2016 ANNUAL MONITORING PROGRESS REPORT FOR THE NPBA EXTRACTION SYSTEM SHUTDOWN

Former York Naval Ordnance Plant
1425 Eden Road, Springettsbury Township
York, Pennsylvania

Prepared for:

Harley-Davidson Motor Company Operations, Inc.

1425 Eden Road

York, Pennsylvania

April 2017

Prepared by:

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LIST OF ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
bgs	below ground surface
cis12DCE	cis-1,2-dichloroethene
COC	chemicals of concern
EPA	United States Environmental Protection Agency
FSP	Field Sampling Plan
fYNOP	former York Naval Ordnance Plant
GSC	Groundwater Sciences Corporation
Harley-Davidson	Harley-Davidson Motor Company Operations, Inc.
mg/L	milligrams per liter
µg/L	micrograms per liter
MSC	Medium-Specific Concentration
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NETT	North End of Test Track
NPBA	Northern Property Boundary Area
PADEP	Pennsylvania Department of Environmental Protection
Part 2 SRI	Part 2 Supplemental Groundwater Remedial Investigation
PCE	tetrachloroethene
RUA	Residential Used Aquifer
TCE	trichloroethene
U	undetected
VOCs	volatile organic compounds

1 INTRODUCTION

Groundwater Sciences Corporation (GSC) has prepared this progress report of the results of the 2016 annual groundwater monitoring of the Northern Property Boundary Area (NPBA) groundwater extraction system shutdown at the former York Naval Ordnance Plant (fYNOP or Site) located at 1425 Eden Road, Springettsbury Township, York, Pennsylvania (**Figure 1**). The Site is divided into the East Campus, owned by Harley-Davidson Motor Operations, Inc. (Harley-Davidson), and the West Campus, owned by NP York 58, LLC. This third year progress report includes the annual monitoring data for 2016. Results are described in Section 2, the work plan for 2017 is described in Section 3, and references are provided in Section 4.

The rationale and plan for deactivation and evaluation of the NPBA groundwater extraction system are described in Section 8.7.5 of the Supplemental Remedial Investigation (SRI) Groundwater Report (Part 1) (GSC, 2011) and Section 4.3.4 of the Field Sampling Plan (FSP) for the Part 2 SRI Groundwater Report (GSC, 2012) and Addendum #6 to the FSP (GSC, 2013). Results of the monitored shutdown test were included in a report titled "Results of NPBA Extraction System and Bldg3 Footer Drain Monitored Shutdown Tests for Part 2 of the Supplemental Groundwater Remedial Investigation" (GSC, 2014). The report was submitted to the United States Environmental Protection Agency (EPA) and the Pennsylvania Department of Environmental Protection (PADEP) on April 11, 2014 and included recommendations for monitoring of the groundwater in the NPBA area. The EPA approved the shutdown of active pumping of the NPBA groundwater extraction system and annual monitoring in an email reply to Mr. Stephen Snyder of GSC (EPA, 2014).

The approved monitoring plan involves the monitoring and reporting of groundwater levels and chemistry at the NPBA on an annual basis for a period of five years from 27 locations in and north of the NPBA. Monitoring results from six additional on-Site wells located down-gradient of the NPBA (wells MW-3, MW-82, MW-102S&D and MW-103S&D) are included in this 2016 annual NPBA report to track the potential migration of chemicals of concern (COCs) in the down-gradient direction on-Site. After five years of monitoring (i.e. 2018), long-term shutdown of the NPBA groundwater extraction system will be re-evaluated.

The results of the first two years of annual groundwater monitoring (2014 and 2015) were submitted previously to the EPA and PADEP (GSC, 2015 and GSC, 2016, respectively). Groundwater levels and chemical analyses from the first two years of long-term monitoring of the NPBA area indicated stable (unchanged) conditions from the initial post-shutdown conditions.

2 2016 ANNUAL MONITORING PROGRESS

Third year (2016) monitoring results are discussed in this section, followed by a discussion of the potential for off-Site migration of Site-related COCs. Groundwater locations monitored in 2016 are shown on **Figure 2** and are summarized below:

NPBA and Off-Site Locations				Additional Locations Downgradient of NPBA
CW-1	CW-7	MW-18S	MW-143S	MW-3
CW-1A	CW-7A	MW-18D	MW-143D	MW-82
CW-2	MW-9	MW-20S	RW-2	MW-102S
CW-3	MW-11	MW-20M	RW-4 (Folk)	MW-102D
CW-4	MW-12	MW-20D	Tate (S-6)	MW-103S
CW-5	MW-16S	MW-142S		MW-103D
CW-6	MW-16D	MW-142D		

2.1 Groundwater Elevations and Gradient

Groundwater elevation measurements at the NPBA were collected on October 3, 2016 by Leidos Engineering, LLC and GSC personnel as part of the 2016 Site-wide water level monitoring event. Elevation measurements collected in 2016, plus elevations from prior to and during the NPBA groundwater extraction system shutdown testing period are listed in **Table 1**. In the 2016 monitoring event, the groundwater elevations, excluding wells under artesian pressure, ranged from a high of approximately 540 feet above mean sea level (amsl) in the northeast to approximately 345 feet amsl in the southwest (**Figure 3**). Wells MW-16D and MW-18S&D exhibit artesian conditions and contain packers to seal the flow of groundwater to the surface. Wells MW-20M&D do not contain packers, but the water elevations are high in these wells suggesting that the groundwater is under pressure at those locations. Note that the water level in private non-potable well RW-4 (Folk) was measured on October 1, 2016 when the homeowner allowed access (2 days prior to the comprehensive round of water levels). In addition, wells RW-1, RW-3 and the spring Herman (S-7) shown on **Figure 2** are not accessible for monitoring because property owners have denied access to RW-3 and Herman (S-7). As a result of a search of the property and discussion with the current resident, RW-1 is believed to be abandoned.

Groundwater elevation contours of measurements collected on October 3, 2016 are shown on **Figure 3**. These contours represent the shallow groundwater elevations under natural flow conditions (non-pumping conditions) and show a lateral gradient that slopes toward the southwest. As interpreted and under isotropic conditions, groundwater flow is theoretically perpendicular to contours and would indicate that groundwater from a very small portion of the NPBA near wells MW-18S&D may minimally flow off-Site to the west of wells MW-142S&D, but flows back onto the Site west of MW-143S&D. A groundwater flow direction arrow is shown on **Figure 3** illustrating the theoretical groundwater flow path if the aquifer were isotropic. It is noted that the flow path, as drawn, is essentially parallel to the property line. However, factors such as a small change to the groundwater contour orientation, the consideration of anisotropic and heterogeneous aquifer permeability, combined with the lack of water level observation points to the north and west of MW-18S&D add uncertainty to the flow path interpretation.

Groundwater elevations and potentiometric contours from October 3, 2016 are shown in the cross section on **Figure 4**. Vertical groundwater gradients can be observed on the figure for nested wells MW-16S&D, MW-18S&D; MW-20S, M, & D; MW-142S&D; and MW-143S&D. In each of these wells except MW-142S&D, the groundwater elevation of the deeper well is higher than the elevation in the shallower well pair. This indicates that vertical groundwater flow is upward at these well locations under non-pumping conditions. Given this vertically upward flow gradient, dissolved COCs would not migrate deeper into the aquifer under natural (non-pumping) conditions.

Comparing the October 2016 groundwater elevations and potentiometric contours to the September 2013 post-shutdown, October 2014 elevations and contours, and September 2015 elevations and contours, there is essentially no change in groundwater flow in the NPBA area.

2.2 Groundwater Chemistry

Groundwater sampling was completed from October 1 through October 13, 2016, coincident with the annual comprehensive well sampling across the Site. Samples were submitted to TestAmerica Pittsburgh for analysis of volatile organic compounds (VOCs) by Method 8260C. Recent chemistry data for the NPBA wells are summarized in **Table 2.** Isoconcentration contours for trichloroethene (TCE), the most common COC at the NPBA, are shown on **Figure 5** for wells screened or open to the top 110 feet below ground surface (bgs). **Figure 5** illustrates that the highest TCE concentrations in 2016 were centered around wells CW-1A, CW-7A and MW-12, and that TCE concentrations of 5 micrograms per liter (µg/L) or more were interpreted to exist in the groundwater beneath most of the NPBA. Note that the source of the elevated TCE and PCE concentrations to the southwest (downgradient) of the NPBA in the area of MW-102S&D and MW-103S&D is from former waste disposal, handling and storage activities at the North End of Test Track (NETT) area.

Historical chemistry data are shown on the graphs in **Appendix A**. **Figure 5** (plan view) and **Figure 6** (cross sectional view) show posted TCE and tetrachloroethene (PCE) chemistry data from pre-shutdown and post-shutdown in 2013, the first annual post-shutdown sampling in 2014, the second annual post-shutdown sampling in 2015, and the third annual post-shutdown sampling in 2016 for these primary COCs. Minor concentration fluctuations in the September 2013 post-shutdown, October 2014, September/October 2015, and the October 2016 samples were observed at most of the sample locations, with the majority of the COC concentrations in the samples decreasing or remaining about the same. Locations that exhibited increases in PCE concentrations compared to the pre-shutdown concentrations were at inactive collection wells CW-5, CW-6 and CW-7A, where pumping had likely caused dilution while the extraction system was operating (see graphs in **Appendix A**). The COC trends in these wells are summarized as follows:

- Prior to system shutdown, detections of PCE in CW-5 showed a declining trend with a pre-shutdown concentration of 2.5 µg/L in 2013. After pumping ceased, PCE concentration have ranged from 7.4 µg/L in 2013 to 41 µg/L in 2016.

- Prior to system shutdown, detections of PCE in CW-6 showed a declining trend. Post system shutdown detections also show a declining trend. Following a pre-shutdown concentration of 120 µg/L in 2013, the post-shutdown PCE concentrations have ranged from 22 J µg/L in 2014 to 46 µg/L in 2016. Note that "J" refers to results that are less than the laboratory's reporting limit, but greater than or equal to the method detection limit; the concentration is an approximate value.

- PCE concentrations were on a declining trend prior to the shutdown of CW-7A, which had a pre-shutdown concentration of 1.4 J µg/L in 2013. Post system shutdown concentrations have ranged from 4.3 J µg/L in 2013 to 8.6 µg/L in 2015.

In addition to the 26 annual NPBA monitoring locations, groundwater chemistry data from MW-3, MW-82, MW-102S&D and MW-103S&D were also compared to historical data. These wells are located downgradient of the inactive collection wells in the NPBA, theoretically receiving groundwater flow from the NPBA (**Figure 5**). Note that well clusters MW-102S&D and MW-103S&D reflect the groundwater quality in the NETT area, and due to their distance downgradient of the NPBA, were sampled to assess long-term concentration trends associated with the shutdown of the NPBA groundwater extraction system.

TCE, PCE and cis-1,2-dichloroethene (cis12DCE) concentrations were similar or declined slightly compared to the historical groundwater data in MW-3 and MW-82. As shown on the graphs in **Appendix A**, TCE concentrations in MW-103D have shown a steady decline from 79 µg/L in 2013 to 4.7 µg/L in 2016, and the TCE concentration at MW-102D in 2016 was much lower than the previous concentrations (4.5 µg/L versus greater than 120 µg/L).

An additional downgradient well, MW-77, was sampled in 2013 and 2014 (non-detect COC concentrations), but was not sampled in 2015 or 2016 because it is located in an area of a hydrocarbon release and has been part of a separate study. Access to sample this location was also prohibited in 2016 due to construction on the West Campus property.

The following bulleted text is taken from the monitored shutdown report (GSC, 2014), which explains the chemistry trends observed 12 weeks (September 2013) after extraction system shutdown. Added to that text is a brief summary of observations of changes approximately one year later in 2014 (provided in the 2014 annual shutdown report [GSC, 2015]), two years later in 2015 (provided in the 2015 annual shutdown report [GSC, 2016]) and three years later in 2016. The added text for 2016 is included in *italics.* Refer to **Figures 5** and **6** for plan view and cross section maps, to **Table 2** for a summary of chemistry data, and to chemistry concentration graphs included in **Appendix A**.

- Five wells are located in the eastern-most extent of the NPBA. MW-20S, M, D and CW-7 and CW-7A are within 20 feet of each other, and sample different depths in the aquifer, from 28 feet – 61 feet (MW-20S) to 153 feet – 165 feet (MW-20D). CW-7 is open to the bedrock aquifer from 61 feet – 150 feet, while CW-7A screens residuum and saprolite (decomposed bedrock maintaining the structural features of the bedrock) from 34 feet – 66 feet bgs. Concentrations of TCE are highest near the surface, and decrease with depth, with groundwater from MW-20S showing the highest concentrations during pumping. MW-20S concentrations dropped after cessation of pumping, suggesting TCE was being pulled through that well by pumping, and potentially indicating the location of higher concentrations of TCE to be to the east of MW-20S. CW-7A concentrations increased after cessation of pumping, indicating portions of the flow drawn in by pumping most likely had been diluting the concentrations. CW-7 TCE concentrations dropped after pumping ceased, indicating pumping of that well was likely drawing mass from the shallow portion of the aquifer.

2014 sample results suggest no significant changes from the description above. Concentrations of TCE in CW-7A decreased to a level closer to the pre-shutdown concentration.

2015 sample results are similar to the descriptions above with the exception that the PCE concentration in CW-7A increased to a high of 8.6 µg/L.

2016 sample results are similar to the descriptions above with the exception that the PCE concentration in CW-7A decreased slightly from 8.6 µg/L in 2015 to 5.6 µg/L after several years of slightly increasing concentrations. The TCE concentration in CW-7A (86 µg/L) represents the lowest concentration detected since shutdown. Concentrations of TCE in MW-20S continue to decline with a concentration of 48 µg/L representing the lowest concentration detected since shutdown.

- Collection wells CW-1 and CW-1A are open to a depth of 68 feet – 175 feet and 29 feet – 74 feet, respectively. TCE concentrations in these wells prior to cessation of pumping were nearly the same at 33 µg/L and 35 µg/L, respectively. With the pumps off, concentrations in both wells dropped to 9.4 µg/L in CW-1 and 26 µg/L in CW-1A.

  One year later, the TCE concentration in CW-1 reduced to 1.8 µg/L, while the TCE concentration in CW-1A remained nearly unchanged (31 µg/L).

  Two years later, the TCE concentration in CW-1 reduced to 1.1 µg/L, while the TCE concentration in CW-1A remained nearly unchanged (28 µg/L).

Three years later, the TCE concentration in CW-1 remained relatively unchanged (1.6 µg/L). The TCE concentration in CW-1A increased from 28 µg/L to 56 µg/L, which represents the highest detection since it was shut down.

- Monitoring well MW-11, which lies west of CW-1 and CW-1A and east of CW-2 showed no change in pre- and post-shutdown TCE concentrations (pre-shutdown of 4.5 µg/L versus post-shutdown of 4.9 µg/L). The water level in this well is higher than wells on either side of it, and there was no apparent recovery (rise) in water level when the collection wells were shut down. The lack of response in both chemistry and water level, combined with the higher water level than in adjacent wells indicates that water from well MW-11 is not sufficiently hydraulically connected to the pumped portion of the aquifer or that it is being supported by an artesian condition below the pumping wells (deeper water sourced from the elevated area to the east).

  2014 sample results suggest no significant changes from the description above. Well MW-3, located down-gradient of and about 600 feet southwest of MW-11, showed no change in concentrations compared to 2013 data.

  2015 sample results suggest no significant changes from the descriptions above.

  2016 sample results for MW-11 show no significant changes from the above descriptions, and the detected TCE concentration of 2.4 µg/L represents the lowest detection since the shutdown of the collection wells.

- Collection well CW-2 and adjacent monitoring well MW-9 decreased in TCE concentrations after cessation of pumping. Since the groundwater flow direction at MW-9 while pumping was toward the northwest, and that flow direction would have changed to southwestward when CW-2 stopped pumping, the change in chemistry probably indicates higher concentrations of TCE in groundwater being pulled from the southeast of MW-9. With the cessation of pumping, the concentration of PCE in CW-2 went from undetected (U) to 3 µg/L. PCE was detected in this well prior to initiation of the extraction system at 2 to 4 µg/L. The reappearance suggests the concentration of PCE was being diluted by pulling groundwater from a greater distance away from CW-2. These pre- and post-shutdown results suggest that PCE is adsorbed onto the aquifer material at a location close to or discretely connected to CW-2.

2014 sample results suggest no significant changes from the description above. CW-2 TCE concentrations increased slightly to a level similar to pre-shutdown conditions.

2015 sample results suggest no significant changes from the description above; however, the TCE concentration in CW-2 decreased to the lowest level to date (4.9 µg/L).

2016 sample results for MW-9 show TCE at its lowest concentration since shutdown activities at 19 µg/L. TCE in CW-2 increased in concentration to 15 µg/L versus the previous maximum concentration of 14 µg/L in 2014, and the PCE concentration decreased to the lowest concentration to date (0.97 J µg/L).

- The TCE concentration in off-Site former residential supply well RW-2, located 150 feet northwest of CW-2 rose slightly between pre- (1.2 µg/L) and post- (1.9 µg/L) shutdown sampling, but the change is within its normal range of TCE concentrations during pumping. This well has been below applicable PADEP Medium Specific Concentrations (MSCs) for Residential Used Aquifers (RUA) with total dissolved solids less than or equal to 2,500 milligrams per liter (mg/L) for all Site-related COCs since 2003 and the TCE concentrations have ranged from 1.4 (in 2006) to 3.9 (in 2009) over the last seven years of annual sampling.

  2014 sample results suggest no significant changes from the description above. The TCE concentration measured one year later was 3.1 µg/L.

  2015 sample results suggest no significant changes from the description above. The TCE concentration measured in 2015 was 3.8 µg/L. Concentrations of TCE and PCE continue to remain undetected (U) in the other former residential supply well, RW-4 (Folk), currently connected to an outdoor spigot, but not used as a potable supply.

  2016 sample results for RW-2 suggest no significant changes from the descriptions above, and the TCE concentration in 2016 was 3.7 µg/L. RW-2 has not been used as a supply well since prior to the fYNOP investigations in 1986. Concentrations of TCE and PCE continue *to remain undetected (U) in the other former residential supply well, RW-4 (Folk), which is currently connected to an outdoor spigot, but not used as a potable supply.*

- TCE and PCE concentrations decreased in collection well CW-4 after cessation of pumping. Adjacent monitoring well MW-12, southwest of CW-4, more than doubled in TCE and PCE concentrations after pumping stopped. This suggests that higher concentrations of these COCs may be located south or southeast of CW-4 and northeast of MW-12, in a position that is upgradient from MW-12 under the static post-shutdown groundwater potentiometric surface conditions.

  2014 sample results suggest no significant changes from the description above. Concentrations of TCE and PCE in CW-4 continued to drop significantly, while MW-12 levels moderated.

  2015 sample results suggest no significant changes from the description above. Concentrations of TCE and PCE continued to drop in CW-4, while the concentration of PCE in MW-12 slightly increased to 6.4 µg/L (an increase of 1 µg/L above the 2014 value).

  2016 sample results suggest no significant changes from the descriptions above. Concentrations of TCE and PCE continued to drop in CW-4, while the concentrations of TCE and PCE in MW-12 decreased from 120 µg/L to 93 µg/L and 6.4 µg/L to 4.3 µg/L, respectively.

- Collection well CW-3 and adjacent well pair MW-16S and MW-16D are located near the center of the row of collection wells along the NPBA. The groundwater chemistry in MW-16S is notable in that it shows the highest concentration of PCE in the NPBA, where TCE is the dominant COC. CW-3 concentrations of TCE increased slightly, with the cessation of pumping, but remained in single digits. A pre-shutdown sample of MW-16S could not be analyzed due to excessive turbidity. However, compared to previous samples collected during pumping, the concentration appears to have reduced significantly under post-shutdown conditions. MW-16D, screened at a depth bgs of 190 feet – 201 feet, is artesian, and groundwater quality is minimally influenced by the COCs in the shallower zones in the immediate vicinity, indicated by PCE concentrations being undetected (U).

2014 sample results suggest no significant changes from the description above.

In 2015, TCE and PCE both decreased significantly to below 10 µg/L in MW-16S, whereas concentrations in MW-16D have remained consistent. TCE and PCE were undetected (U) in CW-3 in 2015, compared to 1.4J and 0.41J µg/L in 2014. CW-3 also contained 460 µg/L of acetone, a common laboratory contaminant, and there was a laboratory issue with the recovery criteria for TCE and PCE in an associated Matrix Spike / Matrix Spike Duplicate (MS/MSD) sample, suggesting that the data at CW-3 may be suspect.

In 2016, TCE remained relatively unchanged (6.2 µg/L) in MW-16S, but the PCE concentration increased from 6.7 to 48 µg/L, which is well below the 2013 and 2014 shutdown results. Concentrations in MW-16D have remained consistent with a slight decrease in TCE to 10 µg/L, which represents the lowest TCE concentration detected since shutdown. TCE and PCE remain undetected (U) in CW-3 in 2016.

- Collection wells CW-5 and CW-6 are west and down-gradient of the CW-3/MW-16 cluster of wells. After cessation of pumping, TCE and PCE concentrations in CW-6 dropped, suggesting during pumping this well was pulling COCs sourced some distance away from the pumping well. Since the reduction in PCE concentrations was disproportionately high, CW-6 was probably pulling in groundwater with PCE from the MW-16S area. After cessation of pumping, TCE and PCE concentrations in CW-5 increased slightly.

  2014 sample results suggest no significant changes from the description above. After one year, CW-6 concentrations continued to drop, while CW-5 concentrations continued to increase slightly.

  2015 sample results suggest no significant changes from the descriptions above. CW-6 concentrations remained stable with respect to 2013 post-shutdown concentrations, while CW-5 concentrations remained stable compared to 2014.

  In 2016, CW-6 concentrations increased slightly from 2015 concentrations for PCE (40 J µg/L to 46 µg/L) and TCE (7.5 J µg/L to 11 µg/L). CW-5 TCE concentrations increased *slightly from 5.3 µg/L in 2015 to 12 µg/L in 2016, whereas PCE concentrations had a more significant increase from 15 µg/L in 2015 to 41 µg/L in 2016.*

- Well pair MW-18S and MW-18D are open from 45 feet – 65 feet and 130 feet – 140 feet bgs, respectively. When sampled in 1988, MW-18S had a relatively low concentration of TCE at 50 µg/L, and MW-18D had no detections of VOCs. At the time, this data was considered an indication of the western limit of the plume. These wells were resampled in 2008, and showed concentrations of TCE exceeding 1,000 µg/L in both wells. It was assumed that VOCs were mobilized by the extraction system and pulled through these wells, suggesting a source to the west of this well pair, with VOCs transported by groundwater being pulled eastward toward CW-5 and the other groundwater extraction system wells. As indicated by time vs. concentration graphs in **Appendix A**, concentrations of VOCs in wells MW-18S and MW-18D have generally declined over the last four to six years. The pre-shutdown concentration of TCE in MW-18S was 220 µg/L while the post-shutdown concentration was 45 µg/L. The pre-shutdown concentration of TCE in MW-18D was 560 µg/L while the post-shutdown concentration was 42 µg/L. Changes that large suggest the pumping of the collection wells was pulling VOCs through the MW-18 well pair from a source located west of the well pair.

  2014 sample results suggest no significant changes from the description above. Continued reductions of TCE concentrations in MW-18S (5.5 µg/L) and MW-18D (8.1 µg/L) support the opinion regarding the reason for the observed concentration changes. Wells MW-142S&D and MW-143S&D, located down-gradient of MW-18S&D, continued to exhibit undetected or very low COC concentrations (TCE concentration of 1.9 µg/L at MW-143S).

  2015 sample results suggest no significant changes from the descriptions above, with concentrations slightly higher than in 2014 in wells MW-18D, MW-142S and MW-143S, but lower than the post-shutdown concentrations from 2013. The TCE concentration in MW-18S increased from 5.5 µg/L in 2014 to 11 µg/L in 2015, which is still well below the pre- and post-shutdown concentrations detected in 2013.

The 2016 sample results show no detections of TCE and PCE in MW-142S&D and MW-143D. TCE in MW-18S&D and MW-143S have all decreased to their lowest concentrations since shutdown.

2.3 Potential for Off-Site Plume Migration in the NPBA

The two primary potential groundwater flow paths for off-Site plume migration in the NPBA are 1) the potential for migration to the north toward former residential water supply wells and, 2) potential for migration to the west across the Site property line in the vicinity of monitoring well pair MW-18S&D.

2.3.1 Potential for Migration to the North

The monitored shutdown report (GSC, 2014) concluded that "natural migration of COCs northward from the NPBA appears to be unlikely" based on the groundwater level contours developed from water levels in wells under non-pumping conditions after shutdown.

The 2016 groundwater elevation contours in plan (**Figure 3**) and profile (**Figure 4**) views are essentially the same as the post-shutdown conditions in 2013, 2014 and 2015. No modification to the previous evaluation is warranted based on the 2016 water level data. Similarly, the 2016 groundwater chemistry results are consistent with the previous post-shutdown results, and show no indications of northward migration. Specifically, Site-related COCs continue to remain undetected or detected at concentrations below MSCs in off-Site monitoring locations to the north of the NPBA at RW-2, RW-4 and Tate (S-6).

2.3.2 Potential for Migration to the West

The monitored shutdown report (GSC, 2014) described the existence of a natural (non-pumping) gradient to the south-southwest in the area of MW-18S&D. This gradient is essentially parallel to the Site property line with groundwater west of the property likely flowing back onto the Site west of the well pair MW-143S&D. The gradient from the October 2016 water levels in this area is consistent with that previous condition.

Groundwater chemistry in down-gradient wells MW-142S&D, MW-143S&D, MW-82, MW-102S&D and MW-103S&D three years after shutdown is essentially unchanged or has decreased.

3 SUMMARY

Groundwater levels and VOC sample analytical results from the third year of planned shutdown monitoring (2016) in the NPBA indicate stable conditions compared to the initial post-shutdown conditions. Gradual increases in concentrations at collection wells CW-1A (TCE), CW-5 (TCE and PCE) and CW-6 (TCE and PCE) have been observed from the beginning of shutdown and continue, as a result of desorption from the aquifer matrix and the change in groundwater flow direction caused by the return to natural (non-pumping) conditions. All data suggests that, while TCE and PCE concentrations exceed PADEP groundwater MSCs on Site in the NPBA, migration of the COCs is inward (southwestward) toward the center of the Site where former manufacturing and waste handling activities have resulted in general degradation of the groundwater. Monitoring indicates that concentrations in off-Site former residential supply wells (north of Paradise Road) remain below groundwater MSCs.

The work plan for the fourth year of planned shutdown monitoring (2017) is to continue the monitoring of the NPBA groundwater extraction system shutdown, with the annual collection of water level measurements and groundwater samples for analysis of VOCs. No changes to the plan are recommended. The annual groundwater level and sampling will coincide with the larger-scope 2017 comprehensive event which is planned for late summer or early fall. The 2017 water levels and chemistry data will be analyzed and a progress report will be prepared during the first quarter of 2018. Analysis of the chemistry data will also include wells MW-3, MW-82, MW-102S&D and MW-103S&D located southwest (downgradient) of the NPBA. The plan is to continue annual monitoring of the shutdown conditions in the NPBA for two more years for a total of five years. Recommendations regarding future system status will be made at the end of the 5-year period.

4 REFERENCES

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Tables

Table 1
Former York Naval Ordnance Plant- York, PA
Groundwater Elevations
NPBA Extraction System Shutdown Monitoring

	6/6/13			6/11/13			6/12/13			6/17/13			6/27/13			7/5/13		
	NPBA Shutdown Test Pre Shutdown			NPBA Shutdown Test Event 1			NPBA Shutdown Test Event 2			NPBA Shutdown Test Event 3			NPBA Shutdown Test Event 4			NPBA Shutdown Test Event 5		
Location	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev
Collection Wells																		
CW-1	570.07	72.12	497.95	NM	NM	NM	570.07	72.08	497.99	570.07	75.16	494.91	570.07	41.99	528.08	570.07	41.74	528.33
CW-1A	568.28	60.60	507.68	NM	NM	NM	568.28	61.53	506.75	568.28	61.12	507.16	568.28	38.17	530.11	568.28	38.72	529.56
CW-2	556.95	68.66	488.29	NM	NM	NM	556.95	71.17	485.78	556.95	75.50	481.45	556.95	31.54	525.41	556.95	31.02	525.93
CW-3	518.66	80.80	437.86	518.66	81.57	437.09	NM	NM	NM	518.66	81.33	437.33	518.66	21.68	496.98	518.66	20.81	497.85
CW-4	541.55	85.70	455.85	541.55	15.32 AN	526.23	NM	NM	NM	541.55	84.84	456.71	541.55	27.75	513.80	541.55	26.94	514.61
CW-5	470.34	NM	NM	NM	NM	NM	NM	NM	NM	470.34	47.49	422.85	470.34	19.49	450.85	470.34	19.38	450.96
CW-6	484.67	70.70	413.97	484.67	70.67	414.00	NM	NM	NM	484.67	73.48	411.19	484.67	10.33	474.34	484.67	9.30	475.37
CW-7	573.78	86.40	487.38	NM	NM	NM	573.78	86.66	487.12	573.78	81.60	492.18	573.78	40.08	533.70	573.78	39.98	533.80
CW-7A	573.91	48.90	525.01	NM	NM	NM	573.91	48.55	525.36	573.91	50.10	523.81	573.91	41.88	532.03	573.91	41.87	532.04
Monitoring Wells																		
MW-3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-9	558.78	47.34	511.44	NM	NM	NM	558.78	47.22	511.56	558.78	46.32	512.46	558.78	34.23	524.55	558.78	33.45	525.33
MW-10	567.80	51.94	515.86	NM	NM	NM	NM	NM	NM	567.80	51.45	516.35	567.80	40.92	526.88	567.80	40.77	527.03
MW-11	563.08	27.84	535.24	NM	NM	NM	563.08	25.84	537.24	563.08	26.49	536.59	563.08	27.47	535.61	563.08	27.83	535.25
MW-12	535.93	37.43	498.50	535.93	37.32	498.61	NM	NM	NM	535.93	37.59	498.34	535.93	35.55	500.38	535.93	34.95	500.98
MW-16D	516.51	8.63	507.88	516.51	7.96	508.55	NM	NM	NM	516.51	7.73	508.78	521.59	4.00	517.59	521.59	1.85	519.74
MW-16S	516.60	35.87	480.73	516.60	37.90	478.70	NM	NM	NM	516.60	36.43	480.17	516.60	23.30	493.30	516.60	22.10	494.50
MW-18D	464.19	16.75	447.44	464.19	16.88	447.31	NM	NM	NM	464.19	16.56	447.63	469.20	A	A	469.20	0.75	468.45
MW-18S	464.12	16.98	447.14	464.12	26.70	437.42	NM	NM	NM	464.12	16.27	447.85	464.12	A	A	464.12	0.98	463.14
MW-20D	573.85	38.59	535.26	NM	NM	NM	573.85	38.12	535.73	573.85	38.21	535.64	573.85	31.76	542.09	573.85	31.86	541.99
MW-20M	574.19	46.59	527.60	NM	NM	NM	574.19	46.39	527.80	574.19	45.98	528.21	574.19	41.47	532.72	574.19	41.37	532.82
MW-20S	574.05	46.53	527.52	NM	NM	NM	574.05	46.10	527.95	574.05	46.08	527.97	574.05	42.24	531.81	574.05	42.13	531.92
MW-31D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-31S	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-70D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-70S	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-102D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-102S	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-142D	437.78	16.20	421.58	437.78	15.58	422.20	NM	NM	NM	437.78	15.72	422.06	437.78	16.11	421.67	437.78	16.31	421.47
MW-142S	437.44	4.57	432.87	437.44	3.60	433.84	NM	NM	NM	437.44	3.95	433.49	437.44	3.89	433.55	437.44	3.75	433.69
MW-143D	403.71	9.44	394.27	403.71	8.65	395.06	NM	NM	NM	403.71	8.70	395.01	408.81	14.89	393.92	408.81	15.17	393.64
MW-143S	403.56	31.72	371.84	403.56	30.93	372.63	NM	NM	NM	403.56	30.77	372.79	403.56	31.57	371.99	403.56	32.04	371.52
Residential Wells																		
RW-4 (Folk)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
RW-2	NM	NM	NM	548.27	28.21	520.06	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
Staff Gauge																		
TATE (S-6) Staff Gauge	NM	NM	NM	NM	NM	NM	488.86	1.10	488.96	488.86	0.90	488.76	488.86	1.05	488.91	488.86	1.30	489.16

MPE: Measuring Point Elevation
DTW: Depth to Water
WL Elev: Water level Elevation
NM: Not Measured
A: Artesian
D: Dry
*: RW-4 Measurement collected on 10/11/2014
AN: Anomalous Reading

Table 1
Former York Naval Ordnance Plant- York, PA
Groundwater Elevations
NPBA Extraction System Shutdown Monitoring

	7/12/13			7/16/13			7/25/13			7/31/13			8/8/13			8/28/13		
	NPBA Shutdown Test Event 6			NPBA Shutdown Test Event 7			NPBA Shutdown Test Event 8			NPBA Shutdown Test Event 9			NPBA Shutdown Test Event 10			August 2013 Site Wide Water Levels		
Location	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev
Collection Wells																		
CW-1	570.07	41.69	528.38	570.07	41.69	528.38	570.07	41.19	528.88	570.07	41.30	528.77	570.07	41.43	528.64	570.07	40.60	529.47
CW-1A	568.28	38.65	529.63	568.28	38.05	530.23	568.28	37.38	530.90	568.28	37.78	530.50	568.28	38.05	530.23	568.28	37.39	530.89
CW-2	556.95	29.80	527.15	NM	NM	NM	556.95	26.18	530.77	556.95	28.71	528.24	556.95	29.96	526.99	556.95	28.97	527.98
CW-3	518.66	20.39	498.27	518.66	20.28	498.38	518.66	19.79	498.87	518.66	19.74	498.92	518.66	19.65	499.01	518.66	19.23	499.43
CW-4	541.55	27.20	514.35	NM	NM	NM	541.55	26.30	515.25	541.55	26.34	515.21	541.55	26.28	515.27	541.55	25.50	516.05
CW-5	NM	NM	NM	470.34	19.60	450.74	470.34	19.35	450.99	470.34	19.50	450.84	470.34	19.42	450.92	470.34	19.42	450.92
CW-6	484.67	9.10	475.57	484.67	9.03	475.64	484.67	8.91	475.76	484.67	9.22	475.45	484.67	8.65	476.02	484.67	8.00	476.67
CW-7	573.78	42.02	531.76	573.78	40.10	533.68	573.78	39.80	533.98	573.78	39.85	533.93	573.78	39.95	533.83	573.78	39.06	534.72
CW-7A	573.91	41.85	532.06	573.91	41.88	532.03	573.91	41.60	532.31	573.91	41.74	532.17	573.91	41.98	531.93	573.91	41.28	532.63
Monitoring Wells																		
MW-3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	541.10	65.30	475.80
MW-9	558.78	32.90	525.88	NM	NM	NM	558.78	32.20	526.58	558.78	32.49	526.29	558.78	32.66	526.12	558.78	31.82	526.96
MW-10	567.80	40.75	527.05	NM	NM	NM	567.80	40.21	527.59	567.80	40.35	527.45	567.80	40.42	527.38	567.80	39.60	528.20
MW-11	563.08	27.11	535.97	NM	NM	NM	563.08	24.64	538.44	563.08	25.83	537.25	563.08	26.73	536.35	563.08	26.75	536.33
MW-12	535.93	34.26	501.67	NM	NM	NM	535.93	34.04	501.89	535.93	34.20	501.73	535.93	34.29	501.64	535.93	34.12	501.81
MW-16D	521.59	1.11	520.48	521.59	1.13	520.46	521.59	0.84	520.75	521.59	0.86	520.73	521.59	0.89	520.70	516.51	0.00	516.51
MW-16S	516.60	21.39	495.21	516.60	21.22	495.38	516.60	21.02	495.58	516.60	21.08	495.52	516.60	21.07	495.53	516.60	20.85	495.75
MW-18D	469.20	0.81	468.39	469.20	0.70	468.50	469.20	0.88	468.32	469.20	A	A	479.46	8.14	471.32	479.46	8.91	470.55
MW-18S	469.14	0.90	468.24	469.14	0.85	468.29	469.14	1.90	467.24	469.14	3.18	465.96	469.14	0.77	468.37	469.14	NM	NM
MW-20D	573.85	32.00	541.85	573.85	32.10	541.75	573.85	31.36	542.49	573.85	31.53	542.32	573.85	31.80	542.05	573.85	30.43	543.42
MW-20M	574.19	41.32	532.87	574.19	41.35	532.84	574.19	41.33	532.86	574.19	41.22	532.97	574.19	41.33	532.86	574.19	40.62	533.57
MW-20S	574.05	42.19	531.86	574.05	42.25	531.80	574.05	41.93	532.12	574.05	42.10	531.95	574.05	42.30	531.75	574.05	41.65	532.40
MW-31D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	369.30	17.56	351.74	369.30	17.47	351.83
MW-31S	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	369.28	17.20	352.08	369.28	17.06	352.22
MW-70D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	416.31	23.20	393.11	416.31	23.50	392.81
MW-70S	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	416.21	23.20	393.01	416.21	23.14	393.07
MW-82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	382.18	36.23	345.95	382.18	36.74	345.44
MW-102D	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	405.23	12.91	392.32	405.23	12.74	392.49
MW-102S	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	405.41	39.14	366.27	405.41	38.54	366.87
MW-142D	437.78	16.30	421.48	437.78	16.27	421.51	437.78	15.78	422.00	437.78	16.09	421.69	437.78	16.36	421.42	437.78	16.30	421.48
MW-142S	437.44	3.84	433.60	437.44	3.55	433.89	437.44	2.74	434.70	437.44	3.29	434.15	437.44	3.38	434.06	437.44	3.52	433.92
MW-143D	408.81	15.24	393.57	408.81	15.29	393.52	408.81	14.88	393.93	403.71	9.79	393.92	403.71	10.25	393.46	403.71	10.01	393.70
MW-143S	403.56	32.05	371.51	403.56	32.05	371.51	403.56	31.99	371.57	403.56	31.85	371.71	403.56	32.25	371.31	403.56	34.57	368.99
Residential Wells																		
RW-4 (Folk)	NM	NM	NM	NM	NM	NM	575.93	43.47	532.46	575.93	43.58	532.35	575.93	43.74	532.19	575.93	NM	NM
RW-2	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	548.46	21.79	526.67	548.46	21.13	527.33
Staff Gauge																		
TATE (S-6) Staff Gauge	488.86	1.40	489.26	488.86	1.40	489.26	488.86	1.09	488.95	488.86	1.04	488.90	488.86	1.05	488.91	488.86	NM	NM

MPE: Measuring Point Elevation
DTW: Depth to Water
WL Elev: Water level Elevation
NM: Not Measured
A: Artesian
D: Dry
*: RW-4 Measurement collected on 10/11/2014
AN: Anomalous Reading

Table 1
Former York Naval Ordnance Plant- York, PA
Groundwater Elevations
NPBA Extraction System Shutdown Monitoring

