51	438.38	434.59	435.84	OL	OL	OL	OL	OL	OL	OL
	CW-4	541.55	458.05	455.05	456.53	455.6	457.71	455.34	457.03	OL	OL	OL	OL	OL	OL	OL
	CW-5	470.34	424.84	421.84	425.11	424.89	424.09	423.89	422.09	OL	OL	OL	OL	OL	OL	OL
	CW-6	484.67	415.57	412.57	416.07	419.11	414.89	409.96	410.46	OL	OL	OL	OL	OL	OL	OL
	CW-7	573.78	493.28	490.28	490.47	492.13	491.95	487.23	491.83	OL	OL	OL	OL	OL	OL	OL
	CW-7A	573.91	523.41	520.41	523.41	522.91	521.36	522.03	521.46	OL	OL	OL	OL	OL	OL	OL
TCA	CW-8	362.70	341.34	337.34	339.41	340.35	339.98	338.34	OL	337.90	OL	337.84	336.19	340.39	337.23	OL
WPL	CW-9	356.82	333.79	328.79	332.6	331.38	333.72	334.33	331.80	334.12	335.34	332.96	331.93	338.60	333.58	OL
	CW-13	358.85	327.60	322.60	325.65	324.17	325.93	324.53	323.72	324.40	324.38	323.82	324.26	326.44	322.37	OL
	CW-15A	361.40	333.50	328.50	330.78	331.49	333.22	327.28	328.32	327.93	334.99	328.25	327.63	334.85	331.12	OL
	CW-17	358.70	336.37	331.47	334.9	334.3	334.41	334.02	333.67	333.76	332.85	333.68	338.25	335.4	334.13	OL

Notes:
1. ft AMSL - feet above mean sea level.
2. OL - Off Line.
3. CW-8 was off-line in May 2013 because of nearby drilling activity.
3. NPBA wells were disabled on June 19, 2013 for the FSP Addendum No. 6 study.
4. GWTS was shutdown on November 25, 2013 for the FSP Addendum No. 11 study.

APPENDIX A

Data Tables

Leidos Engineering, LLC
6310 Allentown Boulevard / Harrisburg, PA 17112 / 717.901.8100 leidos.com/engineering

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
Codorus 1	8/28/2013	7:16	379.69	39.95	339.74
Codorus 2	8/28/2013	6:50	341.55	337.41	675.62
Cole B	8/28/2013	9:49	363.75	12.99	350.76
Cole D	8/28/2013	9:58	370.15	16.96	353.19
Cole E Deep	8/28/2013	9:57	369.17	17.53	351.64
Cole E Shallow	8/28/2013	9:56	369.54	17.87	351.67
Cole F	8/28/2013	9:54	370.39	18.83	351.56
Flush - Cole	8/28/2013	9:48	361.92	11.57	350.35
MW-4 (Cole)	8/28/2013	9:52	367.21	16.36	350.85
Cole Steel MW-12	8/28/2013	9:45		10.78	
CW-1	8/28/2013	9:14	570.07	40.6	529.47
CW-1A	8/28/2013	9:13	568.28	37.39	530.89
CW-2	8/28/2013	9:08	556.95	28.97	527.98
CW-3	8/28/2013	8:57	518.66	19.23	499.43
CW-4	8/28/2013	9:02	541.55	25.5	516.05
CW-5	8/28/2013	8:45	470.34	NM	NM
CW-6	8/28/2013	8:54	484.67	8	476.67
CW-7	8/28/2013	9:18	573.78	39.06	534.72
CW-7A	8/28/2013	9:17	573.91	41.28	532.63
CW-8*	8/28/2013	13:13	362.7	24.94	337.76
CW-9*	8/28/2013	8:26	356.82	23.16	333.66
CW-13*	8/28/2013	8:15	358.85	35.27	323.58
CW-14	8/28/2013	8:03	358.92	25.2	333.72
CW-15	8/28/2013	9:15	361.48	19.91	341.57
CW-15A*	8/28/2013	9:17	361.4	30.6	330.8
CW-16	8/28/2013	13:09	365.11	23.32	341.79
CW-17*	8/28/2013	8:02	358.7	25.02	333.68
CW-18	8/28/2013	12:21	368.98	24.21	344.77
CW-19	8/28/2013		384.94	D	D
CW-20	8/28/2013	7:32	361.49	23.57	337.92
GM-1D	8/28/2013	1:42		15.34	
JOHNSON 1	8/28/2013	16:01	380.32	6.22	374.1
JOHNSON 2	8/28/2013	15:45	376.79	5.54	371.25
MW-1	8/28/2013	8:51	380.73	36.33	344.4
MW-2	8/28/2013	10:00	508.88	65.5	443.38
MW-3	8/28/2013	9:40	541.1	65.3	475.8
MW-5	8/28/2013	6:35	369.71	24.46	345.25
MW-6	8/28/2013	8:00	359.62	19.86	339.76
MW-7	8/28/2013	8:34	359.48	26.42	333.06
MW-8	8/28/2013	8:28	358.09	20.48	337.61

Note:

A= Location was artesian. NM= Not measured.

D= Location was dry. OG= Water was over the gauge.

*=Active extraction well.

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-9	8/28/2013	9:09	558.78	31.82	526.96
MW-10	8/28/2013	9:11	567.8	39.6	528.2
MW-11	8/28/2013	9:10	563.08	26.75	536.33
MW-12	8/28/2013	9:30	535.93	34.12	501.81
MW-14	8/28/2013	9:55	519.54	32.4	487.14
MW-15	8/28/2013	9:56	523.95	60.99	462.96
MW-16D	8/28/2013	8:55	521.59	A	A
MW-16S	8/28/2013	8:56	516.6	20.85	495.75
MW-17	8/28/2013	10:31	456.86	13.3	443.56
MW-18D	8/28/2013	8:44	470.54	A	A
MW-18S	8/28/2013	8:45	469.14	A	A
MW-19	8/28/2013	10:35	427.36	23	404.36
MW-20D	8/28/2013	9:20	573.85	30.43	543.42
MW-20M	8/28/2013	9:21	574.19	40.62	533.57
MW-20S	8/28/2013	9:19	574.05	41.65	532.4
MW-22	8/28/2013	10:20	447.57	59.05	388.52
MW-26	8/28/2013	11:25	379.44	25.71	353.73
MW-27	8/28/2013	14:45	361.29	17.11	344.18
MW-28	8/28/2013		362.91	NM	NM
MW-29	8/28/2013	8:46	364.77	13.65	351.12
MW-30	8/28/2013	6:32	362.26	16.24	346.02
MW-31D	8/28/2013	6:41	369.3	17.47	351.83
MW-31S	8/28/2013	6:42	369.28	17.06	352.22
MW-32D	8/28/2013	13:57	362.57	20.46	342.11
MW-32S	8/28/2013	13:58	362.44	20.73	341.71
MW-33	8/28/2013	12:55	363.88	21.83	342.05
MW-34D	8/28/2013	13:04	361	19.3	341.7
MW-34S	8/28/2013	13:30	361	19.25	341.75
MW-35D	8/28/2013	14:25	360.6	18.87	341.73
MW-35S	8/28/2013	14:26	360.49	18.1	342.39
MW-36D	8/28/2013	6:37	370.96	25.81	345.15
MW-36S	8/28/2013	6:38	370.95	25.32	345.63
MW-37D	8/28/2013	7:35	359.11	21.29	337.82
MW-37S	8/28/2013	7:34	359.13	20.31	338.82
MW-38D	8/28/2013	8:23	358.62	21.63	336.99
MW-39D	8/28/2013	8:10	360.21	22.11	338.1
MW-39S	8/28/2013	8:09	360.14	22.62	337.52
MW-40D	8/28/2013	8:57	374.65	30.63	344.02
MW-40S	8/28/2013	8:56	374.69	30.66	344.03
MW-43D	8/28/2013	14:59	380.08	33.45	346.63

Note:

A= Location was artesian. NM= Not measured.

D= Location was dry. OG= Water was over the gauge.

*=Active extraction well.

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-43S	8/28/2013	15:00	379.76	32.75	347.01
MW-45	8/28/2013	9:25	359.91	17.74	342.17
MW-46	8/28/2013	9:27	359.19	17.61	341.58
MW-47	8/28/2013	9:23	360.57	20.33	340.24
MW-49D	8/28/2013	9:19	361.44	17.62	343.82
MW-49S	8/28/2013	9:20	361.45	17.92	343.53
MW-50D	8/28/2013	8:41	360.41	21.43	338.98
MW-50S	8/28/2013	8:42	360.4	21.25	339.15
MW-51D	8/28/2013	8:38	360.43	1.49	358.94
MW-51S	8/28/2013	8:37	360.19	23.81	336.38
MW-54	8/28/2013	13:19	365.27	23.5	341.77
MW-55	8/28/2013	13:53	365.17	23.43	341.74
MW-56	8/28/2013		371.83	NM	NM
MW-57	8/28/2013	12:49	364.54	20.06	344.48
MW-64D	8/28/2013	10:13	416.43	60.33	356.1
MW-64S	8/28/2013	10:12	416.34	36.55	379.79
MW-65D	8/28/2013	9:53	546.8	49.52	497.28
MW-65S	8/28/2013	9:52	546.82	48.35	498.47
MW-66D	8/28/2013	9:43	506.92	39.79	467.13
MW-66S	8/28/2013	9:42	506.73	38.49	468.24
MW-67D	8/28/2013	10:22	446.26	1.5	444.76
MW-67S	8/28/2013	10:21	446.26	10.5	435.76
MW-68	8/28/2013	10:30	458.06	6.8	451.26
MW-69	8/28/2013	10:32	411.9	10.13	401.77
MW-70D	8/28/2013	8:29	416.31	23.5	392.81
MW-70S	8/28/2013	8:30	416.21	23.14	393.07
MW-74D	8/28/2013	8:12	359.79	20.21	339.58
MW-74S	8/28/2013	8:11	359.85	20.75	339.1
MW-75D	8/28/2013	7:38	359.85	22.1	337.75
MW-75S	8/28/2013	7:36	359.03	20.92	338.11
MW-77	8/28/2013	12:19	379.48	24	355.48
MW-78	8/28/2013	6:45	375.32	22.01	353.31
MW-79	8/28/2013	11:15	375.84	23	352.84
MW-80	8/28/2013	7:07	370.29	25.42	344.87
MW-81D	8/28/2013	14:51	359.89	16.75	343.14
MW-81S	8/28/2013	14:50	360.12	17.6	342.52
MW-82	8/28/2013	8:20	382.18	36.74	345.44
MW-83	8/28/2013	8:50	363.69	8.48	355.21
MW-84	8/28/2013	6:46	376.53	24.12	352.41
MW-85	8/28/2013	9:00	371.54	16.75	354.79

Note:

A= Location was artesian. NM= Not measured.

D= Location was dry. OG= Water was over the gauge.

*=Active extraction well.

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-86D	8/28/2013	10:37	406.56	9	397.56
MW-86S	8/28/2013	10:38	406.5	9.35	397.15
MW-87	8/28/2013	7:08	370.64	25.73	344.91
MW-88	8/28/2013	6:52	367.93	24.06	343.87
MW-91	8/28/2013	10:05	501.18	56.9	444.28
MW-92	8/28/2013	10:10	476.87	84.3	392.57
MW-93D	8/28/2013	7:42	360.14	20.86	339.28
MW-93S	8/28/2013	7:40	360.76	21.47	339.29
MW-94	8/28/2013	8:53	365.03	9.25	355.78
MW-95	8/28/2013	7:49	358.72	19.54	339.18
MW-96D	8/28/2013	7:54	361	22.19	338.81
MW-96S	8/28/2013	7:53	361.21	22.48	338.73
MW-97	8/28/2013	8:18	357.39	22.49	334.9
MW-98D	8/28/2013	6:45	361.41	20.55	340.86
MW-98I	8/28/2013	6:43	360.78	21.2	339.58
MW-98S	8/28/2013	6:42	360.77	21.13	339.64
MW-99D	8/28/2013	6:54	359.91	19.58	340.33
MW-99S	8/28/2013	6:52	360.37	20.05	340.32
MW-100D	8/28/2013	7:02	362.14	21.48	340.66
MW-100I	8/28/2013	7:04	361.81	21.13	340.68
MW-100S	8/28/2013	7:03	362.28	21.63	340.65
MW-101D	8/28/2013	7:11	356.22	16.24	339.98
MW-101S	8/28/2013	7:10	356.54	16.7	339.84
MW-102D	8/28/2013	8:23	405.23	12.74	392.49
MW-102S	8/28/2013	8:22	405.41	38.54	366.87
MW-103D	8/28/2013	8:19	401.61	19.09	382.52
MW-103S	8/28/2013	8:15	402	17.05	384.95
MW-104	8/28/2013	10:36	428.72	28.83	399.89
MW-105	8/28/2013	7:51	362.05	23.19	338.86
MW-106	8/28/2013	8:20	360.15	25.35	334.8
MW-107	8/28/2013	7:31	363.56	23.3	340.26
MW-108D	8/28/2013	12:51	426.35	20.5	405.85
MW-108S	8/28/2013	12:50	425.46	31.5	393.96
MW-109D	8/28/2013	12:59	389.12	34.75	354.37
MW-109S	8/28/2013	12:55	388.39	35	353.39
MW-110	8/28/2013	13:05	378.36	25.15	353.21
MW-111	8/28/2013	11:02	433.63	21	412.63
MW-112	8/28/2013	11:08	393.52	48.77	344.75
MW-113	8/28/2013	7:00	371.02	26.13	344.89
MW-114	8/28/2013	14:47	360.71	17.5	343.21

Note:

A= Location was artesian. NM= Not measured.

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*=Active extraction well.

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-115	8/28/2013	11:18	373.3	22.1	351.2
MW-116	8/28/2013	6:30	364.59	19.25	345.34
MW-117	8/28/2013	8:40	365	11.96	353.04
MW-118	8/28/2013	11:30	377.44	NM	NM
MW-119	8/28/2013	12:14	377.03	16.65	360.38
MW-120	8/28/2013	12:30	377.63	17	360.63
MW-121	8/28/2013	12:16	376.31	12.75	363.56
MW-122	8/28/2013	11:30	377.61	8.5	369.11
MW-123	8/28/2013	11:43	379.64	12.74	366.9
MW-124	8/28/2013	15:58	376.37	15.65	360.72
MW-125	8/28/2013	12:22	366.56	11.91	354.65
MW-126	8/28/2013	7:28	371.42	26.12	345.3
MW-127	8/28/2013	6:57	371.55	26.62	344.93
MW-128	8/28/2013	7:18	370.58	25.64	344.94
MW-129	8/28/2013	12:22	365.41	20.5	344.91
MW-130	8/28/2013	14:19	362.15	19.68	342.47
MW-131	8/28/2013	9:02	365.35	21.22	344.13
MW-132	8/28/2013	8:58	365.3	20.59	344.71
MW-133	8/28/2013	9:31	365.31	20.5	344.81
MW-134	8/28/2013	14:36	361.21	17.55	343.66
MW-135	8/28/2013	14:32	361.57	17.8	343.77
MW-136A (459.5-460)	8/28/2013	10:50	359.78	23.23	336.55
MW-136A (356-356.5)	8/28/2013	10:53	359.78	23.02	336.76
MW-136A (434-434.5)	8/28/2013	10:51	359.78	22.38	337.4
MW-136A (372.5-373)	8/28/2013	10:52	359.78	58.35	301.43
MW-137A (343-343.5)	8/28/2013	11:02	365.7	28.35	337.35
MW-137A (295.5-296)	8/28/2013	11:03	365.7	27.96	337.74
MW-137A (374.5-375)	8/28/2013	11:01	365.7	30.65	335.05
MW-137A (420-420.5)	8/28/2013	11:00	365.7	30.17	335.53
MW-137A (434.5-435)	8/28/2013	10:59	365.7	30.34	335.36
MW-138A	8/28/2013	7:09	370.82	24.65	346.17
MW-139A (454-454.5)	8/28/2013	11:07	362.04	12.73	349.31
MW-139A (305-305.5)	8/28/2013	11:11	362.04	22.81	339.23
MW-139A (333.5-334)	8/28/2013	11:10	362.04	21.45	340.59
MW-139A (421.5-422)	8/28/2013	11:08	362.04	15.58	346.46
MW-139A (365-365.5)	8/28/2013	11:09	362.04	23.73	338.31
MW-140A (407.5-408)	8/28/2013	11:20	361.56	30.27	331.29
MW-140A (209.5-210)	8/28/2013	11:24	361.56	22.25	339.31
MW-140A (285-285.5)	8/28/2013	11:23	361.56	24.35	337.21
MW-140A (323.5-324)	8/28/2013	11:22	361.56	25.64	335.92

Note:

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*=Active extraction well.

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-140A (372-372.5)	8/28/2013	11:21	361.56	26.84	334.72
MW-141A	8/28/2013	10:11	416.96	49.95	367.01
MW-142D	8/28/2013	8:41	437.78	16.3	421.48
MW-142S	8/28/2013	8:40	437.44	3.52	433.92
MW-143D	8/28/2013	8:35	403.71	10.01	393.7
MW-143S	8/28/2013	8:37	403.56	34.57	368.99
MW-144	8/28/2013	6:47	361.52	21.51	340.01
MW-145A	8/28/2013	6:57	362.44	21.93	340.51
MW-146	8/28/2013	7:00	362.39	21.74	340.65
MW-147A	8/28/2013	7:07	361.25	19.4	341.85
MW-148A (72.5-73)	8/28/2013	10:18	359.31	19.63	339.68
MW-148A (136-136.5)	8/28/2013	10:19	359.31	21.09	338.22
MW-148A (218.5-219)	8/28/2013	10:20	359.31	20.72	338.59
MW-160	8/28/2013	12:39	374.71	NM	NM
Ru-MW-1	8/28/2013	13:20	389.27	34.62	354.65
Ru-MW-2	8/28/2013	13:10	391.02	37.6	353.42
Ru-MW-3	8/28/2013	13:15	395.5	41.99	353.51
Ru-MW-4	8/28/2013		394.17	AB	AB
Ru-MW-5	8/28/2013	13:40	378.2	24.84	353.36
RU-MW-6	8/28/2013	13:45	382.73	29.44	353.29
Ru-MW-7	8/28/2013	13:30	386.46	33.05	353.41
Ru-MW-8	8/28/2013	13:32	384.2	30.6	353.6
RW-2	8/28/2013	12:05	548.46	21.13	527.33
RW-5	8/28/2013	10:05	375.54	32.16	343.38
RW-6	8/28/2013	8:30		D	D
SOFTAIL LIFT STATION	8/28/2013	16:13	396.62	25.53	371.09
TATE (S-6)	8/28/2013	12:05	488.86	1.04	487.82
WPL-SS-7	8/28/2013	8:32	357.78	21.81	335.97
WPL-SS-8	8/28/2013	8:06	364.4	26.09	338.31

Note:

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*=Active extraction well.
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TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
Codorus 1	11/22/2013	10:39	379.69	40.62	339.07
Codorus 2	11/22/2013	10:17	341.55	338.27	676.48
Cole B	11/22/2013	11:11	363.75	13.6	350.15
Cole D	11/22/2013	11:33	370.15	18.32	351.83
Cole E Deep	11/22/2013	11:30	369.17	18.33	350.84
Cole E Shallow	11/22/2013	11:29	369.54	18.74	350.8
Cole F	11/22/2013	11:26	370.39	19.6	350.79
Flush - Cole	11/22/2013	11:09	361.92	12.15	349.77
MW-4 (Cole)	11/22/2013	11:15	367.21	16.98	350.23
Cole Steel MW-12	11/22/2013	11:03		11.42	
CW-1	11/22/2013	12:02	570.07	40.8	529.27
CW-1A	11/22/2013	11:47	568.28	37.9	530.38
CW-2	11/22/2013	11:33	556.95	30.75	526.2
CW-3	11/22/2013	11:27	518.66	19.9	498.76
CW-4	11/22/2013	11:31	541.55	25.25	516.3
CW-5	11/22/2013	11:14	470.34	NM	NM
CW-6	11/22/2013	11:16	484.67	8	476.67
CW-7	11/22/2013	12:06	573.78	39.2	534.58
CW-7A	11/22/2013	12:05	573.91	41.55	532.36
CW-8*	11/22/2013	11:00	362.7	25.47	337.23
CW-9*	11/22/2013	8:36	356.82	23.24	333.58
CW-13*	11/22/2013	8:15	358.85	36.48	322.37
CW-14	11/22/2013	7:48	358.92	24.8	334.12
CW-15	11/22/2013	12:49	361.48	21.26	340.22
CW-15A*	11/22/2013	12:50	361.4	30.28	331.12
CW-16	11/22/2013	10:51	365.11	24.09	341.02
CW-17*	11/22/2013	7:50	358.7	24.57	334.13
CW-18	11/22/2013	9:53	368.98	25.42	343.56
CW-19	11/22/2013		384.94	D	D
CW-20	11/22/2013	8:44	361.49	23.91	337.58
GM-1D	11/22/2013			NM	NM
JOHNSON 1	11/22/2013	7:00	380.32	6.23	374.09
JOHNSON 2	11/22/2013	6:59	376.79	5.46	371.33
MW-1	11/22/2013	9:23	380.73	37.73	343
MW-2	11/22/2013	12:27	508.88	67.3	441.58
MW-3	11/22/2013	11:23	541.1	65.74	475.36
MW-5	11/22/2013	6:40	369.71	25.69	344.02
MW-6	11/22/2013	7:52	359.62	19.94	339.68
MW-7	11/22/2013	8:10	359.48	26.45	333.03
MW-8	11/22/2013	8:32	358.09	20.77	337.32

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SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-9	11/22/2013	11:36	558.78	32.32	526.46
MW-10	11/22/2013	11:40	567.8	39.77	528.03
MW-11	11/22/2013	11:38	563.08	28.5	534.58
MW-12	11/22/2013	11:29	535.93	34.98	500.95
MW-14	11/22/2013	12:20	519.54	33.6	485.94
MW-15	11/22/2013	12:21	523.95	61.5	462.45
MW-16D	11/22/2013	11:24	516.51	OG	OG
MW-16S	11/22/2013	11:25	516.6	19.25	497.35
MW-17	11/22/2013	12:50	456.86	14.02	442.84
MW-18D	11/22/2013	11:12	464.19	NM	NM
MW-18S	11/22/2013	11:12	464.12	NM	NM
MW-19	11/22/2013	12:56	427.36	23.25	404.11
MW-20D	11/22/2013	12:08	573.85	31.1	542.75
MW-20M	11/22/2013	12:09	574.19	40.8	533.39
MW-20S	11/22/2013	12:07	574.05	42.08	531.97
MW-22	11/22/2013	12:36	447.57	60.5	387.07
MW-26	11/22/2013	9:21	379.44	27.49	351.95
MW-27	11/22/2013	12:25	361.29	18.32	342.97
MW-28	11/22/2013		362.91	NM	NM
MW-29	11/22/2013	9:06	364.77	13.79	350.98
MW-30	11/22/2013	6:38	362.26	18.02	344.24
MW-31D	11/22/2013	6:50	369.3	19.27	350.03
MW-31S	11/22/2013	6:51	369.28	18.98	350.3
MW-32D	11/22/2013	10:55	362.57	21.27	341.3
MW-32S	11/22/2013	10:57	362.44	21.53	340.91
MW-33	11/22/2013	10:30	363.88	22.68	341.2
MW-34D	11/22/2013	10:35	361	20.07	340.93
MW-34S	11/22/2013	10:34	361	20.04	340.96
MW-35D	11/22/2013	10:39	360.6	19.65	340.95
MW-35S	11/22/2013	10:40	360.49	18.81	341.68
MW-36D	11/22/2013	6:55	370.96	27.04	343.92
MW-36S	11/22/2013	6:56	370.95	26.83	344.12
MW-37D	11/22/2013	8:48	359.11	21.56	337.55
MW-37S	11/22/2013	8:46	359.13	20.75	338.38
MW-38D	11/22/2013	8:24	358.62	22.16	336.46
MW-39D	11/22/2013	7:37	360.21	23.14	337.07
MW-39S	11/22/2013	7:35	360.14	22.38	337.76
MW-40D	11/22/2013	9:14	374.65	31.68	342.97
MW-40S	11/22/2013	9:12	374.69	31.64	343.05
MW-43D	11/22/2013	9:32	380.08	34.63	345.45

Note:

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*=Active extraction well.

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SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-43S	11/22/2013	9:34	379.76	33.85	345.91
MW-45	11/22/2013	12:39	359.91	18.68	341.23
MW-46	11/22/2013	12:37	359.19	18.41	340.78
MW-47	11/22/2013	12:40	360.57	21.3	339.27
MW-49D	11/22/2013	12:43	361.44	18.73	342.71
MW-49S	11/22/2013	12:44	361.45	18.8	342.65
MW-50D	11/22/2013	7:58	360.41	21.86	338.55
MW-50S	11/22/2013	7:56	360.4	21.93	338.47
MW-51D	11/22/2013	8:05	360.43	22.42	338.01
MW-51S	11/22/2013	8:07	360.19	23.9	336.29
MW-54	11/22/2013	10:52	365.27	24.3	340.97
MW-55	11/22/2013	10:53	365.17	24.18	340.99
MW-56	11/22/2013		371.83	NM	NM
MW-57	11/22/2013	9:57	364.54	21.21	343.33
MW-64D	11/22/2013	12:32	416.43	61.27	355.16
MW-64S	11/22/2013	12:31	416.34	37.51	378.83
MW-65D	11/22/2013	12:17	546.8	49.75	497.05
MW-65S	11/22/2013	12:16	546.82	48.77	498.05
MW-66D	11/22/2013	11:19	506.92	40.25	466.67
MW-66S	11/22/2013	12:20	506.73	38.9	467.83
MW-67D	11/22/2013	12:40	446.26	1.53	444.73
MW-67S	11/22/2013	12:39	446.26	10.85	435.41
MW-68	11/22/2013	12:48	458.06	7.02	451.04
MW-69	11/22/2013	12:53	411.9	11	400.9
MW-70D	11/22/2013	11:03	416.31	23.87	392.44
MW-70S	11/22/2013	11:04	416.21	23.5	392.71
MW-74D	11/22/2013	7:34	359.79	20.76	339.03
MW-74S	11/22/2013	7:32	359.85	21.24	338.61
MW-75D	11/22/2013	9:25	359.85	22.36	337.49
MW-75S	11/22/2013	8:48	359.03	21.26	337.77
MW-77	11/22/2013	13:19	379.48	26.95	352.53
MW-78	11/22/2013	6:46	375.32	23.8	351.52
MW-79	11/22/2013	9:09	375.84	9.1	366.74
MW-80	11/22/2013	7:40	370.29	26.64	343.65
MW-81D	11/22/2013	12:16	359.89	18.04	341.85
MW-81S	11/22/2013	12:17	360.12	18.64	341.48
MW-82	11/22/2013	8:50	382.18	37.91	344.27
MW-83	11/22/2013	9:45	363.69	10.9	352.79
MW-84	11/22/2013	6:48	376.53	25.81	350.72
MW-85	11/22/2013	9:18	371.54	7.82	363.72

Note:

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*=Active extraction well.

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-86D	11/22/2013	13:03	406.56	10.05	396.51
MW-86S	11/22/2013	13:02	406.5	9.39	397.11
MW-87	11/22/2013	7:45	370.64	26.95	343.69
MW-88	11/22/2013	7:35	367.93	25.13	342.8
MW-91	11/22/2013	12:25	501.18	58.69	442.49
MW-92	11/22/2013	12:44	476.87	86.05	390.82
MW-93D	11/22/2013	8:58	360.14	21.37	338.77
MW-93S	11/22/2013	8:56	360.76	21.95	338.81
MW-94	11/22/2013	9:46	365.03	11.66	353.37
MW-95	11/22/2013	7:23	358.72	19.99	338.73
MW-96D	11/22/2013	7:29	361	22.69	338.31
MW-96S	11/22/2013	7:27	361.21	22.96	338.25
MW-97	11/22/2013	8:21	357.39	22.5	334.89
MW-98D	11/22/2013	10:21	361.41	21.24	340.17
MW-98I	11/22/2013	10:26	360.78	21.73	339.05
MW-98S	11/22/2013	10:24	360.77	21.7	339.07
MW-99D	11/22/2013	10:12	359.91	19.99	339.92
MW-99S	11/22/2013	10:14	360.37	20.46	339.91
MW-100D	11/22/2013	9:55	362.14	22.05	340.09
MW-100I	11/22/2013	9:51	361.81	21.77	340.04
MW-100S	11/22/2013	9:53	362.28	22.09	340.19
MW-101D	11/22/2013	9:44	356.22	16.78	339.44
MW-101S	11/22/2013	9:42	356.54	17.18	339.36
MW-102D	11/22/2013	8:44	405.23	13.2	392.03
MW-102S	11/22/2013	8:43	405.41	40.33	365.08
MW-103D	11/22/2013	8:36	401.61	19.8	381.81
MW-103S	11/22/2013	8:39	402	17.79	384.21
MW-104	11/22/2013	12:59	428.72	28.99	399.73
MW-105	11/22/2013	7:25	362.05	23.7	338.35
MW-106	11/22/2013	8:19	360.15	25.95	334.2
MW-107	11/22/2013	8:41	363.56	23.87	339.69
MW-108D	11/22/2013	9:52	426.35	22.4	403.95
MW-108S	11/22/2013	9:54	425.46	29.73	395.73
MW-109D	11/22/2013	10:29	389.12	35.35	353.77
MW-109S	11/22/2013	10:30	388.39	35.85	352.54
MW-110	11/22/2013	10:41	378.36	25.75	352.61
MW-111	11/22/2013	9:00	433.63	23.52	410.11
MW-112	11/22/2013	8:53	393.52	49.79	343.73
MW-113	11/22/2013	7:38	371.02	27.36	343.66
MW-114	11/22/2013	12:22	360.71	18.62	342.09

Note:

A= Location was artesian. NM= Not measured.

D= Location was dry. OG= Water was over the gauge.

*=Active extraction well.

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-115	11/22/2013	9:14	373.3	23.25	350.05
MW-116	11/22/2013	6:34	364.59	20.67	343.92
MW-117	11/22/2013	9:40	365	15.04	349.96
MW-118	11/22/2013	9:35	377.44	NM	NM
MW-119	11/22/2013	13:24	377.03	18.05	358.98
MW-120	11/22/2013	13:21	377.63	10.55	367.08
MW-121	11/22/2013	13:27	376.31	18.79	357.52
MW-122	11/22/2013	9:26	377.61	9.03	368.58
MW-123	11/22/2013	9:32	379.64	22.5	357.14
MW-124	11/22/2013	9:41	376.37	17.39	358.98
MW-125	11/22/2013	13:16	366.56	14	352.56
MW-126	11/22/2013	7:55	371.42	27.35	344.07
MW-127	11/22/2013	7:50	371.55	27.85	343.7
MW-128	11/22/2013	7:31	370.58	26.89	343.69
MW-129	11/22/2013	9:50	365.41	21.83	343.58
MW-130	11/22/2013	12:13	362.15	20.7	341.45
MW-131	11/22/2013	11:23	365.35	22.49	342.86
MW-132	11/22/2013	11:25	365.3	22.21	343.09
MW-133	11/22/2013	12:06	365.31	22.1	343.21
MW-134	11/22/2013	12:35	361.21	18.71	342.5
MW-135	11/22/2013	12:30	361.57	18.95	342.62
MW-136A (372.5-373)	11/22/2013	10:30	359.78	25.86	333.92
MW-136A (459.5-460)	11/22/2013	10:30	359.78	27.99	331.79
MW-136A (434-434.5)	11/22/2013	10:30	359.78	25.48	334.3
MW-136A (356-356.5)	11/22/2013	10:30	359.78	24.23	335.55
MW-137A (434.5-435)	11/22/2013	10:45	365.7	31.71	333.99
MW-137A (420-420.5)	11/22/2013	10:45	365.7	31.67	334.03
MW-137A (295.5-296)	11/22/2013	10:45	365.7	29.36	336.34
MW-137A (374.5-375)	11/22/2013	10:45	365.7	32.45	333.25
MW-137A (343-343.5)	11/22/2013	10:45	365.7	29.09	336.61
MW-138A	11/22/2013	7:53	370.82	25.98	344.84
MW-139A (365-365.5)	11/22/2013	11:15	362.04	25.03	337.01
MW-139A (421.5-422)	11/22/2013	11:15	362.04	16.24	345.8
MW-139A (333.5-334)	11/22/2013	11:15	362.04	23.32	338.72
MW-139A (305-305.5)	11/22/2013	11:15	362.04	24.34	337.7
MW-139A (454-454.5)	11/22/2013	11:15	362.04	13.35	348.69
MW-140A (209.5-210)	11/22/2013	11:00	361.56	24.02	337.54
MW-140A (285-285.5)	11/22/2013	11:00	361.56	25.16	336.4
MW-140A (407.5-408)	11/22/2013	11:00	361.56	31.94	329.62
MW-140A (372-372.5)	11/22/2013	11:00	361.56	29.75	331.81

Note:

A= Location was artesian. NM= Not measured.

D= Location was dry. OG= Water was over the gauge.

*=Active extraction well.

TABLE A-1

SITE-WIDE GROUNDWATER LEVELS AND ELEVATION DATA

FORMER YORK NAVAL ORDNANCE PLANT

1425 Eden Road, York PA 17402

Monitoring Location	Date	Time	Reference Elevation (ft. AMSL)	Depth (ft.)	Water Level (ft. AMSL)
MW-140A (323.5-324)	11/22/2013	11:00	361.56	27.79	333.77
MW-141A	11/22/2013	12:30	416.96	44.01	372.95
MW-142D	11/22/2013	11:09	437.78	16.75	421.03
MW-142S	11/22/2013	11:10	437.44	3.7	433.74
MW-143D	11/22/2013	11:06	403.71	10.7	393.01
MW-143S	11/22/2013	11:07	403.56	33.65	369.91
MW-144	11/22/2013	10:20	361.52	22.11	339.41
MW-145A	11/22/2013	10:05	362.44	22.3	340.14
MW-146	11/22/2013	9:55	362.39	22.34	340.05
MW-147A	11/22/2013	9:48	361.25	20.22	341.03
MW-148A (218.5-219)	11/22/2013	11:55	359.31	21.28	338.03
MW-148A (72.5-73)	11/22/2013	11:55	359.31	20.06	339.25
MW-148A (136-136.5)	11/22/2013	11:55	359.31	21.57	337.74
MW-150	11/22/2013	11:23	366.8	14.07	352.73
MW-151	11/22/2013	11:46	374.11	26.5	347.61
MW-152 (23-23.5)	11/22/2013	11:45	358.92	19.74	339.18
MW-152 (137.5-138)	11/22/2013	11:45	358.92	17.34	341.58
MW-155	11/22/2013	10:08	359.92	19.82	340.1
MW-156	11/22/2013	10:00	353.53	13.7	339.83
MW-160	11/22/2013	13:31	374.71	22.19	352.52
Ru-MW-1	11/22/2013	10:26	389.05	36.35	352.7
Ru-MW-2	11/22/2013	10:13	390.72	28.05	362.67
Ru-MW-3	11/22/2013	10:09	395.23	42.6	352.63
Ru-MW-4	11/22/2013		394.17	NM	NM
Ru-MW-5	11/22/2013	10:50	378.11	25.45	352.66
Ru-MW-6	11/22/2013	10:51	382.68	30.05	352.63
Ru-MW-7	11/22/2013	10:34	386.34	33.7	352.64
Ru-MW-8	11/22/2013	10:45	384.1	31.35	352.75
Ru-MW-10	11/22/2013	10:20	390.15	38.55	351.6
Ru-MW-101	11/22/2013	10:17	390.6	38	352.6
Ru-MW-102	11/22/2013	10:05	393.87	41.22	352.65
Ru-MW-103	11/22/2013	10:23	389.28	36.35	352.93
Ru-MW-4R	11/22/2013	10:06	394.07	41.4	352.67
RW-2	11/22/2013	9:30	548.27	NM	NM
RW-5	11/22/2013	10:57	375.54	33.24	342.3
RW-6	11/22/2013	8:59		D	D
SOFTAIL LIFT STATION	11/22/2013	13:09	396.62	26.5	370.12
TATE (S-6)	11/22/2013	9:26	488.86	1.1	487.76
WPL-SS-7	11/22/2013	8:28	357.78	24.32	333.46
WPL-SS-8	11/22/2013	7:40	364.4	26.38	338.02

Note:

A= Location was artesian. NM= Not measured.

D= Location was dry. OG= Water was over the gauge.

*=Active extraction well.