	11/22/13			1/16/14			5/5/14			10/7/14			9/3/15			10/3/16		
	November 2013 Site Wide Water Levels			January 2014 Site Wide Water Levels			May 2014 Site Wide Water Levels			October 2014 Site Wide Water Levels *			September 2015 Site Wide Water Levels			October 2016 Site Wide Water Levels *		
Location	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev	MPE	DTW	WL Elev
Collection Wells																		
CW-1	570.07	40.80	529.27	570.07	36.71	533.36	570.07	32.90	537.17	570.07	43.15	526.92	570.07	40.90	529.17	570.07	42.72	527.35
CW-1A	568.28	37.90	530.38	568.28	30.52	537.76	568.28	26.83	541.45	568.28	40.21	528.07	568.28	28.23	540.05	568.28	39	529.28
CW-2	556.95	30.75	526.20	556.95	16.28	540.67	556.95	16.81	540.14	556.95	32.32	524.63	556.95	30.20	526.75	556.95	29.3	527.65
CW-3	518.66	19.90	498.76	518.66	17.11	501.55	518.66	15.58	503.08	518.66	18.92	499.74	518.66	16.60	502.06	518.66	16.93	501.73
CW-4	541.55	25.25	516.30	541.55	21.93	519.62	541.55	28.47	513.08	541.55	26.50	515.05	541.55	24.80	516.75	541.55	25.2	516.35
CW-5	470.34		NM	470.34	16.70	453.64	470.34	15.30	455.04	470.34	19.47	450.87	470.34	18.73	451.61	470.34	19.4	450.94
CW-6	484.67	8.00	476.67	484.67	5.33	479.34	484.67	4.46	480.21	484.67	8.51	476.16	484.67	7.75	476.92	484.67	8.15	476.52
CW-7	573.78	39.20	534.58	573.78	32.61	541.17	573.78	20.58	553.20	573.78	41.77	532.01	573.78	39.05	534.73	573.78	41.55	532.23
CW-7A	573.91	41.55	532.36	573.91	35.25	538.66	573.91	31.44	542.47	573.91	44.15	529.76	573.91	42.07	531.84	573.91	44	529.91
Monitoring Wells																		
MW-3	541.10	65.74	475.36	541.10	58.91	482.19	541.10	53.75	487.35	541.10	67.75	473.35	541.10	66.03	475.07	541.10	68.08	473.02
MW-9	558.78	32.32	526.46	558.78	26.93	531.85	558.78	24.44	534.34	558.78	33.66	525.12	558.78	31.74	527.04	558.78	32.57	526.21
MW-10	567.80	39.77	528.03	567.80	34.52	533.28	567.80	31.61	536.19	567.80	42.03	525.77	567.80	39.85	527.95	567.80	41.43	526.37
MW-11	563.08	28.50	534.58	563.08	18.70	544.38	563.08	19.08	544.00	563.08	30.18	532.90	563.08	27.55	535.53	563.08	26.1	536.98
MW-12	535.93	34.98	500.95	535.93	29.34	506.59	535.93	25.47	510.46	535.93	35.72	500.21	535.93	34.93	501.00	535.93	35.55	500.38
MW-16D	516.51	A	A	516.51	NM	NM	516.51	NM	NM	516.51	NM	NM	516.74	-4.86A	521.60A	521.59	-3.7A	525.29A
MW-16S	516.60	19.25	497.35	516.60	16.65	499.95	516.60	15.31	501.29	516.60	20.83	495.77	516.60	18.75	497.85	516.60	20.05	496.55
MW-18D	464.19	NM	NM	464.19	NM	NM	464.19	NM	NM	464.19	0.53	463.66	464.57	-4.35A	468.92A	464.19	-5.06A	469.25A
MW-18S	464.12	NM	NM	464.12	NM	NM	464.12	NM	NM	464.12	A	A	464.58	-6.39A	470.97A	464.12	-0.38A	464.50A
MW-20D	573.85	31.10	542.75	573.85	23.18	550.67	573.85	18.87	554.98	573.85	34.43	539.42	573.85	30.45	543.40	573.85	33.76	540.09
MW-20M	574.19	40.80	533.39	574.19	35.00	539.19	574.19	39.40	534.79	574.19	43.59	530.60	574.19	41.86	532.33	574.19	42.53	531.66
MW-20S	574.05	42.08	531.97	574.05	35.30	538.75	574.05	31.39	542.66	574.05	44.55	529.50	574.05	42.38	531.67	574.05	44.27	529.78
MW-31D	369.30	19.27	350.03	369.30	12.86	356.44	369.30	10.43	358.87	369.30	19.53	349.77	369.30	17.94	351.36	369.30	19.04	350.26
MW-31S	369.28	18.98	350.30	369.28	12.52	356.76	369.28	10.41	358.87	369.28	19.26	350.02	369.28	17.56	351.72	369.28	18.65	350.63
MW-70D	416.31	23.87	392.44	416.31	16.45	399.86	416.31	11.40	404.91	416.31	26.24	390.07	416.31	24.28	392.03	416.31	26.97	389.34
MW-70S	416.21	23.50	392.71	416.21	16.70	399.51	416.21	11.64	404.57	416.21	25.75	390.46	416.21	23.97	392.24	416.21	26.4	389.81
MW-82	382.18	37.91	344.27	382.18	31.56	350.62	382.18	29.06	353.12	382.18	37.04	345.14	382.18	36.83	345.35	382.18	37.63	344.55
MW-102D	405.23	13.20	392.03	405.23	5.75	399.48	405.23	0.71	404.52	405.23	42.53	362.70	405.23	13.60	391.63	405.23	16.31	388.92
MW-102S	405.41	40.33	365.08	405.41	31.90	373.51	405.41	26.83	378.58	405.41	15.60	389.81	405.41	40.17	365.24	405.41	43.18	362.23
MW-142D	437.78	16.75	421.03	437.78	12.75	425.03	437.78	11.05	426.73	437.78	17.82	419.96	437.78	15.90	421.88	437.78	16.5	421.28
MW-142S	437.44	3.70	433.74	437.44	0.82	436.62	437.44	0.00	437.44	437.44	4.24	433.20	437.44	2.97	434.47	437.44	2.9	434.54
MW-143D	403.71	10.70	393.01	403.71	3.17	400.54	403.71	0.05	403.66	403.71	12.04	391.67	403.71	9.40	394.31	403.71	11.43	392.28
MW-143S	403.56	33.65	369.91	403.56	25.03	378.53	403.56	21.73	381.83	403.56	36.54	367.02	403.56	33.30	370.26	403.56	38.4	365.16
Residential Wells																		
RW-4 (Folk)	575.93	NM	NM	575.93	NM	NM	575.93	NM	NM	575.93	46.51*	529.42	575.93	44.58*	531.35	575.93	40.82*	535.11
RW-2	548.46	NM	NM	548.46	NM	NM	548.46	14.44	534.02	548.46	22.54	525.92	548.46	21.47*	526.99	548.27	21.98	526.29
Staff Gauge																		
TATE (S-6) Staff Gauge	488.86	NM	NM	488.86	NM	NM	488.86	1.32	489.18	488.86	NM	NM	488.86	NM	NM	488.86	NM	NM

MPE: Measuring Point Elevation
DTW: Depth to Water
WL Elev: Water level Elevation
NM: Not Measured
A: Artesian
D: Dry
*: RW-4 Measurement collected on 10/11/2014, 9/26/2015 and 10/1/16. RW-2 Measurement collected on 9/16/2015.
AN: Anomalous Reading

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID Depth (ft.) Sample Date Parameter	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	CW-1 5/29/13	CW-1 9/16/13	CW-1 10/13/14	CW-1 10/6/15	CW-1 10/25/16	CW-1A 5/30/13	CW-1A 9/16/13	CW-1A 10/14/14	CW-1A 10/6/15	CW-1A 10/26/16	CW-2 5/29/13	CW-2 9/16/13	CW-2 10/14/14	CW-2 10/7/15	CW-2 10/26/16	CW-3 5/29/13
TOTAL VOC																				
TOTAL VOC					44	15	3.6	2.49	3.2	37.3	28.39	34.75	30.21	59.47	15.1	10.17	18	8.88	22.07	34.6
Volatile Organic Compound																				
1,1,1,2-Tetrachloroethane	70	70		0.57	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,1,1-Trichloroethane	200	200	200	8000	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,1,2-Trichloroethane	5	5	5	0.28	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,1-Dichloroethane	31	160		2.8	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,1-Dichloroethene	7	7	7	280	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,2-Dichloroethane	5	5	5	0.17	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,2-Dichloropropane	5	5	5	0.44	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
1,4-Dioxane	6.4	32		0.46	200 U	200 U	R	200 U	200 U ^c	200 U	200 U	200 U	200 U	200 U ^c	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		5600	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	5 U
2-Hexanone	63	260		38	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	5 U
4-Methyl-2-Pentanone	3300	9300		6300	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	5 U
Acetone	38000	110000		14000	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	5.6
Acrylonitrile	0.72	3.7		0.052	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.46	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Bromochloromethane	90	90		83	1 U	1 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	1 U
Bromodichloromethane	80	80		0.13	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Bromoform	80	80		3.3	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U ^c	1 U
Bromomethane	10	10		7.5	1 U	1 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	1 U
Carbon Disulfide	1500	6200		810	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U ^c	1 U
Carbon Tetrachloride	5	5	5	0.46	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Chlorobenzene	100	100	100	78	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Chlorodibromomethane	80	80		0.87	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Chloroethane	250	1200		21000	1 U	1 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	1 U
Chloroform	80	80		0.22	1 U	1 U	1.0 U	1 U	1 U	0.27 J	0.38 J	0.44 J	0.31 J	0.44 J	1 U	1 U	1.0 U	1 U	1 U	1 U
Chloromethane	30	30		190	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	70	70	36	11	5.6	1.8	1.2	1.6	1.2	0.31 J	0.51 J	1 U	0.73 J	4.1	0.87 J	2.6	0.78 J	6.1	21
cis-1,3-Dichloropropene	7.3	34		0.47	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	20		14	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Methylene chloride	5	5		11	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Styrene	100	100	100	1200	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Tetrachloroethene	5	5	5	11	1 U	1 U	1.0 U	0.19 J	1 U	0.83 J	1.7	2.8	1.9	2.3	1 U	3	1.4	3.2	0.97 J	1.3
Toluene	1000	1000	1000	1100	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100	100	360	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	7.3	34		0.47	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1 U
Trichloroethene	5	5	5	0.49	33	9.4	1.8	1.1	1.6	35	26	31	28	56	11	6.3	14	4.9	15	6.7
Vinyl Chloride	2	2	2	0.019	1 U	1 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	1 U
Xylenes (Total)	10000	10000	10000	190	3 U	3 U	3.0 U	3 U	2 U	3 U	3 U	3.0 U	3 U	2 U	3 U	3 U	3.0 U	3 U	2 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. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID	PA MSC	PA MSC	Federal	EPA	CW-3	CW-3	CW-3	CW-3	CW-4	CW-4	CW-4	CW-4	CW-4	CW-5	CW-5	CW-5	CW-5	CW-5	CW-6	CW-6
Depth (ft.)																				
Sample Date	UA R	UA NR	MCL	RSL	9/16/13	10/15/14	10/6/15	10/25/16	5/29/13	9/16/13	10/14/14	10/7/15	10/26/16	5/29/13	9/16/13	10/16/14	10/7/15	10/26/16	5/30/13	9/16/13
Parameter	(ug/L)	(ug/L)	(ug/L)	(ug/L)																
TOTAL VOC																				
TOTAL VOC					120.19	118.03	512.05	517.5	82	62.5	42.8	35.66	36.22	8.5	14.9	36.7	24.9	65	170	77.73
Volatile Organic Compound																				
1,1,1,2-Tetrachloroethane	70	70		0.57	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,1,1-Trichloroethane	200	200	200	8000	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,1,2-Trichloroethane	5	5	5	0.28	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,1-Dichloroethane	31	160		2.8	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,1-Dichloroethene	7	7	7	280	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,2-Dichloroethane	5	5	5	0.17	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,2-Dichloropropane	5	5	5	0.44	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
1,4-Dioxane	6.4	32		0.46	200 U	200 U	200 U	400 U ^c	200 U	400 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	1600 U	200 U
2-Butanone	4000	4000		5600	5 U	5.0 U	5 U	10 U	5 U	10 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	40 U	5 U
2-Hexanone	63	260		38	5 U	5.0 U	5 U	10 U	5 U	10 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	40 U	5 U
4-Methyl-2-Pentanone	3300	9300		6300	5 U	5.0 U	5 U	10 U	5 U	10 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	40 U	5 U
Acetone	38000	110000		14000	74	76	460 J	470	5 U	10 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	40 U	14
Acrylonitrile	0.72	3.7		0.052	20 U	20 U	20 U	40 U	20 U	40 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	160 U	20 U
Benzene	5	5	5	0.46	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Bromochloromethane	90	90		83	1 U	1.0 U	1 UJ	2 U	1 U	2 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	8 U	1 U
Bromodichloromethane	80	80		0.13	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Bromoform	80	80		3.3	0.88 J	3.1	12	11	1 U	2 U	1.0 U	1 U	1 U ^c	1 U	1 U	1.0 U	1 U	1 U ^c	8 U	0.44 J
Bromomethane	10	10		7.5	1 U	1.0 U	0.55 J	2 U	1 U	2 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	8 U	1 U
Carbon Disulfide	1500	6200		810	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U ^c	1 U	1 U	1.0 U	1 U	1 U ^c	8 U	1 U
Carbon Tetrachloride	5	5	5	0.46	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Chlorobenzene	100	100	100	78	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Chlorodibromomethane	80	80		0.87	1 U	0.54 J	1.7	1.9 J	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Chloroethane	250	1200		21000	1 U	1.0 U	1 UJ	2 U	1 U	2 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	8 U	1 U
Chloroform	80	80		0.22	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Chloromethane	30	30		190	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	0.3 J	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
cis-1,2-Dichloroethene	70	70	70	36	32	36	36	33	29	40	36	31	33	1.9	2.1	4.5	4.6	12	32	19
cis-1,3-Dichloropropene	7.3	34		0.47	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Ethylbenzene	700	700	700	1.5	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Methyl tert-butyl ether	20	20		14	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Methylene chloride	5	5		11	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Styrene	100	100	100	1200	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Tetrachloroethene	5	5	5	11	2.5	0.41 J	1 U	2 U	6	3.5	1.2	0.86 J	0.52 J	2.5	7.4	24	15	41	120	36
Toluene	1000	1000	1000	1100	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
trans-1,2-Dichloroethene	100	100	100	360	0.91 J	0.58 J	1.8	1.6 J	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	0.89 J
trans-1,3-Dichloropropene	7.3	34		0.47	1 U	1.0 U	1 U	2 U	1 U	2 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	8 U	1 U
Trichloroethene	5	5	5	0.49	9.9	1.4	1 U	2 U	47	19	5.6	3.5	2.7	4.1	5.4	8.2	5.3	12	18	7.4
Vinyl Chloride	2	2	2	0.019	1 U	1.0 U	1 UJ	2 U	1 U	2 U	1.0 U	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	8 U	1 U
Xylenes (Total)	10000	10000	10000	190	3 U	3.0 U	3 U	4 U	3 U	6 U	3.0 U	3 U	2 U	3 U	3 U	3.0 U	3 U	2 U	24 U	3 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorgai
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID Depth (ft.) Sample Date Parameter	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	CW-6 10/16/14	CW-6 10/7/15	CW-6 10/26/16	CW-7 5/30/13	CW-7 9/16/13	CW-7 10/15/14	CW-7 10/7/15	CW-7 10/26/16	CW-7A 5/29/13	CW-7A 9/16/13	CW-7A 10/15/14	CW-7A 10/6/15	CW-7A Dup 10/6/15	CW-7A 10/26/16	MW-3 9/11/13	MW-3 10/14/14
TOTAL VOC																				
TOTAL VOC					47.5	71.5	92	5.7	2.1	2.53	2.87	2.67	84.2	165.8	99.4	142	132.5	94.6	36.29	34.91
Volatile Organic Compound																				
1,1,1,2-Tetrachloroethane	70	70		0.57	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,1,1-Trichloroethane	200	200	200	8000	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,1,2-Trichloroethane	5	5	5	0.28	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,1-Dichloroethane	31	160		2.8	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,1-Dichloroethene	7	7	7	280	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,2-Dichloroethane	5	5	5	0.17	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,2-Dichloropropane	5	5	5	0.44	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
1,4-Dioxane	6.4	32		0.46	200 UJ	200 UJ	200 U	200 U	200 U	200 U	200 U	200 U	1000 U	1000 U	200 UJ	200 U	200 U	400 U ^c	200 U	200 U
2-Butanone	4000	4000		5600	5.0 UJ	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	25 U	25 U	5.0 UJ	5 U	5 U	10 U	5 U	5.0 U
2-Hexanone	63	260		38	5.0 UJ	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	25 U	25 U	5.0 UJ	5 U	5 U	10 U	5 U	5.0 U
4-Methyl-2-Pentanone	3300	9300		6300	5.0 UJ	5 U	5 U	5 U	5 U	5.0 U	5 U	5 U	25 U	25 U	5.0 UJ	5 U	5 U	10 U	5 U	5.0 U
Acetone	38000	110000		14000	5.0 UJ	5 UJ	5 U	5 U	5 U	5.0 U	5 U	5 U	25 U	25 U	5.0 UJ	5 U	5 U	10 U	5 U	5.0 U
Acrylonitrile	0.72	3.7		0.052	20 UJ	20 U	20 U	20 U	20 U	20 U	20 U	20 U	100 U	100 U	20 UJ	20 U	20 U	40 U	20 U	20 U
Benzene	5	5	5	0.46	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Bromochloromethane	90	90		83	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Bromodichloromethane	80	80		0.13	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Bromoform	80	80		3.3	1.0 UJ	1 U	1 U ^c	1 U	1 U	1.0 U	1 U	1 U ^c	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Bromomethane	10	10		7.5	1.0 UJ	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	5 U	5 U	1.0 UJ	1 UJ	1 UJ	2 U	1 U	1.0 U
Carbon Disulfide	1500	6200		810	1.0 UJ	1 U	1 U ^c	1 U	1 U	1.0 U	1 U	1 U ^c	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Carbon Tetrachloride	5	5	5	0.46	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Chlorobenzene	100	100	100	78	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Chlorodibromomethane	80	80		0.87	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Chloroethane	250	1200		21000	1.0 UJ	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	5 U	5 U	1.0 UJ	1 UJ	1 UJ	2 U	1 U	1.0 U
Chloroform	80	80		0.22	1.0 UJ	1 U	1 U	1.4	1 U	0.92 J	0.83 J	0.91 J	5 U	5 U	1.2 J	1.4	1.3	1.1 J	2.9	2.6
Chloromethane	30	30		190	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	0.28 J	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
cis-1,2-Dichloroethene	70	70	70	36	20 J	24 J	35	1 U	1 U	1.0 U	1 U	1 U	5 U	1.5 J	3.7 J	2	2	1.9 J	0.66 J	0.75 J
cis-1,3-Dichloropropene	7.3	34		0.47	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Ethylbenzene	700	700	700	1.5	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Methyl tert-butyl ether	20	20		14	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	0.26 J	0.23 J
Methylene chloride	5	5		11	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	1.8 J	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Styrene	100	100	100	1200	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Tetrachloroethene	5	5	5	11	22 J	40 J	46	1 U	0.6 J	0.85 J	1	0.76 J	1.4 J	4.3 J	5.5 J	8.6	9.2	5.6	0.47 J	0.33 J
Toluene	1000	1000	1000	1100	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
trans-1,2-Dichloroethene	100	100	100	360	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
trans-1,3-Dichloropropene	7.3	34		0.47	1.0 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	1 U	5 U	5 U	1.0 UJ	1 U	1 U	2 U	1 U	1.0 U
Trichloroethene	5	5	5	0.49	5.5 J	7.5 J	11	4.3	1.5	0.76 J	0.76 J	1	81	160	89	130	120	86	32	31
Vinyl Chloride	2	2	2	0.019	1.0 UJ	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	5 U	5 U	1.0 UJ	1 UJ	1 UJ	2 U	1 U	1.0 U
Xylenes (Total)	10000	10000	10000	190	3.0 UJ	3 U	2 U	3 U	3 U	3.0 U	3 U	2 U	15 U	15 U	3.0 UJ	3 U	3 U	4 U	3 U	3.0 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorgai
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID Depth (ft.) Sample Date Parameter	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	MW-3 9/21/15	MW-3 10/7/16	MW-9 6/10/13	MW-9 9/12/13	MW-9 10/16/14	MW-9 9/22/15	MW-9 10/10/16	MW-11 6/10/13	MW-11 9/10/13	MW-11 10/16/14	MW-11 9/23/15	MW-11 10/11/16	MW-12 5/31/13	MW-12 Dup 5/31/13	MW-12 9/12/13	MW-12 10/17/14
TOTAL VOC																				
TOTAL VOC					34.41	31.67	110	76	71.22	70	58.6	5.07	5.69	4.05	3.4	3.17	116.8	84.8	179	142.4
Volatile Organic Compound																				
1,1,1,2-Tetrachloroethane	70	70		0.57	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
1,1,1-Trichloroethane	200	200	200	8000	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 UJ	2 U	5 U	1.0 UJ
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
1,1,2-Trichloroethane	5	5	5	0.28	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
1,1-Dichloroethane	31	160		2.8	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
1,1-Dichloroethene	7	7	7	280	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 UJ	2 U	5 U	1.0 UJ
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
1,2-Dichloroethane	5	5	5	0.17	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 UJ	2 U	5 U	1.0 UJ
1,2-Dichloropropane	5	5	5	0.44	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
1,4-Dioxane	6.4	32		0.46	200 U	200 U	1000 U	1000 U	200 UJ	200 U	200 U ^c	200 U	200 U	200 U	200 U	200 U	800 U	400 U	1000 U	200 UJ
2-Butanone	4000	4000		5600	5 U	5.0 U	25 U	25 U	5.0 UJ	5.0 U	5 U	5 U	5 U	5.0 U	5.0 U	5 U	20 U	10 U	25 U	5.0 UJ
2-Hexanone	63	260		38	5 UJ	5.0 U	25 U	25 U	5.0 UJ	5 UJ	5 U	5 U	5 U	5.0 U	5 UJ	5 U	20 UJ	10 U	25 U	5.0 UJ
4-Methyl-2-Pentanone	3300	9300		6300	5 U	5.0 U	25 U	25 U	5.0 UJ	5 UJ	5 U	5 U	5 U	5.0 U	5 UJ	5 U	20 UJ	10 U	25 U	5.0 UJ
Acetone	38000	110000		14000	5 U	5.0 U	25 U	25 U	5.0 UJ	5.0 U	5 U ^c	5 U	5 U	5.0 U	5.0 U	5 U ^c	20 UJ	10 U	25 U	5.0 UJ
Acrylonitrile	0.72	3.7		0.052	20 U	20 U	100 U	100 U	20 UJ	20 U	20 U ^c	20 U	20 U	20 U	20 U	20 U	80 U	40 U	100 U	20 UJ
Benzene	5	5	5	0.46	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Bromochloromethane	90	90		83	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Bromodichloromethane	80	80		0.13	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Bromoform	80	80		3.3	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Bromomethane	10	10		7.5	1 U	1.0 U ^c	5 U	5 U	1.0 UJ	1.0 U	1 U ^c	1 U	1 U	1.0 U	1.0 U	1 U ^c	4 U	2 U	5 U	1.0 UJ
Carbon Disulfide	1500	6200		810	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 UJ	2 U	5 U	1.0 UJ
Carbon Tetrachloride	5	5	5	0.46	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 UJ	2 U	5 U	1.0 UJ
Chlorobenzene	100	100	100	78	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Chlorodibromomethane	80	80		0.87	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Chloroethane	250	1200		21000	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Chloroform	80	80		0.22	2.2	2.4	5 U	5 U	1.0 UJ	1.0 U	1 U	0.31 J	0.45 J	0.41 J	0.43 J	0.46 J	4 U	2 U	5 U	1.0 UJ
Chloromethane	30	30		190	1 U	1.0 U ^c	5 U	5 U	1.0 UJ	1.0 U	1 U ^c	1 U	1 U	1.0 U	1.0 U	1 U ^c	4 U	2 U	5 U	1.0 UJ
cis-1,2-Dichloroethene	70	70	70	36	0.63 J	0.73 J	34	32	30 J	36	34	1 U	1 U	1.0 U	1.0 U	1 U	47 J	25	42	47 J
cis-1,3-Dichloropropene	7.3	34		0.47	1 U	1.0 U	5 U	5 U	1.0 UJ	1 UJ	1 U	1 U	1 U	1.0 U	1 UJ	1 U	4 U	2 U	5 U	1.0 UJ
Ethylbenzene	700	700	700	1.5	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Methyl tert-butyl ether	20	20		14	0.19 J	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 UJ	2 U	5 U	1.0 UJ
Methylene chloride	5	5		11	1 U	1.0 U	5 U	1 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	1.1 J	2 U	5 U	1.0 UJ
Styrene	100	100	100	1200	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
Tetrachloroethene	5	5	5	11	0.39 J	0.54 J	5 U	5 U	0.22 J	1.0 U	1 U	0.26 J	0.34 J	0.24 J	0.37 J	0.31 J	1.9 J	1.4 J	4.7 J	5.4 J
Toluene	1000	1000	1000	1100	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 U	2 U	5 U	1.0 UJ
trans-1,2-Dichloroethene	100	100	100	360	1 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U	4 UJ	0.47 J	2.3 J	1.0 UJ
trans-1,3-Dichloropropene	7.3	34		0.47	1 U	1.0 U ^c	5 U	5 U	1.0 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1 U ^c	4 U	2 U	5 U	1.0 UJ
Trichloroethene	5	5	5	0.49	31	28	76	44	41 J	29	19	4.5	4.9	3.4	2.6	2.4	63	57	130	90 J
Vinyl Chloride	2	2	2	0.019	1 U	1.0 U	5 U	5 U	1.0 UJ	5	5.6 ^c	1 U	1 U	1.0 U	1.0 U	1 U	3.8 J	0.93 J	5 U	1.0 UJ
Xylenes (Total)	10000	10000	10000	190	3 U	2.0 U	15 U	15 U	3.0 UJ	3.0 U	2 U	3 U	3 U	3.0 U	3.0 U	2 U	12 U	6 U	15 U	3.0 UJ

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorga
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID / Depth (ft.) / Sample Date / Parameter	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	MW-12 9/22/15	MW-12 10/12/16	MW-16D 6/11/13	MW-16D 9/10/13	MW-16D Dup 9/10/13	MW-16D 10/16/14	MW-16D 9/23/15	MW-16D 10/7/16	MW-16S 9/10/13	MW-16S 10/22/14	MW-16S 9/23/15	MW-16S Dup 10/11/16	MW-16S 10/11/16	MW-18D 6/11/13	MW-18D 9/10/13
TOTAL VOC																			
TOTAL VOC					178.4	155.3	23.9	23.8	25.8	18.4	24.1	18.9	527.2	157.3	54.58	91	91.2	937	112.9
Volatile Organic Compound																			
1,1,1,2-Tetrachloroethane	70	70		0.57	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,1,1-Trichloroethane	200	200	200	8000	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,1,2-Trichloroethane	5	5	5	0.28	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,1-Dichloroethane	31	160		2.8	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,1-Dichloroethene	7	7	7	280	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,2-Dichloroethane	5	5	5	0.17	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,2-Dichloropropane	5	5	5	0.44	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
1,4-Dioxane	6.4	32		0.46	200 U	600 U	200 U	200 U	200 U	200 U	200 U	200 U	5000 U	200 U	200 U	200 U	200 U	8000 U	1000 U
2-Butanone	4000	4000		5600	5 UJ	15 U	5 U	5 U	5 U	5.0 U	5.0 U	5.0 U	130 U	5.0 U	5.0 U	5 U	5 U	200 U	25 U
2-Hexanone	63	260		38	5 UJ	15 U	5 U	5 U	5 U	5.0 U	5 UJ	5.0 U	130 U	5.0 U	5.0 U	5 U	5 U	200 U	25 U
4-Methyl-2-Pentanone	3300	9300		6300	5 UJ	15 U	5 U	5 U	5 U	5.0 U	5 UJ	5.0 U	130 U	5.0 U	5.0 U	5 U	5 U	200 U	25 U
Acetone	38000	110000		14000	5.0 U	15 U	5 U	5 U	5 U	5.0 U	5.0 U	5.0 U ^c	130 U	5.0 U	5.0 U	5 U	5 U	200 U	25 U
Acrylonitrile	0.72	3.7		0.052	20 U	60 U	20 U	20 U	20 U	20 U	20 U	20 U	500 U	20 U	20 U	20 U ^c	20 U ^c	800 U	100 U
Benzene	5	5	5	0.46	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Bromochloromethane	90	90		83	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Bromodichloromethane	80	80		0.13	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Bromoform	80	80		3.3	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1 UJ	1 U	1 U	40 U	5 U
Bromomethane	10	10		7.5	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U ^c	25 U	1.0 U	1.0 U	1 U ^c	1 U ^c	40 U	5 U
Carbon Disulfide	1500	6200		810	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Carbon Tetrachloride	5	5	5	0.46	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Chlorobenzene	100	100	100	78	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Chlorodibromomethane	80	80		0.87	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Chloroethane	250	1200		21000	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Chloroform	80	80		0.22	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	6.2 J	1.0 U	1.0 U	1 U	1 U	40 U	1.2 J
Chloromethane	30	30		190	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U ^c	25 U	1.0 U	0.28 J	1 U ^c	1 U ^c	40 U	5 U
cis-1,2-Dichloroethene	70	70	70	36	52	58	3.9	7.8	6.8	3.4	5.1	8.9	40	38	42	35	37	350	66
cis-1,3-Dichloropropene	7.3	34		0.47	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1 UJ	1.0 U	25 U	1.0 U	1 UJ	1 U	1 U	40 U	5 U
Ethylbenzene	700	700	700	1.5	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Methyl tert-butyl ether	20	20		14	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Methylene chloride	5	5		11	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	12 J	1.0 U	1.0 U	1 U	1 U	17 J	2.1 J
Styrene	100	100	100	1200	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Tetrachloroethene	5	5	5	11	6.4	4.3	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	450	110	6.7	50	48	40 U	5 U
Toluene	1000	1000	1000	1100	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
trans-1,2-Dichloroethene	100	100	100	360	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
trans-1,3-Dichloropropene	7.3	34		0.47	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U ^c	25 U	1.0 U	1.0 U	1 U	1 U	40 U	5 U
Trichloroethene	5	5	5	0.49	120	93	20	16	19	15	19	10	19 J	9.3	5.6	6	6.2	560	42
Vinyl Chloride	2	2	2	0.019	1.0 U	3.0 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U	25 U	1.0 U	1.0 U	1 U	1 U	10 J	1.6 J
Xylenes (Total)	10000	10000	10000	190	3.0 U	6.0 U	3 U	3 U	3 U	3.0 U	3.0 U	2.0 U	75 U	3.0 U	3.0 U	2 U	2 U	120 U	15 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorgai
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID Depth (ft.) Sample Date Parameter	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	MW-18D 10/23/14	MW-18D 9/24/15	MW-18D 10/7/16	MW-18S 6/11/13	MW-18S 9/9/13	MW-18S 10/23/14	MW-18S 9/25/15	MW-18S 10/13/16	MW-20D 6/18/13	MW-20D 9/11/13	MW-20D 10/23/14	MW-20D 10/1/15	MW-20D 10/13/16	MW-20M 9/13/13	MW-20M 10/29/14
TOTAL VOC																			
TOTAL VOC					22.68	30.1	21.03	333.8	119.7	12.84	33.85	4.9	0.61	0.8	0.34	0.36	0.43	21.6	0.85
Volatile Organic Compound																			
1,1,1,2-Tetrachloroethane	70	70		0.57	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,1,1-Trichloroethane	200	200	200	8000	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,1,2-Trichloroethane	5	5	5	0.28	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,1-Dichloroethane	31	160		2.8	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,1-Dichloroethene	7	7	7	280	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,2-Dichloroethane	5	5	5	0.17	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,2-Dichloropropane	5	5	5	0.44	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
1,4-Dioxane	6.4	32		0.46	200 U	200 U	200 U ^c	2000 U	1000 U	200 U	200 U	200 U	200 U	200 U	200 U	200 UJ	200 U	200 U	200 U
2-Butanone	4000	4000		5600	5.0 U	5.0 U	5.0 U	50 U	25 U	5.0 U	5 U	5.0 U	5 U	5 U	5.0 U	5 U	5.0 U	5 U	5.0 U
2-Hexanone	63	260		38	5.0 U	5.0 U	5.0 U	50 U	25 U	5.0 U	5 U	5.0 U	5 U	5 U	5.0 U	5 U	5.0 U	5 U	5.0 U
4-Methyl-2-Pentanone	3300	9300		6300	5.0 U	5.0 U	5.0 U	50 U	25 U	5.0 U	5 U	5.0 U	5 U	5 U	5.0 U	5 U	5.0 U	5 U	5.0 U
Acetone	38000	110000		14000	5.0 U	5.0 U	5.0 U ^c	50 U	25 U	5.0 U	5 U	5.0 U	5 U	5 U	5.0 U	5 U	5.0 U	5 U	5.0 U
Acrylonitrile	0.72	3.7		0.052	20 U	20 U	20 U ^c	200 U	100 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.46	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Bromochloromethane	90	90		83	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Bromodichloromethane	80	80		0.13	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Bromoform	80	80		3.3	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Bromomethane	10	10		7.5	1.0 U	1.0 U	1.0 U ^c	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1.0 U
Carbon Disulfide	1500	6200		810	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Carbon Tetrachloride	5	5	5	0.46	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Chlorobenzene	100	100	100	78	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Chlorodibromomethane	80	80		0.87	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Chloroethane	250	1200		21000	1.0 U	1 UJ	1.0 U	10 U	5 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1.0 U
Chloroform	80	80		0.22	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	0.45 J	0.46 J	0.34 J	0.36 J	0.43 J	1.4	1.0 U
Chloromethane	30	30		190	1.0 U	1.0 U	1.0 U ^c	10 U	5 U	1.0 U	0.28 J	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
cis-1,2-Dichloroethene	70	70	70	36	14	20	15	110	71	7	22	3.7	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
cis-1,3-Dichloropropene	7.3	34		0.47	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Ethylbenzene	700	700	700	1.5	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Methyl tert-butyl ether	20	20		14	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Methylene chloride	5	5		11	1.0 U	1.0 U	1.0 U	10 U	2 J	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Styrene	100	100	100	1200	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Tetrachloroethene	5	5	5	11	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Toluene	1000	1000	1000	1100	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	0.16 J	0.34 J	1.0 U	1 U	1.0 U	2.2	1.0 U
trans-1,2-Dichloroethene	100	100	100	360	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
trans-1,3-Dichloropropene	7.3	34		0.47	1.0 U	1.0 U	1.0 U	10 U	5 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1.0 U
Trichloroethene	5	5	5	0.49	8.1	9.5	5.5	220	45	5.5	11	1.2	1 U	1 U	1.0 U	1 U	1.0 U	18	0.85 J
Vinyl Chloride	2	2	2	0.019	0.58 J	0.60 J	0.53 J ^c	3.8 J	1.7 J	0.34 J	0.57 J	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1.0 U
Xylenes (Total)	10000	10000	10000	190	3.0 U	3.0 U	2.0 U	30 U	15 U	3.0 U	3 U	2.0 U	3 U	3 U	3.0 U	3 U	2.0 U	3 U	3.0 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorgai
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID Depth (ft.) Sample Date Parameter	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	MW-20M 9/30/15	MW-20M 10/14/16	MW-20S 6/6/13	MW-20S 9/11/13	MW-20S 10/17/14	MW-20S 9/24/15	MW-20S 10/13/16	MW-77 9/9/13	MW-77 10/17/14	MW-82 9/3/13	MW-82 10/23/14	MW-82 Dup 10/23/14	MW-82 9/28/15
TOTAL VOC																	
TOTAL VOC					14.3	8.2	237.4	95.5	119.1	87.8	54.9	1968	1748.8	32.68	32.19	30.39	30.09
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.57	1 UJ	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	200	200	200	8000	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	5	5	5	0.28	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	31	160		2.8	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	0.48 J	0.58 J	1.0 U	0.50 J
1,1-Dichloroethene	7	7	7	280	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	0.41 J	0.39 J	0.39 J
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5	5	5	0.17	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	5	5	5	0.44	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	6.4	32		0.46	200 UJ	200 U	1000 U	1000 U	200 UJ	200 U	200 U	10000 U	1000 UJ	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		5600	5.0 U	5.0 U	25 U	25 U	5.0 UJ	5.0 U	5.0 U	250 U	25 UJ	5 U	5.0 U	5.0 U	5.0 U
2-Hexanone	63	260		38	5 UJ	5.0 U	25 U	25 U	5.0 UJ	5.0 U	5.0 U	250 U	25 UJ	5 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone	3300	9300		6300	5.0 U	5.0 U	25 U	25 U	5.0 UJ	5.0 U	5.0 U	250 U	25 UJ	5 U	5.0 U	5.0 U	5.0 U
Acetone	38000	110000		14000	5.0 U	2.7 J	25 U	25 U	5.0 UJ	5.0 U	5.0 U	250 U	25 UJ	5 U	5.0 U	5.0 U	5.0 U
Acrylonitrile	0.72	3.7		0.052	20 UJ	20 U	100 U	100 U	20 UJ	20 U	20 U	1000 U	100 UJ	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.46	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	1300	1200 J	1 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	90	90		83	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	80	80		0.13	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Bromoform	80	80		3.3	1 UJ	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Bromomethane	10	10		7.5	1 UJ	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Carbon Disulfide	1500	6200		810	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	5	5	5	0.46	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	100	100	100	78	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	80	80		0.87	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Chloroethane	250	1200		21000	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1 UJ
Chloroform	80	80		0.22	1	0.38 J	1.1 J	2.8 J	1.7 J	1.8	1.6	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Chloromethane	30	30		190	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	9.8 J	1 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	70	70	70	36	1.0 U	1.0 U	4.1 J	5 U	1.6 J	1.2	1	50 U	5.0 UJ	22	22	21	19 J
cis-1,3-Dichloropropene	7.3	34		0.47	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	700	700	700	1.5	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	99	92 J	1 U	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	20	20		14	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	380	350 J	1 U	1.0 U	1.0 U	1.0 U
Methylene chloride	5	5		11	1.0 U	1.0 U	2.2 J	3.8 U	1.0 UJ	1.0 U	1.0 U	41 J	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Styrene	100	100	100	1200	1 UJ	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	5	5	11	0.30 J	0.52 J	10	2.7 J	5.8 J	3.8	4.3	50 U	5.0 UJ	1.7	1.9	1.7	1.9
Toluene	1000	1000	1000	1100	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	70	45 J	1 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	100	100	100	360	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	7.3	34		0.47	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	5	5	0.49	13	4.6	220	90	110 J	81	48	50 U	5.0 UJ	8.5	7.3	7.3	8.3
Vinyl Chloride	2	2	2	0.019	1.0 U	1.0 U	5 U	5 U	1.0 UJ	1.0 U	1.0 U	50 U	5.0 UJ	1 U	1.0 U	1.0 U	1.0 U
Xylenes (Total)	10000	10000	10000	190	3.0 U	2.0 U	15 U	15 U	3.0 UJ	3.0 U	2.0 U	78 J	52 J	3 U	3.0 U	3.0 U	3.0 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorga
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Parameter / Location/ID / Depth (ft.) / Sample Date	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	MW-82 10/7/16	MW-102D 9/11/13	MW-102D 10/21/14	MW-102D 10/2/15	MW-102D 10/11/16	MW-102S 9/12/13	MW-102S 10/21/14	MW-102S Dup 10/21/14	MW-102S 10/2/15	MW-102S 10/11/16	MW-103D 9/10/13	MW-103D 10/17/14	MW-103D Dup 10/17/14
TOTAL VOC																	
TOTAL VOC					26.44	158	162.35	141.45	18.08	70.9	64.32	70.3	52.82	72.5	92.07	86.89	86.87
Volatile Organic Compound																	
1,1,1,2-Tetrachloroethane	70	70		0.57	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
1,1,1-Trichloroethane	200	200	200	8000	1.0 U	10 U	1 U	1.0 U	1 U	14	9.5	11	3.8	8.7	5 U	1.0 UJ	1.0 UJ
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
1,1,2-Trichloroethane	5	5	5	0.28	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
1,1-Dichloroethane	31	160		2.8	0.55 J	10 U	1 U	1.0 U	1 U	1.6	0.92 J	1	0.62 J	2.4	5 U	1.0 UJ	1.0 UJ
1,1-Dichloroethene	7	7	7	280	0.39 J	10 U	1 U	1.0 U	1 U	9.1	8.9	9.8	5.7	6.3	5 U	1.0 UJ	1.0 UJ
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
1,2-Dichloroethane	5	5	5	0.17	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
1,2-Dichloropropane	5	5	5	0.44	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
1,4-Dioxane	6.4	32		0.46	200 U	2000 U	200 U	200 UJ	200 U	200 U	200 U	200 U	200 U	8 J	1000 U	200 UJ	200 UJ
2-Butanone	4000	4000		5600	5.0 U	50 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	25 U	5.0 UJ	5.0 UJ
2-Hexanone	63	260		38	5.0 U	50 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5 UJ	5 U	25 U	5.0 UJ	5.0 UJ
4-Methyl-2-Pentanone	3300	9300		6300	5.0 U	50 U	5 U	5.0 U	5 U	5 U	5 U	5 U	5.0 U	5 U	25 U	5.0 UJ	5.0 UJ
Acetone	38000	110000		14000	5.0 U ^c	50 U	5 U	5 UJ	5 U	5 U	5 U	5 U	5.0 U	5 U	25 U	5.0 UJ	5.0 UJ
Acrylonitrile	0.72	3.7		0.052	20 U	200 U	20 U	20 U	20 U ^c	20 U	20 U	20 U	20 U	20 U	100 U	20 UJ	20 UJ
Benzene	5	5	5	0.46	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Bromochloromethane	90	90		83	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Bromodichloromethane	80	80		0.13	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Bromoform	80	80		3.3	1.0 U	10 U	1 U	1.0 U	1 U ^c	1 U	1 U	1 U	1 UJ	1 U	5 U	1.0 UJ	1.0 UJ
Bromomethane	10	10		7.5	1.0 U ^c	10 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U ^c	5 U	1.0 UJ	1.0 UJ
Carbon Disulfide	1500	6200		810	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Carbon Tetrachloride	5	5	5	0.46	1.0 U	10 U	1 U	1.0 U	1 U ^c	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Chlorobenzene	100	100	100	78	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Chlorodibromomethane	80	80		0.87	1.0 U	10 U	1 U	1.0 U	1 U ^c	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Chloroethane	250	1200		21000	1.0 U	10 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1 UJ	1 U	5 U	1.0 UJ	1.0 UJ
Chloroform	80	80		0.22	1.0 U	10 U	0.35 J	0.45 J	0.38 J	1 U	1 U	1 U	1.0 U	1 U	0.97 J	0.59 J	0.57 J
Chloromethane	30	30		190	1.0 U ^c	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U ^c	5 U	1.0 UJ	1.0 UJ
cis-1,2-Dichloroethene	70	70	70	36	17	9.2 J	11	10	3.6	5.2	4	4.5	3.7	8.1	2.8 J	6.3 J	5.5 J
cis-1,3-Dichloropropene	7.3	34		0.47	1.0 U	10 U	1 U	1.0 U	1 U ^c	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Ethylbenzene	700	700	700	1.5	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Methyl tert-butyl ether	20	20		14	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Methylene chloride	5	5		11	1.0 U	2.3 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	2.3 J	1.0 UJ	1.0 UJ
Styrene	100	100	100	1200	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Tetrachloroethene	5	5	5	11	1.8	8.8 J	11	11	9.6	12	13	14	12	15 F1	7	11 J	9.8 J
Toluene	1000	1000	1000	1100	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
trans-1,2-Dichloroethene	100	100	100	360	1.0 U	10 U	1 U	1.0 U	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
trans-1,3-Dichloropropene	7.3	34		0.47	1.0 U ^c	10 U	1 U	1.0 U	1 U ^c	1 U	1 U	1 U	1.0 U	1 U ^c	5 U	1.0 UJ	1.0 UJ
Trichloroethene	5	5	5	0.49	6.7	140	140	120	4.5	29	28	30	27	24 F1	79	69 J	71 J
Vinyl Chloride	2	2	2	0.019	1.0 U	10 U	1 U	1 UJ	1 U	1 U	1 U	1 U	1.0 U	1 U	5 U	1.0 UJ	1.0 UJ
Xylenes (Total)	10000	10000	10000	190	2.0 U	30 U	3 U	3.0 U	2 U	3 U	3 U	3 U	3.0 U	2 U	15 U	3.0 UJ	3.0 UJ