Table A-2.
Groundwater Data Summary - CW_2013
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-1 5/29/2013	CW-1 9/16/2013	CW-1A 5/30/2013	CW-1A 9/16/2013	CW-2 5/29/2013	CW-2 9/16/2013	CW-3 5/29/2013	CW-3 9/16/2013	CW-4 5/29/2013	CW-4 9/16/2013
1,4-Dioxane														
1,4-Dioxane	6.4	32		0.67										
Alkalinity														
ALKALINITY, TOTAL														86000 B
Dissolved Organic Carbon - Quad-Diss (Dissolved)														
Dissolved Organic Carbon														190 J B
METAL														
Ferric Iron														6200
FERROUS IRON														1100 HF
Sulfide, Total														3000 R
METAL (Dissolved)														
Iron			300	11000										7300
Manganese	300	300	50	320										690 B
Sodium														13000
SO4, CL, NO3														
Chloride		250000												29000
Nitrate As N	10000	10000	10000	25000										100 U
Sulfate														29000
TOTAL VOC														
					44	15	37.3	28.39	15.1	10.17	34.6	120.19	82	62.5
Volatile Organic Compound														
1,1,1,2-Tetrachloroethane	70	70		0.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1,1-Trichloroethane	200	200	200	7500	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.066	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1-Dichloroethane	31	160		2.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,1-Dichloroethene	7	7	7	260	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,2-Dichloropropane	5	5	5	0.38	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
1,4-Dioxane	6.4	32		0.67	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	400 U
2-Butanone	4000	4000		4900	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
2-Hexanone	11	44		34	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
4-Methyl-2-Pentanone	2900	8200		1000	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U
Acetone	33000	92000		12000	5 U	5 U	5 U	5 U	5 U	5 U	5.6	74	5 U	10 U
Acrylonitrile	0.72	3.7		0.045	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	40 U
Benzene	5	5	5	0.39	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Bromochloromethane	90	90		83	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Bromodichloromethane	80	80		0.12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Bromoform	80	80		7.9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.88 J	1 U	2 U
Bromomethane	10	10		7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Carbon Disulfide	1500	6200		720	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Carbon Tetrachloride	5	5	5	0.39	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Chlorobenzene	100	100	100	72	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Table A-2.
Groundwater Data Summary - CW_2013
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-1 5/29/2013	CW-1 9/16/2013	CW-1A 5/30/2013	CW-1A 9/16/2013	CW-2 5/29/2013	CW-2 9/16/2013	CW-3 5/29/2013	CW-3 9/16/2013	CW-4 5/29/2013	CW-4 9/16/2013
Chloroethane	230	900		21000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Chloroform	80	80		0.19	1 U	1 U	0.27 J	0.38 J	1 U	1 U	1 U	1 U	1 U	2 U
Chloromethane				190	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
cis-1,2-Dichloroethene	70	70	70	28	11	5.6	1.2	0.31 J	4.1	0.87 J	21	32	29	40
cis-1,3-Dichloropropene	6.6	26		0.41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Ethylbenzene	700	700	700	1.3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Methyl tert-butyl ether	20	20		12	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Methylene chloride	5	5		9.9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Styrene	100	100	100	1100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Tetrachloroethene	5	5	5	9.7	1 U	1 U	0.83 J	1.7	1 U	3	1.3	2.5	6	3.5
Toluene	1000	1000	1000	860	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
trans-1,2-Dichloroethene	100	100	100	86	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.91 J	1 U	2 U
trans-1,3-Dichloropropene	6.6	26		0.41	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Trichloroethene	5	5	5	0.44	33	9.4	35	26	11	6.3	6.7	9.9	47	19
Vinyl Chloride	2	2	2	0.015	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U
Xylenes (Total)	10000	10000	10000	190	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	6 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Table A-2.
Groundwater Data Summary - CW_2013
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-5 5/29/2013	CW-5 9/16/2013	CW-6 5/30/2013	CW-6 9/16/2013	CW-7 5/30/2013	CW-7 9/16/2013	CW-7A 5/29/2013	CW-7A 9/16/2013	CW-8 6/17/2013	CW-8 9/16/2013
1,4-Dioxane														
1,4-Dioxane	6.4	32		0.67										
Alkalinity														
ALKALINITY, TOTAL														200000 B
Dissolved Organic Carbon - Quad-Diss (Dissolved)														
Dissolved Organic Carbon														630 J B
METAL														
Ferric Iron														100
FERROUS IRON														50 U
Sulfide, Total														3000 R
METAL (Dissolved)														
Iron			300	11000										100 U
Manganese	300	300	50	320										0.99 J B
Sodium														96000
SO4, CL, NO3														
Chloride		250000												190000
Nitrate As N	10000	10000	10000	25000										3900
Sulfate														20000
TOTAL VOC														
					8.5	14.9	170	77.73	5.7	2.1	84.2	165.8	570	375.6
Volatile Organic Compound														
1,1,1,2-Tetrachloroethane	70	70		0.5	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
1,1,1-Trichloroethane	200	200	200	7500	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	92	22
1,1,2,2-Tetrachloroethane	0.84	4.3		0.066	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
1,1,2-Trichloroethane	5	5	5	0.24	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
1,1-Dichloroethane	31	160		2.4	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	16 J	5 J
1,1-Dichloroethene	7	7	7	260	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	14 J	7.3 J
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
1,2-Dichloropropane	5	5	5	0.38	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
1,4-Dioxane	6.4	32		0.67	200 U	200 U	1600 U	200 U	200 U	200 U	1000 U	1000 U	4000 U	2500 U
2-Butanone	4000	4000		4900	5 U	5 U	40 U	5 U	5 U	5 U	25 U	25 U	100 U	63 U
2-Hexanone	11	44		34	5 U	5 U	40 U	5 U	5 U	5 U	25 U	25 U	100 U	63 U
4-Methyl-2-Pentanone	2900	8200		1000	5 U	5 U	40 U	5 U	5 U	5 U	25 U	25 U	100 U	63 U
Acetone	33000	92000		12000	5 U	5 U	40 U	14	5 U	5 U	25 U	25 U	100 U	63 U
Acrylonitrile	0.72	3.7		0.045	20 U	20 U	160 U	20 U	20 U	20 U	100 U	100 U	400 U	250 U
Benzene	5	5	5	0.39	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Bromochloromethane	90	90		83	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Bromodichloromethane	80	80		0.12	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Bromoform	80	80		7.9	1 U	1 U	8 U	0.44 J	1 U	1 U	5 U	5 U	20 U	13 U
Bromomethane	10	10		7	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Carbon Disulfide	1500	6200		720	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Carbon Tetrachloride	5	5	5	0.39	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Chlorobenzene	100	100	100	72	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Chlorodibromomethane	80	80		0.15	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Table A-2.
Groundwater Data Summary - CW_2013
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-5 5/29/2013	CW-5 9/16/2013	CW-6 5/30/2013	CW-6 9/16/2013	CW-7 5/30/2013	CW-7 9/16/2013	CW-7A 5/29/2013	CW-7A 9/16/2013	CW-8 6/17/2013	CW-8 9/16/2013
Chloroethane	230	900		21000	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Chloroform	80	80		0.19	1 U	1 U	8 U	1 U	1.4	1 U	5 U	5 U	20 U	3.3 J
Chloromethane				190	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
cis-1,2-Dichloroethene	70	70	70	28	1.9	2.1	32	19	1 U	1 U	5 U	1.5 J	210	160
cis-1,3-Dichloropropene	6.6	26		0.41	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Ethylbenzene	700	700	700	1.3	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Methyl tert-butyl ether	20	20		12	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Methylene chloride	5	5		9.9	1 U	1 U	8 U	1 U	1 U	1 U	1.8 J	5 U	15 J	13 U
Styrene	100	100	100	1100	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Tetrachloroethene	5	5	5	9.7	2.5	7.4	120	36	1 U	0.6 J	1.4 J	4.3 J	43	38
Toluene	1000	1000	1000	860	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
trans-1,2-Dichloroethene	100	100	100	86	1 U	1 U	8 U	0.89 J	1 U	1 U	5 U	5 U	20 U	13 U
trans-1,3-Dichloropropene	6.6	26		0.41	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Trichloroethene	5	5	5	0.44	4.1	5.4	18	7.4	4.3	1.5	81	160	180	140
Vinyl Chloride	2	2	2	0.015	1 U	1 U	8 U	1 U	1 U	1 U	5 U	5 U	20 U	13 U
Xylenes (Total)	10000	10000	10000	190	3 U	3 U	24 U	3 U	3 U	3 U	15 U	15 U	60 U	38 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Table A-2.
Groundwater Data Summary - CW_2013
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-9 6/17/2013	CW-9 9/18/2013	CW-13 6/17/2013	CW-13 9/16/2013	CW-15A 6/17/2013	CW-15A 9/16/2013	CW-17 6/17/2013	CW-17 9/16/2013
1,4-Dioxane												
1,4-Dioxane	6.4	32		0.67						180		
Alkalinity												
ALKALINITY, TOTAL								250000 B		250000 B		
Dissolved Organic Carbon - Quad-Diss (Dissolved)												
Dissolved Organic Carbon								830 J B		3900 B		
METAL												
Ferric Iron								100		100		
FERROUS IRON								50 U		50 U		
Sulfide, Total								3000 R		3000 R		
METAL (Dissolved)												
Iron			300	11000				100 U		100 U		
Manganese	300	300	50	320				98 B		540 B		
Sodium								49000		100000		
SO4, CL, NO3												
Chloride		250000						120000		290000		
Nitrate As N	10000	10000	10000	25000				3000		4200		
Sulfate								34000		140000		
TOTAL VOC												
					1557	2091	701.1	718.8	28920	31360	226.7	148.1
Volatile Organic Compound												
1,1,1,2-Tetrachloroethane	70	70		0.5	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
1,1,1-Trichloroethane	200	200	200	7500	48 J	150 U	11	25 U	11000	12000	5 U	5 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.066	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
1,1,2-Trichloroethane	5	5	5	0.24	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
1,1-Dichloroethane	31	160		2.4	50 U	150 U	5.1 J	25 U	140 J	1000 U	4.5 J	3 J
1,1-Dichloroethene	7	7	7	260	50 U	150 U	7.7 J	8.8 J	1900	2000	6.8	4.1 J
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
1,2-Dichloroethane	5	5	5	0.15	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
1,2-Dichloropropane	5	5	5	0.38	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
1,4-Dioxane	6.4	32		0.67	10000 U	30000 U	2000 U	5000 U	100000 U	200000 U	1000 U	1000 U
2-Butanone	4000	4000		4900	250 U	750 U	50 U	130 U	2500 U	5000 U	25 U	25 U
2-Hexanone	11	44		34	250 U	750 U	50 U	130 U	2500 U	5000 U	25 U	25 U
4-Methyl-2-Pentanone	2900	8200		1000	250 U	750 U	50 U	130 U	2500 U	5000 U	25 U	25 U
Acetone	33000	92000		12000	250 U	750 U	50 U	130 U	2500 U	5000 U	25 U	25 U
Acrylonitrile	0.72	3.7		0.045	1000 U	3000 U	200 U	500 U	10000 U	20000 U	100 U	100 U
Benzene	5	5	5	0.39	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Bromochloromethane	90	90		83	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Bromodichloromethane	80	80		0.12	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Bromoform	80	80		7.9	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Bromomethane	10	10		7	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Carbon Disulfide	1500	6200		720	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Carbon Tetrachloride	5	5	5	0.39	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Chlorobenzene	100	100	100	72	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Chlorodibromomethane	80	80		0.15	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Table A-2.
Groundwater Data Summary - CW_2013
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	CW-9 6/17/2013	CW-9 9/18/2013	CW-13 6/17/2013	CW-13 9/16/2013	CW-15A 6/17/2013	CW-15A 9/16/2013	CW-17 6/17/2013	CW-17 9/16/2013
Chloroethane	230	900		21000	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Chloroform	80	80		0.19	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Chloromethane				190	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
cis-1,2-Dichloroethene	70	70	70	28	110	95 J	320	330	7700	8700	87	59
cis-1,3-Dichloropropene	6.6	26		0.41	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Ethylbenzene	700	700	700	1.3	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Methyl tert-butyl ether	20	20		12	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Methylene chloride	5	5		9.9	39 J	56 J	7.3 J	25 U	380 J	360 J B	1.4 J	5 U
Styrene	100	100	100	1100	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Tetrachloroethene	5	5	5	9.7	950	1400	130	160	1300	1600	40	21
Toluene	1000	1000	1000	860	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
trans-1,2-Dichloroethene	100	100	100	86	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
trans-1,3-Dichloropropene	6.6	26		0.41	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Trichloroethene	5	5	5	0.44	410	540	220	220	6500	6700	87	61
Vinyl Chloride	2	2	2	0.015	50 U	150 U	10 U	25 U	500 U	1000 U	5 U	5 U
Xylenes (Total)	10000	10000	10000	190	150 U	450 U	30 U	75 U	1500 U	3000 U	15 U	15 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Table A-2.
Groundwater Data Summary - CW_2013
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	Softail Lift Station Deep Foundation 5/24/2013	Softail Lift Station Deep Foundation 9/16/2013
1,4-Dioxane						
1,4-Dioxane	6.4	32		0.67	1.9 U	
Alkalinity						
ALKALINITY, TOTAL						
Dissolved Organic Carbon - Quad-Diss (Dissolved)						
Dissolved Organic Carbon						
METAL						
Ferric Iron						
FERROUS IRON						
Sulfide, Total						
METAL (Dissolved)						
Iron			300	11000		
Manganese	300	300	50	320		
Sodium						
SO4, CL, NO3						
Chloride		250000				
Nitrate As N	10000	10000	10000	25000		
Sulfate						
TOTAL VOC						
					0.84	0.48
Volatile Organic Compound						
1,1,1,2-Tetrachloroethane	70	70		0.5	1 U	1 U
1,1,1-Trichloroethane	200	200	200	7500	1 U	1 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.066	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.24	0.21 J	1 U
1,1-Dichloroethane	31	160		2.4	1 U	1 U
1,1-Dichloroethene	7	7	7	260	1 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0065	1 U	1 U
1,2-Dichloroethane	5	5	5	0.15	1 U	1 U
1,2-Dichloropropane	5	5	5	0.38	1 U	1 U
1,4-Dioxane	6.4	32		0.67	200 U	200 U
2-Butanone	4000	4000		4900	5 U	5 U
2-Hexanone	11	44		34	5 U	5 U
4-Methyl-2-Pentanone	2900	8200		1000	5 U	5 U
Acetone	33000	92000		12000	5 U	5 U
Acrylonitrile	0.72	3.7		0.045	20 U	20 U
Benzene	5	5	5	0.39	1 U	1 U
Bromochloromethane	90	90		83	1 U	1 U
Bromodichloromethane	80	80		0.12	1 U	1 U
Bromoform	80	80		7.9	1 U	1 U
Bromomethane	10	10		7	1 U	1 U
Carbon Disulfide	1500	6200		720	1 U	1 U
Carbon Tetrachloride	5	5	5	0.39	1 U	1 U
Chlorobenzene	100	100	100	72	1 U	1 U
Chlorodibromomethane	80	80		0.15	1 U	1 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

Table A-2.
Groundwater Data Summary - CW_2013
Former York Naval Ordnance Plant - York, PA

Location/ID Sample Date Parameter	MSC Used Aquifer R (ug/L)	MSC Used Aquifer NR (ug/L)	Federal MCL (ug/L)	EPA RSL Tap Water (ug/L)	Softail Lift Station Deep Foundation 5/24/2013	Softail Lift Station Deep Foundation 9/16/2013
Chloroethane	230	900		21000	1 U	1 U
Chloroform	80	80		0.19	1 U	1 U
Chloromethane				190	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	28	1 U	1 U
cis-1,3-Dichloropropene	6.6	26		0.41	1 U	1 U
Ethylbenzene	700	700	700	1.3	1 U	1 U
Methyl tert-butyl ether	20	20		12	1 U	1 U
Methylene chloride	5	5		9.9	1 U	1 U
Styrene	100	100	100	1100	1 U	1 U
Tetrachloroethene	5	5	5	9.7	1 U	1 U
Toluene	1000	1000	1000	860	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	86	1 U	1 U
trans-1,3-Dichloropropene	6.6	26		0.41	1 U	1 U
Trichloroethene	5	5	5	0.44	0.63 J	0.48 J
Vinyl Chloride	2	2	2	0.015	1 U	1 U
Xylenes (Total)	10000	10000	10000	190	3 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorganics; blank contamination. B = Organics; blank contamination. Inorganics; estimated. E = Inorganics: matrix interference.

TABLE A-3
WATER QUALITY ANALYSES
PACKED TOWER AERATOR SAMPLES (January 1, 2013 - December 31, 2013)
Former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

Sample ID Lab ID Sample Date Parameter	Units	Outfall #003 GWTS 1005427001 1/2/2013 Result	Outfall #003 GWTS 1020560001 4/8/2013 Result	Outfall #003 GWTS 1036127001 7/10/2013 Result	Outfall #003 GWTS 1054796001 10/23/2013 Result
1,1-DICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
TETRACHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
TRICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
METHYLENE CHLORIDE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
VINYL CHLORIDE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
TOTAL VOCs	µg/l	0	0	0	0

Sample ID Lab ID Sample Date Parameter	Units	Influent to #003 GWTS 1005428001 1/2/2013 Result	Influent to #003 GWTS 1020559001 4/8/2013 Result	Influent to #003 GWTS 103612001 7/10/2013 Result	Influent to #003 GWTS 1054795001 10/23/2013 Result
1,1,1-TRICHLOROETHANE	µg/l	132	85.6	101	117
1,1-DICHLOROETHANE	µg/l	6.2	6.4	8.4	7.7
1,1-DICHLOROETHENE	µg/l	30.1	25.3	27.8	34.8
1,2-DICHLOROETHANE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
CHLOROBENZENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
CHLOROFORM	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
METHYLENE CHLORIDE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
TETRACHLOROETHENE	µg/l	383	363	427	177
TRICHLOROETHENE	µg/l	390	308	339	190
VINYL CHLORIDE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
CIS 1,2-DICHLOROETHENE	µg/l	261	250	291	252
TRANS 1,2-DICHLOROETHENE	µg/l	N.D.@1	N.D.@1	N.D.@1	N.D.@1
TOTAL VOCs	µg/l	1202	1038	1194	779

All Analysis Performed by ALS ENVIRONMENTAL - MIDDLETOWN, PA (Formerly ALSI of Middletown, PA)

µg/l - micrograms per liter

N.D.@1 - not detected at indicated concentration

PTA Infl. - Official sample name is "influent to #003 GWTS"

PTA Effl. - Official sample name is "outfall #003 GWTS"

APPENDIX B

2013 Access® Database Summary
Groundwater Treatment Plant Operations

Leidos Engineering, LLC
6310 Allentown Boulevard / Harrisburg, PA 17112 / 717.901.8100 leidos.com/engineering

Harley-Davidson Motor Company

Groundwater Treatment Plant Operations

From: 1/1/2013
To: 12/31/2013

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
1/1/2013	1	23.97	1	23.97	497619.8	1	23.97	1	23.98	2247	6.0	4170	0	0.00
1/2/2013	17	19.58	3	19.28	402193.3	3	19.12	2	15.12	1889	6.0	2640	0	0.00
1/3/2013	1	23.97	1	23.97	501599.7	1	23.98	1	23.97	2518	6.0	2490	0	0.00
1/4/2013	1	23.97	1	23.97	500327.6	1	23.98	1	23.97	2253	6.0	1500	0	0.00
1/5/2013	1	23.97	1	23.97	500262.8	1	23.97	1	23.98	2249	6.0	1850	0	0.00
1/6/2013	1	23.97	1	23.97	500000.1	1	23.97	1	23.98	2233	6.0	1900	0	0.00
1/7/2013	1	23.97	1	23.97	498782.6	1	23.97	1	23.97	2246	6.0	1390	0	0.00
1/8/2013	1	23.97	1	23.97	498582.8	1	23.98	1	23.97	2259	6.0	1350	0	0.00
1/9/2013	3	21.55	3	21.53	450418	2	21.52	2	17.45	2050	6.0	450	0	0.00
1/10/2013	1	23.97	1	23.97	501215.5	1	23.98	1	23.98	2243	6.0	0	0	0.00
1/11/2013	2	23.83	2	23.83	501306.1	3	18.78	2	23.78	2235	6.0	10430	0	0.00
1/12/2013	1	23.97	1	23.97	499875.5	1	23.98	1	23.98	1969	6.0	6850	0	0.00
1/13/2013	1	23.97	1	23.97	497823.7	1	23.98	1	23.97	1964	6.0	2990	0	0.00
1/14/2013	1	23.97	1	23.97	496513.5	2	21.18	1	23.97	1952	6.0	3570	0	0.00
1/15/2013	1	23.97	1	23.97	498228.5	1	23.98	1	23.97	2235	6.0	9530	0	0.00
1/16/2013	1	23.97	1	23.97	509195.9	1	23.98	1	23.98	2513	6.0	38100	0	0.00
1/17/2013	1	23.97	1	23.97	504287	1	23.97	1	23.98	2000	6.0	27560	0	0.00
1/18/2013	1	23.97	1	23.97	497116.1	1	23.97	1	23.98	2506	6.0	4890	0	0.00
1/19/2013	1	23.97	1	23.97	496398.2	1	23.97	1	23.98	2237	6.0	3620	0	0.00
1/20/2013	1	23.97	1	23.97	496004.7	1	23.97	1	23.97	2235	6.0	2990	0	0.00
1/21/2013	1	23.97	1	23.97	496340.5	1	23.98	1	23.97	2520	6.0	2970	0	0.00
1/22/2013	1	23.97	1	23.97	495637	1	23.98	1	23.97	2553	7.0	1920	0	0.00
1/23/2013	1	23.97	1	23.97	495228.1	1	23.98	1	23.98	2558	7.0	1400	0	0.00
1/24/2013	1	23.97	1	23.97	495986.2	1	23.97	1	23.98	2546	7.0	1440	0	0.00
1/25/2013	1	23.97	1	23.97	496354.9	1	23.97	1	23.98	2551	7.0	1430	0	0.00
1/26/2013	1	23.97	1	23.97	496484.7	1	23.98	1	23.98	2535	7.0	1990	0	0.00
1/27/2013	1	23.97	1	23.97	496395.1	1	23.97	1	23.97	2529	7.0	1910	0	0.00
1/28/2013	2	22.40	3	22.38	465812.3	2	22.05	2	22.37	2363	6.0	4220	0	0.00
1/29/2013	3	15.15	2	15.07	298480.6	2	14.95	2	10.93	1216	6.0	4510	0	0.00
1/30/2013	1	23.97	1	23.97	505562.1	1	23.97	2	20.20	1952	6.0	21500	0	0.00
1/31/2013	1	23.97	1	23.97	522101.8	1	23.97	1	23.98	2283	6.0	50610		
2/1/2013	1	23.97	1	23.97	515327.5	1	23.98	1	23.98	2546	6.0	9550		
2/2/2013	1	23.97	1	23.97	531531.5	1	23.98	1	23.98	2599	6.0	4930		
2/3/2013	1	23.97	1	23.97	534931.5	1	23.98	1	23.97	2584	7.0	4980		
2/4/2013	1	23.97	1	23.97	527192.1	1	23.98	1	23.97	2587	7.0	3910		
2/5/2013	1	23.97	1	23.97	524089.8	1	23.98	1	23.98	2584	7.0	4030		
2/6/2013	1	23.97	1	23.97	523523.3	1	23.97	1	23.98	2330	7.0	1140		
2/7/2013	1	23.97	1	23.97	524146.4	3	17.78	2	21.72	2576	7.0	0		
2/8/2013	1	23.97	1	23.97	525342.2	1	23.97	2	23.77	2558	7.0	0		
2/9/2013	1	23.97	1	23.97	520908.1	1	23.98	3	18.97	2551	7.0	0		
2/10/2013	1	23.97	1	23.97	511517.6	1	23.98	1	23.98	2265	7.0	0		

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
2/11/2013	1	23.97	1	23.97	513695	1	23.98	1	23.98	2260	7.0	0		
2/12/2013	1	23.97	1	23.97	512848.3	1	23.98	1	23.97	2262	7.0	0		
2/13/2013	1	23.97	1	23.97	512568.2	1	23.97	1	23.97	2275	7.0	0		
2/14/2013	1	23.97	1	23.97	512537.3	1	23.97	1	23.98	2261	7.0	0		
2/15/2013	1	23.97	1	23.97	511925.4	1	23.97	1	23.98	2245	7.0	0		
2/16/2013	1	23.97	1	23.97	512440.4	1	23.98	1	23.98	2268	7.0	0		
2/17/2013	1	23.97	1	23.97	511673.1	1	23.98	1	23.98	2545	7.0	0		
2/18/2013	1	23.97	1	23.97	511397	1	23.98	1	23.98	2276	7.0	0		
2/19/2013	1	23.97	1	23.97	511277.6	1	23.98	1	23.97	2265	7.0	0		
2/20/2013	1	23.97	1	23.97	511337.3	1	23.97	1	23.98	2543	7.0	0		
2/21/2013	5	20.53	6	20.13	365880.7	10	15.77	2	15.37	1772	7.0	0		
2/22/2013	1	23.97	1	23.97	382348.3	1	23.97	1	23.97	2553	7.0	0		
2/23/2013	1	23.97	1	23.97	512575.4	1	23.98	1	23.98	2285	7.0	0		
2/24/2013	1	23.97	1	23.97	511938.8	1	23.97	1	23.98	2261	7.0	0		
2/25/2013	1	23.97	1	23.97	511311.6	1	23.97	1	23.97	2267	7.0	0		
2/26/2013	2	20.20	2	20.15	430301	2	20.12	2	16.17	1960	7.0	0		
2/27/2013	1	23.97	1	23.97	512802	1	23.97	1	23.97	1986	7.0	0		
2/28/2013	1	23.97	1	23.97	512990.5	1	23.97	1	23.97	1990	7.0	0		
3/1/2013	1	23.97	1	23.97	513096.5	1	23.98	1	23.98	2012	7.0	0		
3/2/2013	1	23.97	1	23.97	512826.7	1	23.97	1	23.97	2273	7.0	0		
3/3/2013	1	23.97	1	23.97	512258.1	1	23.97	1	23.97	2538	7.0	0		
3/4/2013	1	23.97	1	23.97	511572.2	1	23.98	1	23.98	2267	7.0	0		
3/5/2013	1	23.97	1	23.97	510796.6	1	23.98	1	23.97	2253	7.0	0		
3/6/2013	1	23.97	1	23.97	510684.3	1	23.97	1	23.97	2257	7.0	0		
3/7/2013	1	23.97	1	23.97	511369.3	1	23.98	1	23.98	2254	7.0	0		
3/8/2013	1	23.97	1	23.97	511181.8	1	23.98	1	23.98	2255	7.0	0		
3/9/2013	1	23.97	1	23.97	511363.1	1	23.97	1	23.97	2240	7.0	0		
3/10/2013	1	23.97	1	23.97	511363.1	1	23.97	1	23.97	2240	7.0	0		
3/11/2013		23.97	1	23.97	514890.4	1	24.39	1	24.39	2034	7.0	0	0	0.00
3/12/2013		23.97	1	23.97	517444.8	1	24.39	1	24.39	2083	7.0	0	0	0.00
3/13/2013		23.97	1	23.97	512438.2	1	24.39	1	24.39	2058	7.0	0	0	0.00
3/14/2013		23.97	1	23.97	515273.6	1	24.39	25	23.97	2133	7.0	0	0	0.00
3/15/2013	1	23.97	1	23.97	519935.8	1	23.98	1	23.98	2280	7.0	0		
3/16/2013	1	23.97	1	23.97	519881.2	1	23.97	1	23.97	2281	7.0	0		
3/17/2013	1	23.97	1	23.97	521569.3	1	23.98	1	23.97	2291	7.0	0		
3/18/2013	1	23.97	1	23.97	529794.9	1	23.97	1	23.98	2570	7.0	0		
3/19/2013	1	23.97	1	23.97	534227	1	23.97	1	23.98	2304	7.0	0		
3/20/2013	1	23.97	1	23.97	548255.6	1	23.98	1	23.97	2323	7.0	0		
3/21/2013	1	23.97	1	23.97	552784.5	1	23.97	1	23.97	2596	7.0	0		
3/22/2013	1	23.97	1	23.97	553617.8	1	23.97	1	23.98	2343	7.0	0		
3/23/2013	1	23.97	1	23.97	545238.8	2	22.15	1	23.98	2335	7.0	0		
3/24/2013	1	23.97	1	23.97	523158.6	1	23.97	1	23.97	2319	7.0	0		
3/25/2013	1	23.97	1	23.97	522812.5	1	23.98	2	20.57	2554	7.0	0		
3/26/2013	9	22.15	9	21.90	476405.9	3	19.70	4	21.95	2077	7.0	0		
3/27/2013	3	23.55	3	23.43	523532.5	4	23.25	7	23.12	2268	7.0	22530		
3/28/2013	1	23.97	1	23.97	529937.1	1	23.97	1	23.97	2310	7.0	6540		
3/29/2013	1	23.97	1	23.97	528335.4	1	23.97	1	23.97	2035	7.0	4530		

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
3/30/2013	1	23.97	1	23.97	526644.1	1	23.98	1	23.98	2274	7.0	3300		
3/31/2013	1	23.97	1	23.97	527590.7	1	23.97	1	23.97	2022	7.0	4200		
4/1/2013	1	23.97	1	23.97	526272.3	1	23.97	1	23.97	2012	7.0	4270		
4/2/2013	1	23.97	1	23.97	525379.3	1	23.98	1	23.98	2281	7.0	2940		
4/3/2013	1	23.97	1	23.97	525522.4	1	23.97	1	23.98	2295	7.0	1850		
4/4/2013	1	23.97	1	23.97	525536.9	1	23.97	1	23.97	2289	7.0	2490		
4/5/2013	1	23.97	1	23.97	525417.4	1	23.97	1	23.97	1993	7.0	2010		
4/6/2013	1	23.97	1	23.97	525204.2	1	23.98	1	23.98	2253	7.0	1440		
4/7/2013	1	23.97	1	23.97	525569.9	1	23.97	1	23.98	1980	7.0	1940		
4/8/2013	1	23.97	1	23.97	524642.9	1	23.97	1	21.53	1955	7.0	1420		
4/9/2013	1	23.97	1	23.97	524186.6	2	21.10	1	23.32	1934	7.0	1390		
4/10/2013	1	23.97	1	23.97	512838	2	23.28	2	20.62	1901	7.0	1600		
4/11/2013	1	23.97	1	23.97	501269.1	2	19.98	2	19.42	1857	7.0	2670		
4/12/2013	1	23.97	1	23.97	521938.1	2	19.98	2	22.73	1947	7.0	12740		
4/13/2013	1	23.97	1	23.97	523542.8	1	23.97	1	23.97	1969	7.0	4250		
4/14/2013	1	23.97	1	23.97	523083.4	1	23.97	1	23.97	1965	7.0	2350		
4/15/2013	1	23.97	1	23.97	521788.7	1	23.98	2	23.08	1962	7.0	2020		
4/16/2013	1	23.97	1	23.97	508431.7	1	23.97	1	23.97	1873	7.0	1670		
4/17/2013	1	23.97	1	23.97	512749.4	2	23.48	2	21.92	1912	7.0	2450		
4/18/2013	1	23.97	1	23.97	519280.7	2	23.15	2	23.88	1953	7.0	1980		
4/19/2013	1	23.97	1	23.97	513986.5	2	22.68	2	23.07	1919	7.0	6370		
4/20/2013	1	23.97	1	23.97	503866.7	1	23.98	1	23.97	1953	7.0	11070		
4/21/2013	1	23.97	1	23.97	501617.2	1	23.97	1	23.97	1965	7.0	3340		
4/22/2013	1	23.97	1	23.97	500941.5	1	23.97	1	23.98	1949	7.0	2130		
4/23/2013	1	23.97	1	23.97	500912.7	1	23.97	1	23.97	1935	7.0	1930		
4/24/2013	1	23.97	1	23.97	502216.7	1	23.98	1	23.97	1925	7.0	1520		
4/25/2013	1	23.97	1	23.97	504000.6	1	23.97	1	23.97	1937	7.0	1890		
4/26/2013	1	8.02	1	7.98	167607.8	1	8.02	1	8.08	621	7.0	290		
4/27/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	-78	7.0	0		
4/28/2013	8	7.80	8	7.38	30061.58	3	3.87	2	3.82	297	7.0	32340		
4/29/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	-80	7.0	0		
4/30/2013	1	4.45	1	4.40	34301.06	2	0.30	1	4.00	131	6.0	0		
5/1/2013	0	0.00	0	0.00	1.03	0	0.00	0	0.00	-79	6.0	250		
5/2/2013	1	4.80	1	4.75	36590.75	7	3.83	1	0.28	138	6.0	2740		
5/3/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	-78	6.0	0		
5/4/2013	1	3.75	1	3.70	29474.48	0	0.00	2	3.62	112	6.0	900		
5/5/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	-78	6.0	0		
5/6/2013	1	4.35	1	4.30	33673.79	5	3.83	1	0.10	120	6.0	590		
5/7/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	-77	6.0	0		
5/8/2013	1	4.30	1	4.25	33367.88	1	0.17	3	3.82	113	6.0	1640		
5/9/2013														
5/10/2013	5	9.15	6	8.72	118873.3	10	4.48	1	4.00	501	6.0	190		
5/11/2013	1	4.33	1	4.28	37030.56	2	3.07	1	1.00	148	6.0	3710		
5/12/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	-73	7.0	0		
5/13/2013	1	4.52	1	4.47	39712.68	3	1.28	1	3.00	280	6.0	5610		
5/14/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	259	6.0	0		
5/15/2013	2	15.90	2	15.83	287867.5	4	14.33	3	12.77	1235	7.0	2160		

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
5/16/2013	1	23.97	1	23.97	522334.6	1	23.97	1	23.97	1950	7.0	740		
5/17/2013	1	23.97	1	23.97	527586.6	1	23.97	1	23.97	1975	7.0	430		
5/18/2013	1	23.97	1	23.97	533789.3	1	23.97	1	23.98	1997	7.0	130		
5/19/2013	1	23.97	1	23.97	549575	1	23.98	1	23.97	2003	7.0	270		
5/20/2013	1	23.97	1	23.97	555513	1	23.97	1	23.97	1968	7.0	270		
5/21/2013	3	20.40	2	20.30	467749.8	2	20.28	2	19.43	1671	7.0	250		
5/22/2013	3	22.32	5	22.12	511613.3	2	22.18	2	18.63	1860	7.0	120		
5/23/2013	1	23.97	1	23.97	548477.1	1	23.98	2	22.73	1980	7.0	740		
5/24/2013	1	23.97	1	23.97	532665.5	1	23.97	2	20.58	1978	7.0	840		
5/25/2013	1	23.97	1	23.97	526303.2	1	23.97	1	23.97	1962	7.0	430		
5/26/2013	1	23.97	1	23.97	524842.7	1	23.98	1	23.98	1960	7.0	120		
5/27/2013	1	23.97	1	23.97	524332.8	2	23.77	1	23.98	1956	7.0	230		
5/28/2013	1	23.97	1	23.97	521806.2	4	16.78	4	18.43	1923	7.0	280		
5/29/2013	1	23.97	1	23.97	396550	10	11.18	5	15.72	1664	7.0	420		
5/30/2013	1	23.97	1	23.97	369407.4	13	13.12	6	9.72	1613	7.0	120		
5/31/2013	1	23.97	1	23.97	476726.2	3	21.10	3	19.38	1854	7.0	110		
6/1/2013	1	23.97	1	23.97	509913.8	1	23.97	2	20.37	1923	7.0	100		
6/2/2013	1	23.97	1	23.97	507770.4	3	19.35	2	20.43	1907	7.0	100		
6/3/2013	1	23.97	1	23.97	508858.1	1	23.97	2	20.85	1940	7.0	8720		
6/4/2013	1	23.97	1	23.97	502495.8	1	23.98	1	23.98	1914	7.0	230		
6/5/2013	1	23.97	1	23.97	501263.9	1	23.98	2	22.38	1903	7.0	100		
6/6/2013	1	23.97	1	23.97	494837.8	2	22.60	1	23.98	1887	7.0	880		
6/7/2013	1	23.97	1	23.97	495056.1	1	23.98	1	23.97	1899	7.0	3710		
6/8/2013	1	23.97	1	23.97	495847.1	1	23.97	1	23.98	1903	7.0	1360		
6/9/2013	1	23.97	1	23.97	501229.9	1	23.97	1	23.98	1912	7.0	410		
6/10/2013	1	23.97	1	23.97	499161.7	1	23.98	2	20.53	1899	7.0	5160		
6/11/2013	1	23.97	1	23.97	501652.2	1	23.97	1	23.97	1907	7.0	1780		
6/12/2013	1	23.97	1	23.97	503918.2	1	23.97	1	23.97	1912	7.0	630		
6/13/2013	1	23.97	1	23.97	357696.3	14	11.40	12	11.45	1592	7.0	10260		
6/14/2013	1	23.97	1	23.97	330396.2	21	10.87	10	8.00	1531	7.0	1530		
6/15/2013	1	23.97	1	23.97	332805.3	15	8.07	13	11.73	1530	7.0	460		
6/16/2013	1	23.97	1	23.97	333458.4	20	11.25	11	8.25	1534	7.0	300		
6/17/2013	1	23.97	1	23.97	346049.1	15	8.72	13	12.62	1558	7.0	2870		
6/18/2013	1	23.97	1	23.97	329634	20	9.87	14	8.93	1524	7.0	640		
6/19/2013	2	15.42	2	15.38	206656.1	9	7.53	4	6.33	955	7.0	360		
6/20/2013	1	23.97	1	23.97	407330	12	18.27	4	15.70	1615	7.0	0		
6/21/2013	1	23.98	1	23.98	494863.5	1	23.98	1	23.98	1801	7.0	0	0	0.00
6/22/2013	1	23.98	1	23.98	494863.5	1	23.98	1	23.98	1801	7.0	0		
6/23/2013	1	23.97	1	23.97	494809.9	1	23.97	1	23.97	1797	7.0	0		
6/24/2013	1	23.97	1	23.97	494747.1	1	23.97	1	23.97	1806	7.0	0		
6/25/2013	1	23.97	1	23.97	494483.4	1	23.97	1	23.97	1815	7.0	0		
6/26/2013	2	22.95	2	22.90	471901.7	2	22.85	2	20.27	1750	7.0	0		
6/27/2013	2	23.33	2	23.28	479467	2	23.27	2	19.90	1770	7.0	0		
6/28/2013	1	23.97	1	23.97	492760.2	2	21.85	2	21.02	1811	7.0	0		
6/29/2013	1	23.97	1	23.97	486649.3	3	18.33	3	21.03	1790	7.0	0		
6/30/2013	1	23.97	1	23.97	458001.8	2	18.23	2	19.98	1699	7.0	0		
7/1/2013	1	23.97	1	23.97	481810.3	1	23.97	3	17.68	1778	7.0	0		