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorgai
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID Depth (ft.) Sample Date Parameter	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	MW-103D 10/2/15	MW-103D 10/10/16	MW-103S 9/11/13	MW-103S 10/17/14	MW-103S 10/2/15	MW-103S 10/10/16	MW-142D 5/31/13	MW-142D 9/10/13	MW-142D 10/13/14	MW-142D 10/1/15	MW-142D 10/13/16	MW-142S 5/30/13	MW-142S 9/10/13	MW-142S 10/13/14
TOTAL VOC																		
TOTAL VOC					30.04	21.07	194.7	169.93	130.44	108.7	9.8	5.39	6.2	2.6	5.78	1.82	1.25	1.6
Volatile Organic Compound																		
1,1,1,2-Tetrachloroethane	70	70		0.57	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,1,1-Trichloroethane	200	200	200	8000	1.0 U	1 U	10 U	1.3 J	1.1	0.76 J	1 UJ	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,1,2-Trichloroethane	5	5	5	0.28	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,1-Dichloroethane	31	160		2.8	1.0 U	1 U	10 U	0.22 J	0.16 J	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,1-Dichloroethene	7	7	7	280	1.0 U	1 U	10 U	1.7 J	1.3	0.64 J	1 UJ	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,2-Dichloroethane	5	5	5	0.17	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,2-Dichloropropane	5	5	5	0.44	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
1,4-Dioxane	6.4	32		0.46	200 U	200 U	2000 U	200 UJ	200 UJ	400 U ^c	200 U	200 U	R	200 UJ	200 U	200 U	200 U	R
2-Butanone	4000	4000		5600	5.0 U	5 U	50 U	5.0 UJ	5.0 U	10 U	5 UJ	5 U	5.0 U	5 U	5.0 U	5 U	5 U	5.0 U
2-Hexanone	63	260		38	5.0 U	5 U	50 U	5.0 UJ	5.0 U	10 U	5 UJ	5 U	5.0 U	5 U	5.0 U	5 U	5 U	5.0 U
4-Methyl-2-Pentanone	3300	9300		6300	5.0 U	5 U	50 U	5.0 UJ	5.0 U	10 U	5 UJ	5 U	5.0 U	5 U	5.0 U	5 U	5 U	5.0 U
Acetone	38000	110000		14000	5.0 U	4.1 J ^c	50 U	5.0 UJ	5 UJ	10 U ^c	5 UJ	5 U	5.0 U	5 U	5	5 U	5 U	5.0 U
Acrylonitrile	0.72	3.7		0.052	20 U	20 U	200 U	20 UJ	20 U	40 U ^c	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.46	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Bromochloromethane	90	90		83	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Bromodichloromethane	80	80		0.13	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Bromoform	80	80		3.3	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Bromomethane	10	10		7.5	1 UJ	1 U ^c	10 U	1.0 UJ	1 UJ	2 U ^c	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U
Carbon Disulfide	1500	6200		810	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 UJ	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Carbon Tetrachloride	5	5	5	0.46	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 UJ	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Chlorobenzene	100	100	100	78	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Chlorodibromomethane	80	80		0.87	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Chloroethane	250	1200		21000	1.0 U	1 U	10 U	1.0 UJ	1 UJ	2 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U
Chloroform	80	80		0.22	0.44 J	0.57 J	2.6 J	0.51 J	0.48 J	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Chloromethane	30	30		190	1.0 U	1 U ^c	10 U	1.0 UJ	1.0 U	2 U ^c	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
cis-1,2-Dichloroethene	70	70	70	36	2	1.7	7.1 J	7.2 J	5.4	4.3	9.8	5.1	6.2	2.6	0.78 J	1.5	1.1	1.6
cis-1,3-Dichloropropene	7.3	34		0.47	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Ethylbenzene	700	700	700	1.5	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Methyl tert-butyl ether	20	20		14	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 UJ	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Methylene chloride	5	5		11	1.0 U	1 U	9.7 U	1.0 UJ	1.0 U	2 U	1 UJ	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Styrene	100	100	100	1200	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Tetrachloroethene	5	5	5	11	9.6	10	25	29 J	28	27	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Toluene	1000	1000	1000	1100	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 U	0.29 J	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
trans-1,2-Dichloroethene	100	100	100	360	1.0 U	1 U	10 U	1.0 UJ	1.0 U	2 U	1 UJ	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
trans-1,3-Dichloropropene	7.3	34		0.47	1.0 U	1 U ^c	10 U	1.0 UJ	1.0 U	2 U	1 U	1 U	1.0 U	1 U	1.0 U	1 U	1 U	1.0 U
Trichloroethene	5	5	5	0.49	18	4.7	160	130 J	94	76	1 U	1 U	1.0 U	1 U	1.0 U	0.32 J	0.15 J	1.0 U
Vinyl Chloride	2	2	2	0.019	1.0 U	1 U	10 U	1.0 UJ	1 UJ	2 U ^c	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U
Xylenes (Total)	10000	10000	10000	190	3.0 U	2 U	30 U	3.0 UJ	3.0 U	4 U	3 U	3 U	3.0 U	3 U	2.0 U	3 U	3 U	3.0 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorgai
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

Location/ID	PA MSC	PA MSC	Federal	EPA	MW-142S	MW-142S	MW-143D	MW-143D	MW-143D	MW-143D	MW-143D	MW-143S	MW-143S	MW-143S	MW-143S	MW-143S	RW-2	RW-2	RW-2
Depth (ft.)																			
Sample Date	UA R	UA NR	MCL	RSL	10/1/15	10/13/16	5/31/13	9/9/13	10/13/14	9/30/15	10/7/16	5/30/13	9/9/13	10/15/14	9/30/15	10/7/16	5/29/13	9/10/13	10/20/14
Parameter	(ug/L)	(ug/L)	(ug/L)	(ug/L)															
TOTAL VOC																			
TOTAL VOC					2.05	6.8	0	0.25	0.34	0.39	0.66	2.67	4.1	2.74	2.2	2.06	1.2	2.16	3.27
Volatile Organic Compound																			
1,1,1,2-Tetrachloroethane	70	70		0.57	1 U	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U
1,1,1-Trichloroethane	200	200	200	8000	1 U	1.0 U	1 UJ	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
1,1,2-Trichloroethane	5	5	5	0.28	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
1,1-Dichloroethane	31	160		2.8	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
1,1-Dichloroethene	7	7	7	280	1 U	1.0 U	1 UJ	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
1,2-Dichloroethane	5	5	5	0.17	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
1,2-Dichloropropane	5	5	5	0.44	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
1,4-Dioxane	6.4	32		0.46	200 UJ	200 U	200 U	200 U	R	200 UJ	200 U	200 U	200 U	200 U	200 UJ	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		5600	5 U	5.0 U	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U
2-Hexanone	63	260		38	5 U	5.0 U	5 UJ	5 U	5.0 U	5 UJ	5.0 U	5 U	5 U	5.0 U	5 UJ	5.0 U	5 U	5 U	5.0 U
4-Methyl-2-Pentanone	3300	9300		6300	5 U	5.0 U	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U
Acetone	38000	110000		14000	5 U	4.2 J	5 UJ	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5.0 U
Acrylonitrile	0.72	3.7		0.052	20 U	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U	20 UJ	20 U	20 U	20 U	20 U
Benzene	5	5	5	0.46	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Bromochloromethane	90	90		83	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Bromodichloromethane	80	80		0.13	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Bromoform	80	80		3.3	1 U	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U
Bromomethane	10	10		7.5	1 UJ	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U ^c	1 U	1 U	1.0 U	1 UJ	1.0 U ^c	1 U	1 U	1.0 U
Carbon Disulfide	1500	6200		810	1 U	1.0 U	1 UJ	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Carbon Tetrachloride	5	5	5	0.46	1 U	1.0 U	1 UJ	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Chlorobenzene	100	100	100	78	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Chlorodibromomethane	80	80		0.87	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Chloroethane	250	1200		21000	1 UJ	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Chloroform	80	80		0.22	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	0.17 J
Chloromethane	30	30		190	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U ^c	1 U	1 U	1.0 U	1.0 U	1.0 U ^c	1 U	1 U	1.0 U
cis-1,2-Dichloroethene	70	70	70	36	1.9	2.6	1 U	0.25 J	0.34 J	0.39 J	0.66 J	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
cis-1,3-Dichloropropene	7.3	34		0.47	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Ethylbenzene	700	700	700	1.5	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Methyl tert-butyl ether	20	20		14	1 U	1.0 U	1 UJ	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Methylene chloride	5	5		11	1 U	1.0 U	1 UJ	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Styrene	100	100	100	1200	1 U	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1.0 U
Tetrachloroethene	5	5	5	11	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	0.77 J	1.1	0.84 J	1.0 U	0.76 J	1 U	1 U	1.0 U
Toluene	1000	1000	1000	1100	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	0.26 J	1.0 U
trans-1,2-Dichloroethene	100	100	100	360	1 U	1.0 U	1 UJ	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
trans-1,3-Dichloropropene	7.3	34		0.47	1 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U ^c	1 U	1 U	1.0 U	1.0 U	1.0 U ^c	1 U	1 U	1.0 U
Trichloroethene	5	5	5	0.49	0.15 J	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1.9	3	1.9	2.2	1.3	1.2	1.9	3.1
Vinyl Chloride	2	2	2	0.019	1 UJ	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1.0 U
Xylenes (Total)	10000	10000	10000	190	3 U	2.0 U	3 U	3 U	3.0 U	3.0 U	2.0 U	3 U	3 U	3.0 U	3.0 U	2.0 U	3 U	3 U	3.0 U

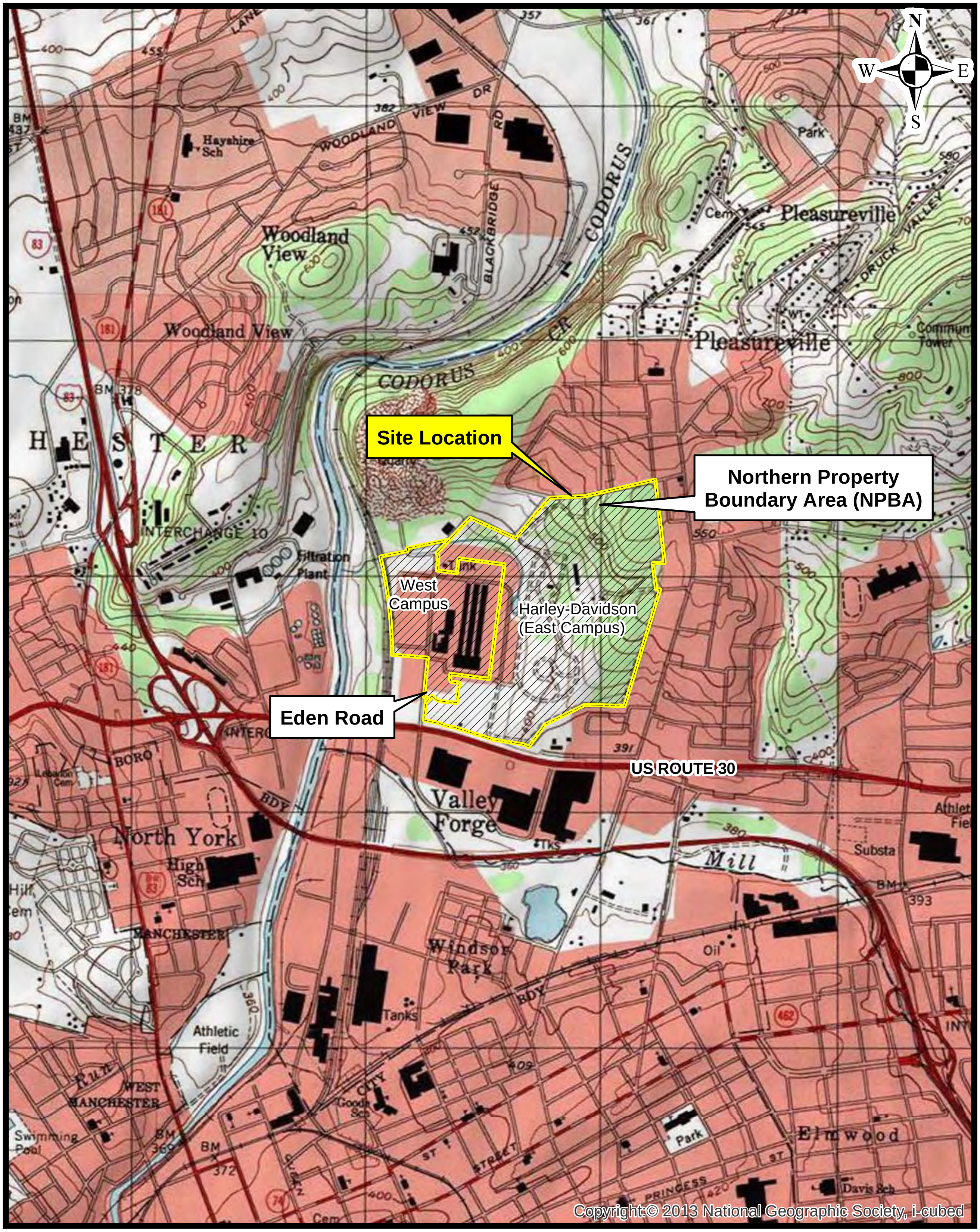
Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorgai
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Table 2
Groundwater Data Summary - NPBA
Former York Naval Ordnance Plant - York, PA

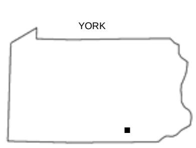
Location/ID Depth (ft.) Sample Date Parameter	PA MSC UA R (ug/L)	PA MSC UA NR (ug/L)	Federal MCL (ug/L)	EPA RSL (ug/L)	RW-2 9/16/15	RW-2 10/3/16	RW-4 Folk 5/30/13	RW-4 Folk 9/11/13	RW-4 Folk 10/24/14	RW-4 Folk 9/16/15	RW-4 Folk 10/1/16	TATE (S-6) 5/29/13	TATE (S-6) 9/11/13	TATE (S-6) 10/22/14	TATE (S-6) 10/2/15	TATE (S-6) 10/6/16
TOTAL VOC																
TOTAL VOC					4.03	8.2	0.24	0.53	0	0.5	3.66	0.25	0.47	0	0.23	5.8
Volatile Organic Compound																
1,1,1,2-Tetrachloroethane	70	70		0.57	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,1,1-Trichloroethane	200	200	200	8000	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,1,2,2-Tetrachloroethane	0.84	4.3		0.076	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,1,2-Trichloroethane	5	5	5	0.28	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,1-Dichloroethane	31	160		2.8	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,1-Dichloroethene	7	7	7	280	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,2-Dibromoethane	0.05	0.05	0.05	0.0075	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,2-Dichloroethane	5	5	5	0.17	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,2-Dichloropropane	5	5	5	0.44	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
1,4-Dioxane	6.4	32		0.46	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U	200 U
2-Butanone	4000	4000		5600	5.0 U	5.0 U ^c	5 U	5 U	5.0 U	5 UJ	5.0 U	5 U	5 U	5 U	5.0 U	5 U ^c
2-Hexanone	63	260		38	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5 U	5 UJ	5 U
4-Methyl-2-Pentanone	3300	9300		6300	5.0 U	5.0 U	5 U	5 U	5.0 U	5.0 U	5.0 U	5 U	5 U	5 U	5.0 U	5 U
Acetone	38000	110000		14000	5.0 U	4.5 J ^c	5 U	5 U	5.0 U	5 UJ	3.2 J ^c	5 U	5 U	5 U	5.0 U	5.8 ^c
Acrylonitrile	0.72	3.7		0.052	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U ^c
Benzene	5	5	5	0.46	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Bromochloromethane	90	90		83	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Bromodichloromethane	80	80		0.13	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Bromoform	80	80		3.3	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 UJ	1 U
Bromomethane	10	10		7.5	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 UJ	1 U
Carbon Disulfide	1500	6200		810	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Carbon Tetrachloride	5	5	5	0.46	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Chlorobenzene	100	100	100	78	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Chlorodibromomethane	80	80		0.87	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Chloroethane	250	1200		21000	1.0 U	1.0 U ^c	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1 UJ	1 U
Chloroform	80	80		0.22	0.23 J	1.0 U	0.24 J	0.53 J	1.0 U	0.50 J	0.46 J	0.25 J	0.47 J	1 U	0.23 J	1 U
Chloromethane	30	30		190	1.0 U	1.0 U ^c	1 U	1 U	1.0 U	1 UJ	1.0 U	1 U	1 U	1 U	1.0 U	1 U ^c
cis-1,2-Dichloroethene	70	70	70	36	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
cis-1,3-Dichloropropene	7.3	34		0.47	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Ethylbenzene	700	700	700	1.5	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Methyl tert-butyl ether	20	20		14	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Methylene chloride	5	5		11	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Styrene	100	100	100	1200	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Tetrachloroethene	5	5	5	11	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Toluene	1000	1000	1000	1100	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
trans-1,2-Dichloroethene	100	100	100	360	1.0 U	1.0 U	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
trans-1,3-Dichloropropene	7.3	34		0.47	1.0 U	1.0 U ^c	1 U	1 U	1.0 U	1.0 U	1.0 U ^c	1 U	1 U	1 U	1.0 U	1 U ^c
Trichloroethene	5	5	5	0.49	3.8	3.7	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U
Vinyl Chloride	2	2	2	0.019	1.0 U	1.0 U ^c *	1 U	1 U	1.0 U	1.0 U	1.0 U	1 U	1 U	1 U	1.0 U	1 U ^c
Xylenes (Total)	10000	10000	10000	190	3.0 U	2.0 U	3 U	3 U	3.0 U	3.0 U	2.0 U	3 U	3 U	3 U	3.0 U	2 U

Blank results = analyte not analyzed. U = Not detected. J = Organics; estimated. Inorga
E = Inorganics: matrix interference. ^c = CCV Recovery is outside acceptance limits.

Figures



Portion of the York and York Haven PA
7.5-minute USGS Quadrangles
(2001)



Scale (feet)
0 500 1,000 2,000

Figure 1

Former York Naval Ordnance Plant
1425 Eden Road, York, PA 17402

Site Location Map

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Former York Naval Ordnance Plant

1425 Eden Road, York, PA 17402

Northern Property Boundary Area Well Locations

DRAWN BY: AM/JB	CHECKED AND APPROVED BY: SS/CO	DATE: 4/17/2017

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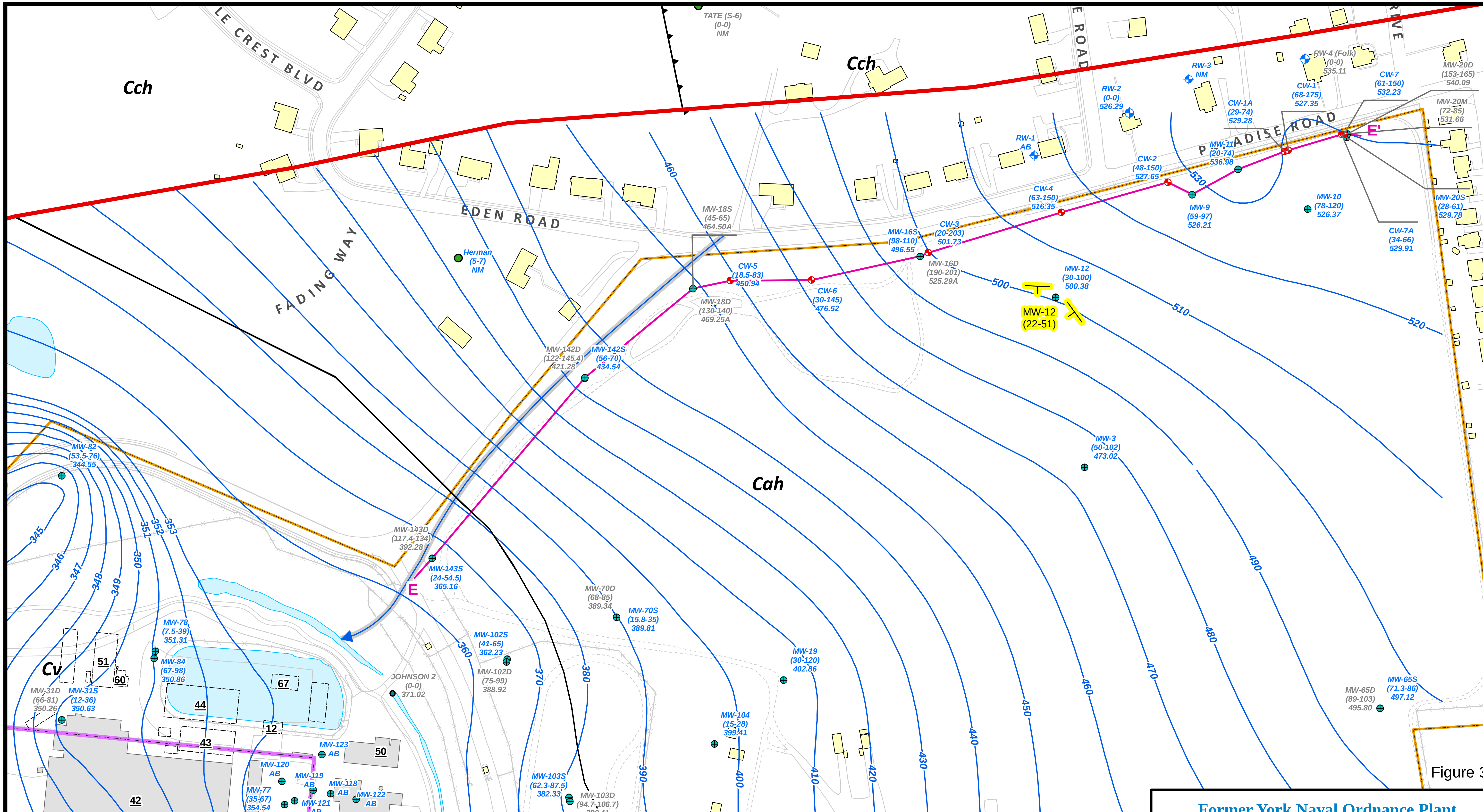

Figure 3

LEGEND

- Strike and Dip (with Degree of Dip Angle)
- Residential Well (Non-Potable)
- Collection Well (Inactive)
- Monitoring Well
- Spring
- Cross SectionTransect
- Groundwater Contour Depression (Feet AMSL)
- Groundwater Contour (Feet AMSL)
- Inferred Groundwater Contour (Feet AMSL)
- Flow Direction
- Block Fault
- Thrust Fault
- (Cah) Antietam & Harpers Formation, undiv.
- (Cch) Chickies Formation
- (Cv) Vintage Formation
- Harley-Davidson Property Boundary (East Campus)
- West Campus Property Boundary
- Existing Building
- Demolished
- Demolished/Slab Removed
- Road (Paved), Curb or Walkwalk
- Road (Unpaved)
- Fenceline
- Existing Water Feature

MW-20S
(28-61)
531.67
Location ID
Screened or Open Interval (Feet BGS)
Groundwater Elevation (Feet AMSL)
Used in Contouring

MW-20M
(72-85)
532.33
Location ID
Screened or Open Interval (Feet BGS)
Groundwater Elevation (Feet AMSL)
Not Used in Contouring

NOTES:
AMSL- Above mean sea level.
BGS - Below Ground Surface
A - Artesian
AB - Abandoned
NM - Groundwater Level Not Measured
Well screen intervals for RW-2, RW-4, and springs shown as (0-0) are unknown.

N W E S

Scale (feet)
0 87.5 175 350

Former York Naval Ordnance Plant

1425 Eden Road, York, PA 17402

Groundwater Elevation Contour Map
October 3, 2016

DRAWN BY: AM/JB	CHECKED AND APPROVED BY: SS/CO	DATE: 4/17/2017

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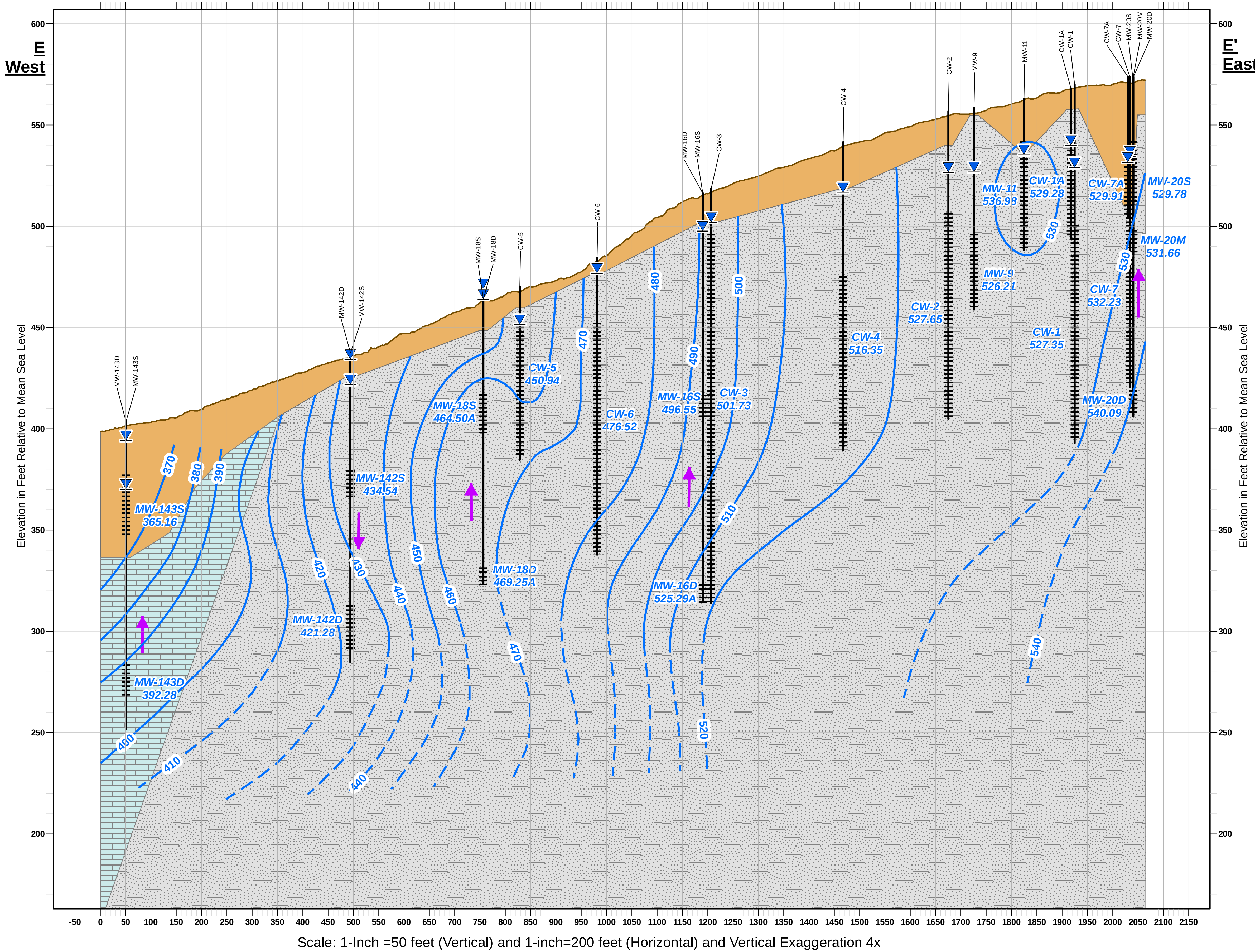
GROUNDWATER SCIENCES CORPORATION



Legend

- Well
- Open Interval
- Overburden
- Limestone/Dolostone
- Sandstone/Quartzite
- Water Level
- Water Level Contour (feet)
- Inferred Water Level Contour (feet)
- Vertical Gradient

531.67' Groundwater Elevation Measured on October 3, 2016

NM Groundwater Elevation Not Measured

"A" Indicates artesian conditions.

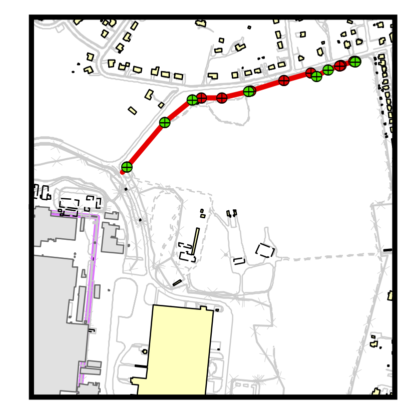


Figure 4

Former York Naval Ordnance Plant

1425 Eden Road, York, PA 17402

Cross Section E-E'
Piezometric Levels
October 3, 2016

DRAWN BY: AM/JB	CHECKED AND APPROVED BY: SS/CO	DATE: 4/17/2017

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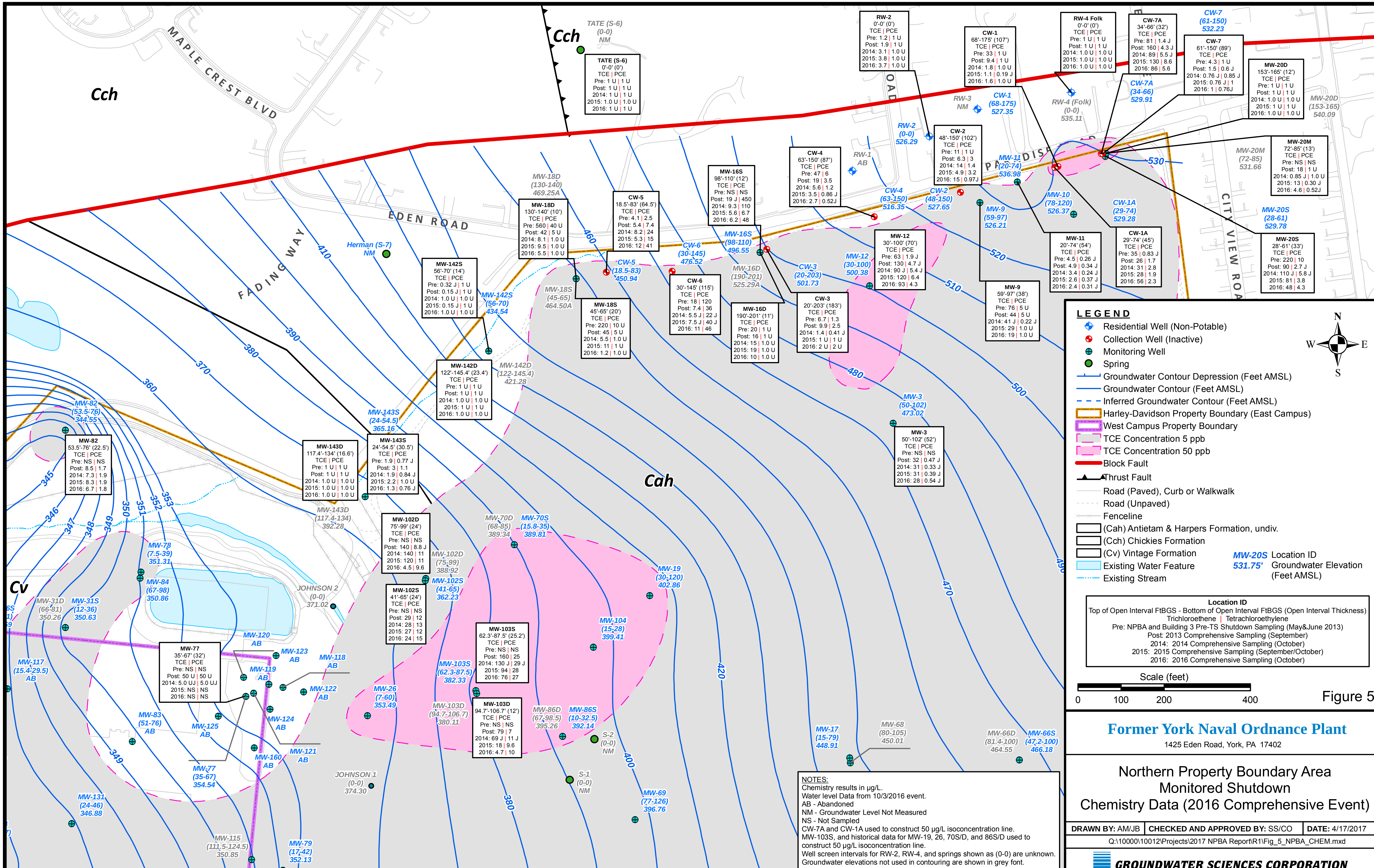
GROUNDWATER SCIENCES CORPORATION



LEGEND
Residential Well (Non-Potable)
Collection Well (Inactive)
Monitoring Well
Spring
Groundwater Contour Depression (Feet AMSL)
Groundwater Contour (Feet AMSL)
Inferred Groundwater Contour (Feet AMSL)
Harley-Davidson Property Boundary (East Campus)
West Campus Property Boundary
TCE Concentration 5 ppb
TCE Concentration 50 ppb
Block Fault
Thrust Fault
Road (Paved), Curb or Walkwalk
Road (Unpaved)
Fenceline
(Cah) Antietam & Harpers Formation, undiv.
(Cch) Chickies Formation
(Cv) Vintage Formation
Existing Water Feature
Existing Stream
MW-20S Location ID
531.75' Groundwater Elevation (Feet AMSL)
Location ID
Top of Open Interval FtBGS - Bottom of Open Interval FtBGS (Open Interval Thickness)
Trichloroethene | Tetrachloroethylene
Pre: NPBA and Building 3 Pre-TS Shutdown Sampling (May&June 2013)
Post: 2013 Comprehensive Sampling (September)
2014: 2014 Comprehensive Sampling (October)
2015: 2015 Comprehensive Sampling (September/October)
2016: 2016 Comprehensive Sampling (October)
Scale (feet)
0 100 200 400
N S E W
Cch
Cah
Cv
MAPLE CREST BLVD
EDEN ROAD
FADING WAY
CITY VIEW ROAD
NOTES:
Chemistry results in µg/L.
Water level Data from 10/3/2016 event.
AB - Abandoned
NM - Groundwater Level Not Measured
NS - Not Sampled
CW-7A and CW-1A used to construct 50 µg/L isoconcentration line.
MW-103S, and historical data for MW-19, 26, 70S/D, and 86S/D used to construct 50 µg/L isoconcentration line.
Well screen intervals for RW-2, RW-4, and springs shown as (0-0) are unknown.
Groundwater elevations not used in contouring are shown in grey font.
Figure 5
Former York Naval Ordnance Plant
1425 Eden Road, York, PA 17402
Northern Property Boundary Area
Monitored Shutdown
Chemistry Data (2016 Comprehensive Event)
DRAWN BY: AM/JB
CHECKED AND APPROVED BY: SS/CO
DATE: 4/17/2017
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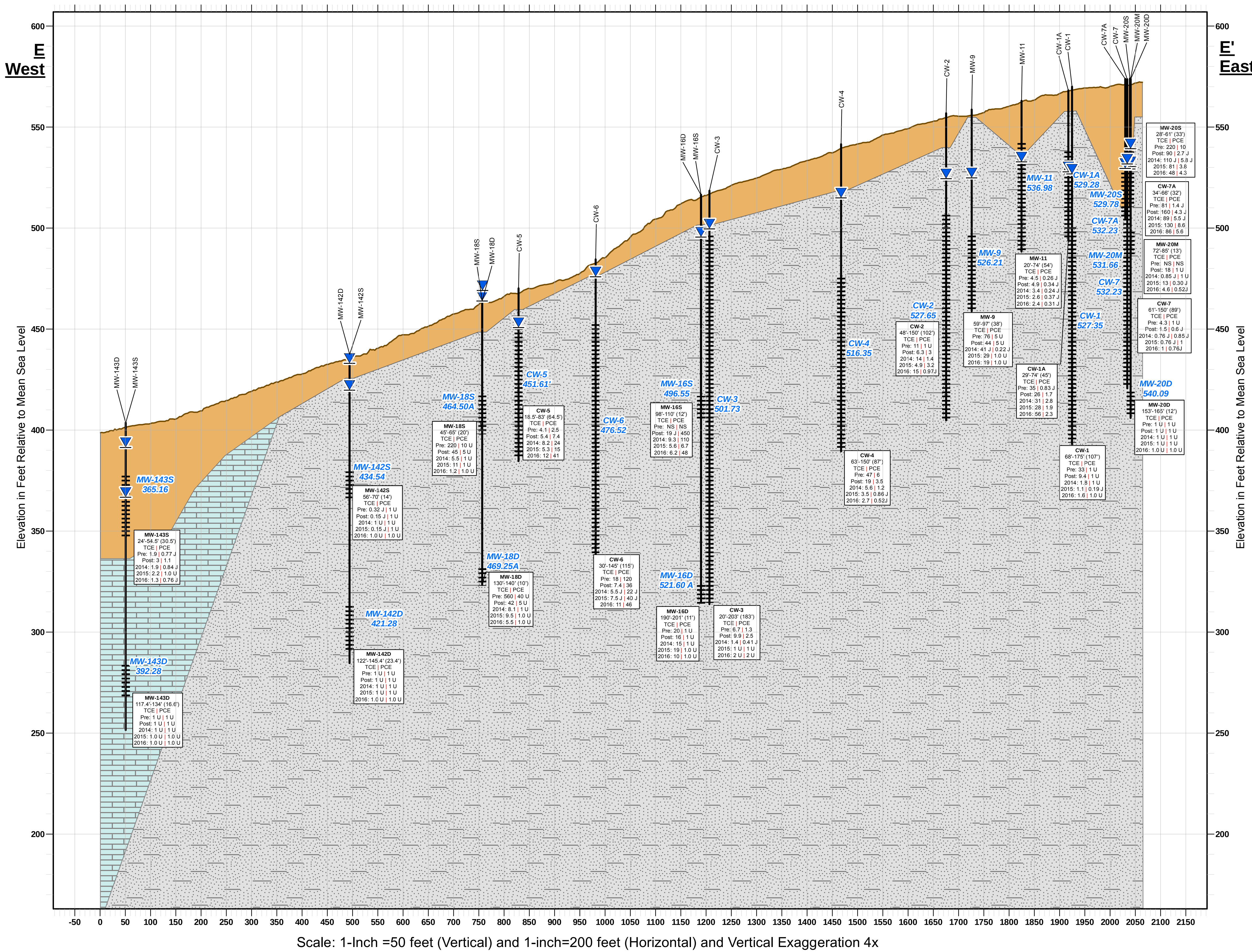
GROUNDWATER SCIENCES CORPORATION



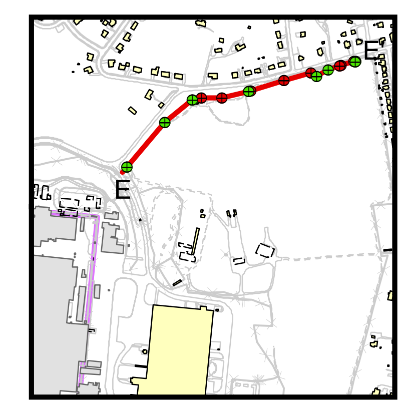


Figure 6

Former York Naval Ordnance Plant

1425 Eden Road, York, PA 17402

Cross Section E-E'
Pre-& Post-Shutdown Chemistry

DRAWN BY: AGM | CHECKED AND APPROVED BY: SS/CO | DATE: 4/17/2017

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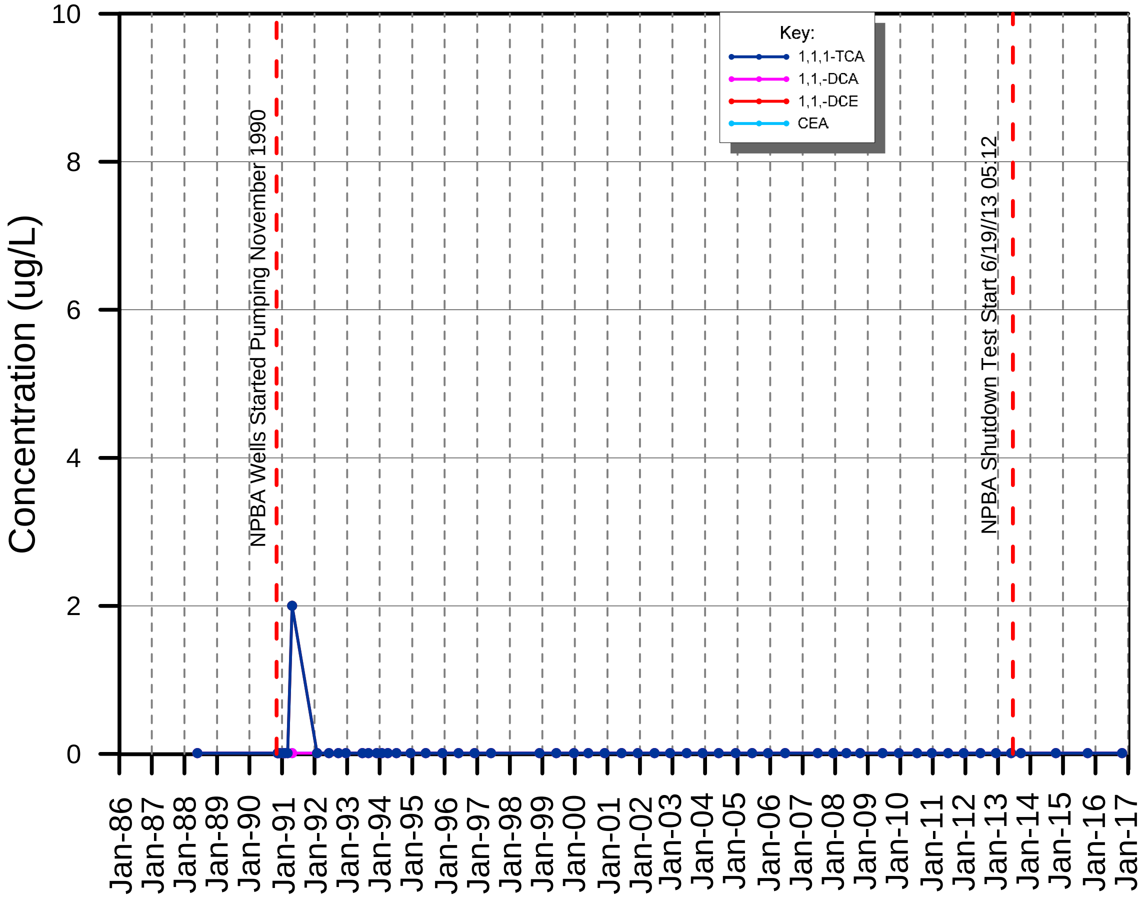
Appendix A

NPBA Shutdown Chemistry Graphs

Undetected laboratory results are represented on the semi-log graphs as a concentration of 0.01 µg/L, regardless of method detection limit or laboratory reporting limit. "J" qualified (estimated) results were plotted as actual values.