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
7/2/2013	1	23.97	1	23.97	481193.3	1	23.97	4	15.45	1776	7.0	0		
7/3/2013	1	23.97	1	23.97	480900.8	1	23.97	4	15.27	1780	7.0	0		
7/4/2013	1	23.97	1	23.97	479340.3	2	20.28	4	14.48	1777	7.0	0		
7/5/2013	1	23.97	1	23.97	478482.4	2	16.23	4	12.78	1786	7.0	0		
7/6/2013	1	23.97	1	23.97	475709.6	3	12.07	4	12.80	1769	7.0	0		
7/7/2013	1	23.97	1	23.97	451915.6	3	12.02	4	12.50	1689	7.0	0		
7/8/2013	1	23.97	1	23.97	460841.6	3	12.02	4	17.87	1704	7.0	0		
7/9/2013	1	23.97	1	23.97	475757	3	12.10	4	12.47	1756	7.0	0		
7/10/2013	1	23.97	1	23.97	475509.8	3	12.15	4	12.63	1751	7.0	0		
7/11/2013	1	23.97	1	23.97	475130.8	3	12.00	4	12.68	1758	7.0	0		
7/12/2013	1	23.97	1	23.97	475865.1	3	12.03	4	12.58	1774	7.0	0		
7/13/2013	1	23.97	1	23.97	469937.5	3	12.05	4	12.60	1745	7.0	0		
7/14/2013	3	22.28	3	22.25	405034.1	3	16.02	4	10.23	1522	7.0	0		
7/15/2013	1	23.97	1	23.97	473870	3	12.07	4	12.10	1774	7.0	0		
7/16/2013	1	23.97	1	23.97	475992.8	3	12.02	4	12.33	1775	7.0	0		
7/17/2013	1	23.97	1	23.97	475603.5	3	12.03	4	12.42	1770	7.0	0		
7/18/2013	1	23.97	1	23.97	475649.9	3	12.03	4	12.33	1748	7.0	0		
7/19/2013	1	23.97	1	23.97	475371.8	3	12.05	4	12.27	1757	7.0	0		
7/20/2013	1	23.97	1	23.97	475126.6	3	12.10	4	12.22	1759	7.0	0		
7/21/2013	1	23.97	1	23.97	474301.6	3	12.03	4	12.17	1756	7.0	0		
7/22/2013	1	23.97	1	23.97	468063.9	3	12.00	4	12.17	1729	7.0	0		
7/23/2013	1	23.97	1	23.97	477385.4	3	12.25	4	12.62	1750	7.0	0		
7/24/2013	1	23.97	1	23.97	482986.6	1	21.27	3	17.62	1766	7.0	0		
7/25/2013	1	23.97	1	23.97	341296.7	22	10.65	16	7.33	1498	7.0	0		
7/26/2013	1	23.97	1	23.97	406325.7	9	15.28	13	15.23	1618	7.0	0		
7/27/2013	1	23.97	1	23.97	464283.8	1	20.68	2	21.43	1712	7.0	0		
7/28/2013	1	23.97	1	23.97	389523.3	3	12.00	4	11.97	1456	7.0	0		
7/29/2013	1	23.97	1	23.97	468784.9	2	19.28	2	19.97	1724	7.0	0		
7/30/2013	1	23.97	1	23.97	482753.8	3	13.02	3	16.13	1779	7.0	3960		
7/31/2013	3	19.65	2	19.60	390252.6	2	15.43	4	11.38	1462	6.0	0		
8/1/2013	1	23.97	1	23.97	469722.2	2	16.28	4	13.38	1711	6.0	0		
8/2/2013	1	23.97	1	23.97	457965.8	2	19.02	4	12.42	1677	6.0	0		
8/3/2013	1	23.97	1	23.97	480804	2	20.30	4	12.85	1763	6.0	0		
8/4/2013	1	23.97	1	23.97	480501.2	3	13.50	4	12.82	1752	6.0	0		
8/5/2013	1	23.97	1	23.97	480893.6	3	15.83	4	13.30	1763	6.0	0		
8/6/2013	1	23.97	1	23.97	480951.3	2	20.45	4	12.80	1760	6.0	0		
8/7/2013	1	23.97	1	23.97	480043.8	3	16.83	4	12.95	1743	6.0	0		
8/8/2013	1	23.97	1	23.97	481370.5	1	23.25	4	13.50	1745	6.0	0		
8/9/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	0	0.0	0	0	0.00
8/10/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	0	0.0	0	0	0.00
8/11/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	0	0.0	0	0	0.00
8/12/2013	2	23.67	2	23.62	477251.5	3	23.30	3	20.52	1740	6.0	0		
8/13/2013	1	23.97	1	23.97	421001.2	3	15.97	4	13.68	1510	6.0	0		
8/14/2013	1	23.97	1	23.97	490468.5	1	23.98	1	23.98	1775	6.0	0		
8/15/2013	1	23.97	1	23.97	493414.3	1	23.97	1	23.97	1780	6.0	0		
8/16/2013	1	23.97	1	23.97	494028.2	1	23.97	1	23.97	1779	6.0	0		
8/17/2013	1	23.97	1	23.97	493930.3	1	23.98	1	23.98	1779	6.0	0		

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
8/18/2013	1	23.97	1	23.97	495037.6	1	23.98	1	23.98	1787	6.0	0		
8/19/2013	1	23.97	1	23.97	495296.1	1	23.97	1	23.97	1786	6.0	0		
8/20/2013	1	23.97	1	23.97	495613.3	1	23.98	1	23.98	1783	6.0	0		
8/21/2013	1	23.98	1	23.98	165779.5	1	23.99	1	23.99	1817	6.0	0	0	0.00
8/22/2013	1	23.98	1	23.98	165779.5	1	23.99	1	23.99	1817	6.0	0	0	0.00
8/23/2013	1	23.98	1	23.98	165779.5	1	23.99	1	23.99	1817	6.0	0	0	0.00
8/24/2013	1	23.97	1	23.97	497723.8	1	23.37	2	23.17	1825	6.0	0		
8/25/2013	1	23.97	1	23.97	493164	3	12.92	4	12.63	1777	6.0	0		
8/26/2013	1	23.97	1	23.97	492792.2	1	23.97	1	23.97	1808	6.0	0		
8/27/2013	1	23.97	1	23.97	492926.1	3	20.27	2	20.12	1800	6.0	3010		
8/28/2013	1	23.97	1	23.97	468715.9	4	18.63	3	19.28	1729	6.0	0		
8/29/2013	2	23.23	2	23.23	449171.7	3	19.55	3	15.13	1654	6.0	0		
8/30/2013	1	23.97	1	23.97	485707.8	1	23.97	1	23.98	1794	6.0	0		
8/31/2013	1	23.97	1	23.97	485356.6	1	23.97	2	20.72	1800	6.0	0		
9/1/2013	1	23.97	1	23.97	481815.4	3	16.87	4	14.12	1782	6.0	0		
9/2/2013	1	23.97	1	23.97	478912.9	3	12.10	4	12.67	1776	6.0	0		
9/3/2013	1	23.97	1	23.97	478740.9	3	12.10	4	12.63	1782	6.0	0		
9/4/2013	1	23.97	1	23.97	476157.7	3	12.00	4	12.23	1784	6.0	0		
9/5/2013	1	23.97	1	23.97	474852.7	3	12.05	4	12.17	1780	6.0	0		
9/6/2013	1	23.97	1	23.97	473707.3	3	12.02	4	12.12	1780	6.0	0		
9/7/2013	1	23.97	1	23.97	472813.3	3	12.00	4	12.03	1775	6.0	0		
9/8/2013	1	23.97	1	23.97	472271.5	3	12.00	4	11.97	1775	6.0	0		
9/9/2013	1	23.97	1	23.97	444196.8	3	12.00	4	12.00	1667	6.0	0		
9/10/2013	1	23.97	1	23.97	375982.9	3	12.00	4	11.98	1419	6.0	0		
9/11/2013	1	23.97	1	23.97	375933.5	3	12.00	4	11.98	1417	6.0	0		
9/12/2013	1	23.97	1	23.97	376444.4	3	12.00	4	11.97	1425	6.0	0		
9/13/2013	1	23.97	1	23.97	377199.4	3	12.00	4	11.98	1433	6.0	0		
9/14/2013	1	23.97	1	23.97	377033.6	3	12.00	4	11.98	1433	6.0	0		
9/15/2013	1	23.97	1	23.97	377148.9	3	12.00	4	11.97	1437	6.0	0		
9/16/2013	1	23.97	1	23.97	380537.6	3	12.00	4	11.97	1450	6.0	0		
9/17/2013	1	23.97	1	23.97	395579.7	3	12.00	4	11.98	1501	6.0	0		
9/18/2013	1	23.97	1	23.97	458407.7	2	16.35	4	13.58	1702	6.0	0		
9/19/2013	1	23.97	1	23.97	479590.7	3	12.08	4	12.97	1766	6.0	0		
9/20/2013	1	23.97	1	23.97	475621	3	12.00	4	12.12	1756	6.0	0		
9/21/2013	1	23.97	1	23.97	472702	3	12.02	4	12.03	1751	6.0	0		
9/22/2013	1	23.97	1	23.97	470659.5	3	12.00	4	12.02	1750	6.0	0		
9/23/2013	1	23.97	1	23.97	470026.1	3	12.00	4	12.02	1754	6.0	0		
9/24/2013	1	23.97	1	23.97	469891.1	3	12.00	4	12.00	1757	6.0	0		
9/25/2013	1	23.97	1	23.97	469834.5	3	12.00	4	12.02	1763	6.0	0		
9/26/2013	1	23.97	1	23.97	417087.2	3	12.00	4	12.00	1562	6.0	1970		
9/27/2013	1	23.97	1	23.97	398799.5	3	12.00	4	11.98	1504	6.0	0		
9/28/2013	1	23.97	1	23.97	398498.8	3	12.00	4	11.97	1508	6.0	0		
9/29/2013	1	23.97	1	23.97	398497.7	3	12.00	4	11.98	1514	6.0	0		
9/30/2013	1	23.97	1	23.97	398373.1	3	12.00	4	11.98	1502	6.0	0		
10/1/2013	1	23.97	1	23.97	398165	3	12.00	4	11.97	1508	6.0	0		
10/2/2013	1	23.97	1	23.97	449640.3	2	16.65	4	12.78	1667	6.0	0		
10/3/2013	1	23.97	1	23.97	484998.2	3	13.48	4	13.38	1782	6.0	0		

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
10/4/2013	1	23.97	1	23.97	474978.3	3	15.08	4	12.52	1755	6.0	0		
10/5/2013	1	23.97	1	23.97	468363.7	3	12.00	4	11.97	1748	6.0	0		
10/6/2013	1	23.97	1	23.97	455965.5	3	12.00	4	12.00	1713	6.0	0		
10/7/2013	1	23.97	1	23.97	400799.8	3	12.00	4	11.97	1541	6.0	0		
10/8/2013	1	23.97	1	23.97	382751.1	3	12.00	4	11.98	1494	6.0	0		
10/9/2013	1	23.97	1	23.97	437704.7	3	12.00	4	11.97	1671	6.0	0		
10/10/2013	1	23.97	1	23.97	372688	12	10.13	6	10.48	1467	6.0	0		
10/11/2013	1	23.97	1	23.97	430533.8	6	19.13	3	18.20	1674	6.0	0		
10/12/2013	1	23.97	1	23.97	464068.6	4	11.98	3	12.03	1752	6.0	0		
10/13/2013	1	23.97	1	23.97	463175.5	4	11.98	3	12.00	1750	6.0	0		
10/14/2013	1	23.97	1	23.97	462974.7	4	11.97	3	12.00	1748	6.0	0		
10/15/2013	1	23.97	1	23.97	463893.4	4	11.98	3	12.00	1743	6.0	0		
10/16/2013	1	23.97	1	23.97	465014.1	4	11.98	3	12.00	1739	6.0	0		
10/17/2013	1	23.97	1	23.97	469482.2	4	11.97	3	12.00	1738	6.0	0		
10/18/2013	1	23.97	1	23.97	482859.9	2	19.98	2	17.60	1791	6.0	0		
10/19/2013	1	23.97	1	23.97	485293.8	2	21.58	4	16.32	1811	6.0	0		
10/20/2013	1	23.97	1	23.97	483337.8	4	12.32	3	12.92	1807	6.0	0		
10/21/2013	1	23.97	1	23.97	510772.9	2	19.97	1	21.72	1856	6.0	0		
10/22/2013	1	23.97	1	23.97	517372.1	1	23.97	1	23.97	1863	6.0	0		
10/23/2013	1	23.97	1	23.97	521878.3	1	23.98	1	23.98	1891	6.0	0		
10/24/2013	1	23.97	1	23.97	525273.2	1	23.97	1	23.97	1933	6.0	0		
10/25/2013	2	16.93	2	16.88	373020.7	2	16.82	2	16.73	1407	6.0	0		
10/26/2013	1	23.97	1	23.97	527231.3	1	23.98	1	23.97	2111	6.0	0		
10/27/2013	1	23.97	1	23.97	526481.4	1	23.98	1	23.98	1910	6.0	0		
10/28/2013	1	23.97	1	23.97	523282.2	3	15.88	3	18.77	2080	6.0	0		
10/29/2013	1	23.97	1	23.97	515944.5	3	12.50	4	14.07	1878	6.0	0		
10/30/2013	1	23.97	1	23.97	443372.8	3	12.35	4	12.53	1639	6.0	0		
10/31/2013	1	23.97	1	23.97	419475.7	3	12.00	4	11.97	1552	6.0	0		
11/1/2013	1	23.97	1	23.97	453178.3	3	14.95	3	15.98	1657	6.0	0		
11/2/2013	1	23.97	1	23.97	502642	1	23.98	1	23.98	1861	6.0	0		
11/3/2013	1	23.97	1	23.97	502156.9	1	23.97	1	23.97	1888	6.0	0		
11/4/2013	1	22.97	1	22.97	475888.8	1	21.47	2	21.78	2015	6.0	0		
11/5/2013	1	22.97	1	22.97	474941.2	1	22.98	1	22.97	1955	6.0	0		
11/6/2013	1	22.97	1	22.97	471714.3	1	20.00	2	20.62	1748	6.0	0		
11/7/2013	1	22.97	1	22.97	439902.7	3	11.82	3	11.27	1671	6.0	0		
11/8/2013	1	22.97	1	22.97	437544	3	11.78	3	11.18	1756	6.0	0		
11/9/2013	1	23.74	1	23.74	413618.1	4	12.38	4	11.29	1929	6.0	0		
11/10/2013	1	23.74	1	23.74	413618.1	4	12.38	4	11.29	1929	6.0	0		
11/11/2013	1	23.74	1	23.74	413618.1	4	12.38	4	11.29	1929	6.0	0		
11/12/2013	1	23.74	1	23.74	413618.1	4	12.38	4	11.29	1929	6.0	0		
11/13/2013	1	23.97	1	23.97	437252.5	4	11.98	3	12.00	2090	6.0	0		
11/14/2013	1	23.97	1	23.97	435851.7	4	11.87	4	12.00	2011	6.0	0		
11/15/2013	1	23.97	1	23.97	398994.2	5	11.80	3	12.00	1934	6.0	0		
11/16/2013	1	23.97	1	23.97	388681.8	4	11.98	3	12.00	1736	6.0	0		
11/17/2013	1	23.97	1	23.97	388412	4	11.97	3	12.00	1721	6.0	0		
11/18/2013	1	23.97	1	23.97	379695.1	5	11.77	3	12.00	1688	6.0	0		
11/19/2013	1	23.97	1	23.97	376909.9	4	11.98	3	12.00	1738	6.0	0		

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
11/20/2013	1	23.97	1	23.97	384075.7	5	11.78	3	12.00	1968	6.0	0		
11/21/2013	1	23.97	1	23.97	389842.6	4	11.97	3	12.00	1943	6.0	0		
11/22/2013	1	23.97	1	23.97	420038.1	5	11.85	3	12.00	1772	6.0	0		
11/23/2013	1	23.97	1	23.97	434392.2	4	11.98	3	12.00	1988	6.0	0		
11/24/2013	1	23.97	1	23.97	430374.2	4	11.97	3	12.00	2233	6.0	0		
11/25/2013	1	12.98	1	12.93	236138.8	3	7.07	2	5.82	1488	6.0	6390		
11/26/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
11/27/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
11/28/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
11/29/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
11/30/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
12/1/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
12/2/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
12/3/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
12/4/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
12/5/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0	0	0.00
12/6/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0		
12/7/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0		
12/8/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0		
12/9/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	0.0	0		
12/10/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	424	6.0	0		
12/11/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	443	6.0	0		
12/12/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	608	6.0	0		
12/13/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	601	6.0	0		
12/14/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	599	6.0	0		
12/15/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	445	6.0	0		
12/16/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	599	6.0	0		
12/17/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	608	6.0	0		
12/18/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	601	7.0	0		
12/19/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	420	7.0	0		
12/20/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	361	7.0	0		
12/21/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	156	7.0	0		
12/22/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	125	7.0	0		
12/23/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	155	7.0	0		
12/24/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	446	7.0	0		
12/25/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	611	7.0	0		
12/26/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	452	7.0	10		
12/27/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	408	7.0	0		
12/28/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	326	7.0	0		
12/29/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	158	7.0	0		
12/30/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	360	7.0	0		
12/31/2013	0	0.00	0	0.00	0	0	0.00	0	0.00	579	7.0	0		

DATE	Tower Blower Cycles	Tower Blower Hours	Tower Pump Cycles	Tower Pump Hours	Discharge Flow	Effluent P1 Cycles	Effluent P1 Hours	Effluent P2 Cycles	Effluent P2 Hours	KWH	pH	De-Water Flow	SVE Blower Cycles	SVE Blower Hours
Sum	376	7332.14	368	7328.93	145516783	814	5922.49	824	5783.93	608887		482400	0	0.00
Max	17	23.98	9	23.98	555513	22	24.39	25	24.39	2599	7.0	50610	0	0.00
Average	1	20.14	1	20.13	399771	2	16.27	2	15.89	1673	6.2	1325	0	0.00

Harley-Davidson Motor Company

TCA and West Parking Lot Area Well Flow Data

Gallons Pumped

From: 1/1/2013

To: 12/31/2013

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
1/1/2013	192065	0	99617	0	107969	103814	3738
1/2/2013	154164	0	79943	0	86742	83353	3006
1/3/2013	192487	0	99580	0	108002	105717	3738
1/4/2013	191838	0	99584	0	108029	106588	3737
1/5/2013	193445	0	99602	0	108058	106607	3738
1/6/2013	192787	0	99601	0	108040	106609	3738
1/7/2013	189147	0	99596	0	108004	106601	3738
1/8/2013	189227	0	99612	0	108028	106613	3739
1/9/2013	170950	0	89430	0	97025	95748	3362
1/10/2013	197245	0	99659	0	108088	106670	3740
1/11/2013	181962	0	98560	0	107350	105120	3716
1/12/2013	183006	0	96852	0	108092	103843	3742
1/13/2013	183653	0	96860	0	108092	103850	3739
1/14/2013	185505	0	96856	0	108069	101466	3740
1/15/2013	186547	0	96858	0	108071	101050	3739
1/16/2013	189181	0	96883	0	108104	101068	3746
1/17/2013	193643	0	96877	0	108113	101071	3740
1/18/2013	189618	0	96853	0	108096	101045	3738
1/19/2013	186416	0	96863	0	108095	101057	3682
1/20/2013	191481	0	96852	0	108083	101041	3596
1/21/2013	189387	0	96861	0	108101	101059	3604
1/22/2013	191506	0	96805	0	107996	100988	3738
1/23/2013	185495	0	96826	0	108020	101011	3738

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
1/24/2013	190301	0	96815	0	108052	100995	3738
1/25/2013	192538	0	96810	0	108045	100992	3738
1/26/2013	190891	0	96821	0	108059	101010	3739
1/27/2013	190561	0	96792	0	108027	100977	3737
1/28/2013	178784	0	90371	0	100887	94302	3491
1/29/2013	104261	0	60815	0	67867	63436	2350
1/30/2013	196005	0	95476	0	108017	101012	3739
1/31/2013	197778	0	99350	0	108072	104307	3758
2/1/2013	195321	0	101917	0	108071	111412	3759
2/2/2013	193180	0	104049	0	108087	116862	3739
2/3/2013	192605	0	106157	0	108067	119288	3722
2/4/2013	189890	0	106701	0	108109	119310	3601
2/5/2013	189986	0	106703	0	108111	119305	3626
2/6/2013	189266	0	106639	0	108042	119224	3738
2/7/2013	188405	0	106614	0	108020	117077	3738
2/8/2013	188752	0	106626	0	108008	114390	3737
2/9/2013	183854	0	106641	0	108041	111705	3738
2/10/2013	178990	0	106637	0	108035	110829	3736
2/11/2013	176609	0	106633	0	108012	110828	3668
2/12/2013	176399	0	106617	0	108002	110813	3595
2/13/2013	176414	0	106652	0	108023	110838	3570
2/14/2013	171422	0	106649	0	108035	110841	3452
2/15/2013	172033	0	106628	0	108037	110814	3452
2/16/2013	172360	0	106642	0	108050	110832	3452
2/17/2013	172135	0	106623	0	108028	110812	3405
2/18/2013	171885	0	106636	0	108027	110827	3308
2/19/2013	171604	0	106638	0	108000	110839	3307