CW-1



Concentration (ug/L)
10
8
6
4
2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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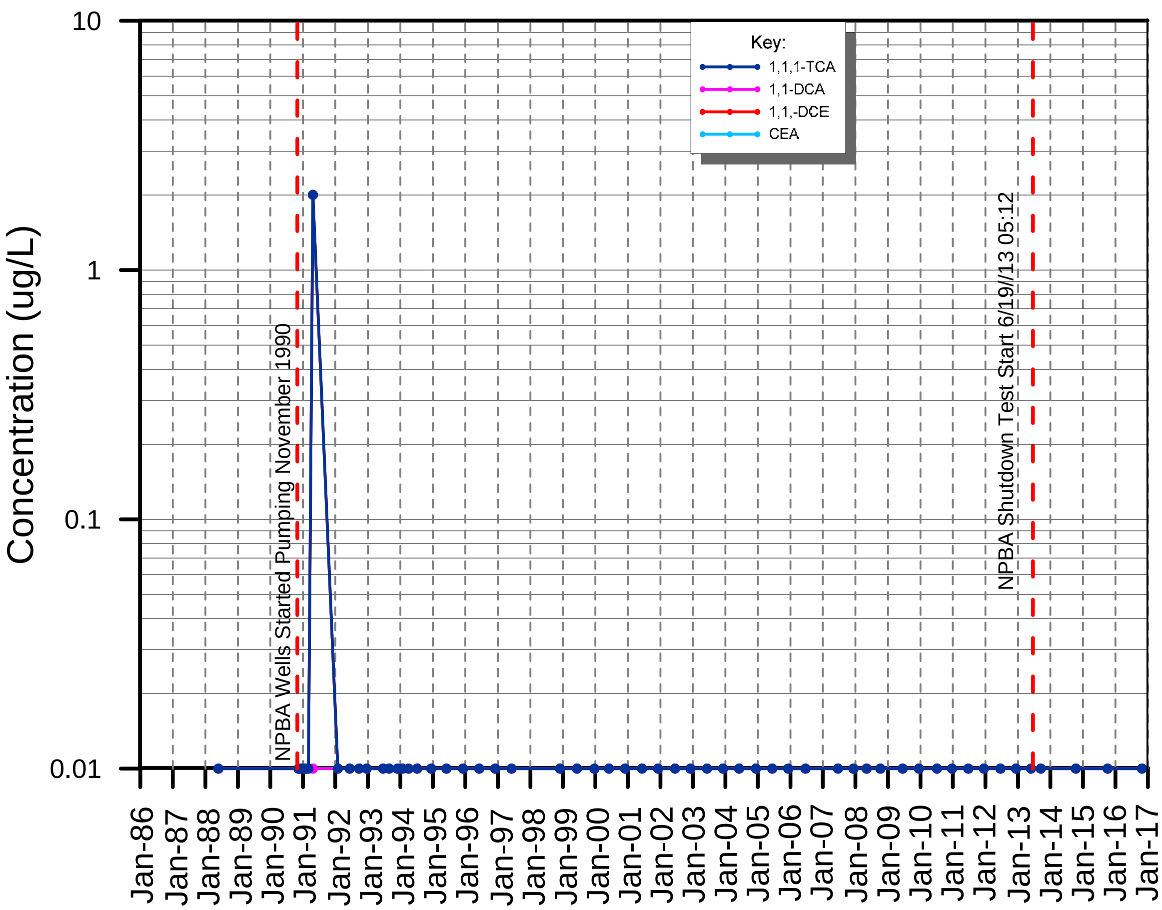
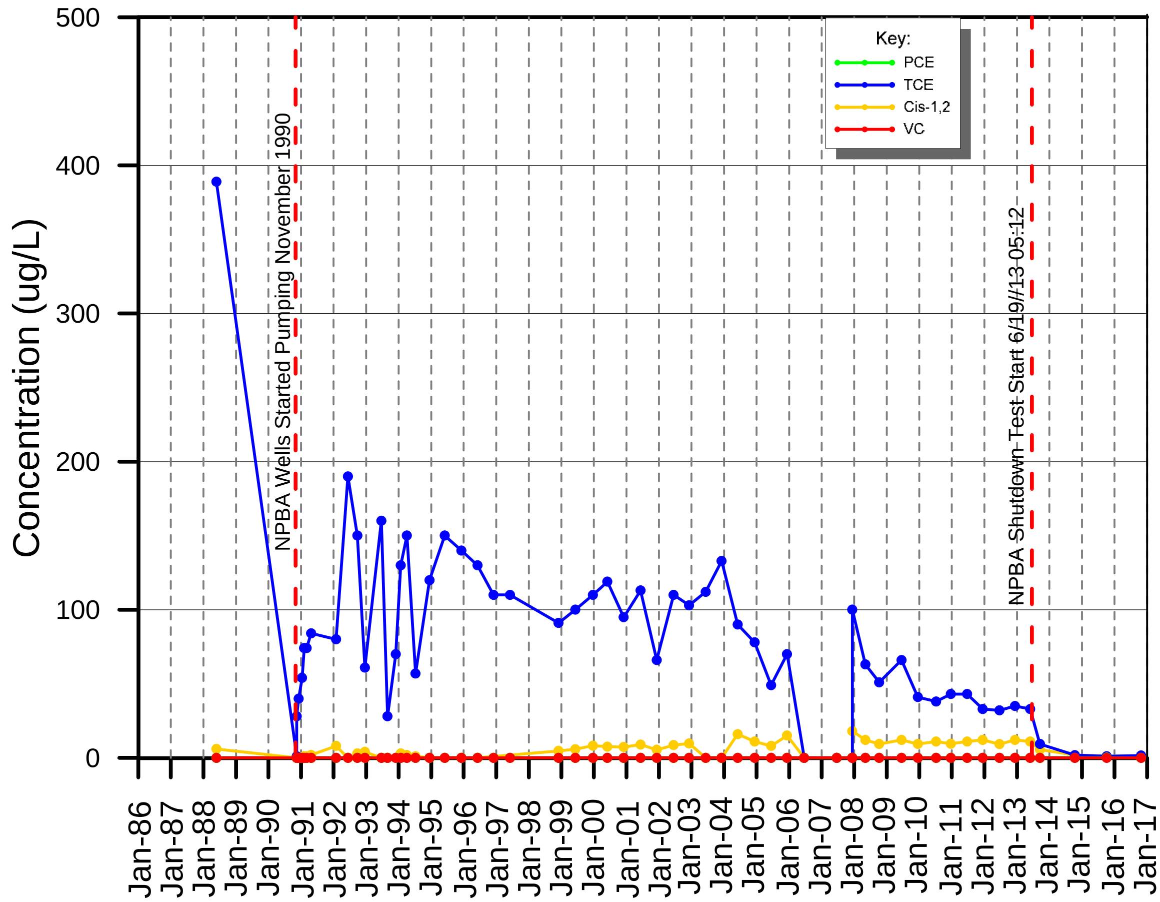
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
10
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

CW-1


Concentration (ug/L)
500
400
300
200
100
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
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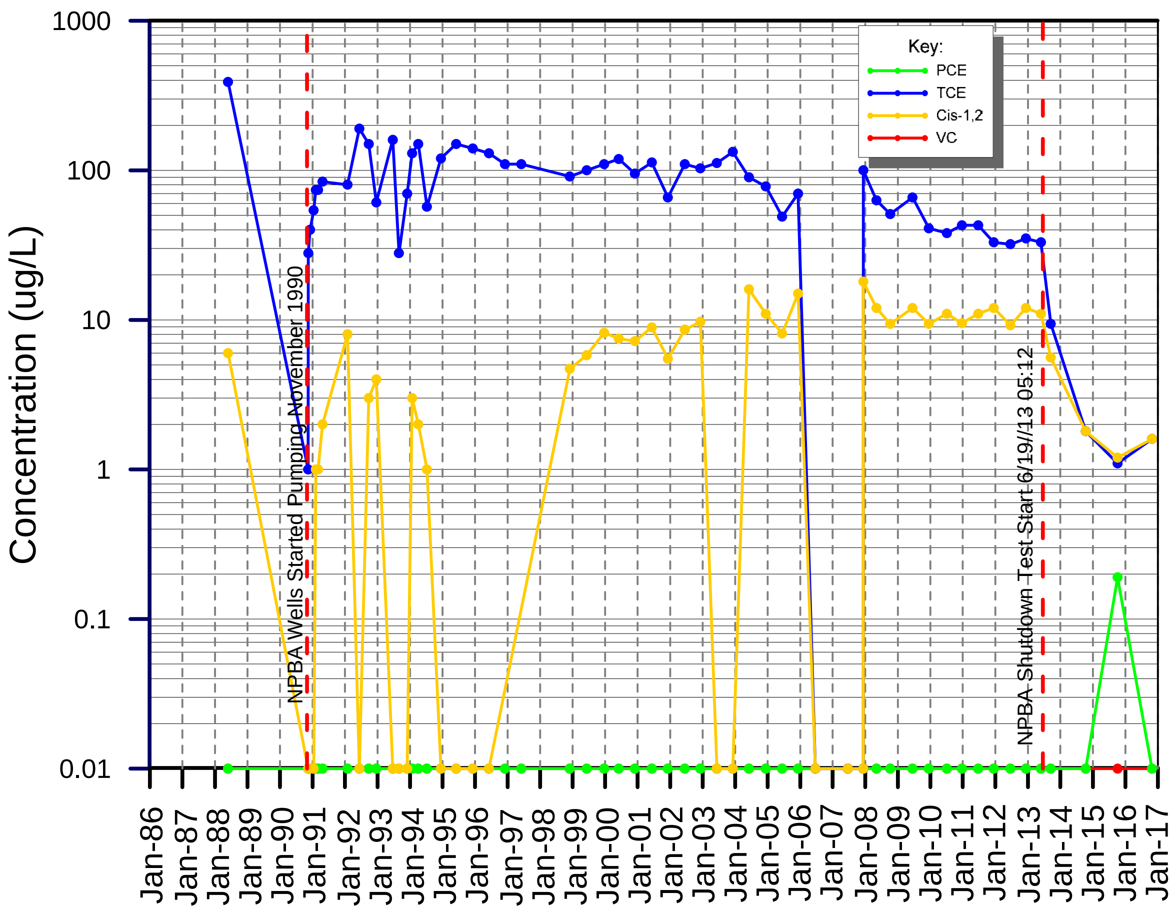
Jan-17


Concentration (ug/L)
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19/13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
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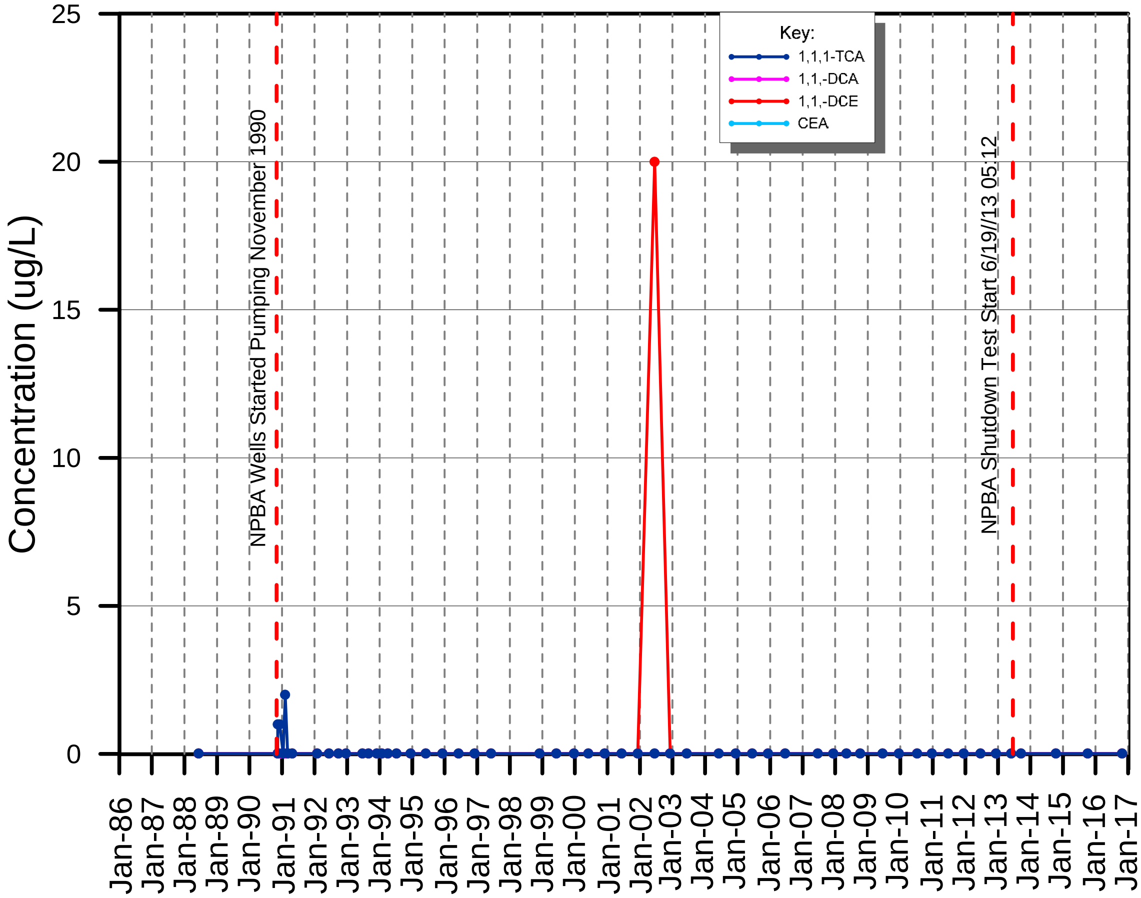
Jan-15
Jan-16
Jan-17

CW-1A



Concentration (ug/L)
25
20
15
10
5
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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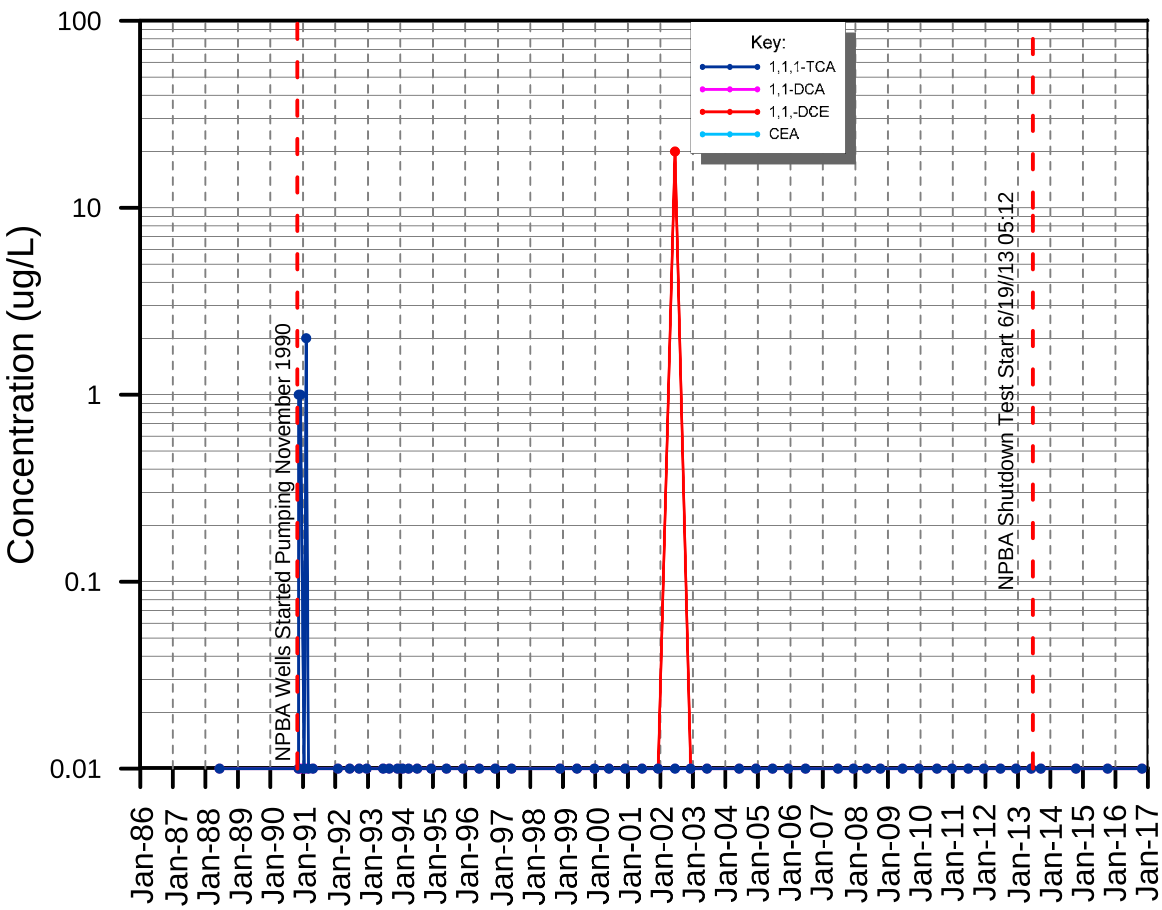
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
100
10
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19/13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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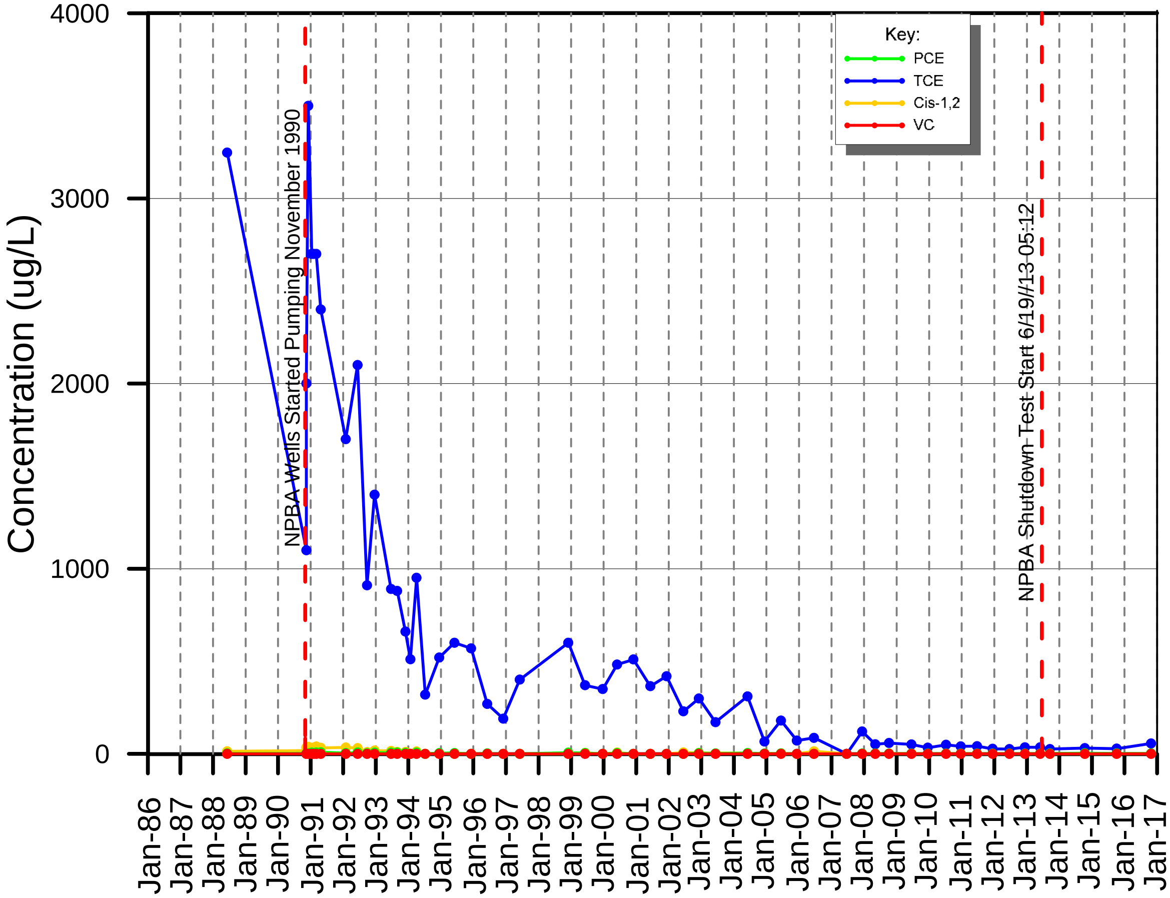
Jan-15
Jan-16
Jan-17

CW-1A



Concentration (ug/L)
4000
3000
2000
1000
0
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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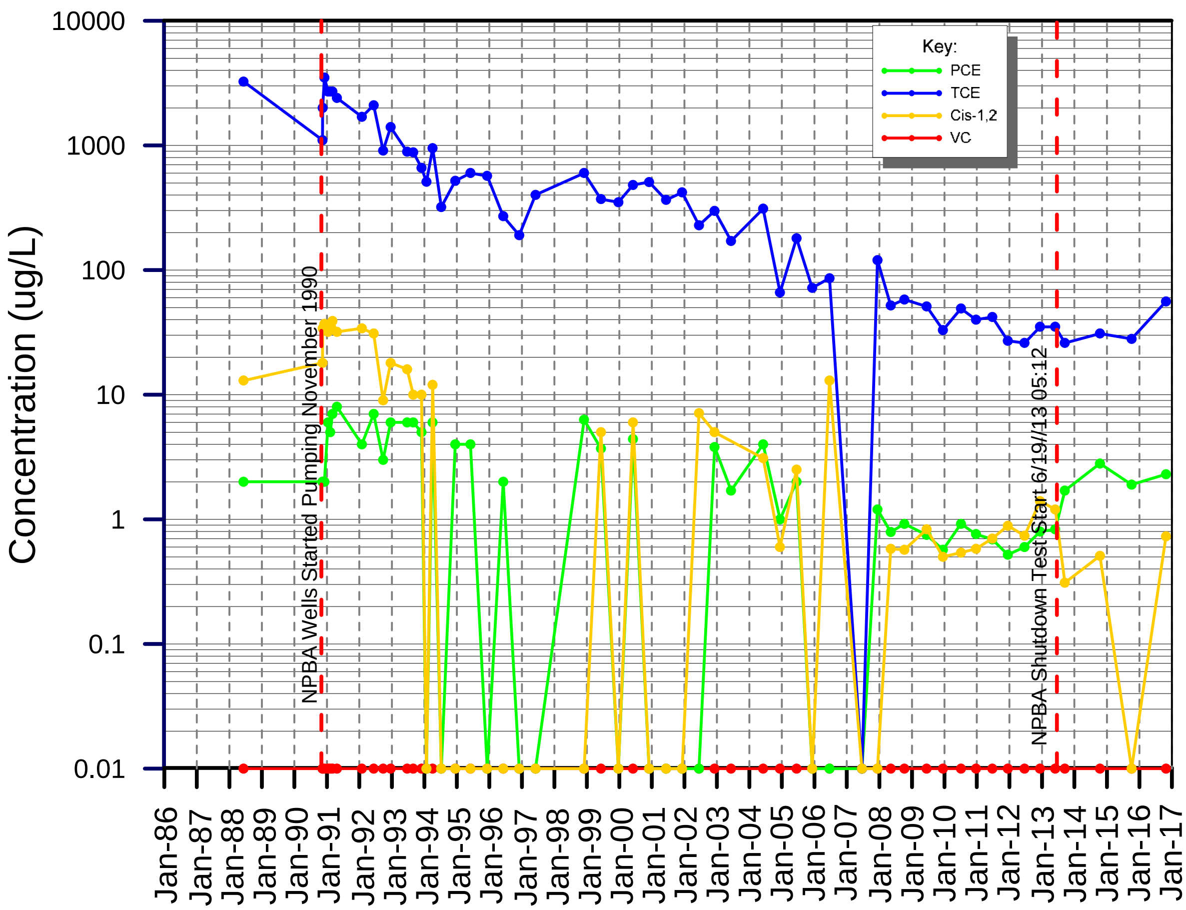
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19/13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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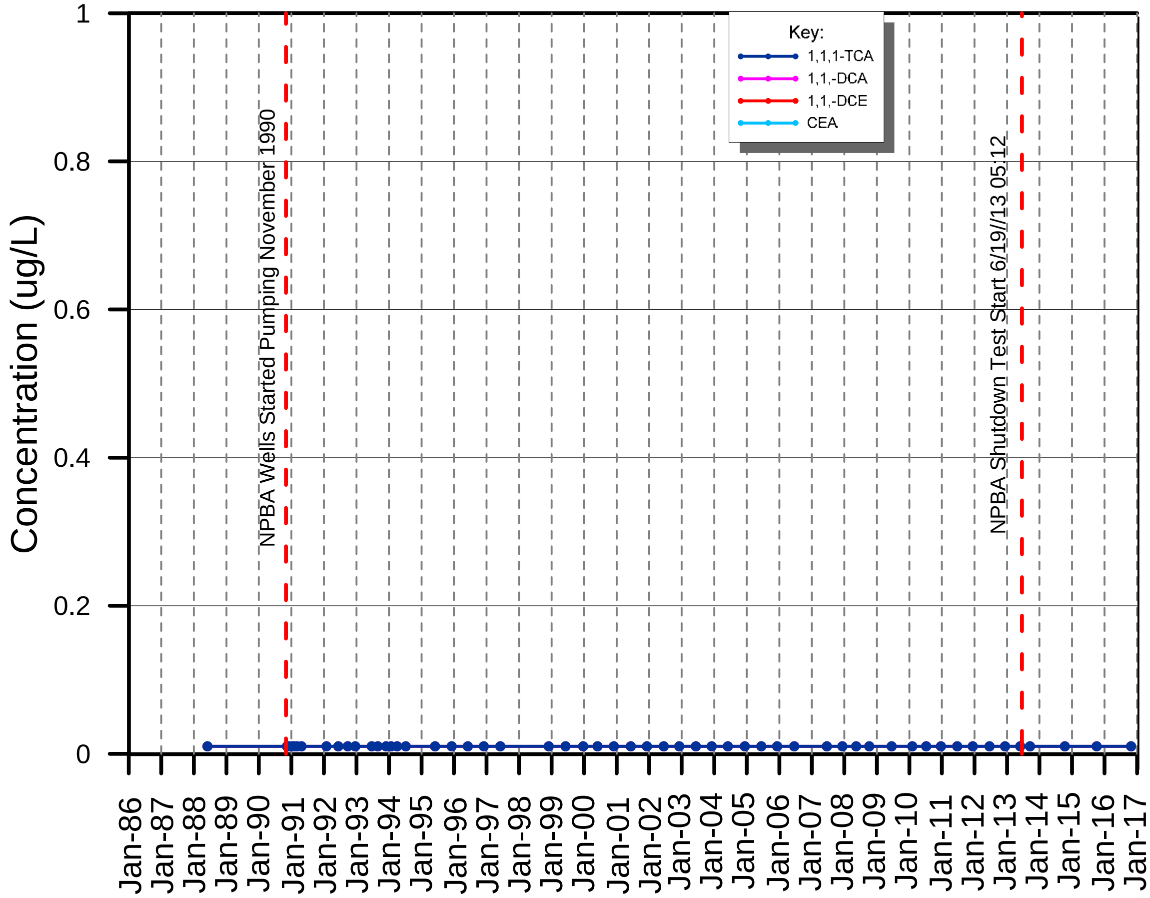
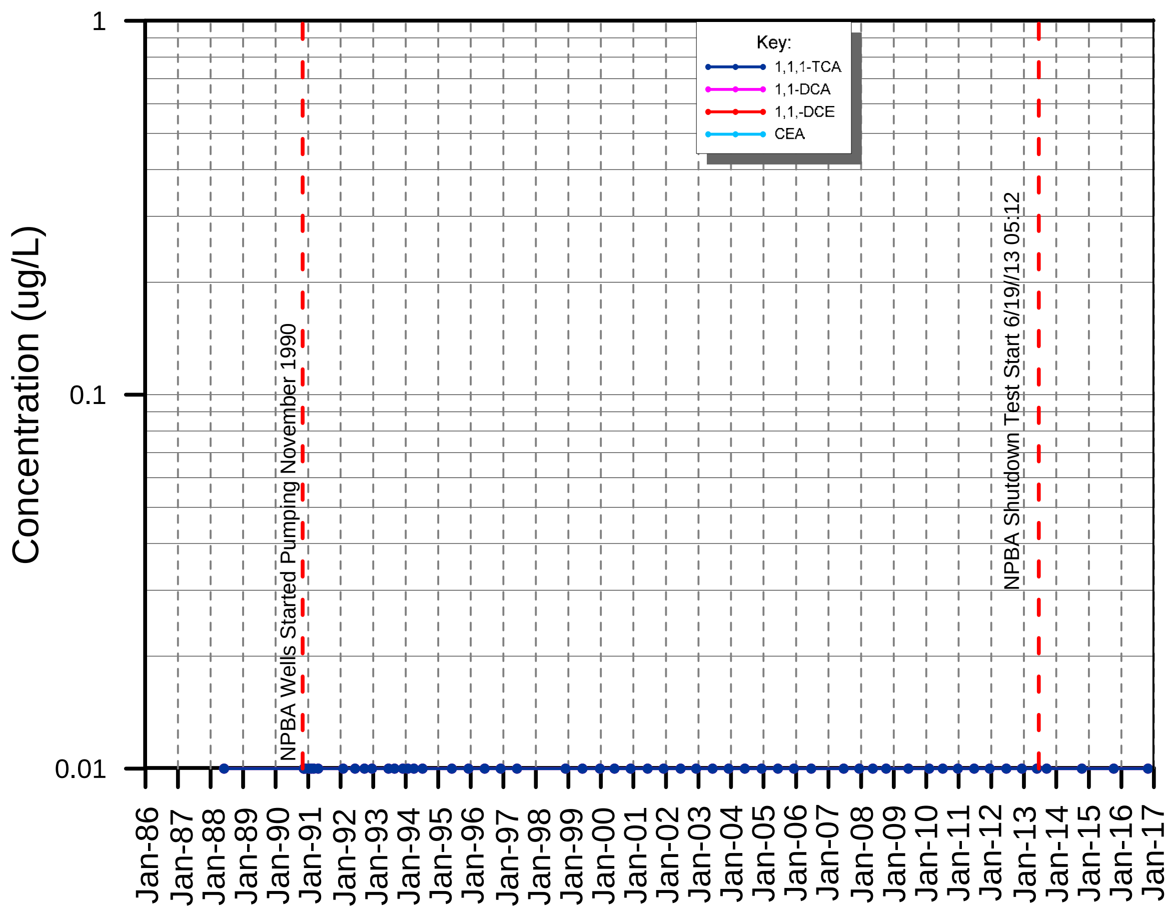
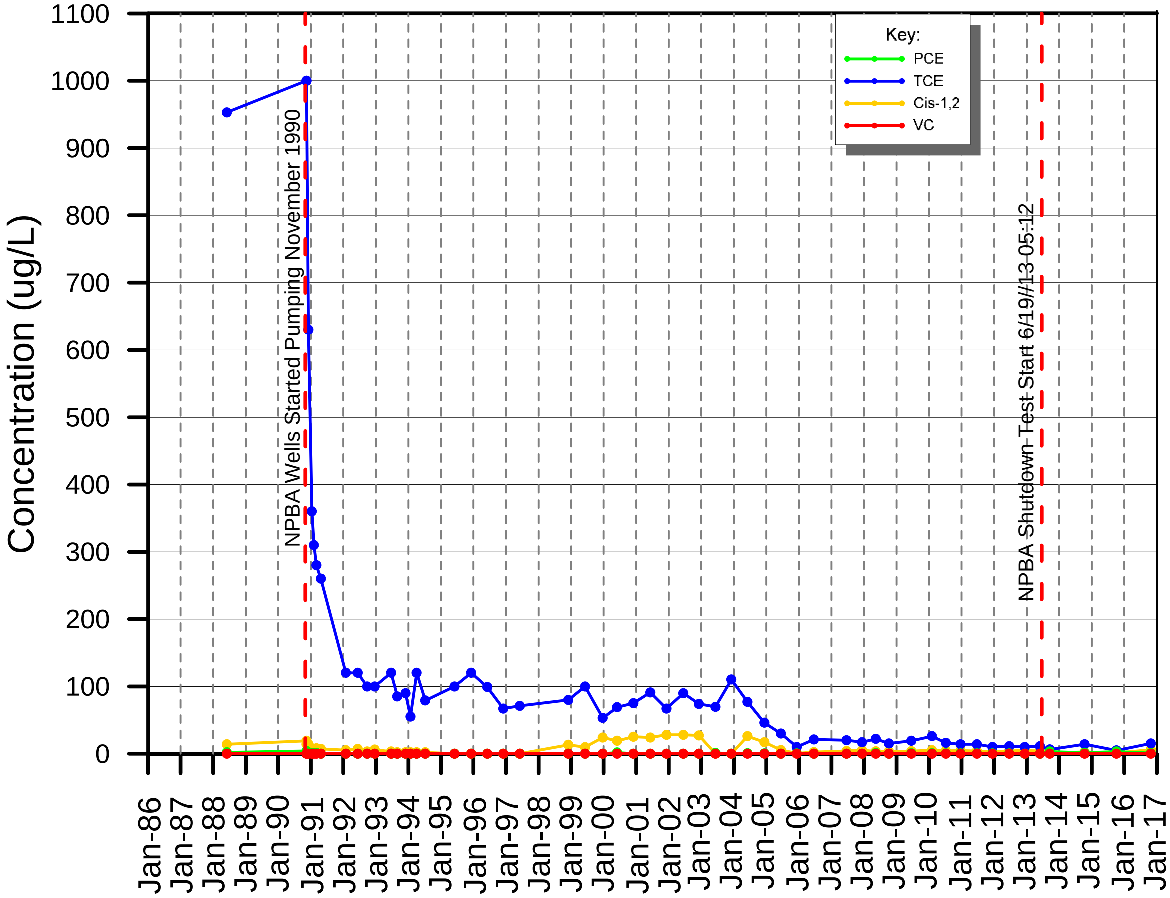
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