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
2/20/2013	171601	0	106652	0	108007	110842	3258
2/21/2013	140599	0	87828	0	89017	91331	2745
2/22/2013	169456	0	106617	0	107980	110813	3328
2/23/2013	169527	0	106650	0	108019	110838	3308
2/24/2013	169419	0	106644	0	108005	110841	3254
2/25/2013	169381	0	106614	0	107993	110831	3164
2/26/2013	164072	0	102635	0	104124	106824	3012
2/27/2013	169844	0	106632	0	107981	110830	3167
2/28/2013	169640	0	106615	0	107982	110818	3164
3/1/2013	169308	0	106652	0	108008	110847	3150
3/2/2013	169088	0	106643	0	108021	110832	3026
3/3/2013	169027	0	106637	0	107981	110825	3020
3/4/2013	168856	0	106661	0	108000	110845	2971
3/5/2013	168575	0	106646	0	107983	110840	2877
3/6/2013	169121	0	106629	0	107971	110819	2876
3/7/2013	169380	0	106655	0	107991	110843	2877
3/8/2013	169058	0	106625	0	107989	110816	2876
3/9/2013	169066	0	106649	0	108009	110842	2826
3/10/2013	169066	0	106649	0	108009	110842	2826
3/11/2013	170649	0	107781	0	109145	111997	2778
3/12/2013	171318	0	108178	0	109492	112369	2778
3/13/2013	171046	0	104730	0	108971	111898	2778
3/14/2013	172682	0	106342	0	109070	111922	2778
3/15/2013	177113	0	106648	0	108039	110848	2590
3/16/2013	176807	0	106630	0	107996	111166	2588
3/17/2013	177703	0	106621	0	108009	115701	2588
3/18/2013	177455	0	106640	0	108053	116459	2479

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
3/19/2013	177414	0	107939	0	108040	116425	2445
3/20/2013	182812	0	109405	0	108042	116431	2446
3/21/2013	186698	0	109467	0	108053	116500	3399
3/22/2013	195435	0	109488	0	108079	113898	3891
3/23/2013	193136	0	109495	0	108082	112359	3886
3/24/2013	192046	0	109451	0	108103	110864	3883
3/25/2013	195481	0	106480	0	108089	110867	3883
3/26/2013	176315	0	97558	0	98570	100999	3651
3/27/2013	185085	0	106404	0	105674	108416	3924
3/28/2013	191755	0	109499	0	108093	110905	4027
3/29/2013	195466	0	109480	0	108074	110885	4026
3/30/2013	191114	0	109488	0	108084	110896	4026
3/31/2013	189614	0	109466	0	108082	110877	4001
4/1/2013	191924	0	109481	0	108073	110885	3917
4/2/2013	191803	0	109483	0	108053	110893	3883
4/3/2013	190299	0	109474	0	108023	110876	3904
4/4/2013	190652	0	109496	0	108045	110912	4028
4/5/2013	190690	0	109479	0	108024	110894	4026
4/6/2013	188225	0	109481	0	108029	110889	4013
4/7/2013	188108	0	109513	0	108050	110918	3924
4/8/2013	187799	0	109496	0	108025	110465	3884
4/9/2013	187650	0	109478	0	108006	109119	3882
4/10/2013	187499	0	99549	0	108011	104439	3868
4/11/2013	187352	0	86459	0	108018	103846	3670
4/12/2013	187822	0	104777	0	108019	103436	3582
4/13/2013	187573	0	109482	0	108022	103855	3528
4/14/2013	187752	0	109480	0	108022	103849	3457

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
4/15/2013	187760	0	109475	0	108019	100727	3451
4/16/2013	187516	0	109474	0	108009	99656	3451
4/17/2013	186759	0	109481	0	108010	98870	3452
4/18/2013	187162	0	109492	0	108029	96741	3524
4/19/2013	188031	0	103257	0	108064	95589	3596
4/20/2013	187621	0	100935	0	108063	94064	3596
4/21/2013	186546	0	103844	0	108068	94041	3593
4/22/2013	186437	0	103852	0	108071	94048	3514
4/23/2013	186634	0	103839	0	108035	94036	3454
4/24/2013	186425	0	104798	0	108060	95940	3452
4/25/2013	186858	0	105246	0	108031	96852	3451
4/26/2013		0		0			
4/27/2013		0		0			
4/28/2013		0		0			
4/29/2013		0		0			
4/30/2013		0		0			
5/1/2013		0		0			
5/2/2013		0		0			
5/3/2013		0		0			
5/4/2013		0		0			
5/5/2013		0		0			
5/6/2013		0		0			
5/7/2013		0		0			
5/8/2013		0		0			
5/9/2013		0		0			
5/10/2013	62337	0	35137	0	36029	32305	1151
5/11/2013	0	0	58	0	0	0	0

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
5/12/2013	0	0	63	0	0	0	0
5/13/2013	0	0	79	0	0	0	0
5/14/2013	0	0	81	0	0	0	0
5/15/2013	96697	0	52441	0	53898	48305	1728
5/16/2013	194807	0	108160	0	110921	99749	3452
5/17/2013	195031	0	111607	0	114493	103654	3452
5/18/2013	196100	0	112213	0	115124	109632	3451
5/19/2013	196696	0	110309	0	115116	116788	3451
5/20/2013	193074	0	108352	0	115137	117943	3452
5/21/2013	162595	0	90777	0	97643	95958	2992
5/22/2013	173442	0	103351	0	106177	108702	3389
5/23/2013	192455	0	112273	0	115050	104684	2951
5/24/2013	191485	0	110120	0	112907	104895	3623
5/25/2013	189917	0	109455	0	112229	106646	3595
5/26/2013	188237	0	109482	0	112255	106671	3588
5/27/2013	187945	0	109454	0	112231	106229	3524
5/28/2013	187789	0	109466	0	112204	101800	3462
5/29/2013	60162	0	109482	0	112252	100349	3452
5/30/2013	34927	0	109500	0	112300	97425	3452
5/31/2013	140432	0	109501	0	112301	96879	3452
6/1/2013	176719	0	109468	0	112256	94353	3451
6/2/2013	176660	0	109493	0	112288	92390	3448
6/3/2013	182037	0	103632	0	112263	91204	3406
6/4/2013	185485	0	103854	0	112261	91227	3325
6/5/2013	185054	0	103831	0	112257	90458	3307
6/6/2013	185582	0	99121	0	112275	88303	3307
6/7/2013	185025	0	99824	0	112268	88362	3308

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
6/8/2013	184961	0	102330	0	112277	88373	3308
6/9/2013	187213	0	103847	0	112268	88370	3458
6/10/2013	187584	0	98152	0	112282	88368	3217
6/11/2013	186022	0	102309	0	112280	88363	3165
6/12/2013	185504	0	104967	0	112276	89501	3163
6/13/2013	26314	0	100552	0	112290	90038	3161
6/14/2013	0	0	104976	0	112265	93494	3102
6/15/2013	0	0	106443	0	112282	96337	3024
6/16/2013	0	0	106722	0	112285	96886	3020
6/17/2013	13361	0	104501	0	111154	96880	3231
6/18/2013	0	0	103863	0	110837	96879	3306
6/19/2013	0	0	67376	0	71257	62260	2124
6/20/2013	93199	0	105260	0	110878	97455	3204
6/21/2013	183232	0	105289	0	110889	98294	3166
6/22/2013	183232	0	105289	0	110889	98294	3166
6/23/2013	182145	0	105236	0	110822	98246	3163
6/24/2013	182812	0	105261	0	110833	98264	3138
6/25/2013	182667	0	105237	0	110819	98247	3058
6/26/2013	174054	0	100472	0	105841	93808	2969
6/27/2013	179704	0	100675	0	107667	95394	3076
6/28/2013	186605	0	104404	0	111886	97738	3259
6/29/2013	188919	0	99172	0	112318	94994	3257
6/30/2013	188582	0	72004	0	112297	94049	3154
7/1/2013	188498	0	98761	0	112322	94052	3043
7/2/2013	188627	0	98305	0	112306	94057	3021
7/3/2013	188296	0	98603	0	112300	94042	3020
7/4/2013	187912	0	98698	0	112303	92476	3057

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
7/5/2013	187539	0	98774	0	112293	91230	3155
7/6/2013	187269	0	98666	0	112288	88709	3074
7/7/2013	186705	0	72874	0	112311	88373	3020
7/8/2013	185947	0	74847	0	112279	88364	3020
7/9/2013	187024	0	92334	0	112285	88347	3036
7/10/2013	184979	0	92573	0	112212	88312	3164
7/11/2013	182128	0	92589	0	112222	88323	3165
7/12/2013	182619	0	92581	0	112200	88310	3164
7/13/2013	183036	0	86289	0	112237	88329	3164
7/14/2013	171693	0	46278	0	104275	82045	2867
7/15/2013	184435	0	88907	0	112312	88381	3020
7/16/2013	182833	0	90905	0	112292	88345	3075
7/17/2013	182988	0	91160	0	112205	88307	3164
7/18/2013	181818	0	91177	0	112236	88323	3155
7/19/2013	181378	0	91221	0	112279	88365	3160
7/20/2013	181545	0	91213	0	112271	88359	2753
7/21/2013	181593	0	91214	0	112276	88368	2577
7/22/2013	182333	0	86449	0	112292	87635	2497
7/23/2013	183332	0	92440	0	112293	88357	2589
7/24/2013	180418	0	95156	0	112275	88349	2588
7/25/2013	38423	0	95882	0	112328	88372	2585
7/26/2013	99004	0	99403	0	112260	88347	2989
7/27/2013	182007	0	75191	0	112196	88307	3163
7/28/2013	181784	0	95	0	112227	90118	3164
7/29/2013	181694	0	79390	0	112202	91172	3164
7/30/2013	179652	0	96714	0	112235	91191	3165
7/31/2013	148239	0	77963	0	91741	74518	2589

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
8/1/2013	181979	0	85961	0	112339	91226	3165
8/2/2013	180361	0	73802	0	112274	91224	3164
8/3/2013	180721	0	99131	0	112292	91224	3165
8/4/2013	180790	0	99068	0	112273	91211	3160
8/5/2013	180385	0	99644	0	112277	91231	3084
8/6/2013	181516	0	99801	0	112259	91215	3021
8/7/2013	182897	0	98971	0	112258	91215	3020
8/8/2013	181960	0	99795	0	112257	91211	3020
8/9/2013	0	0	0	0	0	0	0
8/10/2013	0	0	0	0	0	0	0
8/11/2013	0	0	0	0	0	0	0
8/12/2013	182360	0	101039	0	110223	89865	3074
8/13/2013	186415	0	30856	0	112274	91398	3267
8/14/2013	188058	0	103865	0	112283	96278	3201
8/15/2013	187561	0	103849	0	112336	102990	3164
8/16/2013	183943	0	103849	0	112297	104871	3094
8/17/2013	183165	0	103851	0	112347	105836	3021
8/18/2013	185697	0	103863	0	112292	110455	3021
8/19/2013	185457	0	103828	0	112254	113326	3093
8/20/2013	184763	0	103814	0	112198	115063	3164
8/21/2013	184680	0	103892	0	112300	115144	3024
8/22/2013	184680	0	103892	0	112300	115144	3024
8/23/2013	184680	0	103892	0	112300	115144	3024
8/24/2013	184309	0	103852	0	112228	113250	2780
8/25/2013	184128	0	103858	0	112310	92303	2734
8/26/2013	183851	0	103850	0	112269	102462	2732
8/27/2013	183480	0	103862	0	112284	98595	2708

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
8/28/2013	184379	0	82402	0	112256	94919	2717
8/29/2013	178678	0	75002	0	108779	89174	2718
8/30/2013	183473	0	102449	0	112231	91214	2876
8/31/2013	185604	0	102459	0	112272	90757	2792
9/1/2013	186477	0	102456	0	112249	87963	2733
9/2/2013	186612	0	102456	0	112278	85516	2733
9/3/2013	186191	0	102466	0	112270	85527	2729
9/4/2013	187032	0	102432	0	112279	85114	2642
9/5/2013	187266	0	102423	0	112280	84034	2589
9/6/2013	187543	0	102430	0	112289	82586	2590
9/7/2013	187628	0	102439	0	112301	81132	2589
9/8/2013	187111	0	102439	0	112304	80620	2589
9/9/2013	186907	0	73411	0	112303	79031	2589
9/10/2013	186772	0	87	0	112298	78405	2589
9/11/2013	186817	0	92	0	112283	78355	2589
9/12/2013	187330	0	89	0	112258	78359	2639
9/13/2013	187353	0	86	0	112307	78393	2752
9/14/2013	187194	0	87	0	112267	78348	2733
9/15/2013	186516	0	91	0	112296	78397	2733
9/16/2013	186538	0	83	0	112287	78379	2794
9/17/2013	186628	0	18895	0	112313	78381	2811
9/18/2013	185785	0	72644	0	112283	87781	2606
9/19/2013	185555	0	95878	0	112278	87039	2590
9/20/2013	186080	0	95850	0	112274	83474	2589
9/21/2013	186914	0	95550	0	112306	80598	2590
9/22/2013	187367	0	94962	0	112286	78338	2589
9/23/2013	186390	0	94973	0	112301	78325	2589

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
9/24/2013	184519	0	94775	0	112304	78311	2589
9/25/2013	184423	0	94705	0	112309	78369	2748
9/26/2013	184207	0	95465	0	112299	17730	2734
9/27/2013	185034	0	95478	0	112278	0	2733
9/28/2013	185284	0	95494	0	112299	0	2733
9/29/2013	185472	0	95490	0	112294	0	2733
9/30/2013	184885	0	95483	0	112290	0	2733
10/1/2013	185362	0	95469	0	112292	62	2732
10/2/2013	185134	0	95471	0	112259	52961	2732
10/3/2013	184943	0	95463	0	112277	89367	2729
10/4/2013	185057	0	95440	0	112245	81020	2670
10/5/2013	183992	0	95459	0	112269	76433	2603
10/6/2013	169493	0	95464	0	112276	70607	2590
10/7/2013	164220	0	95449	0	112268	18215	2627
10/8/2013	164152	0	95476	0	112298	235	2669
10/9/2013	162825	0	95469	0	112295	60943	2592
10/10/2013	163772	0	69996	0	112279	17208	2609
10/11/2013	173944	0	72387	0	112308	66309	2732
10/12/2013	176229	0	89659	0	112255	81050	2769
10/13/2013	176244	0	89513	0	112249	81107	2786
10/14/2013	176115	0	89422	0	112509	81172	2771
10/15/2013	176968	0	89438	0	114241	81096	2772
10/16/2013	179516	0	89345	0	116226	80679	2755
10/17/2013	180414	0	89299	0	116594	85035	2740
10/18/2013	186549	0	90161	0	116623	91052	2733
10/19/2013	186391	0	89292	0	116602	91880	2733
10/20/2013	183093	0	88906	0	116568	89584	2733

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
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10/22/2013	200354	0	94239	0	116608	105682	2610
10/23/2013	199835	0	97289	0	116475	109629	3212
10/24/2013	197484	0	101843	0	116483	111597	3451
10/25/2013	142908	0	74404	0	82099	78868	2546
10/26/2013	198672	0	105642	0	116620	111691	2910
10/27/2013	196705	0	105158	0	116693	111604	3015
10/28/2013	196086	0	106998	0	116707	106359	2939
10/29/2013	196632	0	106181	0	116630	99199	2914
10/30/2013	200927	0	104183	0	116674	23827	2930
10/31/2013	200853	0	102811	0	116680	0	2884
11/1/2013	200944	0	102279	0	116658	35471	2877
11/2/2013	200135	0	102318	0	116571	87015	2876
11/3/2013	203316	0	102237	0	116539	86851	2874
11/4/2013	185216	0	103608	0	111284	86204	2657
11/5/2013	180923	0	107254	0	111590	88057	2750
11/6/2013	180701	0	106459	0	111566	86044	2756
11/7/2013	180998	0	106047	0	111522	59057	2653
11/8/2013	180848	0	106524	0	111728	54428	2620
11/9/2013	184868	0	108052	0	113403	48965	2686
11/10/2013	184868	0	108052	0	113403	48965	2686
11/11/2013	184868	0	108052	0	113403	48965	2686
11/12/2013	184868	0	108052	0	113403	48965	2686
11/13/2013	181828	0	103089	0	113172	40447	2599
11/14/2013	182342	0	103285	0	113162	39834	2559
11/15/2013	159991	0	96300	0	113189	39713	2393
11/16/2013	151640	0	93094	0	112275	40844	2301

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
11/17/2013	151233	0	91633	0	112306	40962	2304
11/18/2013	148474	0	86784	0	111796	39314	2478
11/19/2013	148883	0	84719	0	112165	38822	2589
11/20/2013	149260	0	80016	0	111796	38312	2582
11/21/2013	152705	0	76481	0	112247	38468	2514
11/22/2013	167660	0	91397	0	111805	40548	2497
11/23/2013	172962	0	93064	0	112262	41768	2454
11/24/2013	171726	0	92593	0	112300	38470	2446
11/25/2013	97481	0	52407	0	60227	19137	1321
11/26/2013	0	0	0	0	0	0	0
11/27/2013	0	0	0	0	0	0	0
11/28/2013	0	0	0	0	0	0	0
11/29/2013	0	0	0	0	0	0	0
11/30/2013	0	0	0	0	0	0	0
12/1/2013	0	0	0	0	0	0	0
12/2/2013	0	0	0	0	0	0	0
12/3/2013	0	0	0	0	0	0	0
12/4/2013	0	0	0	0	0	0	0
12/5/2013	0	0	0	0	0	0	0
12/6/2013	0	0	0	0	0	0	0
12/7/2013	0	0	0	0	0	0	0
12/8/2013	0	0	0	0	0	0	0
12/9/2013	0	0	0	0	0	0	0
12/10/2013	0	0	0	0	0	0	0
12/11/2013	0	0	89	0	0	0	0
12/12/2013	0	0	85	0	0	87	0
12/13/2013	0	0	50	0	0	0	0

DATE	CW-8	CW-16	CW-9	CW-20	CW-13	CW-17	CW-15A
12/14/2013	0	0	38	0	0	0	0
12/15/2013	0	0	24	0	0	0	0
12/16/2013	0	0	0	0	0	0	0
12/17/2013	0	0	0	0	0	0	0
12/18/2013	0	0	0	0	0	0	0
12/19/2013	0	0	0	0	0	0	0
12/20/2013	0	0	0	0	0	1	0
12/21/2013	0	0	0	0	0	0	0
12/22/2013	0	0	0	0	0	1	0
12/23/2013	0	0	0	0	0	0	0
12/24/2013	0	0	0	0	0	1	0
12/25/2013	0	0	0	0	0	0	0
12/26/2013	0	0	0	0	0	0	0
12/27/2013	0	0	0	0	0	0	0
12/28/2013	0	0	0	0	0	1	0
12/29/2013	0	0	0	0	0	0	0
12/30/2013	0	0	0	0	0	0	0
12/31/2013	0	0	0	0	0	0	0
Sum	54058958	0	29586750	0	33742587	27930691	959317
Average	154014	0	84293	0	96133	79575	2733