CW-2

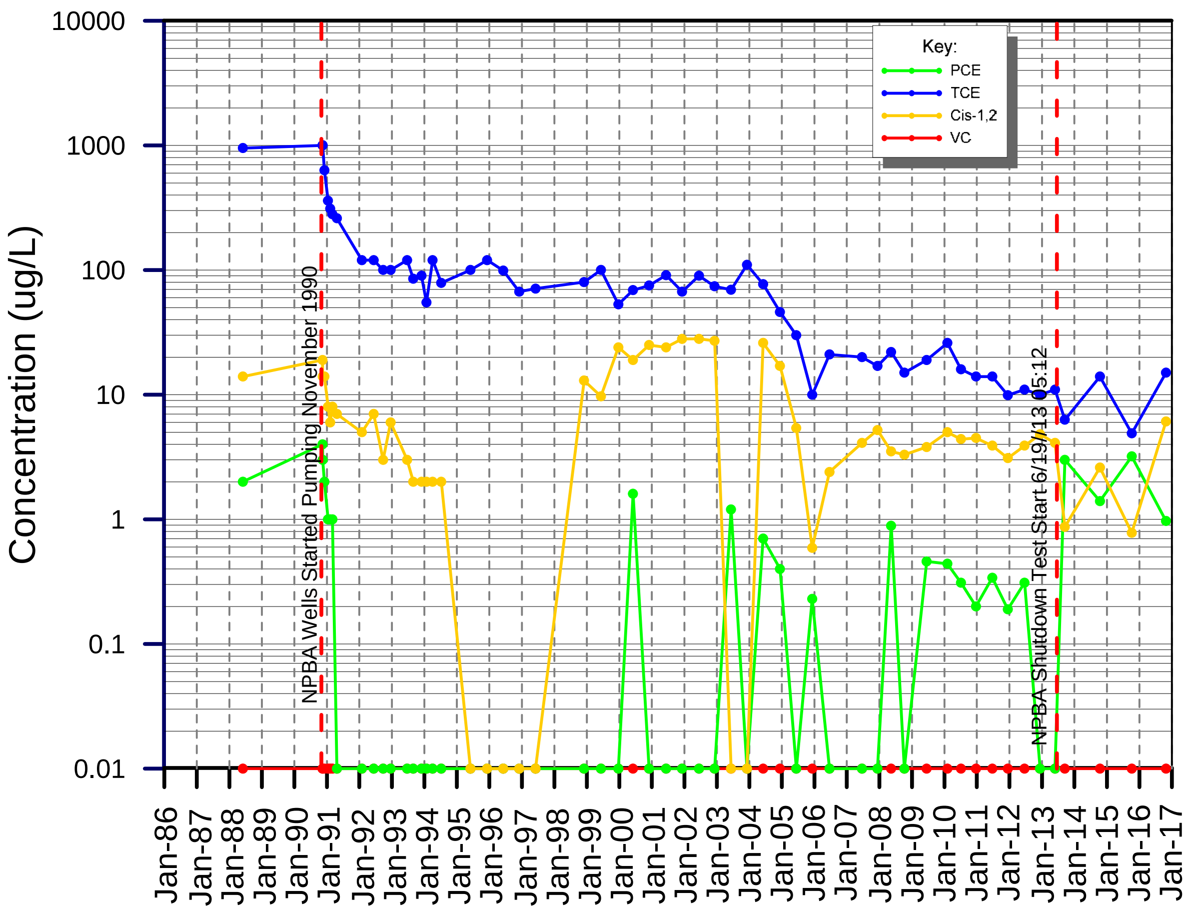

Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17


Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

CW-2

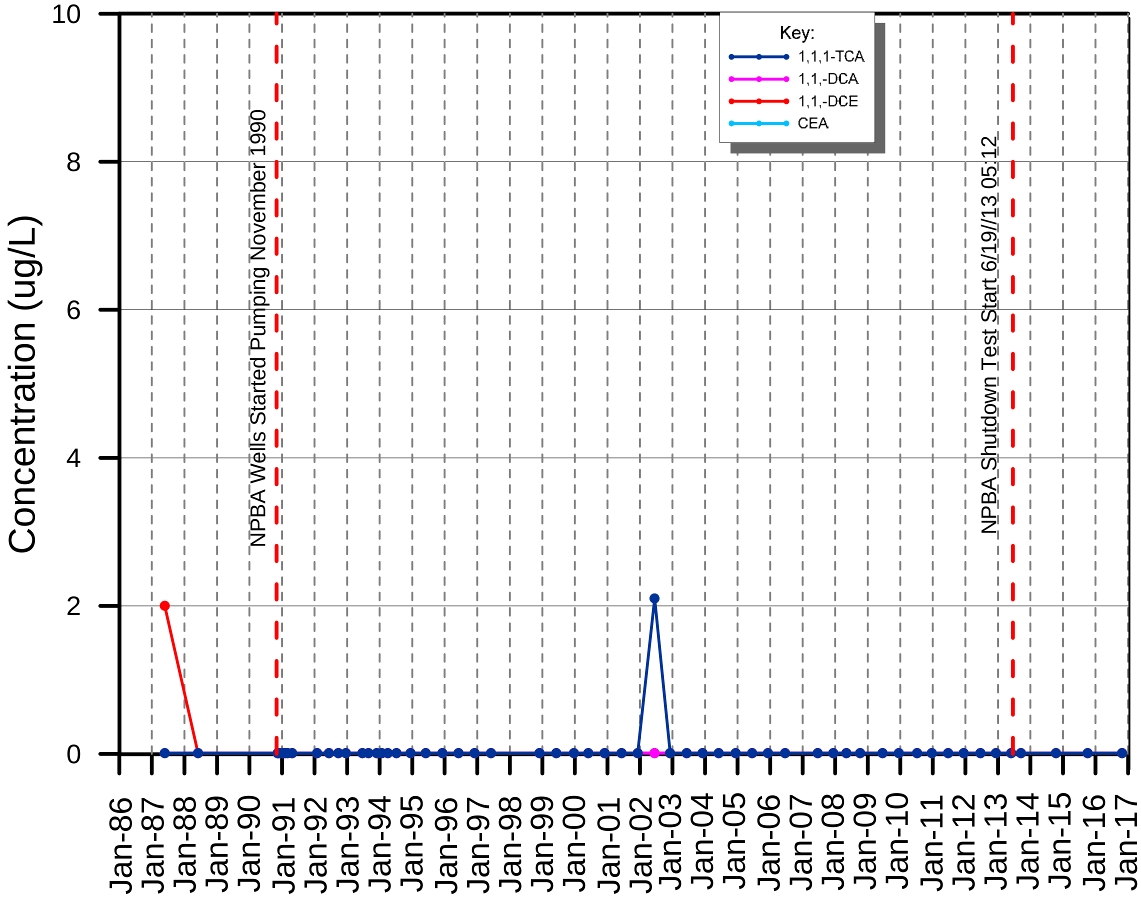


Key:
PCE
TCE
Cis-1,2
VC
Concentration (ug/L)
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12



Key:
PCE
TCE
Cis-1,2
VC
Concentration (ug/L)
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12

CW-3


Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
Concentration (ug/L)
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
10
8
6
4
2
0
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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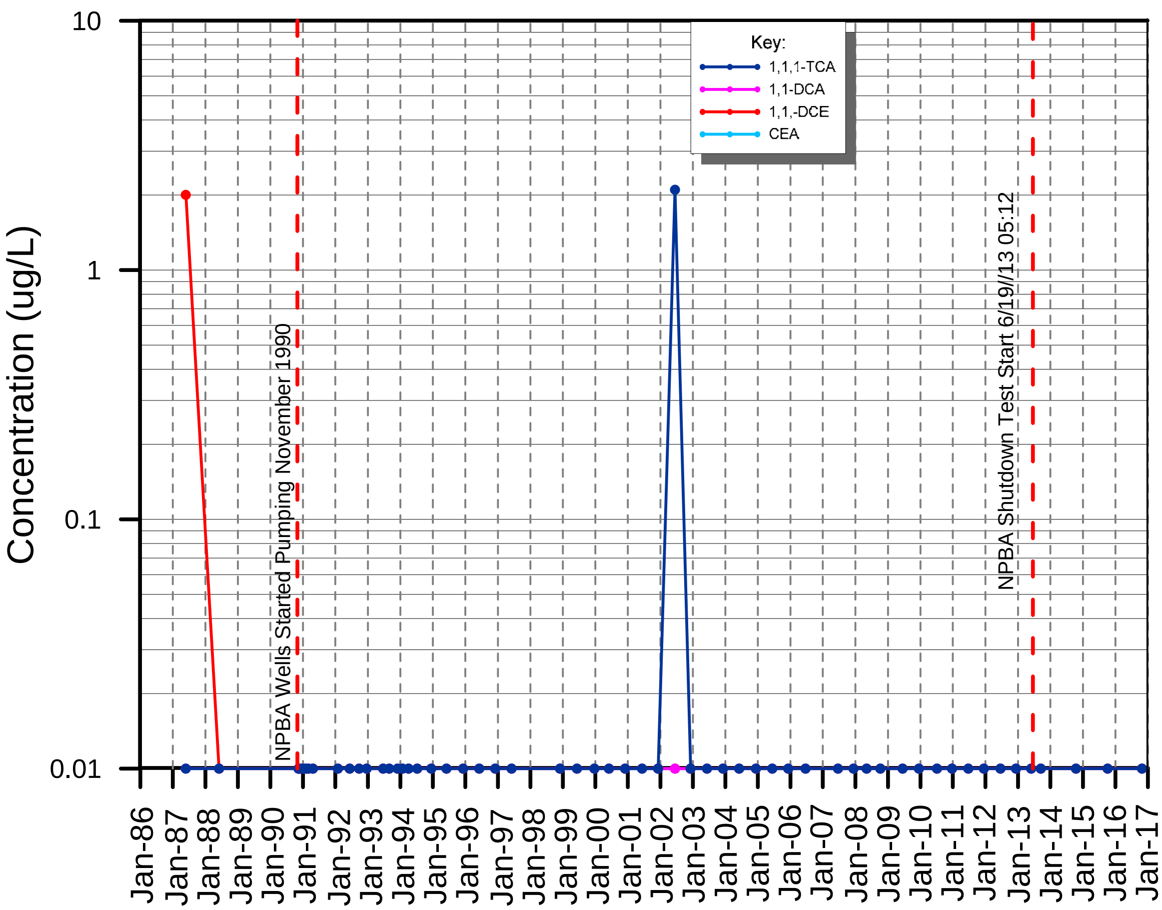
Jan-15
Jan-16
Jan-17


Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
Concentration (ug/L)
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
10
1
0.1
0.01
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
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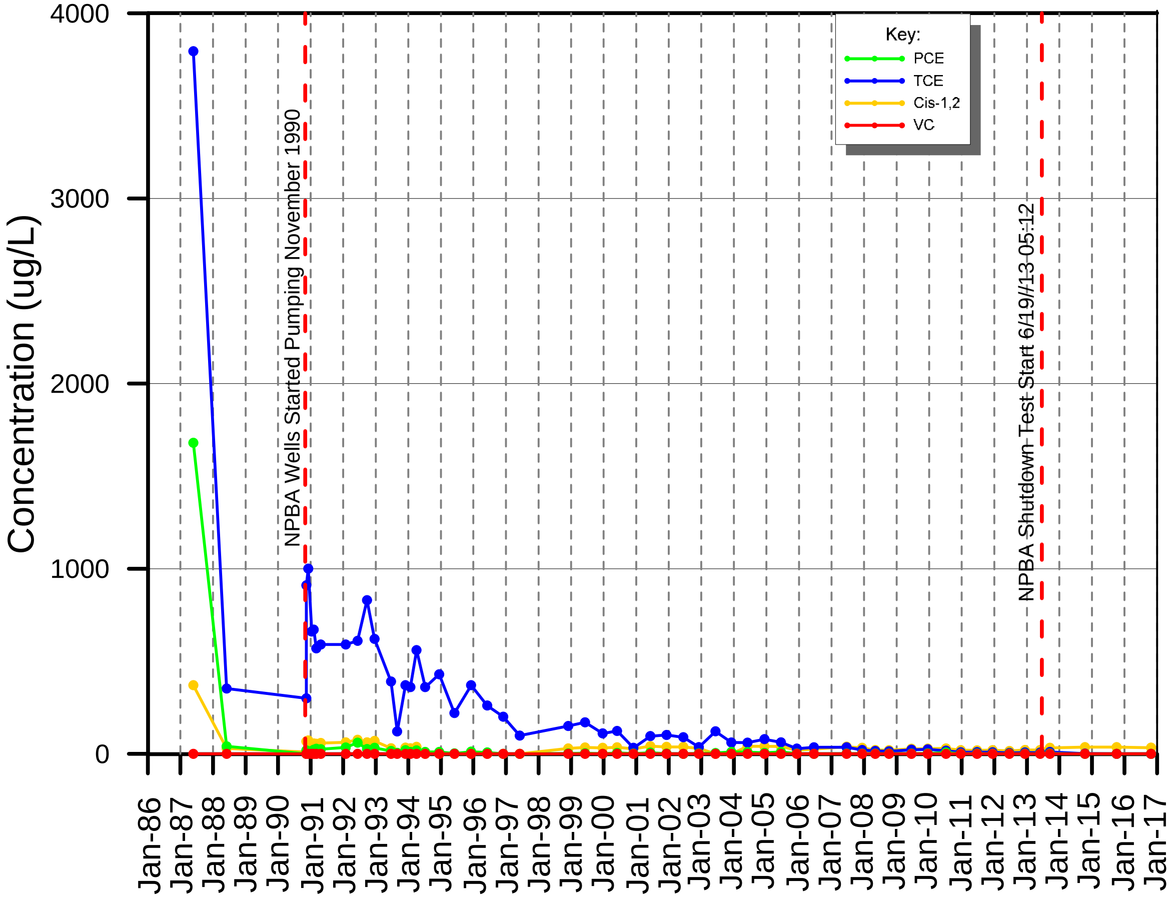
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

CW-3


Concentration (ug/L)
4000
3000
2000
1000
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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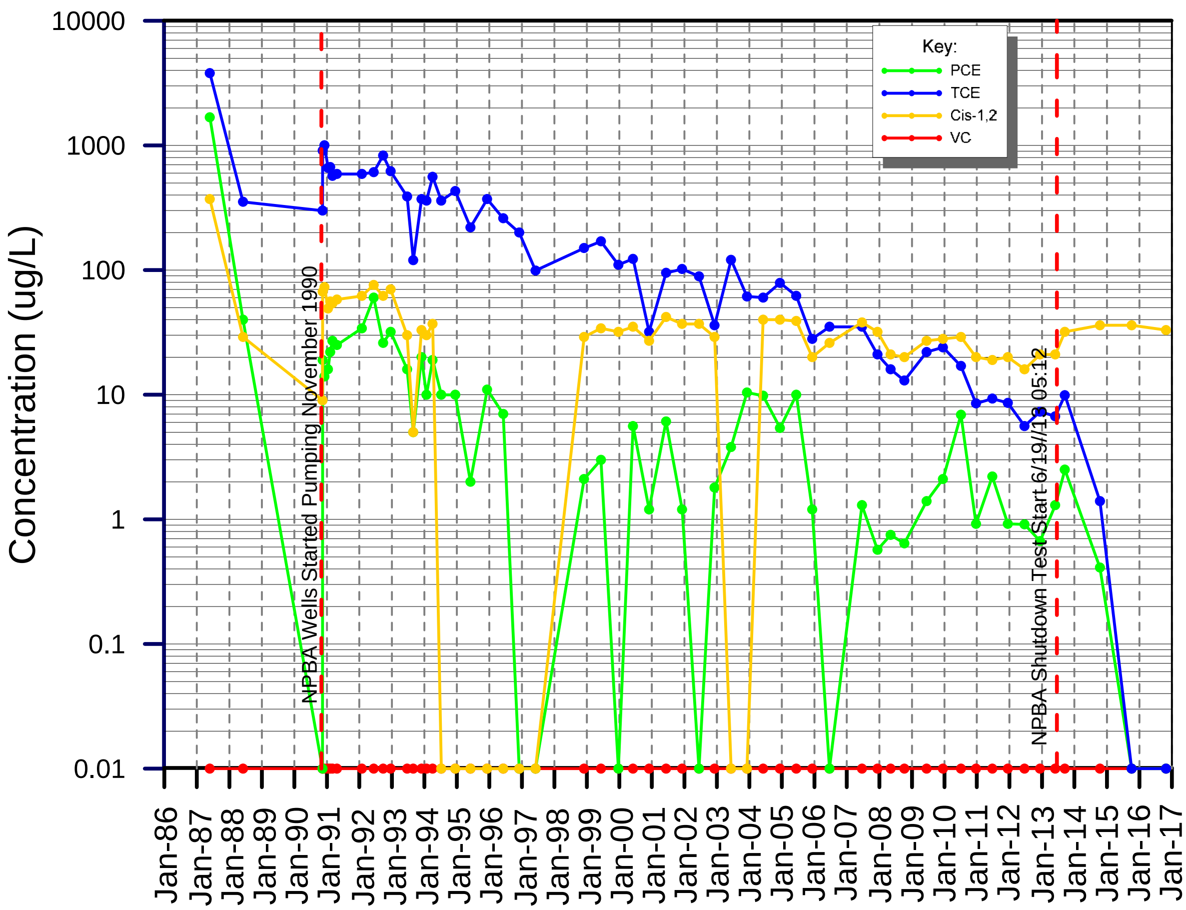
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
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Jan-10
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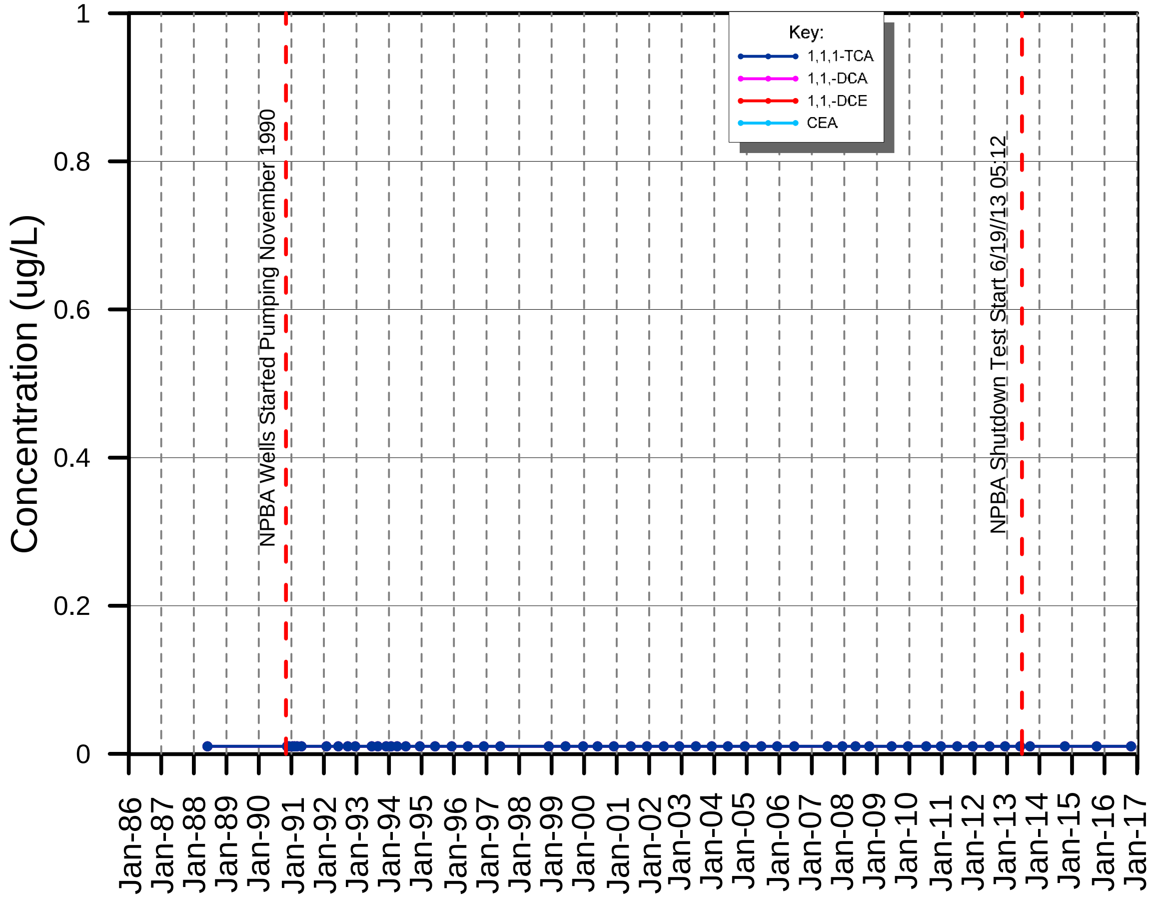
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

CW-4



Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19/13 05:12
Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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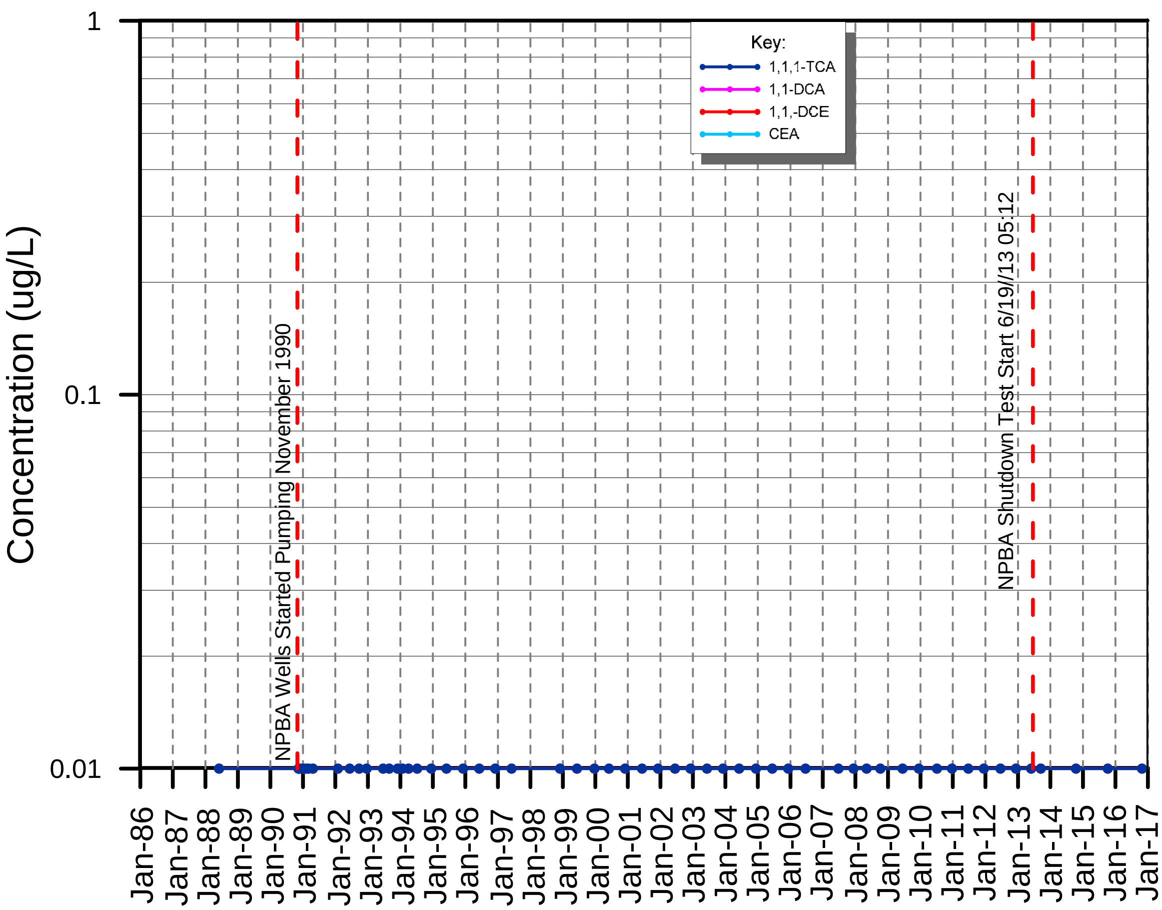
Jan-15
Jan-16
Jan-17



Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19/13 05:12
Concentration (ug/L)
1
0.1
0.01
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
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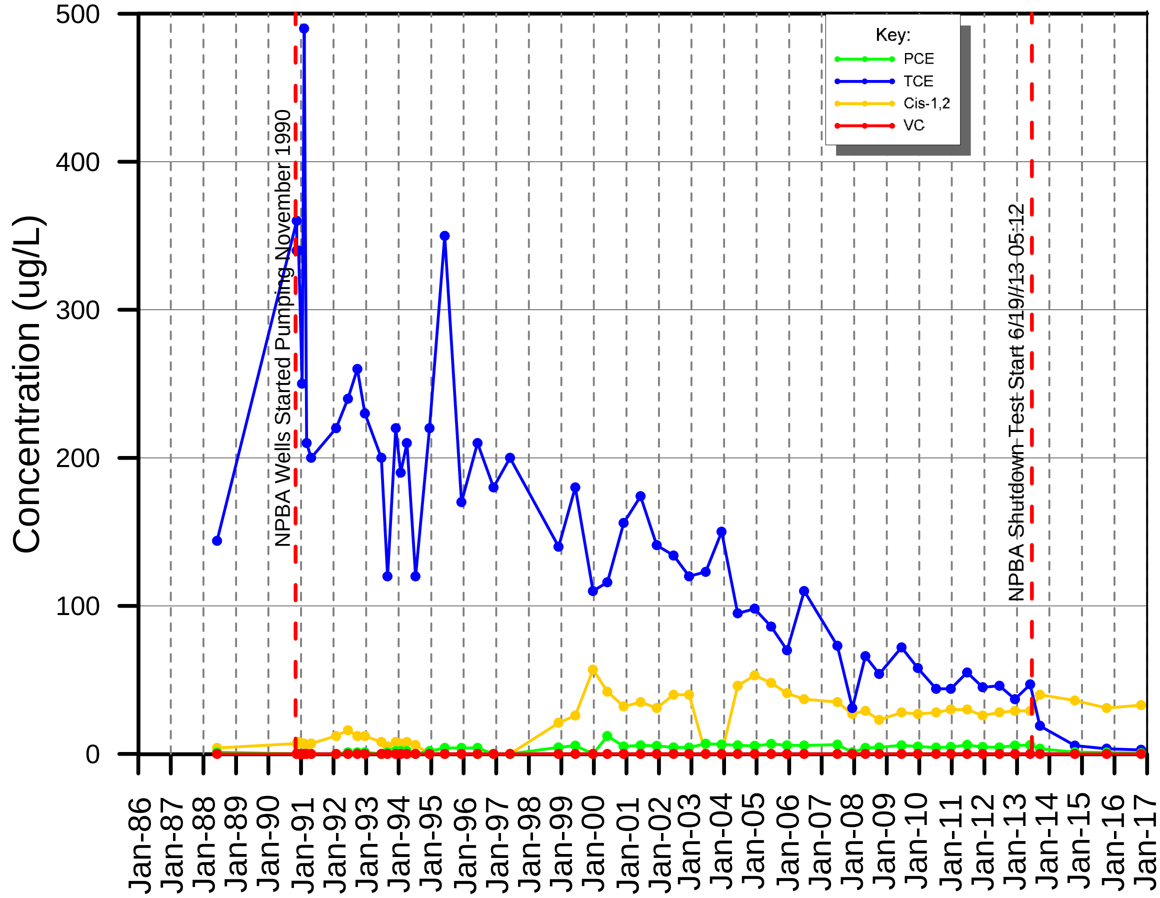
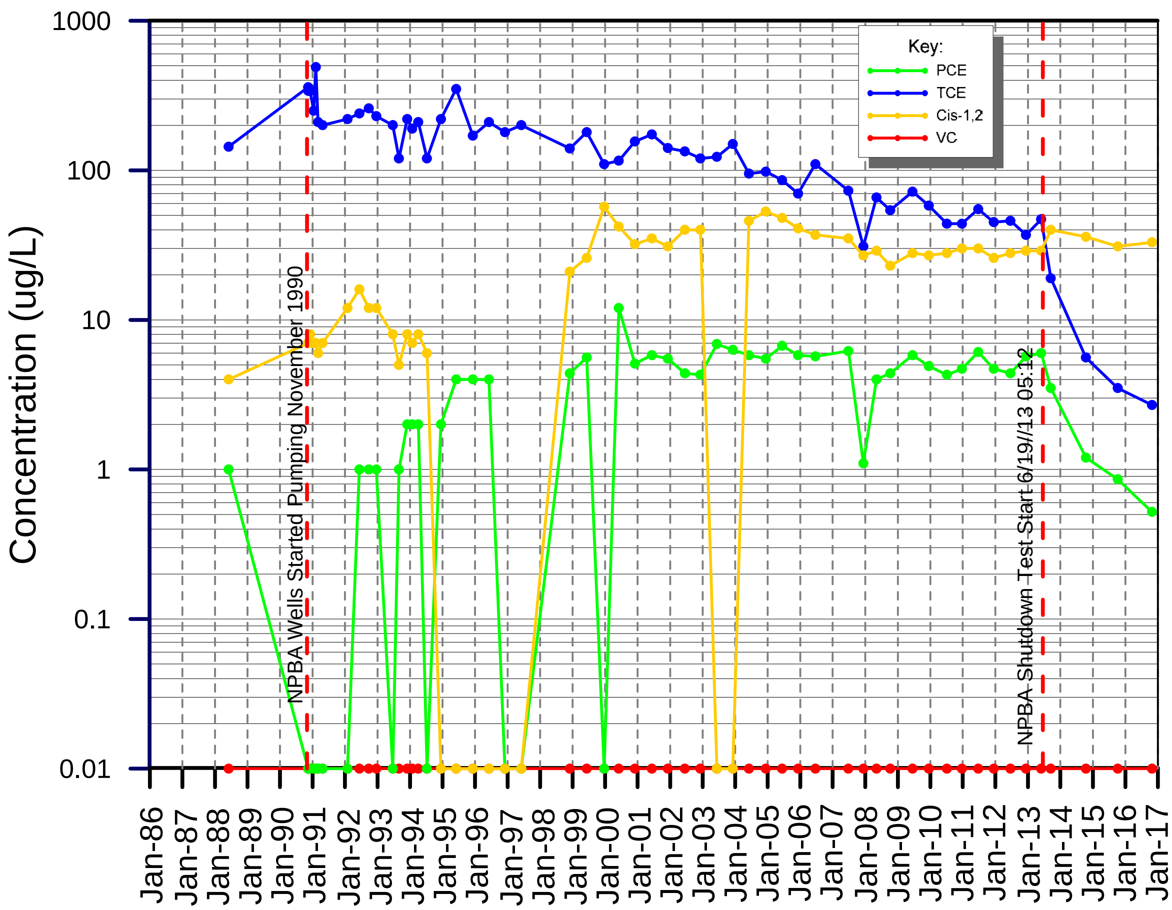
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

CW-4

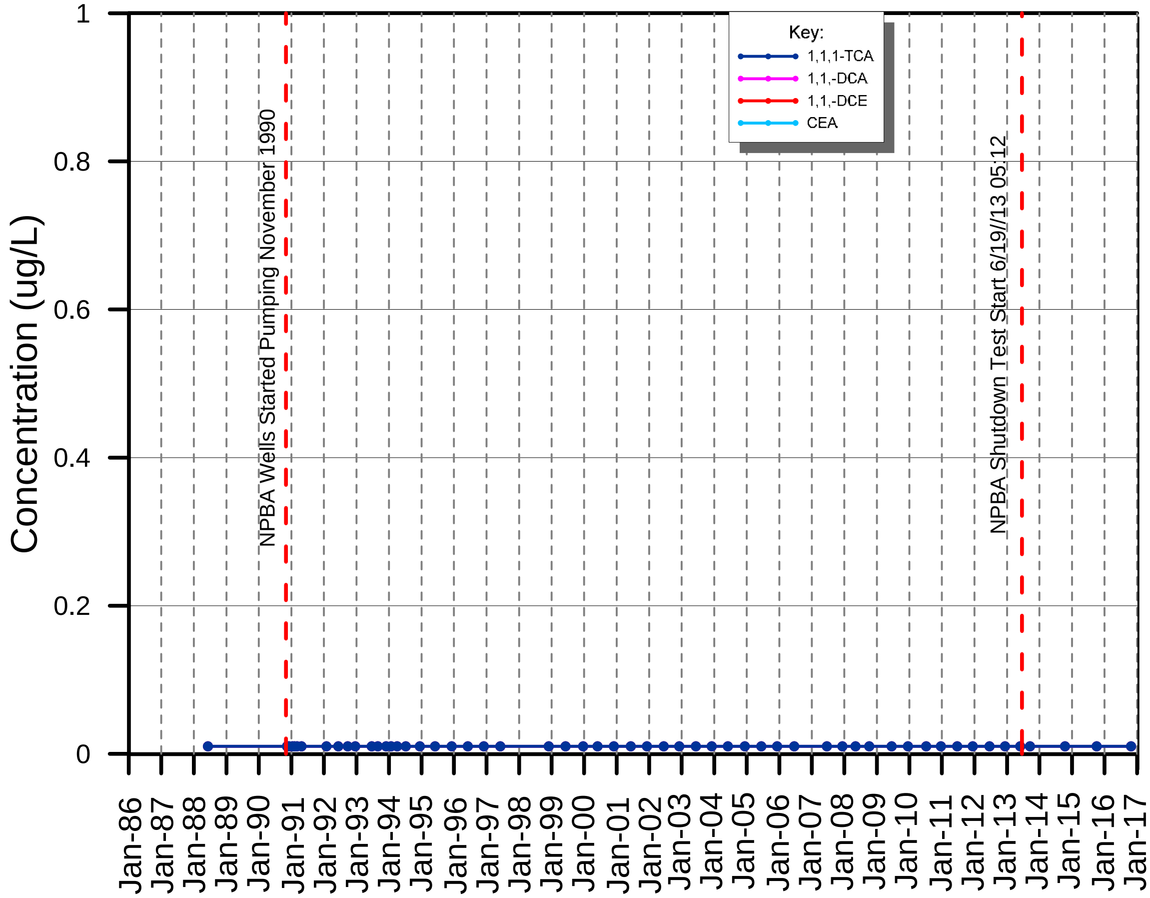


Concentration (ug/L)
0
100
200
300
400
500
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC



Concentration (ug/L)
0.01
0.1
1
10
100
1000
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC

CW-5


Concentration (ug/L)
0
0.2
0.4
0.6
0.8
1
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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Jan-12
Jan-13
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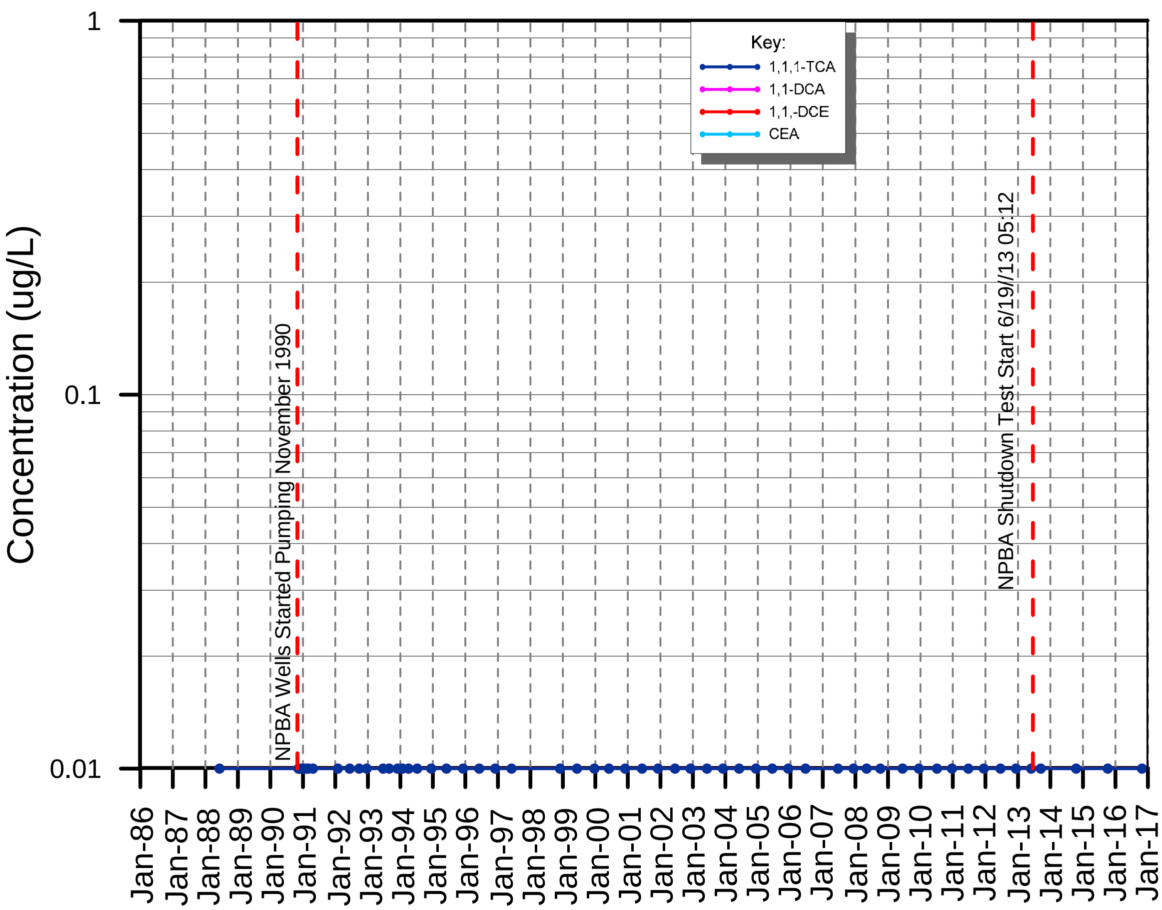
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
0.01
0.1
1
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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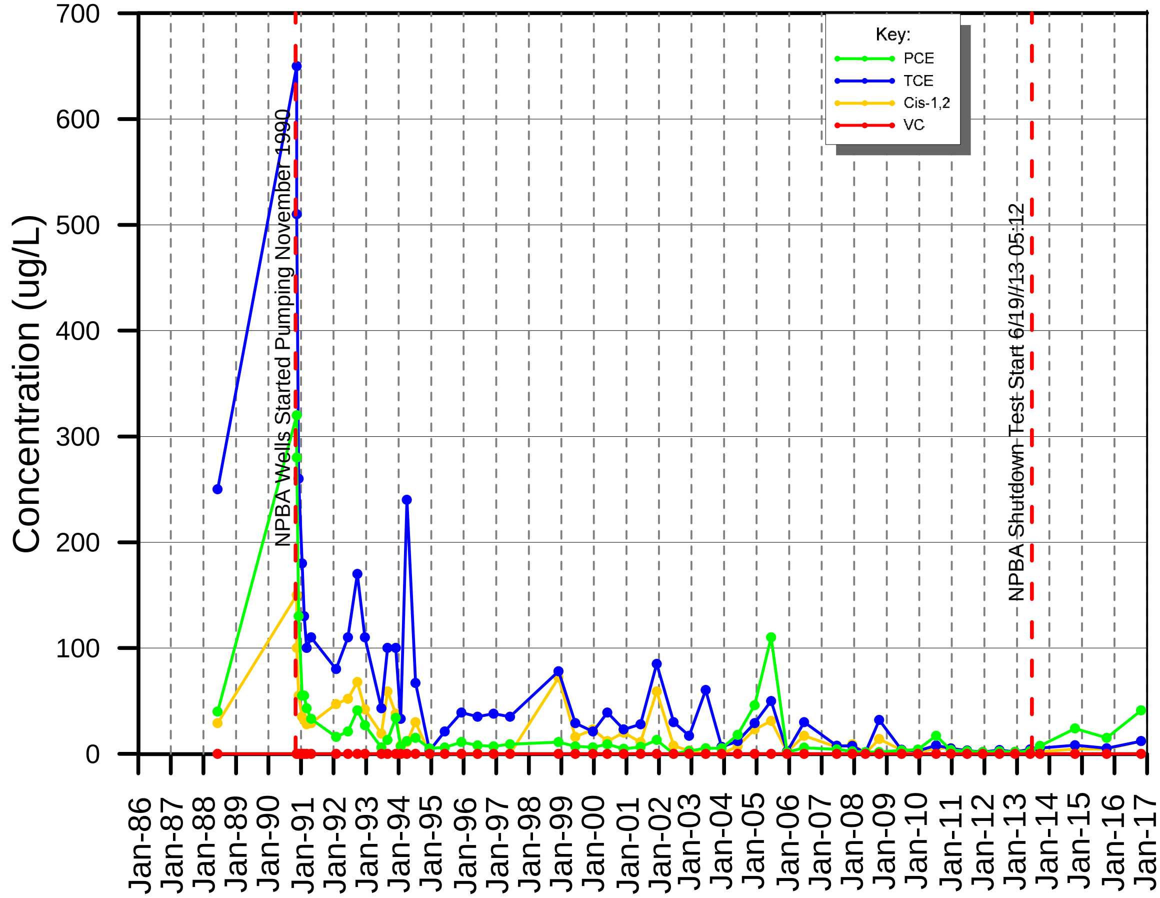
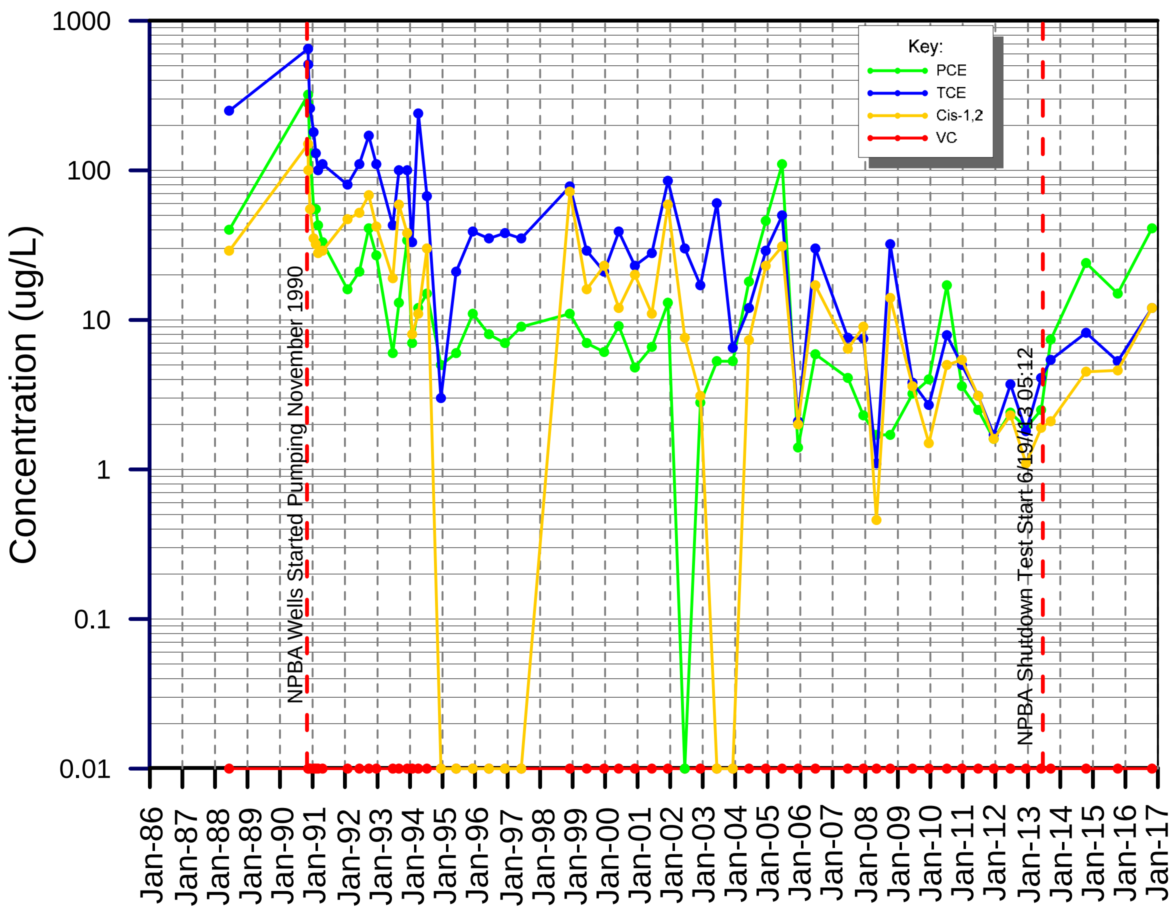
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

CW-5

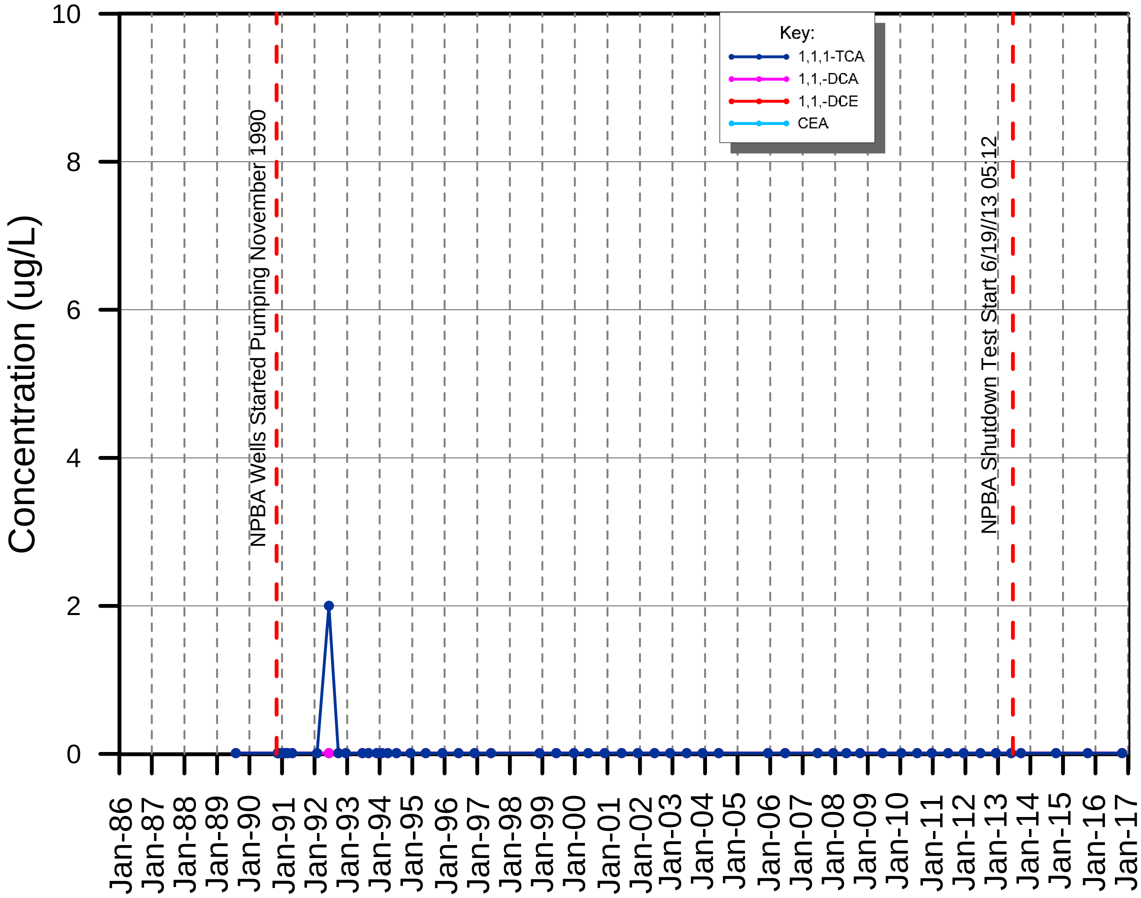


Concentration (ug/L)
700
600
500
400
300
200
100
0
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17



Concentration (ug/L)
1000
100
10
1
0.1
0.01
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

CW-6



Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
10
8
6
4
2
0
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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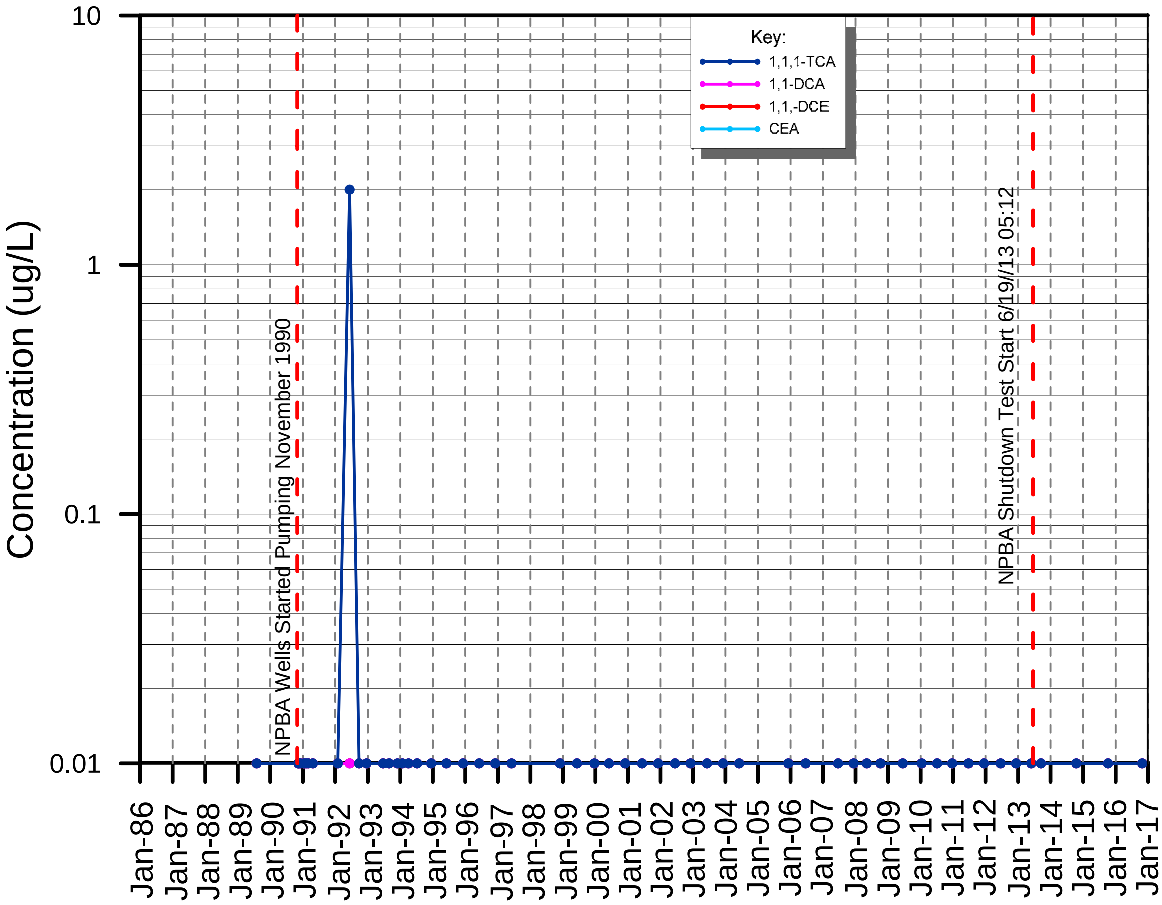
Jan-15
Jan-16
Jan-17



Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
10
1
0.1
0.01
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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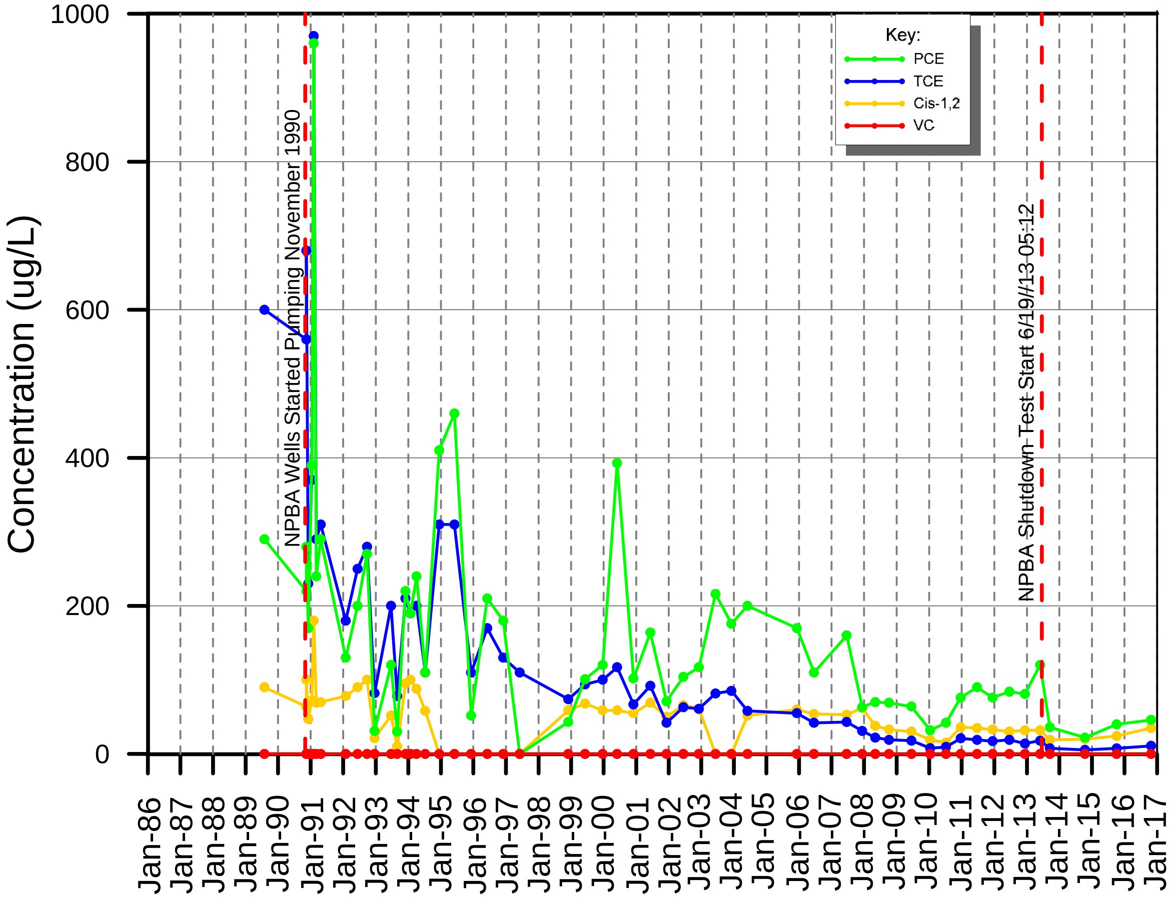
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

CW-6


Concentration (ug/L)
0
200
400
600
800
1000
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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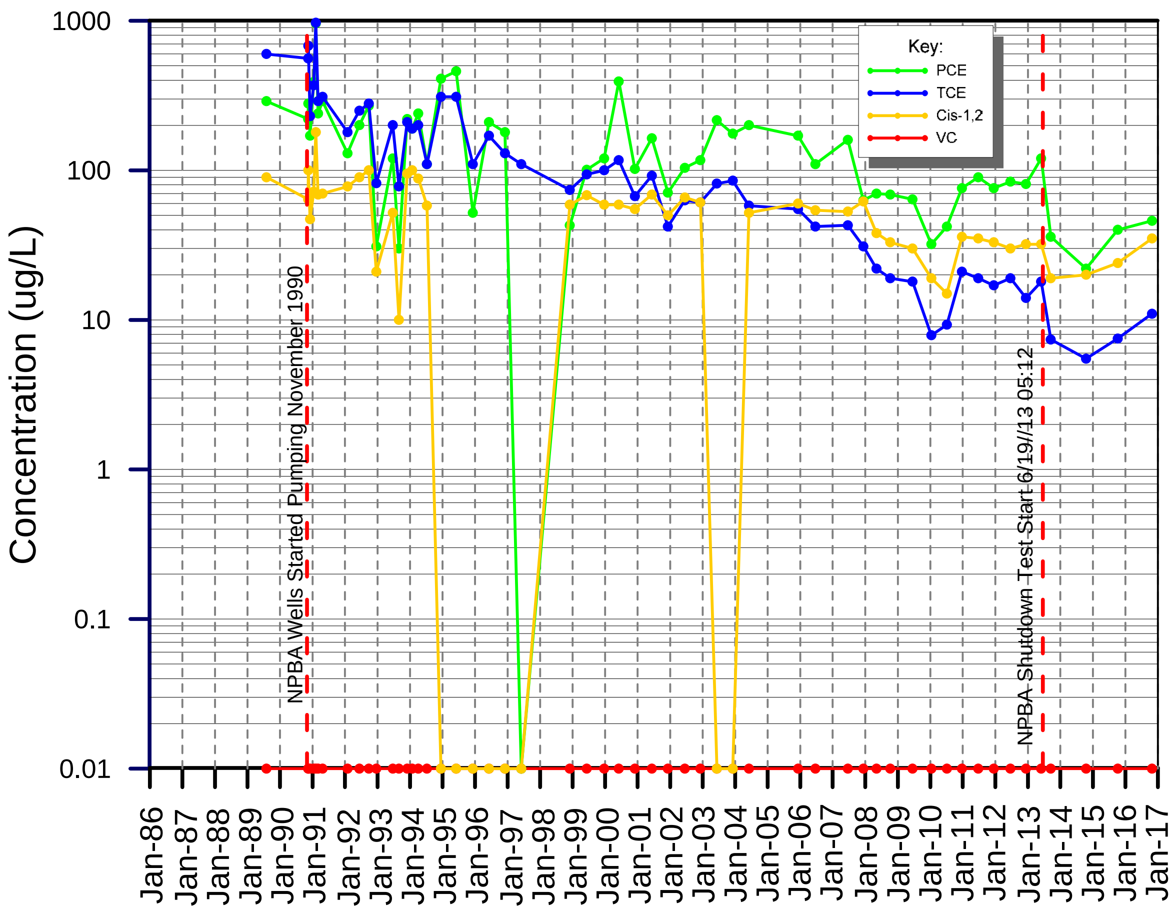
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
0.01
0.1
1
10
100
1000
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
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Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
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Jan-04
Jan-05
Jan-06
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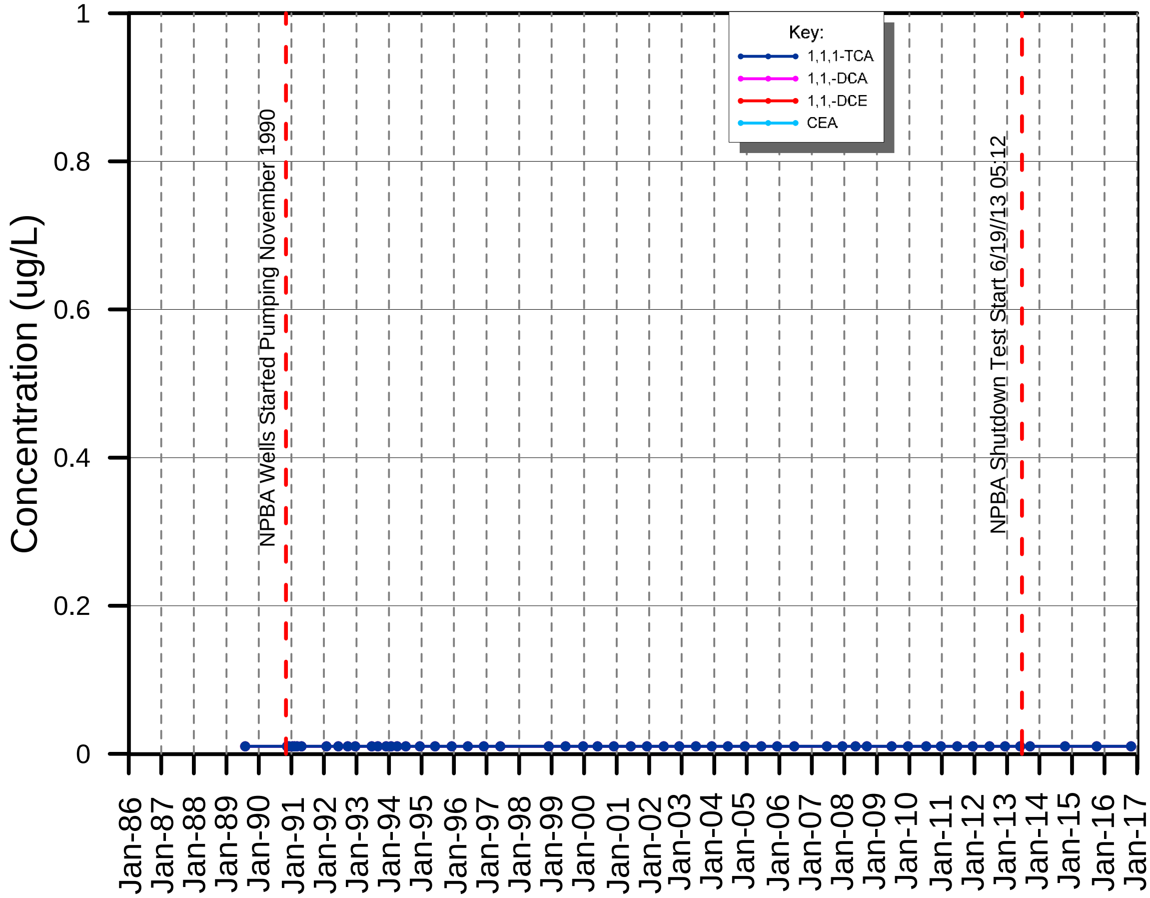
Jan-14
Jan-15
Jan-16
Jan-17

CW-7



Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
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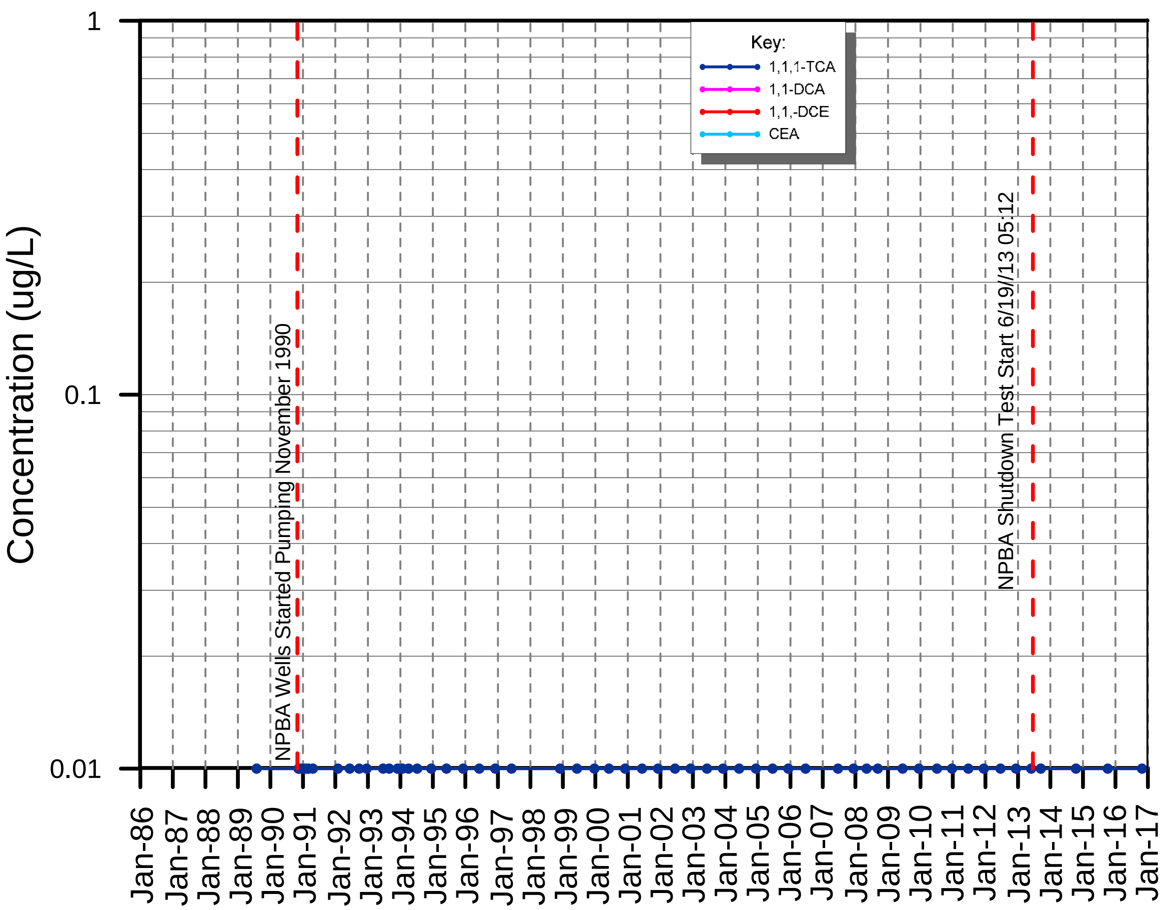
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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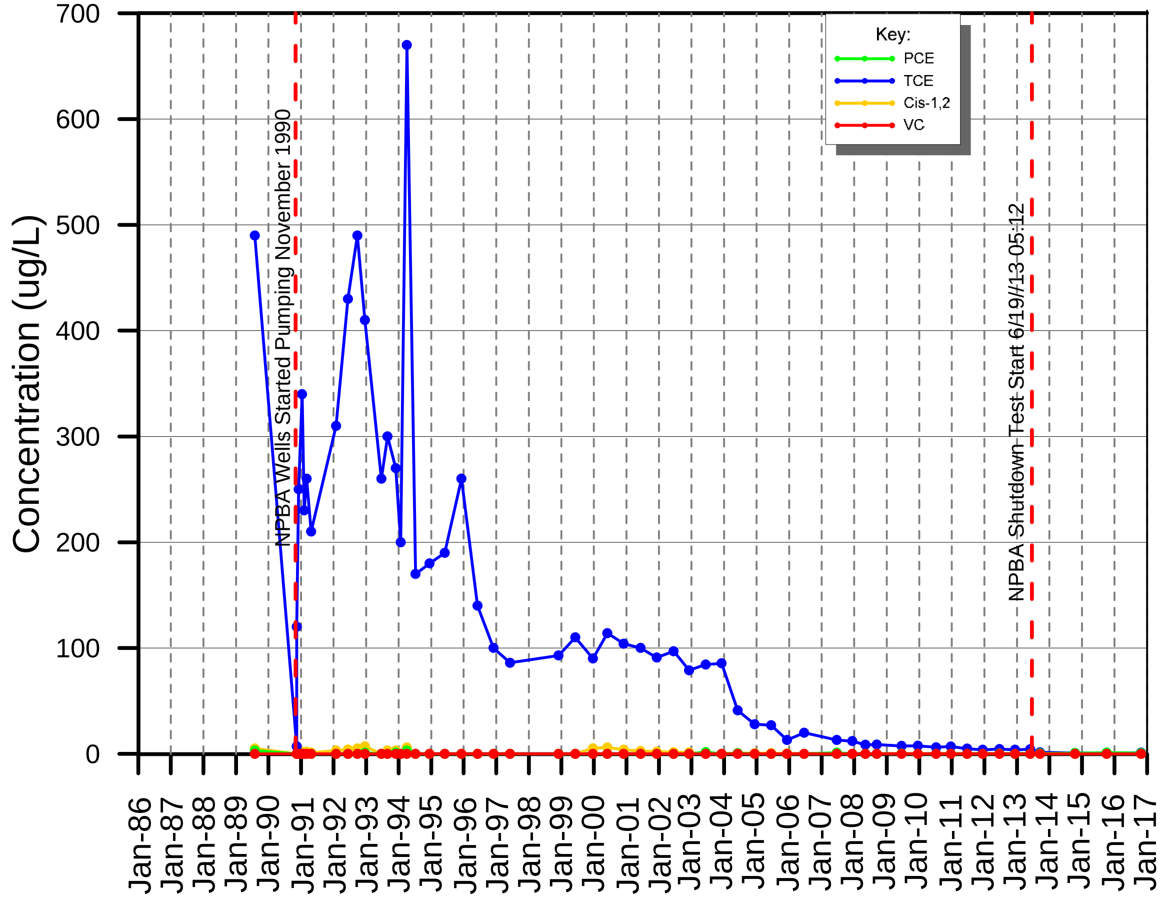
Jan-14
Jan-15
Jan-16
Jan-17

CW-7



Concentration (ug/L)
700
600
500
400
300
200
100
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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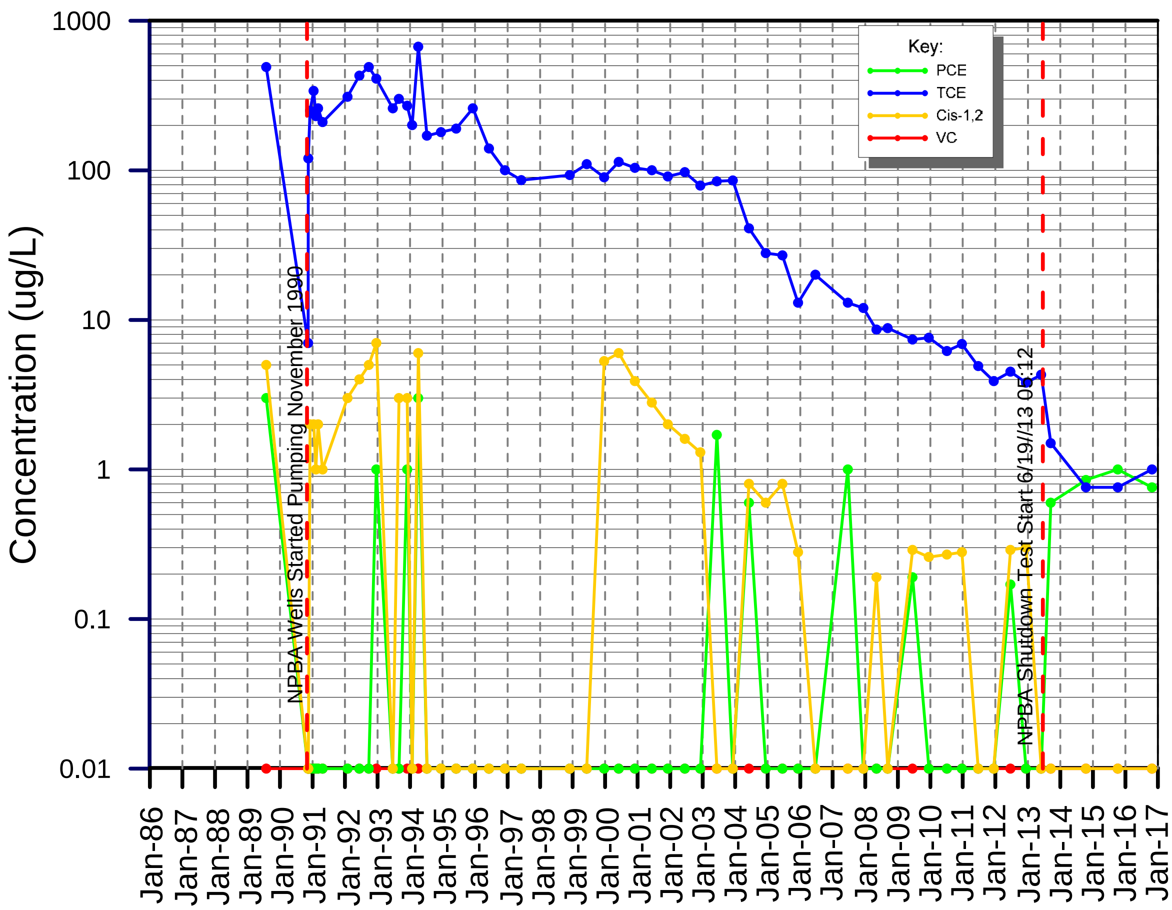
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19/13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
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Jan-11
Jan-12
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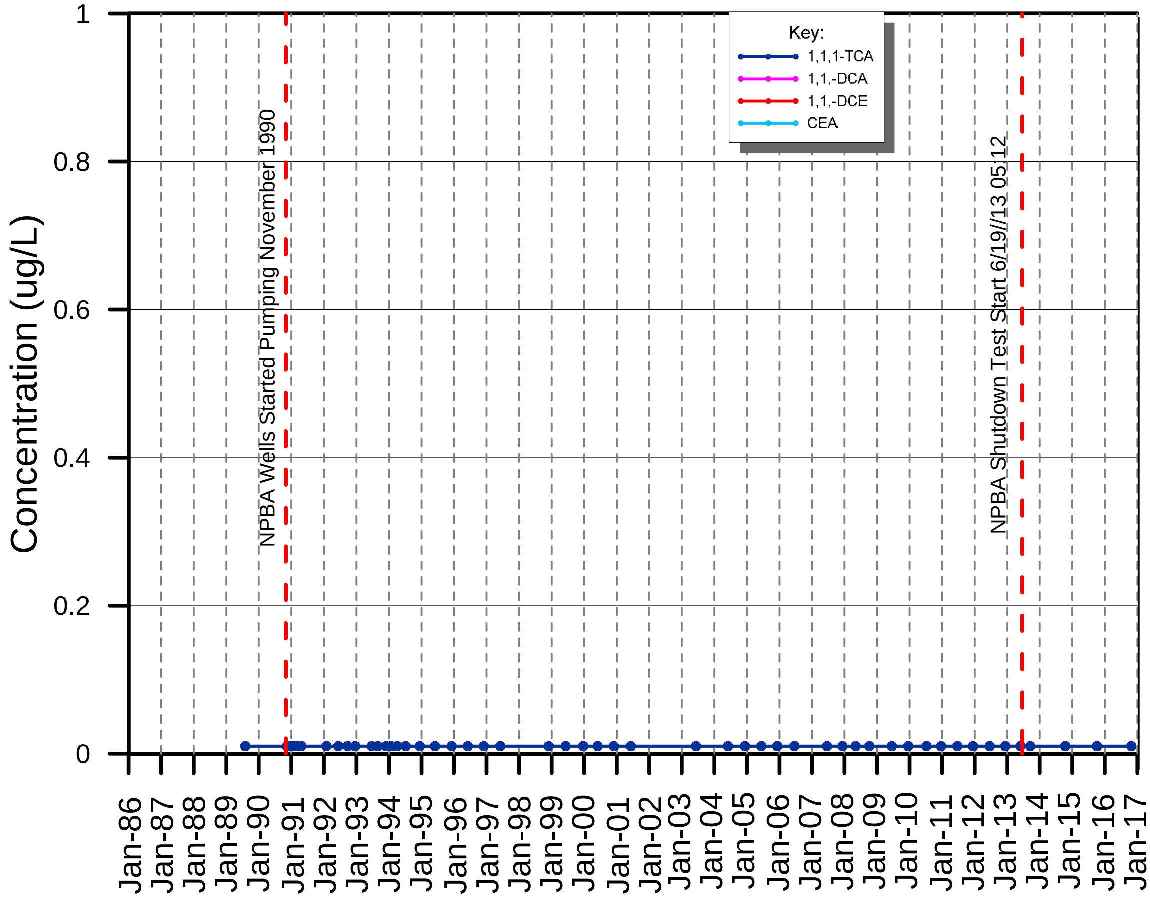
Jan-14
Jan-15
Jan-16
Jan-17

CW-7A



Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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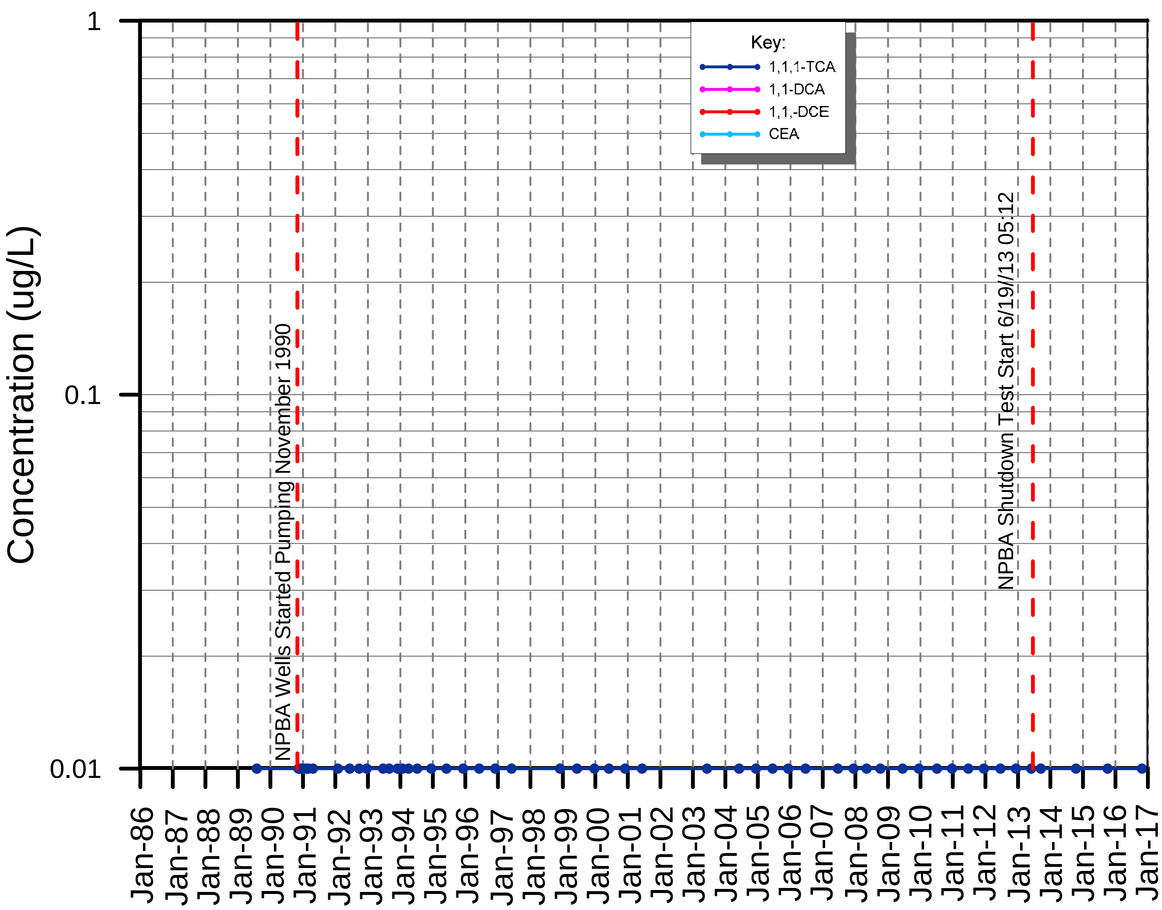
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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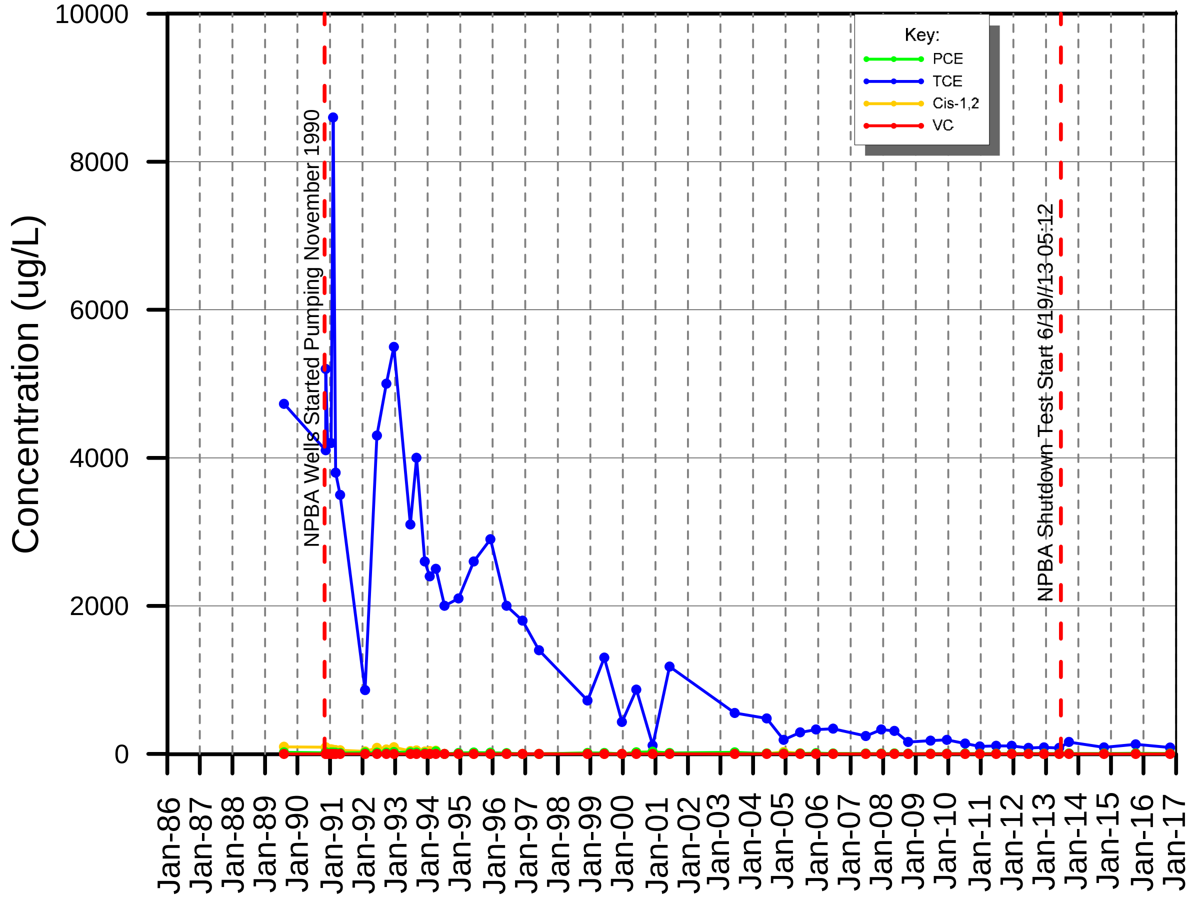
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