Harley-Davidson Motor Company

Northeast Property Boundary Area Well Flow Data

Gallons Pumped

From: 1/1/2013

To: 12/31/2013

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
1/1/2013	2654	168	372	4040	2231	1524	4012	1144	999
1/2/2013	2099	163	385	3273	1596	1194	3211	948	813
1/3/2013	2570	163	496	4099	2176	1308	4099	1107	1034
1/4/2013	2569	161	462	4083	2315	1202	4162	1081	1044
1/5/2013	2544	162	480	4071	2295	1102	4158	1087	1035
1/6/2013	2529	161	463	4056	2283	1066	4147	1120	1030
1/7/2013	2528	156	455	4043	2284	1018	4138	1133	944
1/8/2013	2526	160	451	4046	2298	988	4134	1156	914
1/9/2013	2284	157	461	3624	2058	897	3688	1082	836
1/10/2013	2494	147	506	4022	2276	947	4087	1159	909
1/11/2013	2510	146	497	4013	2276	960	4053	1172	912
1/12/2013	2527	149	491	3998	2274	1005	4013	1178	911
1/13/2013	2515	154	491	3985	2276	965	3956	1215	910
1/14/2013	2511	154	485	3974	2272	953	3902	1201	910
1/15/2013	2495	151	488	3962	2263	1021	3884	1232	909
1/16/2013	2484	160	575	3951	2258	1271	3863	1222	910
1/17/2013	2479	196	561	3938	2237	1712	4018	1169	1082
1/18/2013	2480	206	544	3936	2245	1837	4106	1179	1174
1/19/2013	2499	207	534	3927	2242	1821	4125	1161	1172
1/20/2013	2494	209	523	3927	2238	1791	4166	1181	1171
1/21/2013	2495	202	509	3931	2244	1544	4152	1152	1170
1/22/2013	2488	190	496	3920	2238	1261	4096	1151	1170
1/23/2013	2482	182	489	3972	2227	1183	4170	1134	1168
1/24/2013	2480	181	492	4050	2229	1033	4417	1137	1170
1/25/2013	2481	175	485	4042	2226	941	4649	1137	1169
1/26/2013	2476	175	473	4041	2223	907	4788	1136	1170
1/27/2013	2470	168	462	4037	2227	847	4808	1165	1166
1/28/2013	2274	171	478	3784	2082	857	4519	998	1093
1/29/2013	1240	132	190	2617	1422	672	3390	685	729
1/30/2013	2393	169	495	4146	2342	1082	4539	1028	1117
1/31/2013	2480	299	784	4151	2198	1458	4249	1085	1230
2/1/2013	2461	324	566	4123	2220	1801	4194	976	1362
2/2/2013	2470	339	527	4104	2341	2374	4173	998	1373
2/3/2013	2433	322	502	4118	869	2366	4188	1019	1376
2/4/2013	2430	286	476	4232	1731	1933	4239	996	1364

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
2/5/2013	2414	269	447	4292	2406	1689	4276	1049	1353
2/6/2013	2393	246	408	4266	2266	1451	4206	1038	1317
2/7/2013	2392	234	386	4251	2141	1253	4192	1009	1301
2/8/2013	2368	238	375	4246	2364	1218	4176	1003	1320
2/9/2013	2390	218	362	4256	1252	1138	4170	1051	1297
2/10/2013	2377	211	354	4249	1066	553	4164	1083	1278
2/11/2013	2358	214	354	4235	2299	1278	4245	1031	1294
2/12/2013	2338	206	334	4228	2281	1320	4304	1026	1284
2/13/2013	2338	203	323	4217	2110	1265	4274	1047	1279
2/14/2013	2353	196	308	4205	1965	1238	4235	1050	1259
2/15/2013	2365	197	301	4188	1909	1239	4202	1046	1246
2/16/2013	2349	187	314	4174	1877	1366	4145	1018	1239
2/17/2013	2332	187	322	4164	1863	1354	4083	1036	1228
2/18/2013	2345	182	308	4154	1860	1258	4030	1077	1207
2/19/2013	2344	181	307	4143	1852	1332	3980	1042	1216
2/20/2013	2351	180	305	4146	1842	1439	4060	993	1198
2/21/2013	2024	177	357	3485	1662	1179	3602	899	954
2/22/2013	2453	173	493	4240	2420	1259	3949	1121	1241
2/23/2013	2432	164	446	4242	2399	1247	3979	1140	1288
2/24/2013	2382	168	411	4236	2251	1231	3971	1138	1287
2/25/2013	2410	163	393	4102	2338	1140	3958	1147	1284
2/26/2013	2366	165	425	3973	2043	1071	3827	960	1254
2/27/2013	2421	153	459	4155	1927	1407	4001	850	1193
2/28/2013	2433	159	475	4180	1959	1595	4000	769	1219
3/1/2013	2422	157	452	4175	1961	1560	3986	765	1218
3/2/2013	2409	160	434	4176	1957	1489	3949	764	1202
3/3/2013	2400	159	417	4164	1953	1411	3914	762	1190
3/4/2013	2384	150	426	4154	1939	1311	3875	761	1171
3/5/2013	2373	143	427	4145	1921	1217	3853	760	1158
3/6/2013	2366	138	422	4135	1908	1211	3823	759	1154
3/7/2013	2354	150	463	4134	1908	1336	3813	759	1160
3/8/2013	2349	156	468	4127	1912	1343	3799	756	1164
3/9/2013	2340	159	454	4118	1914	1335	3781	755	1156
3/10/2013	2340	159	454	4118	1914	1335	3781	755	1156
3/11/2013	2356	149	620	4142	1934	1339	3794	744	1166
3/12/2013	2356	124	595	4142	1910	1364	3993	769	1190
3/13/2013	2331	198	670	4117	1910	1364	3918	769	1290
3/14/2013	2331	248	620	4142	1934	1364	3918	769	1364
3/15/2013	2308	278	600	4110	1907	1607	3905	769	1301
3/16/2013	2295	265	587	4085	1900	1618	3897	769	1288

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
3/17/2013	2291	243	576	4077	1898	1614	3859	768	1268
3/18/2013	2286	242	570	4082	1897	1609	3851	767	1262
3/19/2013	2283	244	573	4070	1895	1606	3842	770	1284
3/20/2013	2276	279	589	4058	1890	1842	3987	771	1315
3/21/2013	2269	293	584	4053	1891	2124	4080	772	1336
3/22/2013	2265	275	573	4047	1890	2015	4087	771	1334
3/23/2013	2261	285	565	4047	1891	1818	4093	772	1332
3/24/2013	2254	283	561	4042	1887	1708	4044	771	1340
3/25/2013	2246	285	560	4028	1885	1756	4020	770	1349
3/26/2013	2052	258	593	3246	1725	1575	2788	956	1225
3/27/2013	2601	266	661	3975	2597	2135	3181	1235	1565
3/28/2013	2557	279	647	3985	2789	2078	4025	1199	1562
3/29/2013	1878	264	624	3964	2616	2005	4046	1184	1552
3/30/2013	999	260	624	3949	2558	1919	4059	1216	1555
3/31/2013	2008	268	604	3935	2554	1861	3999	1187	1570
4/1/2013	1212	269	594	3928	2552	1840	3932	1208	1571
4/2/2013	823	262	654	3920	2685	1739	3871	1209	1549
4/3/2013	2168	269	683	3904	2762	1597	3803	1198	1540
4/4/2013	2736	259	662	3914	1706	1509	3777	1170	1517
4/5/2013	2726	262	234	3918	2571	1550	3735	1170	1510
4/6/2013	2704	261	41	3916	2832	1447	3717	1178	1471
4/7/2013	2687	265	1	3903	2802	1408	3686	1186	1463
4/8/2013	2672	242	311	3882	2777	1370	3668	1199	1447
4/9/2013	2675	244	428	3897	2751	1318	3704	1302	1418
4/10/2013	2648	237	455	3893	2738	1205	3706	1310	1398
4/11/2013	2579	227	434	3883	2733	1132	3710	1379	1382
4/12/2013	2559	232	416	3872	2726	1192	3684	1373	1371
4/13/2013	2580	228	402	3868	2724	1174	3677	1376	1354
4/14/2013	2592	222	394	3860	2723	1208	3677	1332	1339
4/15/2013	2583	220	377	3857	2724	1171	3852	1378	1322
4/16/2013	771	62	101	1059	1063	302	1456	408	346
4/17/2013	1577	159	335	1423	1338	699	2310	804	831
4/18/2013	2475	207	461	3965	2478	1081	3730	1300	1355
4/19/2013	2462	211	324	3972	3084	1119	4013	1245	1331
4/20/2013	2446	222	206	3966	3121	1310	3921	1312	1305
4/21/2013	2451	216	175	3980	3017	1184	3837	1352	1277
4/22/2013	2442	201	174	3970	2263	1122	3873	1170	1262
4/23/2013	2428	192	389	3972	2174	1110	3858	1096	1255
4/24/2013	2427	190	428	3844	2172	1121	3824	1130	1246
4/25/2013	2435	187	431	3906	2177	1072	3819	1097	1231

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
4/26/2013	2426	176	408	3893	2189	998	3813	1115	1213
4/27/2013	2418	177	398	3885	2191	953	3782	1134	1201
4/28/2013	2410	176	385	3881	2194	929	3751	1135	1194
4/29/2013	2407	183	392	3872	2193	975	3725	1148	1185
4/30/2013	2401	179	392	3871	2176	973	3722	1166	1172
5/1/2013	2392	181	384	3864	2225	902	3700	1081	1153
5/2/2013	2386	175	371	3846	2192	869	3649	1214	1138
5/3/2013	2372	169	370	3817	2150	845	3617	1174	1124
5/4/2013	2365	165	368	3794	2148	821	3618	1193	1122
5/5/2013	2356	168	363	3771	2143	835	3603	1195	1117
5/6/2013	2341	165	357	3774	2292	933	3758	1205	1116
5/7/2013	2326	167	352	3784	2321	933	3816	1181	1113
5/8/2013	2314	168	352	3763	2247	890	3797	1193	1139
5/9/2013	1641	167	332	3383	1894	766	3322	1160	1078
5/10/2013	1355	113	343	2311	1293	517	2333	678	593
5/11/2013	2439	197	341	3967	2356	1055	3195	1261	1148
5/12/2013	2439	190	267	4105	2337	1073	3048	1204	1142
5/13/2013	2436	176	213	4037	2564	1103	3968	1261	1147
5/14/2013	2430	158	377	4031	2547	978	3883	1276	1148
5/15/2013	2432	161	337	4008	2844	894	3846	1259	1146
5/16/2013	2421	157	328	3960	2882	884	3614	1333	1150
5/17/2013	2408	161	252	3946	2723	819	3518	1307	1151
5/18/2013	2390	162	191	3928	2667	761	3528	1301	1150
5/19/2013	2376	152	152	3908	2657	738	3517	1340	1150
5/20/2013	2362	153	283	3880	2789	722	3624	1331	1149
5/21/2013	1960	156	341	3303	2437	638	3142	1091	990
5/22/2013	2186	174	408	3727	2670	693	3552	461	1058
5/23/2013	2330	177	366	4006	2870	746	3807	0	1079
5/24/2013	2203	161	189	3859	2833	803	3686	1017	1063
5/25/2013	2125	155	97	3747	2789	746	3570	1109	1047
5/26/2013	2108	153	49	3726	2783	702	3542	1093	1037
5/27/2013	2107	146	41	3711	2789	678	3525	1108	1026
5/28/2013	2109	155	202	3709	2795	702	3535	1171	1015
5/29/2013	1975	148	338	3796	2689	763	3663	1131	1038
5/30/2013	2031	144	415	3808	2529	753	3709	979	1020
5/31/2013	2084	156	369	3749	2499	745	3671	1071	996
6/1/2013	2079	151	277	3744	2494	739	3670	1033	993
6/2/2013	2090	159	157	3751	2348	701	3686	1177	981
6/3/2013	2075	147	82	3737	2278	667	3650	1130	973
6/4/2013	2065	147	62	3723	2272	594	3621	1158	956

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
6/5/2013	2056	140	47	3710	2266	547	3586	1148	952
6/6/2013	2059	142	36	3696	2260	559	3571	1105	937
6/7/2013	2058	144	28	3788	2256	750	3599	1108	939
6/8/2013	2059	141	27	3807	2257	871	3631	1158	938
6/9/2013	2049	145	28	3790	2252	687	3619	1192	925
6/10/2013	2050	143	26	3778	2247	801	3621	1155	932
6/11/2013	2049	151	33	3764	2244	904	3612	1202	970
6/12/2013	2047	157	41	3756	2236	765	3702	1176	967
6/13/2013	2043	153	33	3750	2230	785	3711	1179	973
6/14/2013	2047	157	31	3736	2224	780	3731	1153	975
6/15/2013	2047	152	25	3730	2230	704	3753	1160	970
6/16/2013	2046	154	20	3730	2228	672	3762	1187	969
6/17/2013	2038	155	14	3719	2223	641	3736	1134	961
6/18/2013	2034	151	11	3716	2222	619	3764	1147	961
6/19/2013	436	32	2	803	481	132	821	262	207
6/20/2013	0	0	0	0	0	0	0	0	0
6/21/2013	0	0	0	0	0	0	0	0	0
6/22/2013	0	0	0	0	0	0	0	0	0
6/23/2013	0	0	0	0	0	0	0	0	0
6/24/2013	0	0	0	0	0	0	0	0	0
6/25/2013	0	0	0	0	0	0	0	0	0
6/26/2013	0	0	0	0	0	0	0	0	0
6/27/2013	0	0	0	0	0	0	0	0	0
6/28/2013	0	0	0	0	0	0	0	0	0
6/29/2013	0	0	0	0	0	0	0	0	0
6/30/2013	0	0	0	0	0	0	0	0	0
7/1/2013	0	0	0	0	0	0	0	0	0
7/2/2013	0	0	0	0	0	0	0	0	0
7/3/2013	0	0	0	0	0	0	0	0	0
7/4/2013	0	0	0	0	0	0	0	0	0
7/5/2013	0	0	0	0	0	0	0	0	0
7/6/2013	0	0	0	0	0	0	0	0	0
7/7/2013	0	0	0	0	0	0	0	0	0
7/8/2013	0	0	0	0	0	0	0	0	0
7/9/2013	0	0	0	0	0	0	0	0	0
7/10/2013	0	0	0	0	0	0	0	0	0
7/11/2013	0	0	0	0	0	0	0	0	0
7/12/2013	0	0	0	0	0	0	0	0	0
7/13/2013	0	0	0	0	0	0	0	0	0
7/14/2013	0	0	0	0	0	0	0	0	0

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
7/15/2013	0	0	0	0	0	0	0	0	0
7/16/2013	0	0	0	0	0	0	0	0	0
7/17/2013	0	0	0	0	0	0	0	0	0
7/18/2013	0	0	0	0	0	0	0	0	0
7/19/2013	0	0	0	0	0	0	0	0	0
7/20/2013	0	0	0	0	0	0	0	0	0
7/21/2013	0	0	0	0	0	0	0	0	0
7/22/2013	0	0	0	0	0	0	0	0	0
7/23/2013	0	0	0	0	0	0	0	0	0
7/24/2013	0	0	0	0	0	0	0	0	0
7/25/2013	0	0	0	0	0	0	0	0	0
7/26/2013	0	0	0	0	0	0	0	0	0
7/27/2013	0	0	0	0	0	0	0	0	0
7/28/2013	0	0	0	0	0	0	0	0	0
7/29/2013	0	0	0	0	0	0	0	0	0
7/30/2013	0	0	0	0	0	0	0	0	0
7/31/2013	0	0	0	0	0	0	0	0	0
8/1/2013	0	0	0	0	0	0	0	0	0
8/2/2013	0	0	0	0	0	0	0	0	0
8/3/2013	0	0	0	0	0	0	0	0	0
8/4/2013	0	0	0	0	0	0	0	0	0
8/5/2013	0	0	0	0	0	0	0	0	0
8/6/2013	0	0	0	0	0	0	0	0	0
8/7/2013	0	0	0	0	0	0	0	0	0
8/8/2013	0	0	0	0	0	0	0	0	0
8/9/2013	0	0	0	0	0	0	0	0	0
8/10/2013	0	0	0	0	0	0	0	0	0
8/11/2013	0	0	0	0	0	0	0	0	0
8/12/2013				0					
8/13/2013				0					
8/14/2013				0					
8/15/2013	1	0	0	0	0	0	0	1	0
8/16/2013	0	0	0	0	0	0	0	0	0
8/17/2013	0	0	0	0	0	0	0	0	0
8/18/2013	0	0	0	0	0	0	0	0	0
8/19/2013	0	0	0	0	0	0	0	0	0
8/20/2013	0	0	0	0	0	0	0	0	0
8/21/2013	0	0	0	0	0	0	0	0	0
8/22/2013	0	0	0	0	0	0	0	0	0
8/23/2013	0	0	0	0	0	0	0	0	0

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
8/24/2013	0	0	0	0	0	0	0	0	0
8/25/2013	0	0	0	0	0	0	0	0	0
8/26/2013	0	0	0	0	0	0	0	0	0
8/27/2013	0	0	0	0	0	0	0	0	0
8/28/2013	0	0	0	0	0	0	0	0	0
8/29/2013	0	0	0	0	0	0	0	0	0
8/30/2013	0	0	0	0	0	0	0	0	0
8/31/2013	0	0	0	0	0	0	0	0	0
9/1/2013	0	0	0	0	0	0	0	0	0
9/2/2013	0	0	0	0	0	0	0	0	0
9/3/2013	0	0	0	0	0	0	0	0	0
9/4/2013	0	0	0	0	0	0	0	0	0
9/5/2013	0	0	0	0	0	0	0	0	0
9/6/2013	0	0	0	0	0	0	0	0	0
9/7/2013	0	0	0	0	0	0	0	0	0
9/8/2013	0	0	0	0	0	0	0	0	0
9/9/2013	0	0	0	0	0	0	0	0	0
9/10/2013	0	0	0	0	0	0	0	0	0
9/11/2013	0	0	0	0	0	0	0	0	0
9/12/2013	0	0	0	0	0	0	0	0	0
9/13/2013	0	0	0	0	0	0	0	0	0
9/14/2013	0	0	0	0	0	0	0	0	0
9/15/2013	0	0	0	0	0	0	0	0	0
9/16/2013	456	59	152	826	1047	212	930	292	270
9/17/2013	0	0	0	0	0	0	0	0	0
9/18/2013	0	0	0	0	0	0	0	0	0
9/19/2013	0	0	0	0	0	0	0	0	0
9/20/2013	0	0	0	0	0	0	0	0	0
9/21/2013	0	0	0	0	0	0	0	0	0
9/22/2013	0	0	0	0	0	0	0	0	0
9/23/2013	0	0	0	0	0	0	0	0	0
9/24/2013	0	0	0	0	0	0	0	0	0
9/25/2013	0	0	0	0	0	0	0	0	0
9/26/2013	0	0	0	0	0	0	0	0	0
9/27/2013	0	0	0	0	0	0	0	0	0
9/28/2013	0	0	0	0	0	0	0	0	0
9/29/2013	0	0	0	0	0	0	0	0	0
9/30/2013	0	0	0	0	0	0	0	0	0
10/1/2013	0	0	0	0	0	0	0	0	0
10/2/2013	0	0	0	0	0	0	0	0	0