CW-7A



Concentration (ug/L)
10000
8000
6000
4000
2000
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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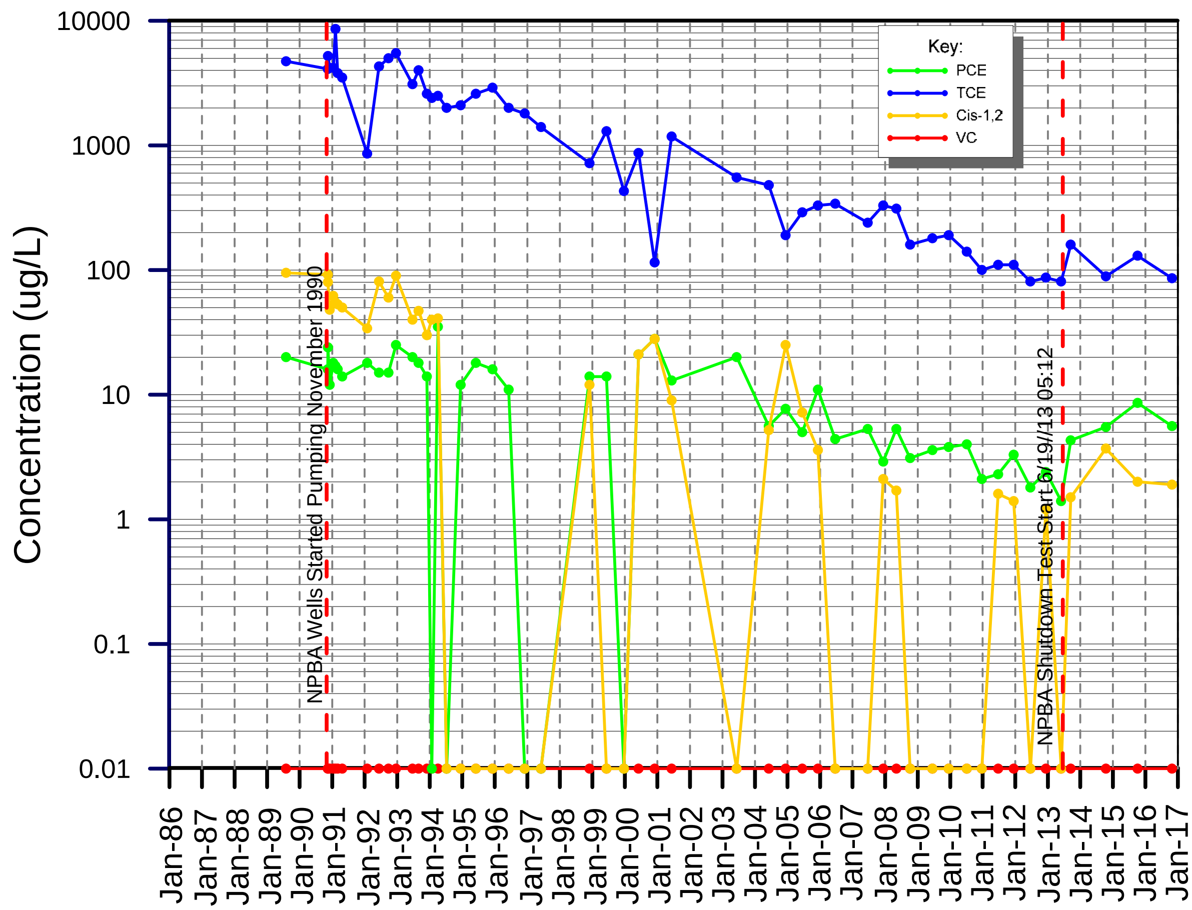
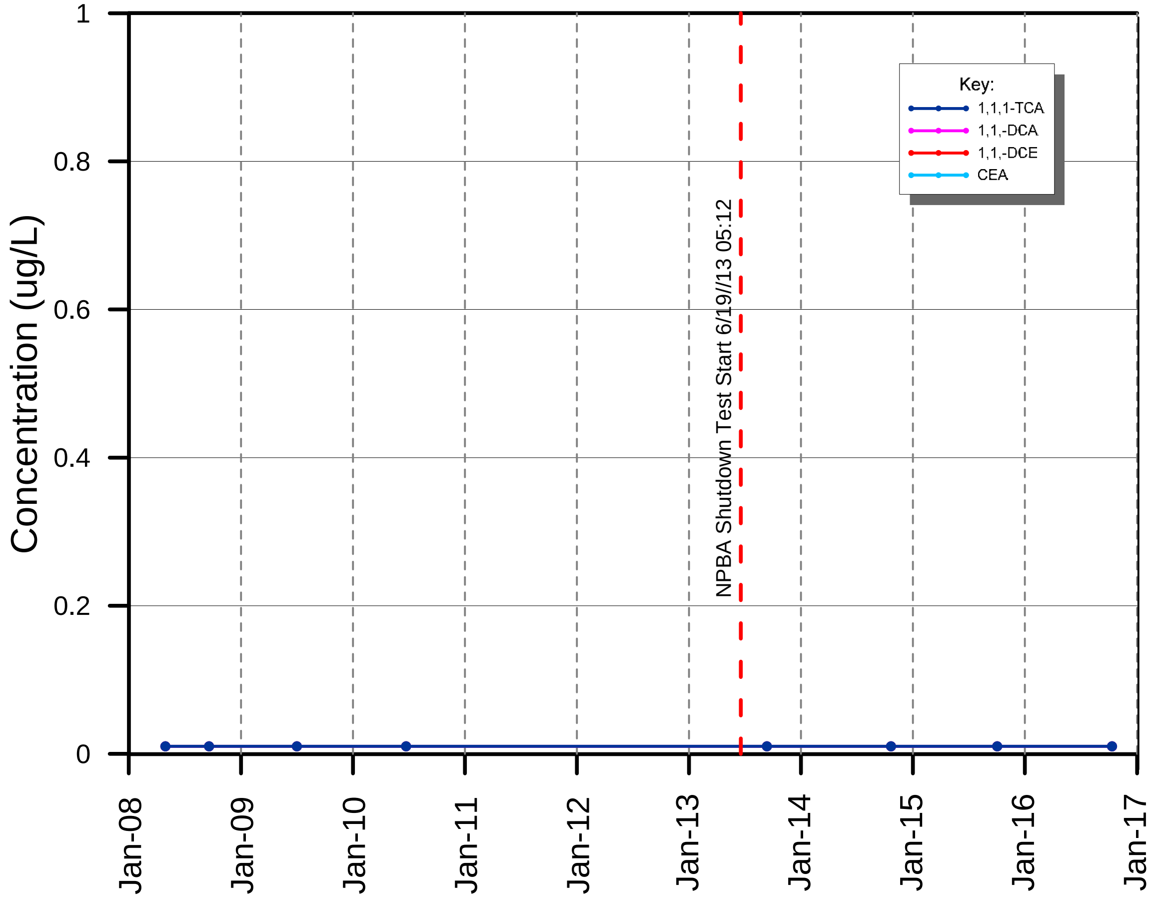
Jan-15
Jan-16
Jan-17

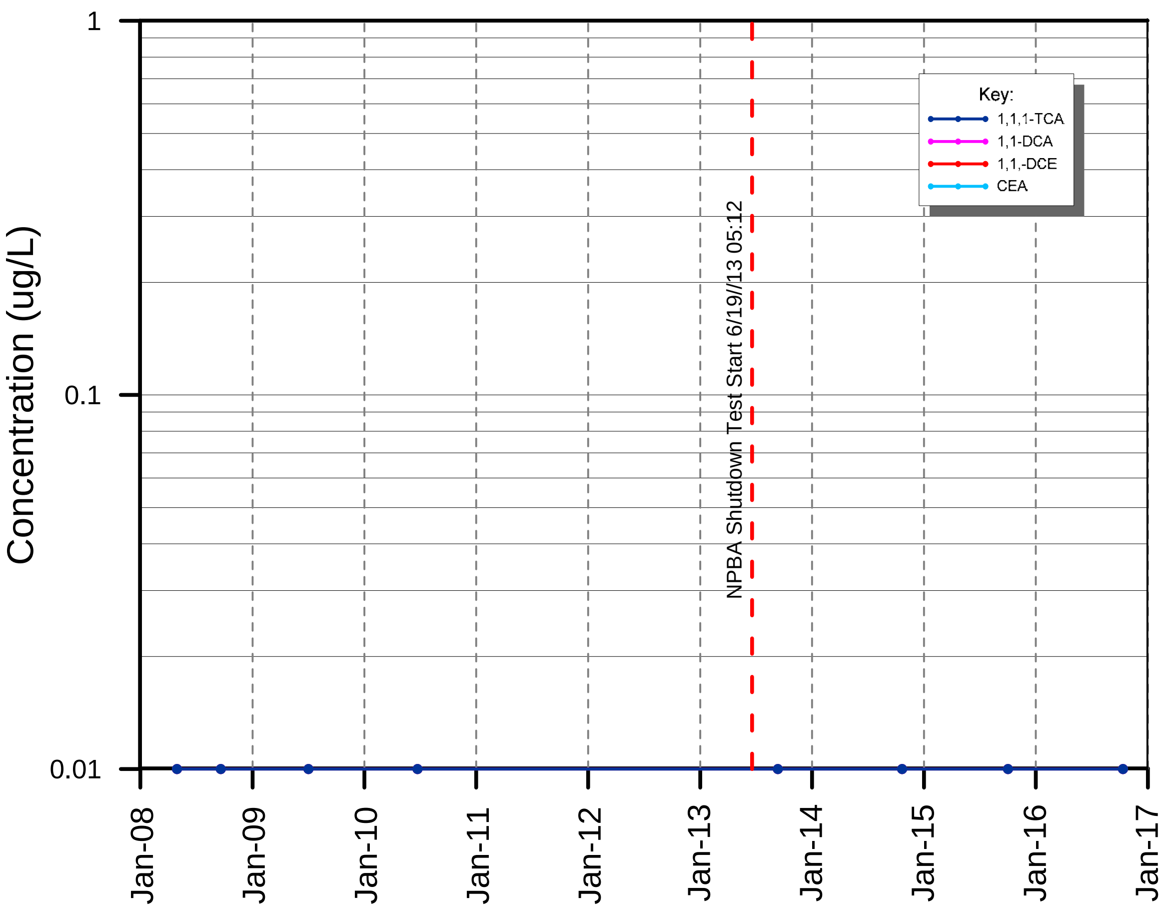


Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19/13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-102D

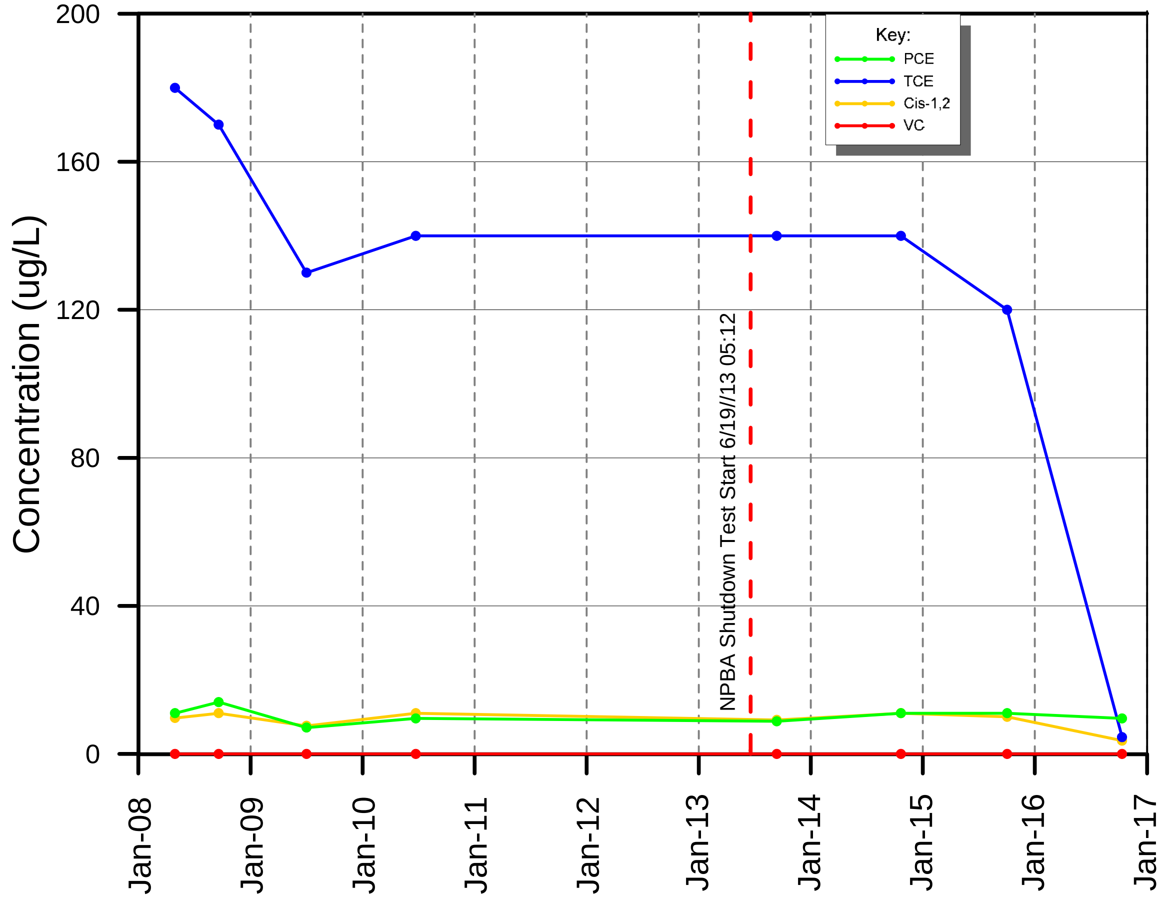


Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA

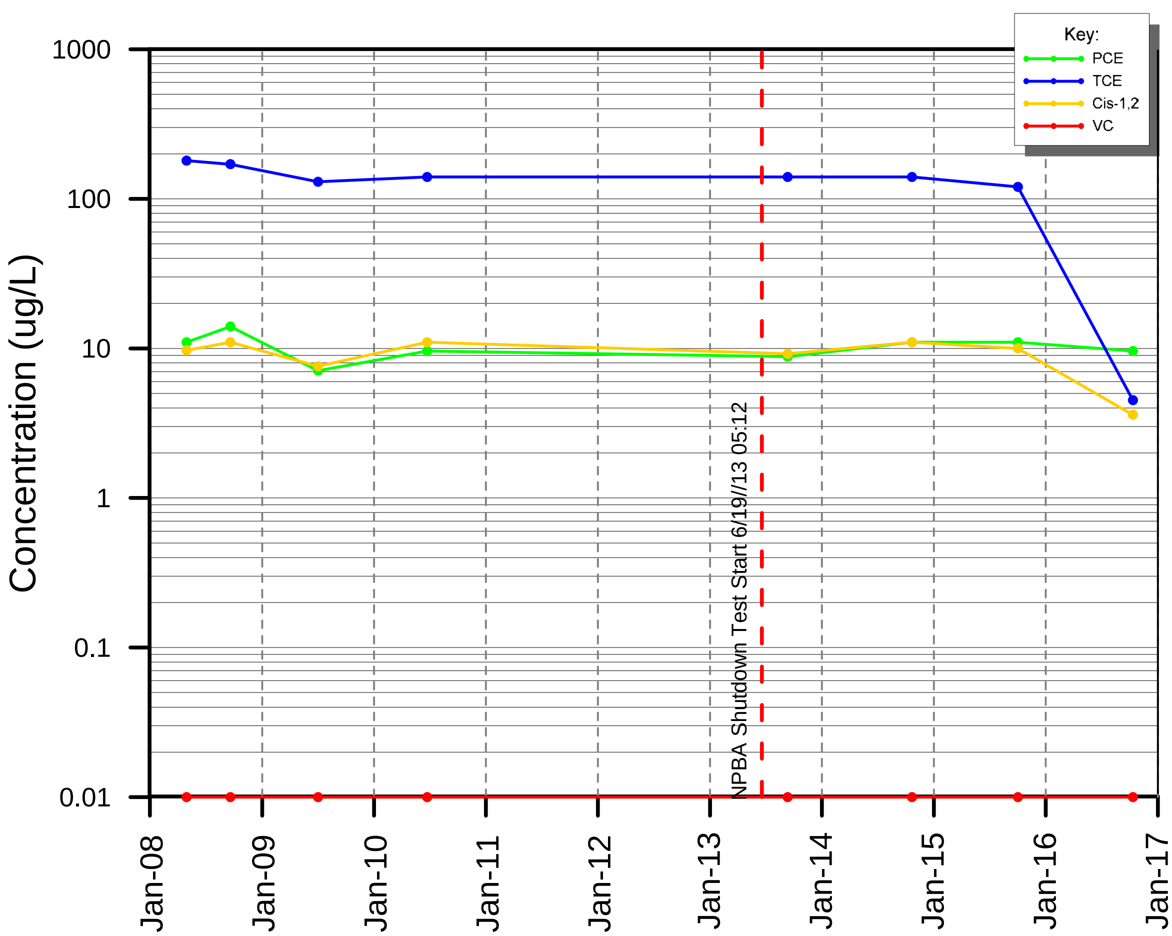


Concentration (ug/L)
1
0.1
0.01
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA

MW-102D

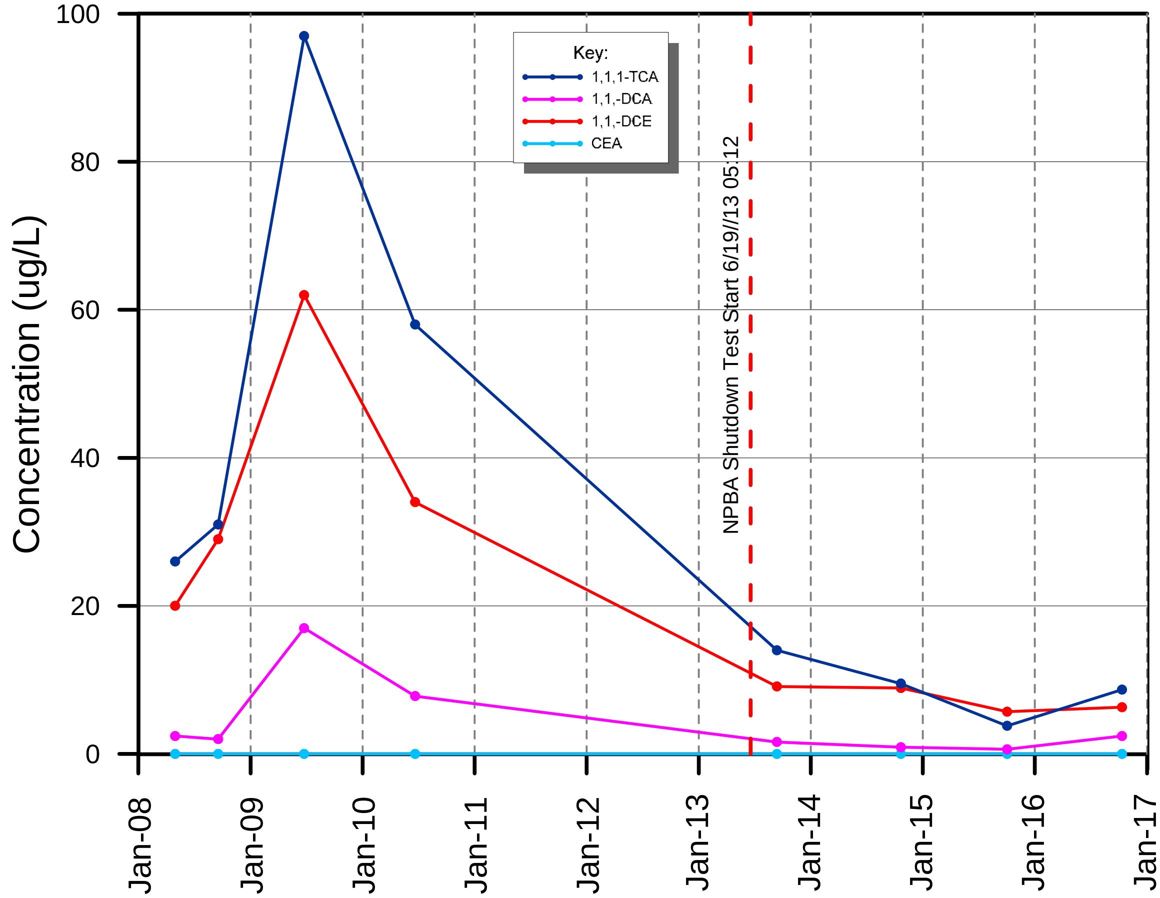


Key:
PCE
TCE
Cis-1,2
VC
Concentration (ug/L)
200
160
120
80
40
0
NPBA Shutdown Test Start 6/19//13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

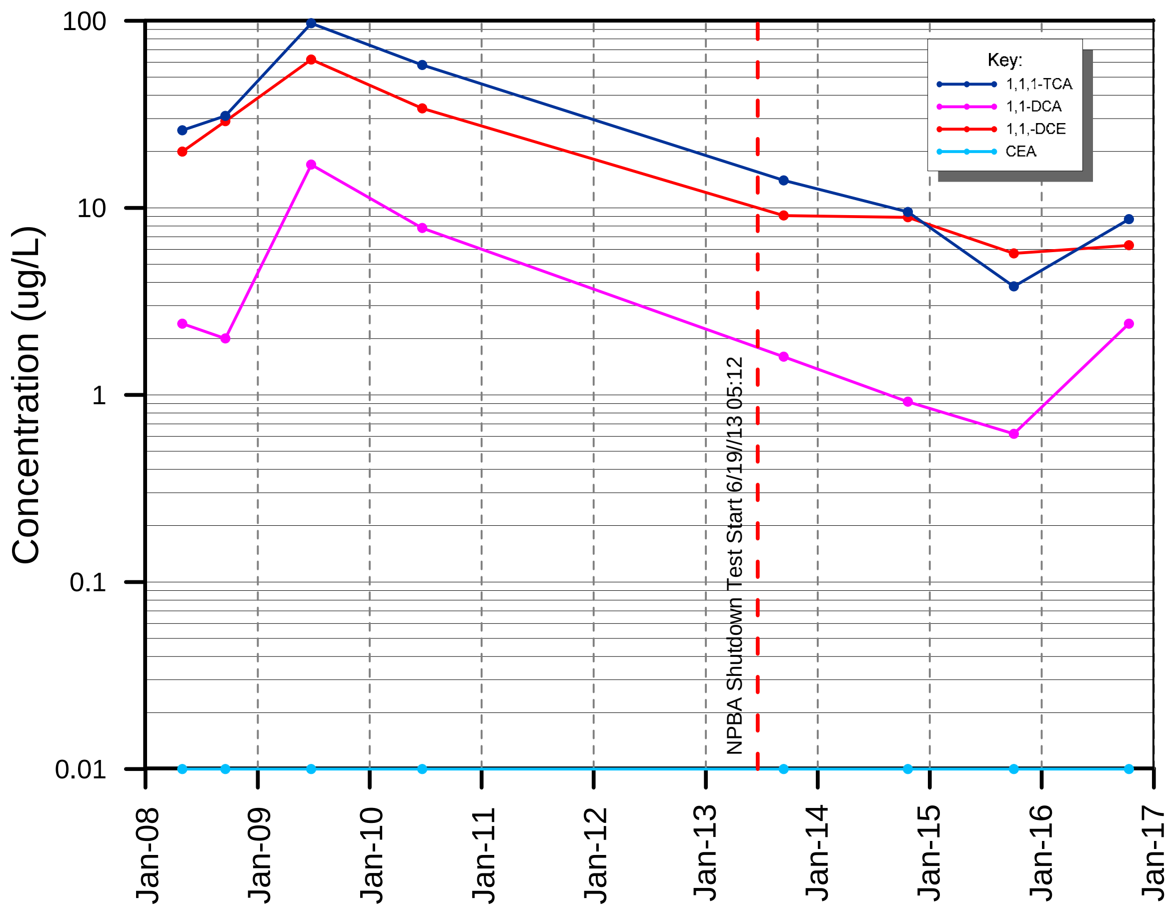


Key:
PCE
TCE
Cis-1,2
VC
Concentration (ug/L)
1000
100
10
1
0.1
0.01
NPBA Shutdown Test Start 6/19//13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-102S

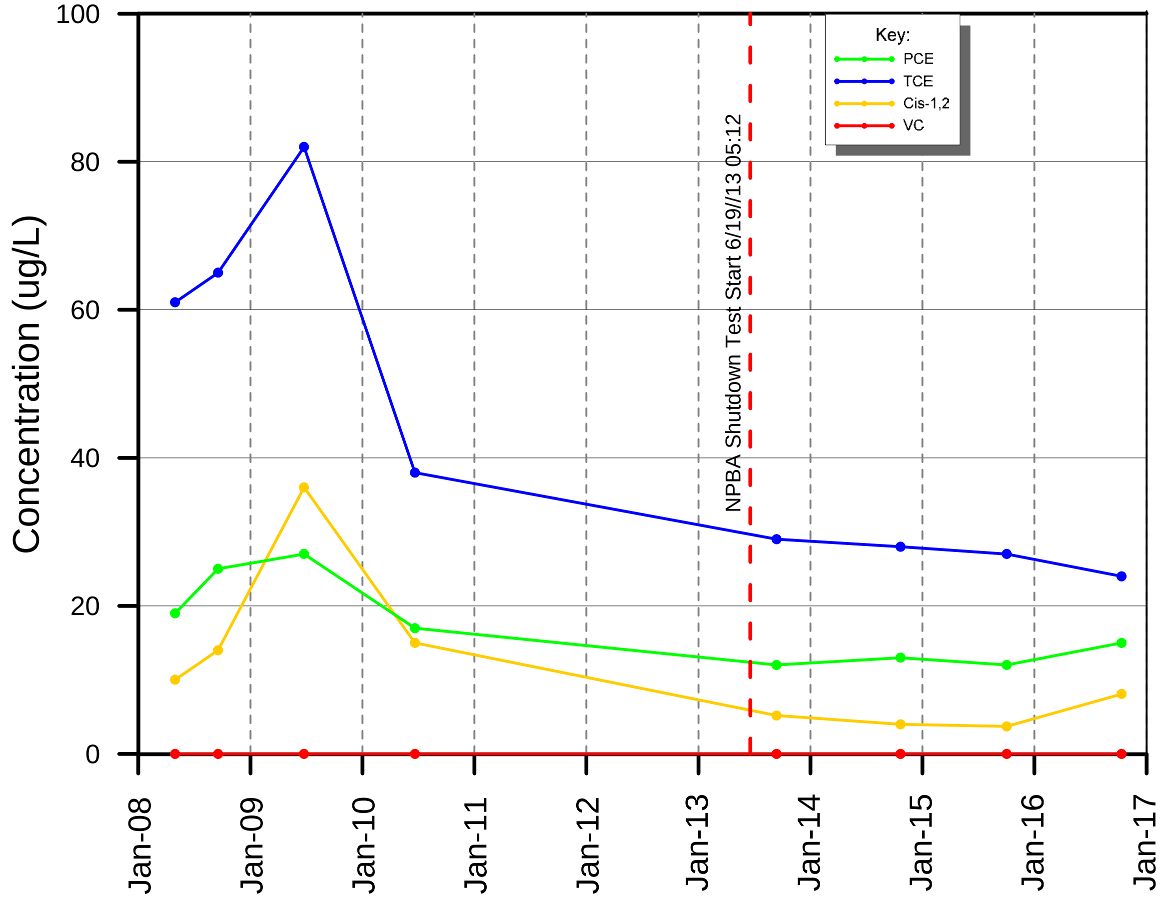


Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
0
20
40
60
80
100
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

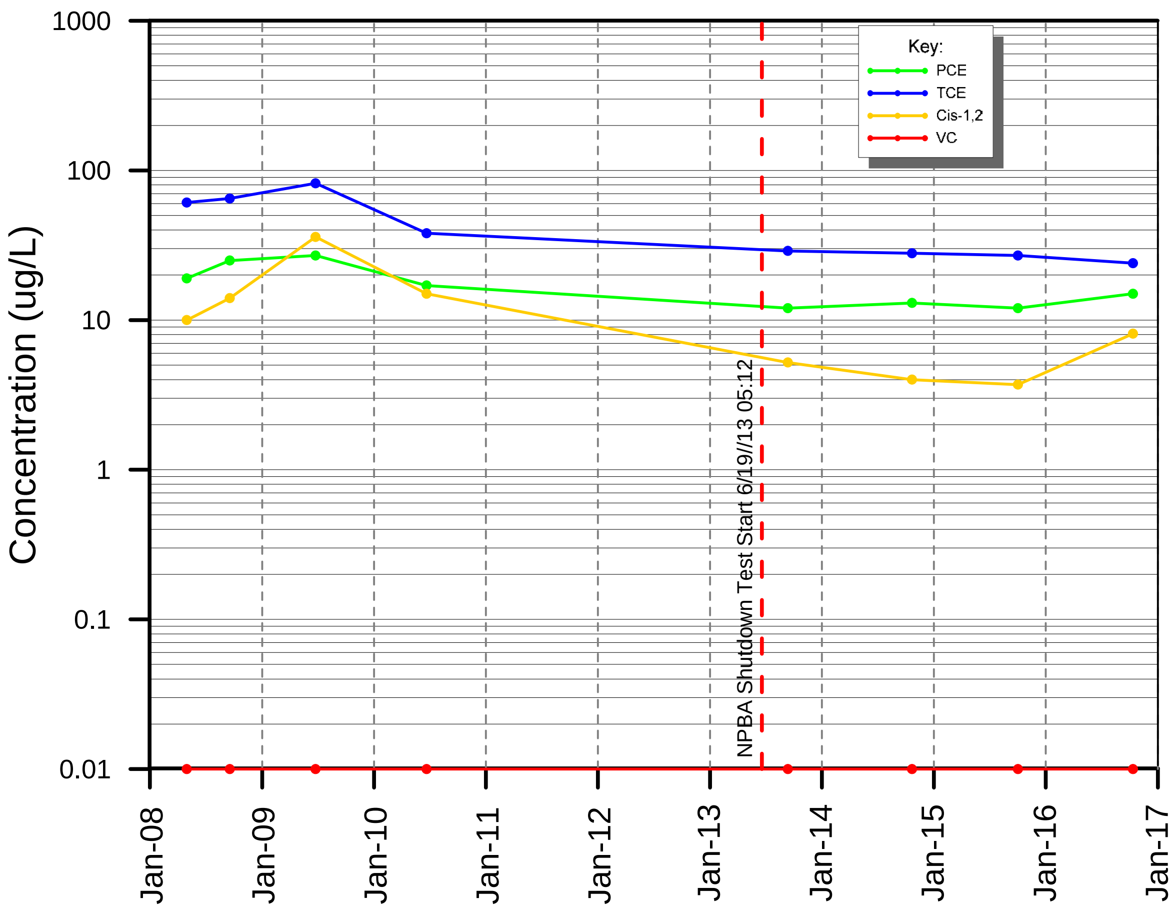


Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
0.01
0.1
1
10
100
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-102S

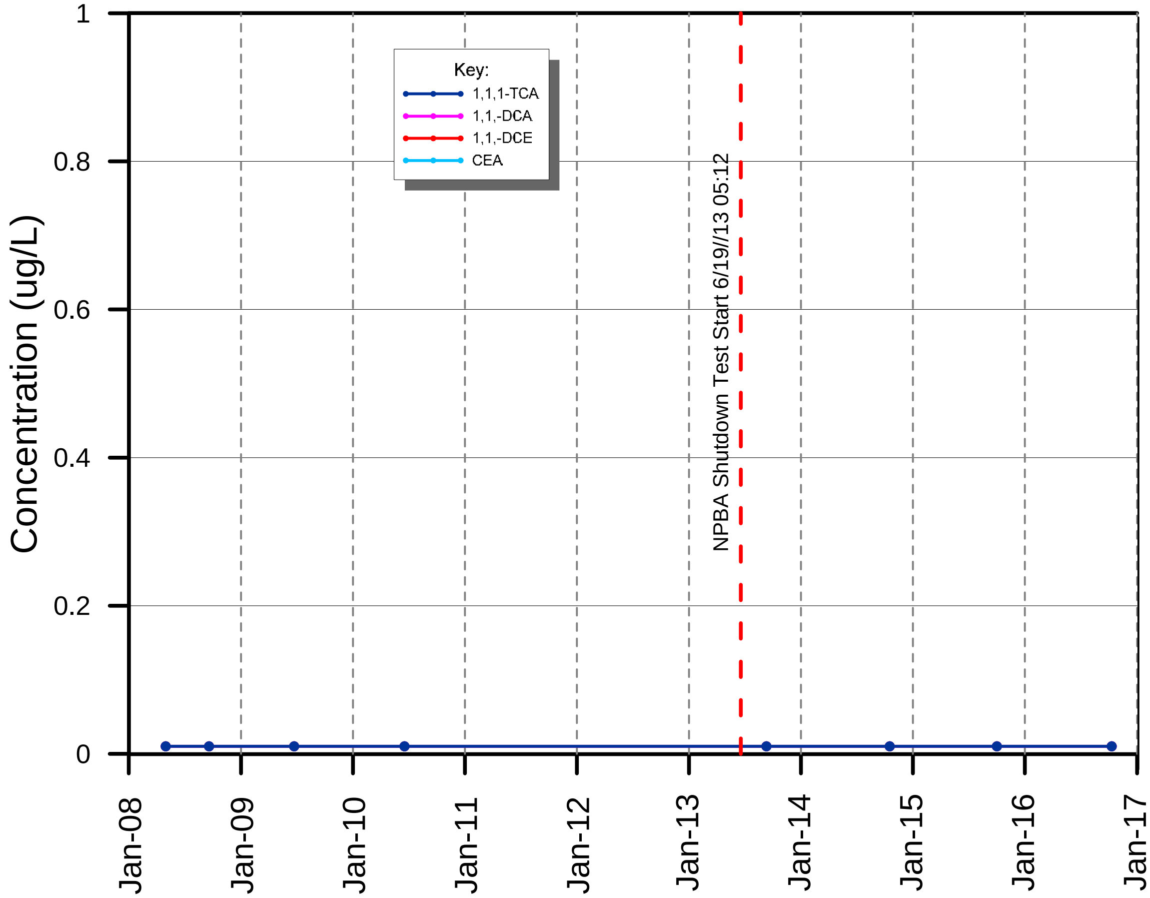


Concentration (ug/L)
100
80
60
40
20
0
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC

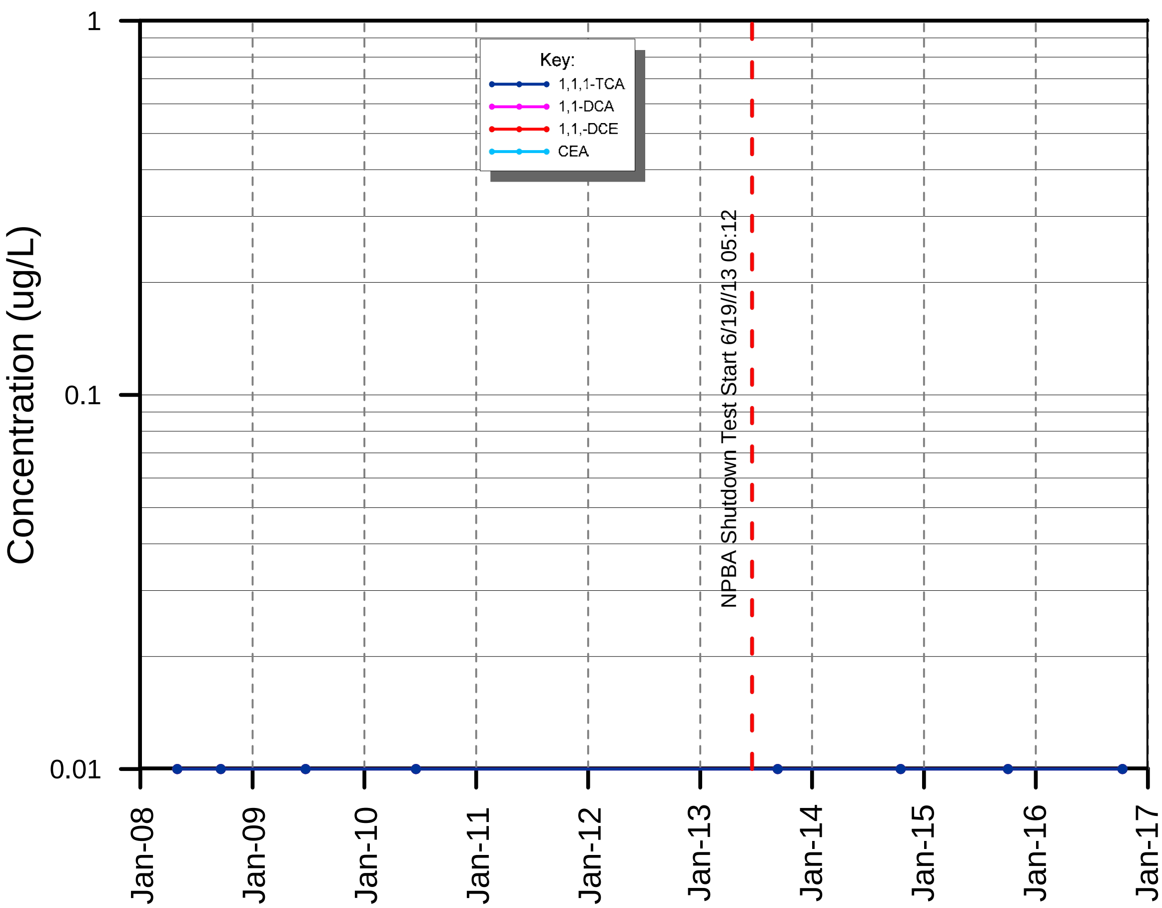


Concentration (ug/L)
1000
100
10
1
0.1
0.01
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC