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
10/3/2013	0	0	0	0	0	0	0	0	0
10/4/2013	0	0	0	0	0	0	0	0	0
10/5/2013	0	0	0	0	0	0	0	0	0
10/6/2013	0	0	0	0	0	0	0	0	0
10/7/2013	0	0	0	0	0	0	0	0	0
10/8/2013	0	0	0	0	0	0	0	0	0
10/9/2013	0	0	0	0	0	0	0	0	0
10/10/2013	0	0	0	0	0	0	0	0	0
10/11/2013	0	0	0	0	0	0	0	0	0
10/12/2013	0	0	0	0	0	0	0	0	0
10/13/2013	0	0	0	0	0	0	0	0	0
10/14/2013	0	0	0	0	0	0	0	0	0
10/15/2013	0	0	0	0	0	0	0	0	0
10/16/2013	0	0	0	0	0	0	0	0	0
10/17/2013	0	0	0	0	0	0	0	0	0
10/18/2013	0	0	0	0	0	0	0	0	0
10/19/2013	0	0	0	0	0	0	0	0	0
10/20/2013	0	0	0	0	0	0	0	0	0
10/21/2013	0	0	0	0	0	0	0	0	0
10/22/2013	0	0	0	0	0	0	0	0	0
10/23/2013	0	0	0	0	0	0	0	0	0
10/24/2013	0	0	0	0	0	0	0	0	0
10/25/2013	0	0	0	0	0	0	0	0	0
10/26/2013	0	0	0	0	0	0	0	0	0
10/27/2013	0	0	0	0	0	0	0	0	0
10/28/2013	0	0	0	0	0	0	0	0	0
10/29/2013	0	0	0	0	0	0	0	0	0
10/30/2013	0	0	0	0	0	0	0	0	0
10/31/2013	0	0	0	0	0	0	0	0	0
11/1/2013	0	0	0	0	0	0	0	0	0
11/2/2013	0	0	0	0	0	0	0	0	0
11/3/2013	0	0	0	0	0	0	0	0	0
11/4/2013	0	0	0	0	0	0	0	0	0
11/5/2013	0	0	0	0	0	0	0	0	0
11/6/2013	0	0	0	0	0	0	0	0	0
11/7/2013	0	0	0	0	0	0	0	0	0
11/8/2013	0	0	0	0	0	0	0	0	0
11/9/2013	0	0	0	0	0	0	0	0	0
11/10/2013	0	0	0	0	0	0	0	0	0
11/11/2013	0	0	0	0	0	0	0	0	0

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
11/12/2013	0	0	0	0	0	0	0	0	0
11/13/2013	0	0	0	0	0	0	0	0	0
11/14/2013	0	0	0	0	0	0	0	0	0
11/15/2013	0	0	0	0	0	0	0	0	0
11/16/2013	0	0	0	0	0	0	0	0	0
11/17/2013	0	0	0	0	0	0	0	0	0
11/18/2013	0	0	0	0	0	0	0	0	0
11/19/2013	0	0	0	0	0	0	0	0	0
11/20/2013	0	0	0	0	0	0	0	0	0
11/21/2013	0	0	0	0	0	0	0	0	0
11/22/2013	0	0	0	0	0	0	0	0	0
11/23/2013	0	0	0	0	0	0	0	0	0
11/24/2013	0	0	0	0	0	0	0	0	0
11/25/2013	0	0	0	0	0	0	0	0	0
11/26/2013	0	0	0	0	0	0	0	0	0
11/27/2013	0	0	0	0	0	0	0	0	0
11/28/2013	0	0	0	0	0	0	0	0	0
11/29/2013	0	0	0	0	0	0	0	0	0
11/30/2013	0	0	0	0	0	0	0	0	0
12/1/2013	0	0	0	0	0	0	0	0	0
12/2/2013	0	0	0	0	0	0	0	0	0
12/3/2013	0	0	0	0	0	0	0	0	0
12/4/2013	0	0	0	0	0	0	0	0	0
12/5/2013	0	0	0	0	0	0	0	0	0
12/6/2013	0	0	0	0	0	0	0	0	0
12/7/2013	0	0	0	0	0	0	0	0	0
12/8/2013	0	0	0	0	0	0	0	0	0
12/9/2013	0	0	0	0	0	0	0	0	0
12/10/2013	0	0	0	0	0	0	0	0	0
12/11/2013	1	0	0	0	0	0	0	0	0
12/12/2013	0	0	0	0	0	0	0	1	0
12/13/2013	0	0	0	0	0	0	0	0	0
12/14/2013	0	0	0	0	0	0	0	0	0
12/15/2013	0	0	0	0	0	0	0	0	0
12/16/2013	0	0	0	0	0	0	0	0	0
12/17/2013	0	0	0	0	0	0	0	0	0
12/18/2013	0	0	0	0	0	0	0	0	0
12/19/2013	0	0	0	0	0	0	0	0	0
12/20/2013	0	0	0	0	0	0	0	0	0
12/21/2013	0	0	0	0	0	0	0	0	0

DATE	CW-1	CW-1A	CW-2	CW-3	CW-4	CW-5	CW-6	CW-7	CW-7A
12/22/2013	0	0	0	0	0	0	0	0	0
12/23/2013	0	0	0	0	0	0	0	0	0
12/24/2013	0	0	0	0	0	0	0	0	0
12/25/2013	0	0	0	0	0	0	0	0	0
12/26/2013	0	0	0	0	0	0	0	0	0
12/27/2013	0	0	0	0	0	0	0	0	0
12/28/2013	0	0	0	0	0	0	0	0	0
12/29/2013	0	0	0	0	0	0	0	0	0
12/30/2013	0	0	0	0	0	0	0	0	0
12/31/2013	0	0	0	0	0	0	0	0	0
Sum	389316	32380	64489	661950	379094	199475	650248	180656	198007
Average	1075	89	178	1814	1047	551	1796	499	547

APPENDIX C

2013 Operation and Maintenance Data Summary

Leidos Engineering, LLC
6310 Allentown Boulevard / Harrisburg, PA 17112 / 717.901.8100 leidos.com/engineering

TABLE C-1
2013 OPERATION AND MAINTENANCE DATA SUMMARY
former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

TECHNICIAN	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL
Date	1/2/2013	1/30/2013	2/6/2013	2/22/2013	3/15/2013	3/25/2013	4/8/2013	4/24/2013	5/13/2013	5/30/2013	6/14/2013	6/28/2013	7/10/2013	7/26/2013	8/9/2013	8/27/2013	9/18/2013	9/30/2013	10/11/2013	10/23/2013	11/8/2013	11/25/2013	--	--
PTA INFL. PUMP																								
Full Load = 17 AMPS	NM	NM	17.63	NM	NM	NM	NM	NM	NM	NM	9.10	NM	NM	NM	13.53	NM	NM	NM	NM	NM	NM	17.45	NM	NM
FLOW RATE gpm	347	367	383	373	385	383	386	355	169	231	224	328	338	207	345	399	353	281	335	373	335	399	OL	OL
PTA BLOWER																								
Full Load = 24 AMP READINGS	NM	NM	21.77	NM	NM	NM	NM	NM	NM	NM	20.84	NM	NM	NM	20.45	NM	NM	NM	NM	NM	NM	22.21	NM	NM
PRESSURE inches water	16.75	16.0	16.5	16.75	16.5	16.3	15.75	15.75	15.75	14.75	15.0	14.5	14.75	15.0	14.5	15.0	15.75	15.5	15.25	16.0	16.25	16.75	OL	OL
TOWER PANEL																								
VISUAL INSPECT	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA
WARWICK SECURE	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOWER SAMPLING																								
AST EFFLUENT pH	8.13	NM	8.17	NM	8.18	NM	8.2	NM	7.73	NM	8.22	NM	8.2	NM	7.9	NM	8.0	NM	8.2	NM	8.1	NM	OL	OL
AST INFLUENT pH	6.98	6.52	6.95	6.67	6.74	6.74	7.04	6.75	6.25	6.9	6.9	6.9	7.0	6.94	6.2	6.39	6.5	6.18	6.8	6.09	6.8	6.23	OL	OL
REDUX CHEMICAL INJECTION																								
LMI PUMP SPEED (%)	64	64	64	63	64	64	64	64	62	62	62	64	64	60	64	64	64	63	64	64	64	64	OL	OL
LMI INJECTION RATE (milis/min)	18.5	18.9	20.1	19.7	19.6	20.1	19.4	18.7	8.6	12.2	11.8	17.9	17.3	10.7	17.8	20.8	17.4	15.1	17.6	19.1	17.5	20.2	OL	OL
TCA WELL																								
CW-8; Full Load = 15.9 AMPS	NM	NM	12.65	NM	NM	NM	NM	NM	NM	NM	OL	NM	NM	NM	12.93	NM	NM	NM	NM	NM	NM	12.65	NM	NM
CW-8 FLOW RATE gpm	139	140	135	118	126	140	133	131	OL	OL	OL	132	131	OL	129	130	132	131	124	143	134	128	OL	OL
CW-8 PRESSURE psi	36	38	44	45	40	31	32	33	OL	OL	OL	40	42	OL	40	40	40	40	48	30	44	45	OL	OL
CW-8 CLEAN "Y" STRAINER	N	N	N	N	N	N	N	N	OL	OL	OL	N	N	OL	N	N	N	N	N	N	N	N	OL	OL
CW-8 CLEAN CK. VALVE	N	N	N	N	N	N	N	N	OL	OL	OL	N	N	OL	N	N	N	N	N	N	N	N	OL	OL
CW-8 HIGH LEVEL ALARM	N	N	Y	N	Y	N	N	N	Y	Y	Y	N	N	Y	N	N	N	N	Y	N	N	N	Y	Y
WPL WELLS																								
TOTAL FLOW RATE gpm	222	218	237	230	232	231	232	216	0	228	222	224	209	210	213	223	214	149	204	225	209	180	OL	OL
CW-9; Full Load = 15.9 AMPS	NM	NM	15.21	NM	NM	NM	NM	NM	NM	NM	16.07	NM	NM	NM	16.21	NM	NM	NM	NM	NM	NM	15.37	NM	NM
CW-9 FLOW RATE gpm	70.1	68.4	75.2	74.9	74.5	76.8	79.0	72.8	OL	76.6	73.1	71.9	65.1	71.5	68.9	72.4	66.5	67.1	64.8	66.1	77.5	75.0	OL	OL
CW-9 PRESSURE psi	95	100	52	65	62	45	70	95	OL	48	72	100	102	78	100	115	110	115	140	135	82	105	OL	OL
CW-9 CLEAN "Y" STRAINER	N	N	N	N	N	N	N	N	OL	N	N	N	N	N	N	N	N	N	N	N	N	N	OL	OL
CW-9 HIGH LEVEL ALARM?	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	N	N	Y	Y
CW-13; Full Load = 11.5 AMPS	NM	NM	9.88	NM	NM	NM	NM	NM	NM	NM	10.16	NM	NM	NM	10.23	NM	NM	NM	NM	NM	NM	10.15	NM	NM
CW-13 FLOW RATE gpm	75.8	76.6	75.6	75.6	75.9	76.2	76.2	75.1	OL	79.1	79.1	78.4	79.5	79.0	79.1	79.4	78.9	79.1	79.3	82.2	81.3	79.5	OL	OL
CW-13 PRESSURE psi	48	49	50	49	50	49	38	49	OL	42	42	42	42	41	41	40	40	41	40	39	38	40	OL	OL
CW-13 CLEAN "Y" STRAINER	N	N	N	N	N	N	N	N	OL	N	N	N	N	N	N	N	N	N	N	N	N	N	OL	OL
CW-13 HIGH LEVEL ALARM?	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y
CW-17; Full Load = 11.5 AMPS	NM	NM	12.02	NM	NM	NM	NM	NM	NM	NM	11.78	NM	NM	NM	11.65	NM	NM	NM	NM	NM	NM	11.58	NM	NM
CW-17 FLOW RATE gpm	74.9	70.6	83.8	79.2	77.6	77.8	78.2	65.4	OL	70.9	67.5	69.9	62.1	59.6	63.8	72.7	66.3	OL	58.6	74.4	40.2	23.4	OL	OL
CW-17 PRESSURE psi	85	86	38	79	78	60	38	84	OL	83	90	84	98	100	90	82	60	OL	100	59	82	110	OL	OL
CW-17 CLEAN "Y" STRAINER	N	N	N	N	N	N	N	N	OL	N	N	N	N	N	N	N	N	OL	N	N	N	N	OL	OL
CW-17 HIGH LEVEL ALARM?	N	N	N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	Y	Y	Y	N	N	Y	Y
CW-15A; Full Load = 1.6 AMPS	NM	NM	1.44	NM	NM	NM	NM	NM	NM	NM	1.38	NM	NM	NM	1.42	NM	NM	NM	NM	NM	NM	1.38	NM	NM
CW-15A FLOW RATE gpm	2.6	2.6	2.6	2.3	1.8	2.7	2.7	2.4	OL	2.4	2.2	2.2	2.2	1.8	2.1	1.5	1.8	1.9	1.9	1.8	1.9	1.7	OL	OL
CW-15A PRESSURE psi	40	45	36	28	24	77	77	72	OL	81	80	69	58	68	46	54	92	61	62	61	70	70	OL	OL
CW-15A CLEAN "Y" STRAINER	N	N	N	N	N	N	N	N	OL	N	N	N	N	N	N	N	N	N	N	N	N	N	OL	OL
CW-15A HIGH LEVEL ALARM?	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y
AST influent pressure inches of water	10.4	10.10	10.2	10.4	10.1	9.7	8.7	9.2	9.5	8.3	7.8	6.7	5.8	3.5	2.4	1.9	2.9	2.7	9.5	10.3	9.9	10.5	OL	OL
GAC influent pressure inches of water	8.6	7.8	8.2	8.4	8.7	8.2	8.1	8.1	8.4	7.2	7.4	7.5	7.8	7.8	7.2	7.4	8.1	8.3	7.5	8.3	7.8	7.8	OL	OL
AST pitot pressure inches of water	0.26	0.26	0.26	0.28	0.27	0.26	0.26	0.26	0.25	0.26	0.27	0.25	0.26	0.27	0.25	0.25	0.27	0.27	0.26	0.27	0.26	0.26	OL	OL

Notes:
Y - Yes NA - Not Applicable OL - Off Line
N - No NM - Not Measured

TABLE C-1
2013 OPERATION AND MAINTENANCE DATA SUMMARY
former York Naval Ordnance Plant
1425 Eden Road, York PA 17402

TECHNICIAN		SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL	SRL
Date		1/2/2013	1/30/2013	2/6/2013	2/22/2013	3/15/2013	3/25/2013	4/8/2013	4/24/2013	5/13/2013	5/30/2013	6/14/2013	6/28/2013	7/10/2013	7/26/2013	8/9/2013	8/27/2013	9/18/2013	9/30/2013	10/11/2013	10/23/2013	11/8/2013	11/25/2013	--	--
NPBA WELLS																									
VIS. INSP. CONTR. PANEL		NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WARWICK SECURE		NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SUMP PUMP OPR. CHK.		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
MANIFOLD PRESS. psi		8	9	8	8	2	4	8	8	8	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0
CW-1; Full Load = 1.6	AMPS	NM	NM	1.34	NM	NM	NM	NM	NM	NM	NM	1.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-1	FLOW-RATE gpm	1.8	1.7	1.7	1.6	1.5	1.5	1.8	1.6	1.7	1.2	1.4	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1	PRESSURE psi	90	90	86	84	76	72	80	78	76	64	48	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1	HIGH LEVEL ALARM?	N	Y	N	N	N	N	N	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CW-1A; Full Load = 1.6	AMPS	NM	NM	1.42	NM	NM	NM	NM	NM	NM	NM	1.49	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-1A	FLOW-RATE gpm	0.5	0.5	0.5	0.5	0.3	0.5	0.5	0.5	0.5	0.5	0.5	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1A	PRESSURE psi	20	22	20	20	18	18	20	20	20	20	20	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1A	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1A	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1A	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-1A	HIGH LEVEL ALARM?	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CW-2; Full Load = 1.6	AMPS	NM	NM	1.48	NM	NM	NM	NM	NM	NM	NM	1.46	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-2	FLOW-RATE gpm	0.5	0.6	0.5	0.5	0.4	0.5	1.2	0.3	0.5	0.5	0.5	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-2	PRESSURE psi	18	40	20	15	16	16	95	114	30	110	26	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-2	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-2	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-2	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-2	HIGH LEVEL ALARM?	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CW-3; Full Load = 1.6	AMPS	NM	NM	1.23	NM	NM	NM	NM	NM	NM	NM	1.34	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-3	FLOW-RATE gpm	2.8	2.8	3.0	2.9	2.9	2.8	2.7	2.7	3.0	2.6	2.6	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-3	PRESSURE psi	42	41	35	36	36	36	42	40	44	46	42	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-3	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-3	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-3	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-3	HIGH LEVEL ALARM?	N	N	N	N	N	Y	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CW-4; Full Load = 1.6	AMPS	NM	NM	1.31	NM	NM	NM	NM	NM	NM	NM	1.34	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-4	FLOW-RATE gpm	1.5	1.5	1.7	1.8	1.3	1.3	1.8	1.6	1.6	1.6	1.5	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-4	PRESSURE psi	47	22	20	5	98	98	100	97	100	96	93	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-4	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-4	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-4	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-4	HIGH LEVEL ALARM?	N	Y	N	N	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CW-5; Full Load = 6	AMPS	NM	NM	1.3	NM	NM	NM	NM	NM	NM	NM	1.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-5	FLOW-RATE gpm	1	0.8	1.2	3.5	1.0	1.2	0.9	0.8	0.7	0.6	0.6	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-5	PRESSURE psi	84	83	78	40	90	72	80	81	82	83	83	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-5	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-5	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-5	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-5	HIGH LEVEL ALARM?	Y	N	N	N	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CW-6; Full Load = 1.6	AMPS	NM	NM	1.31	NM	NM	NM	NM	NM	NM	NM	1.33	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-6	FLOW-RATE gpm	2.8	3.6	2.9	3.5	1.7	2.7	2.6	2.7	3.0	2.6	2.6	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-6	PRESSURE psi	50	30	42	40	38	32	44	50	48	44	38	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-6	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-6	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-6	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-6	HIGH LEVEL ALARM?	N	Y	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CW-7; Full Load = 1.6	AMPS	NM	NM	1.32	NM	NM	NM	NM	NM	NM	NM	1.52	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-7	FLOW-RATE gpm	0.4	1.0	0.7	0.6	0.6	1.0	0.7	0.3	0.7	1	1.0	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7	PRESSURE psi	20	40	30	24	40	36	40	18	32	20	20	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7	HIGH LEVEL ALARM?	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CW-7A; Full Load = 1.6	AMPS	NM	NM	1.2	NM	NM	NM	NM	NM	NM	NM	1.43	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CW-7A	FLOW-RATE gpm	0.7	0.8	1	0.9	0.9	1.0	1.2	0.8	0.7	0.5	1.0	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7A	PRESSURE psi	120	120	120	118	118	40	117	46	118	40	50	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7A	CLEAN "Y" STRAINER	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7A	CLEAN CK. VALVE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7A	CLEAN FLOWSENSOR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL	OL
CW-7A	HIGH LEVEL ALARM?	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Notes:
Y - Yes NA - Not Applicable OL - Off Line
N - No NM - Not Measured