MW-103D

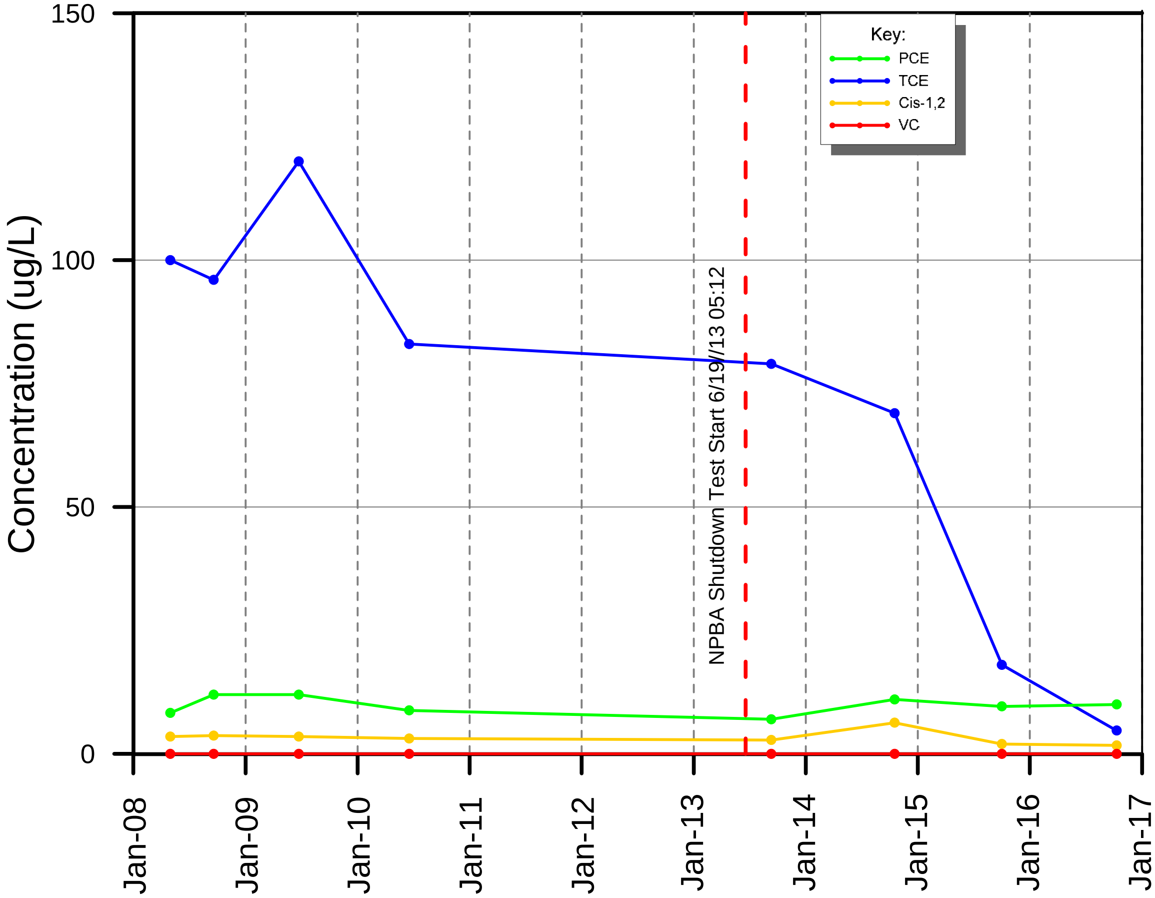


Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19//13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

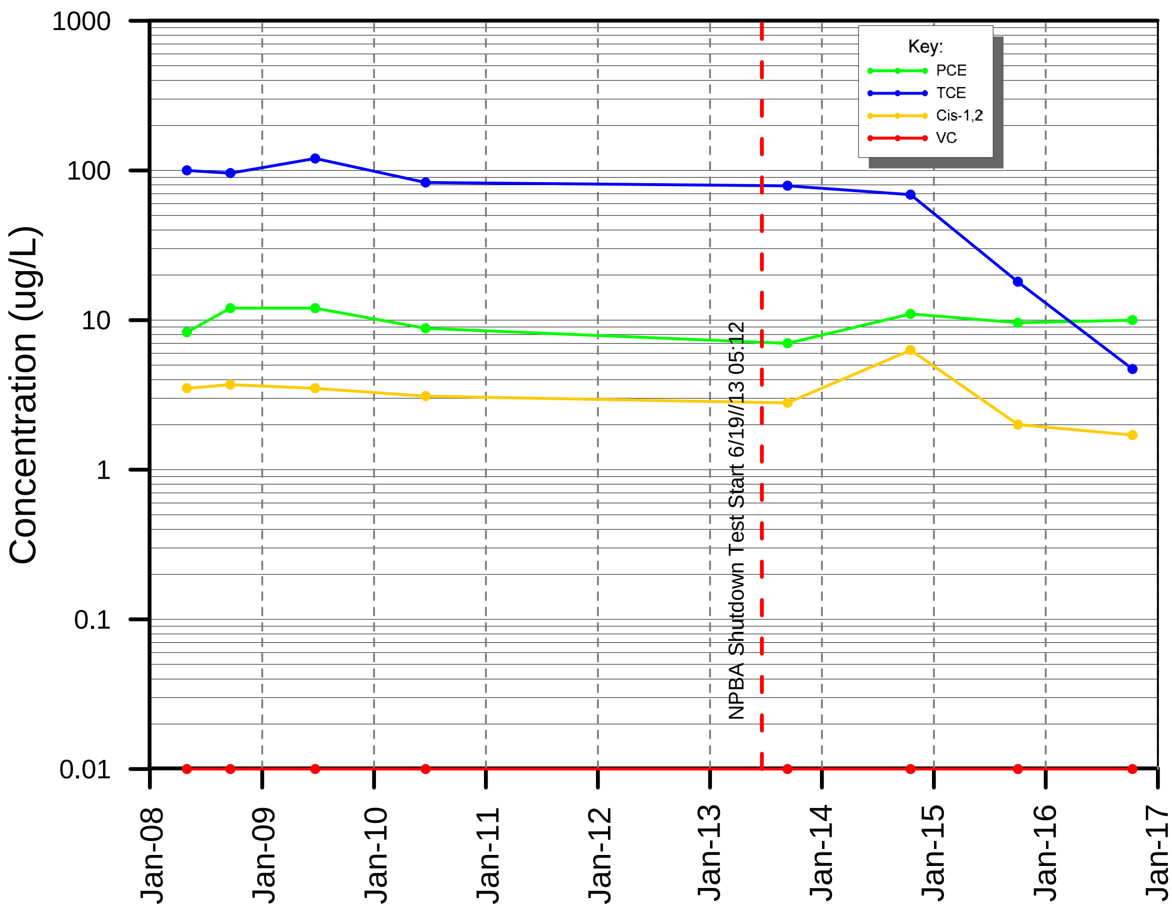


Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19//13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-103D

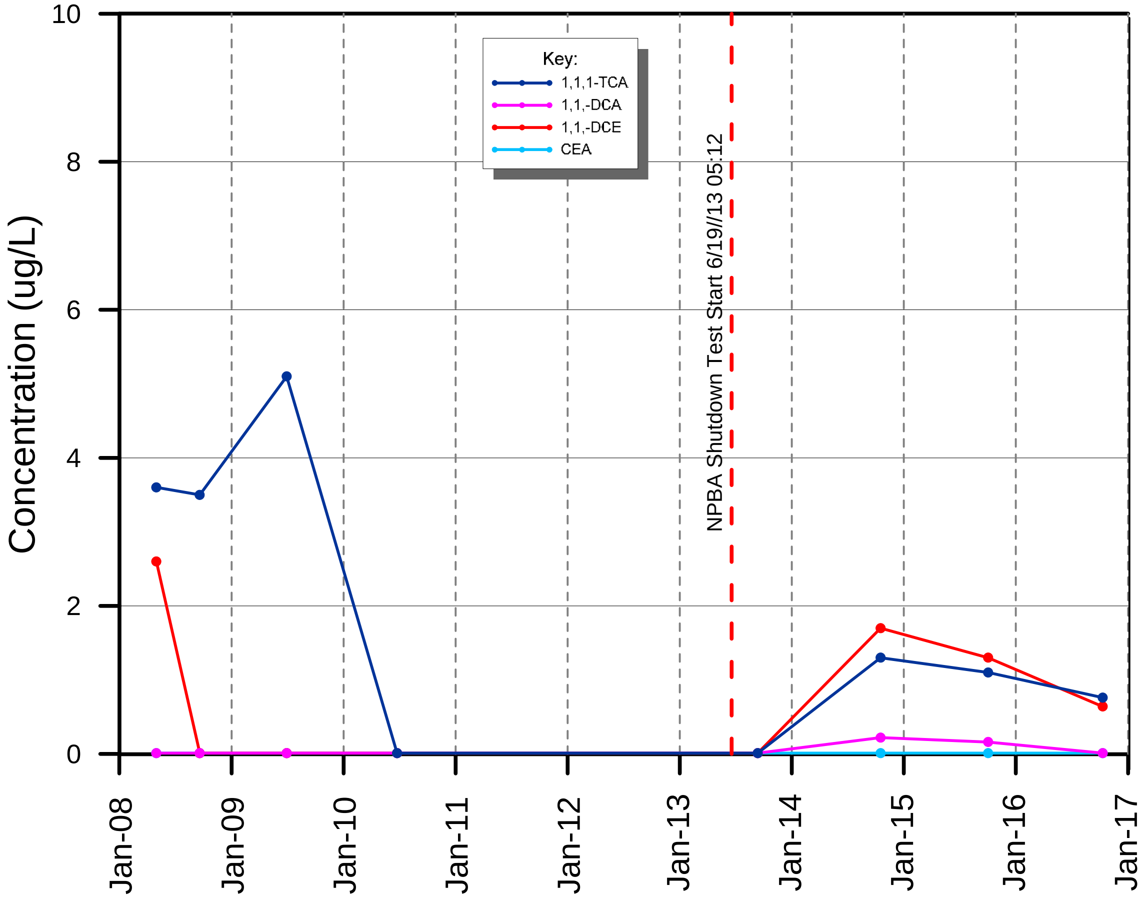


Key:
PCE
TCE
Cis-1,2
VC
Concentration (ug/L)
150
100
50
0
NPBA Shutdown Test Start 6/19/13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

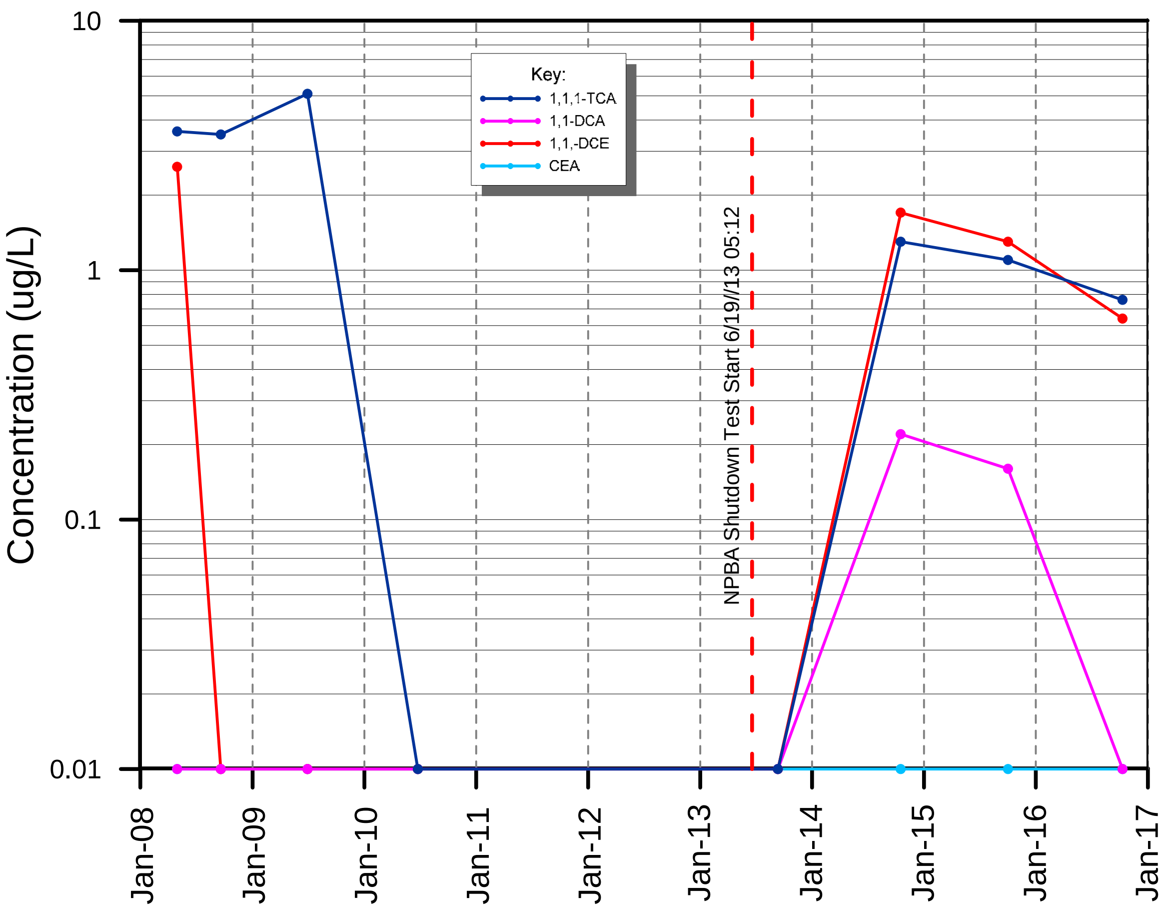


Key:
PCE
TCE
Cis-1,2
VC
Concentration (ug/L)
1000
100
10
1
0.1
0.01
NPBA Shutdown Test Start 6/19/13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-103S

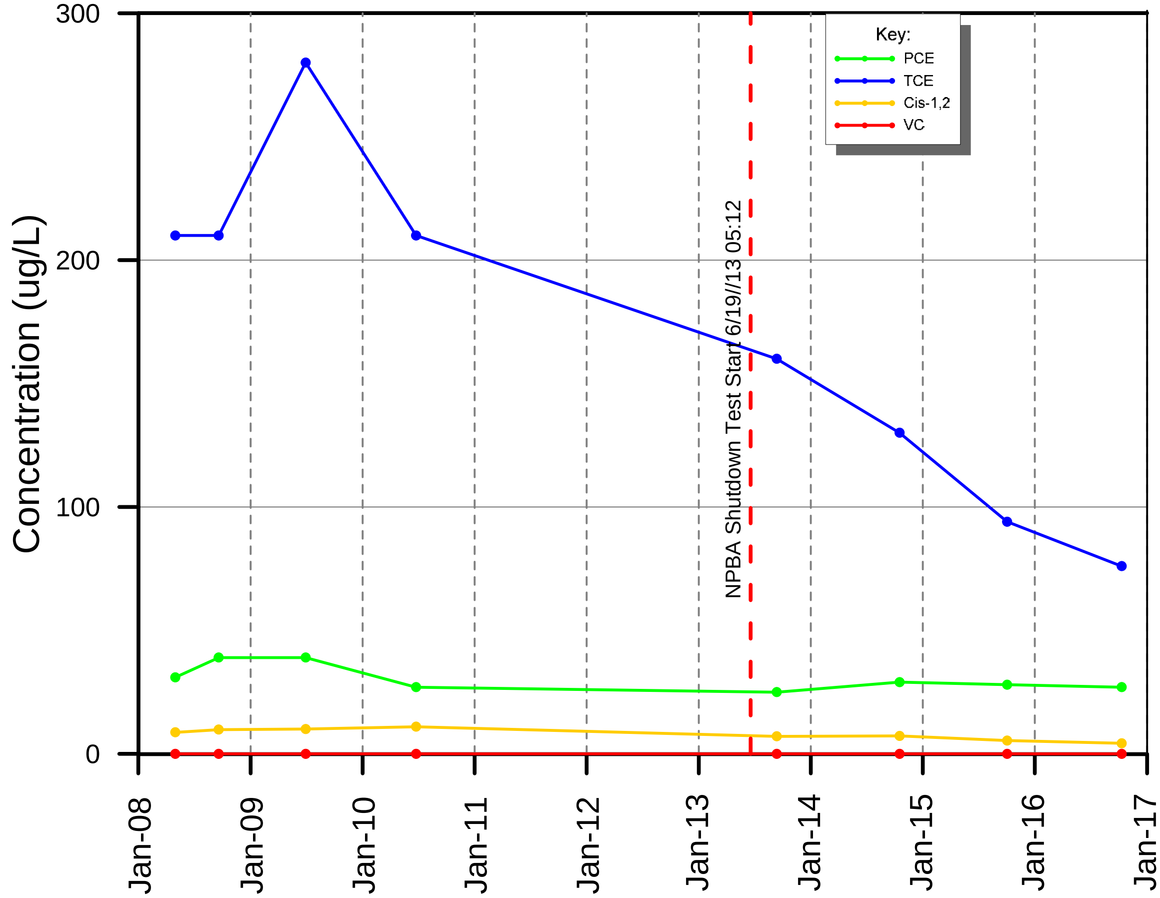


Concentration (ug/L)
10
8
6
4
2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19//13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

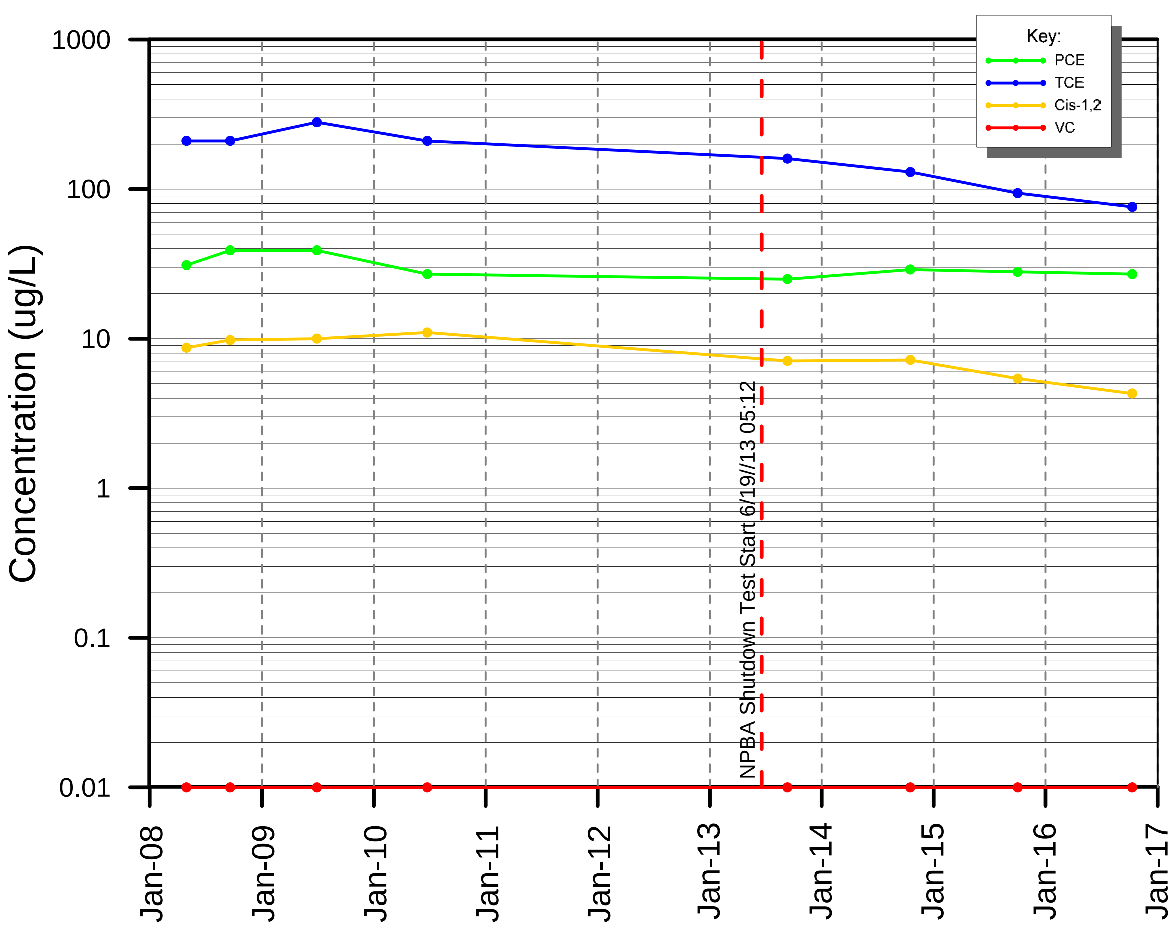


Concentration (ug/L)
10
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19//13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-103S

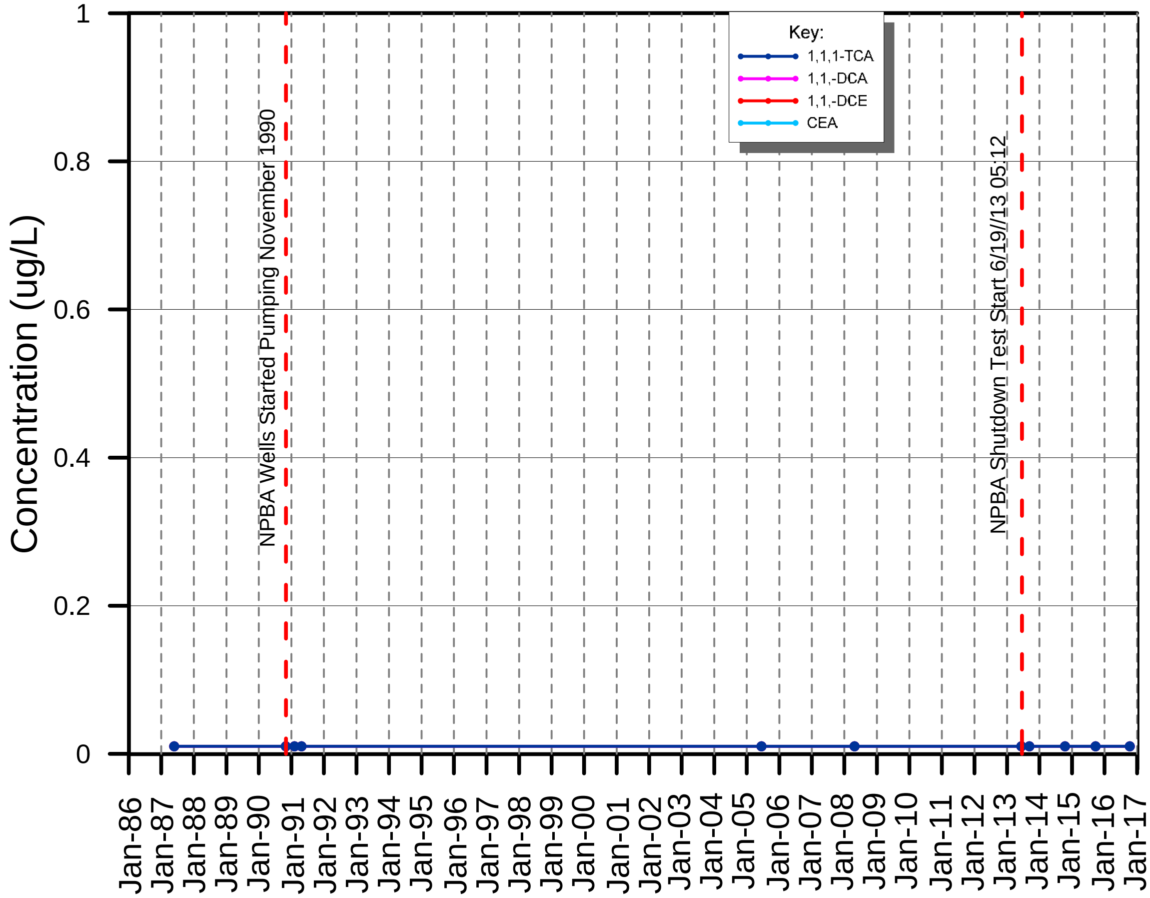


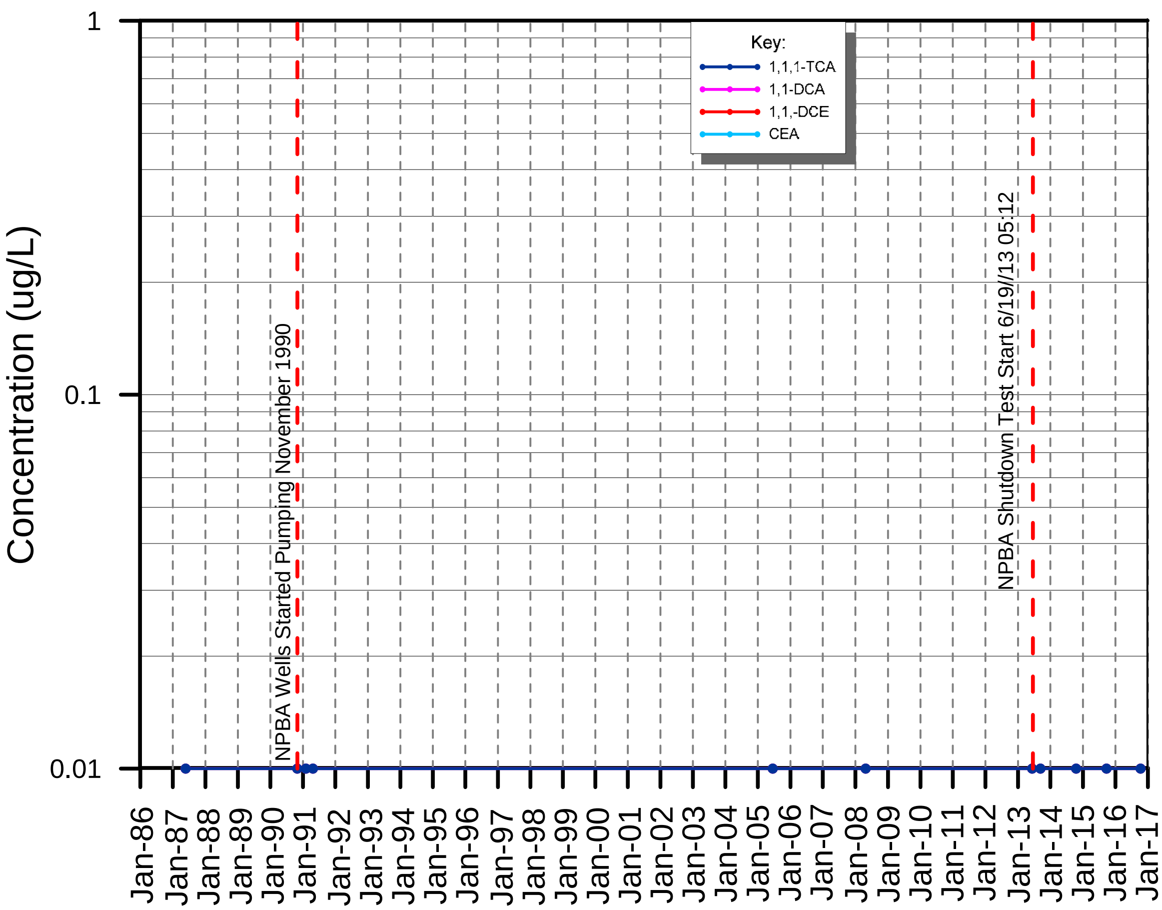
Key:
PCE
TCE
Cis-1,2
VC
Concentration (ug/L)
300
200
100
0
NPBA Shutdown Test Start 6/19//13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17



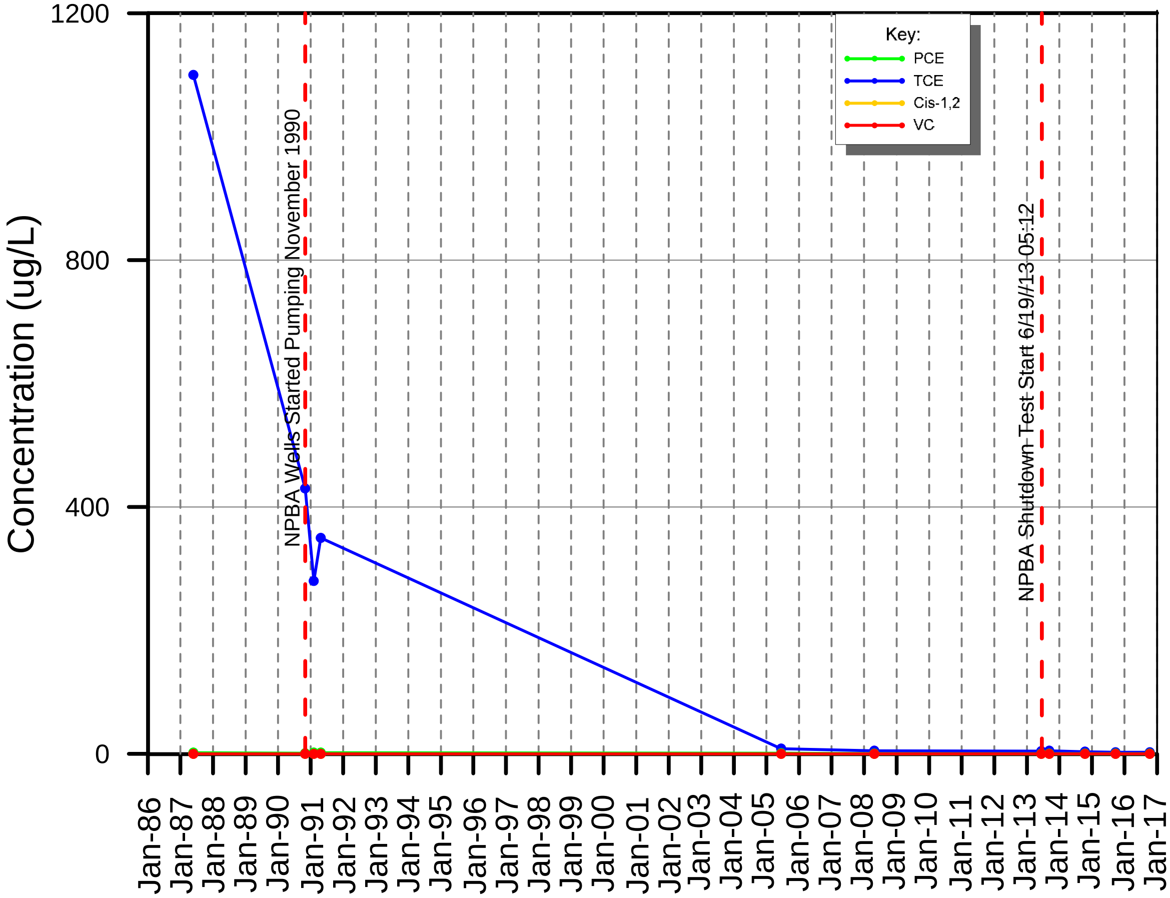
Key:
PCE
TCE
Cis-1,2
VC
Concentration (ug/L)
1000
100
10
1
0.1
0.01
NPBA Shutdown Test Start 6/19//13 05:12
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-11


Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17


Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
Concentration (ug/L)
1
0.1
0.01
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

MW-11


Concentration (ug/L)
1200
800
400
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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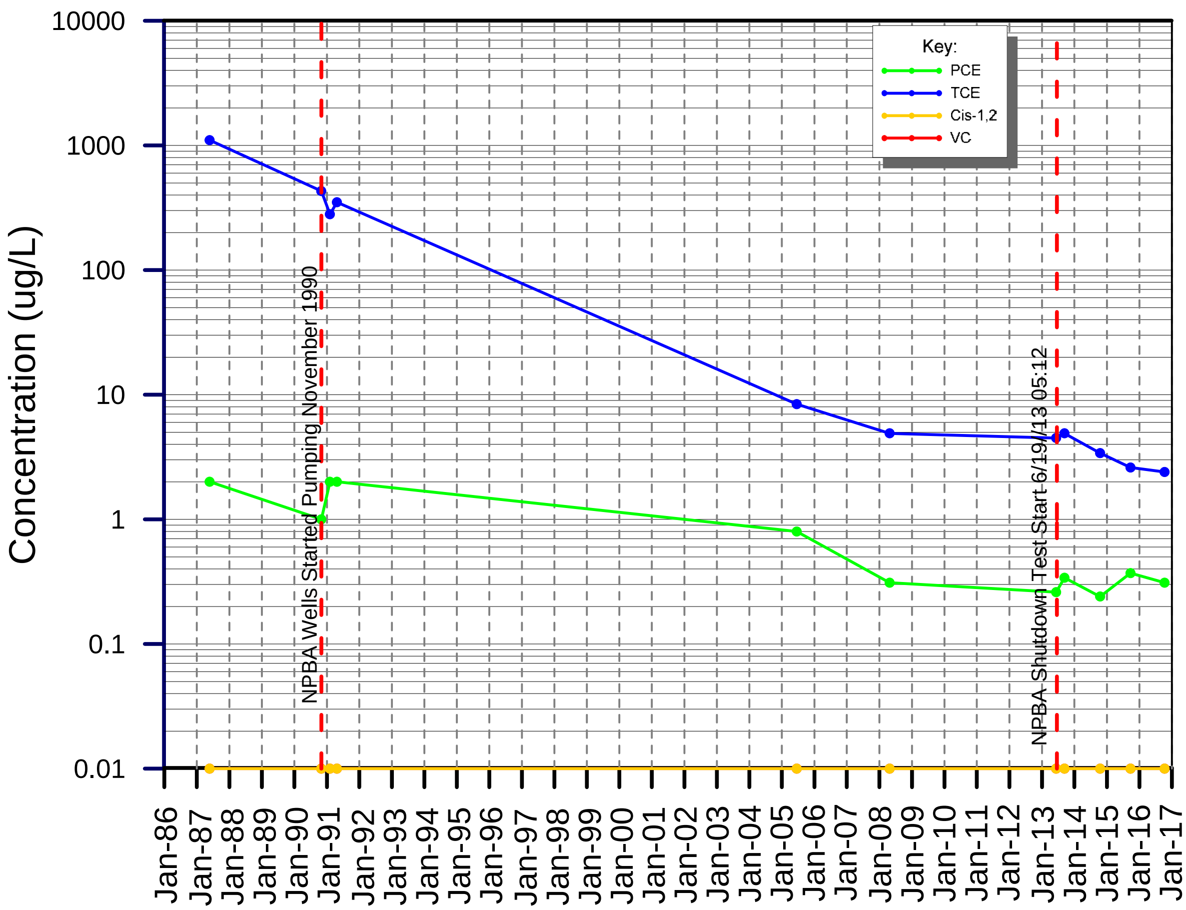
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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Jan-10
Jan-11
Jan-12
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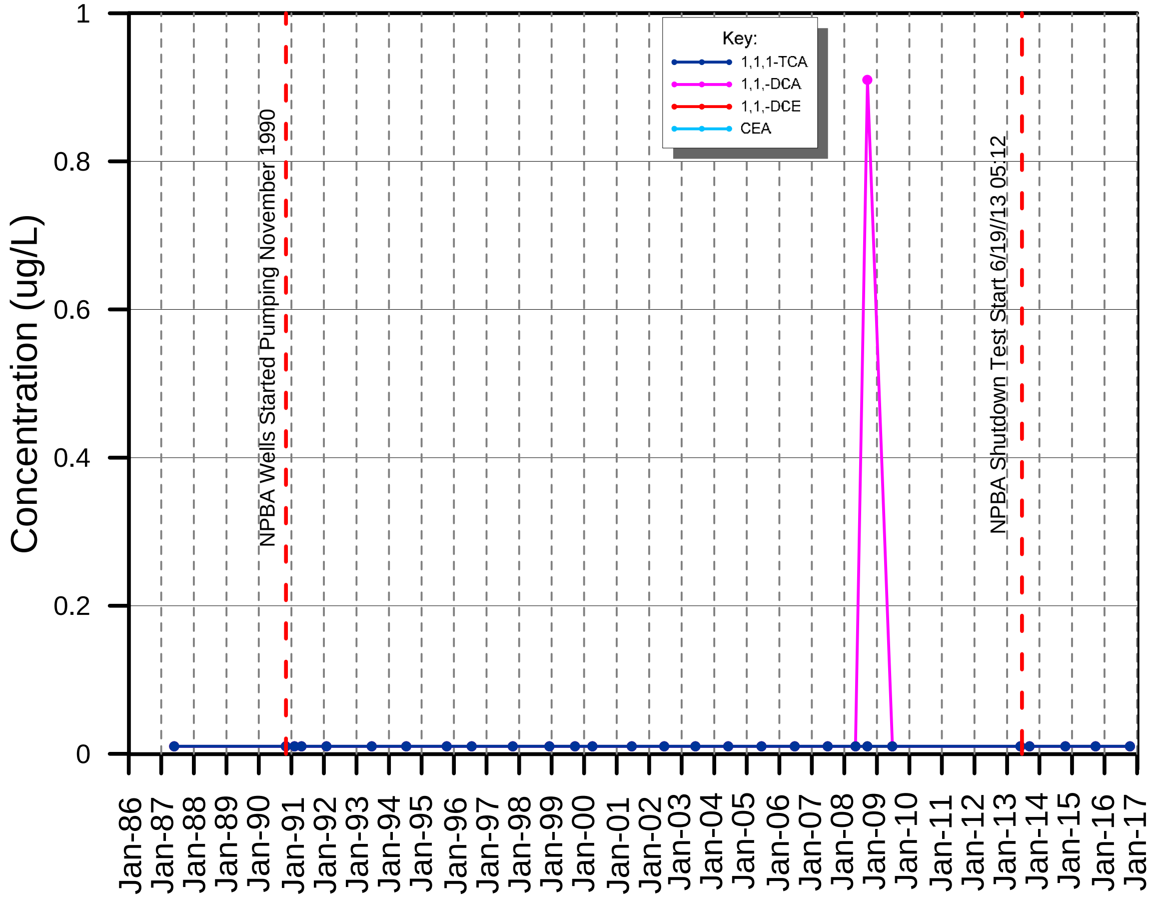
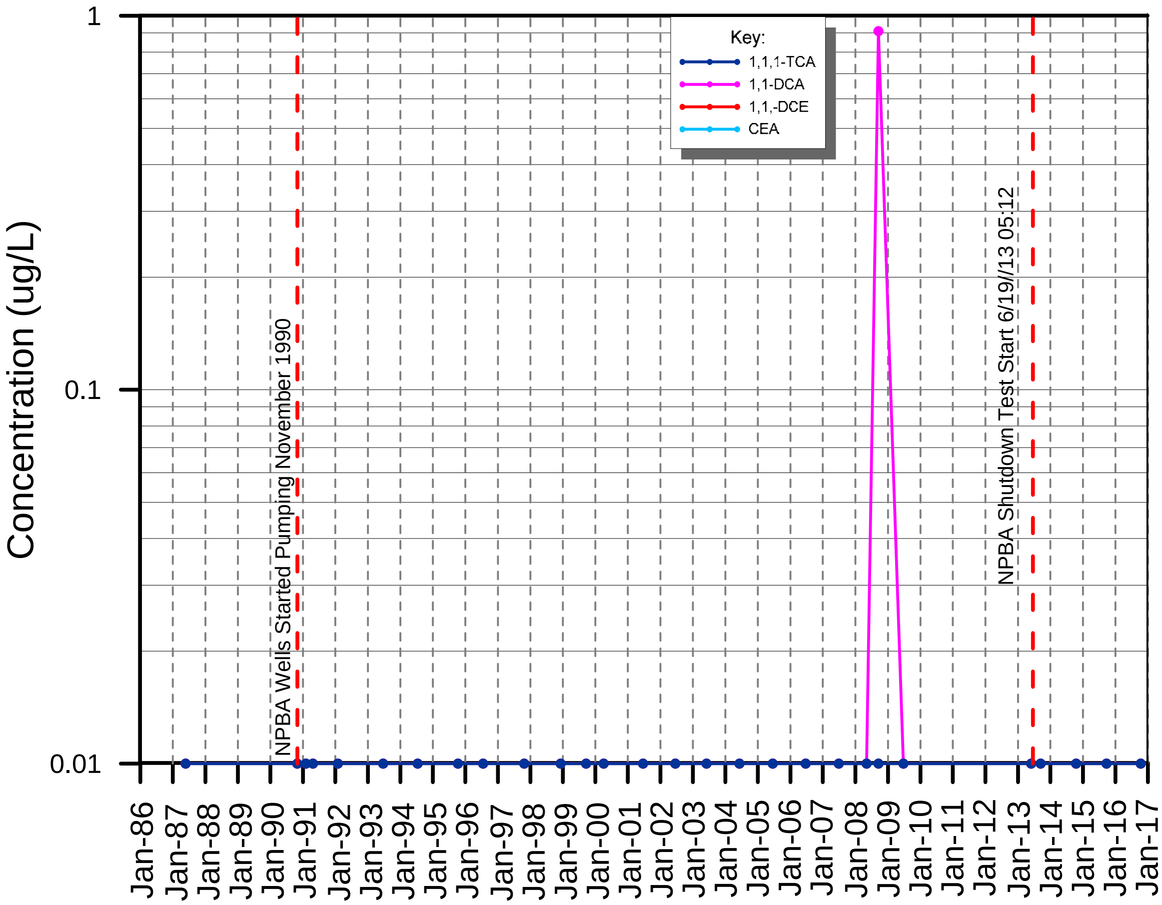
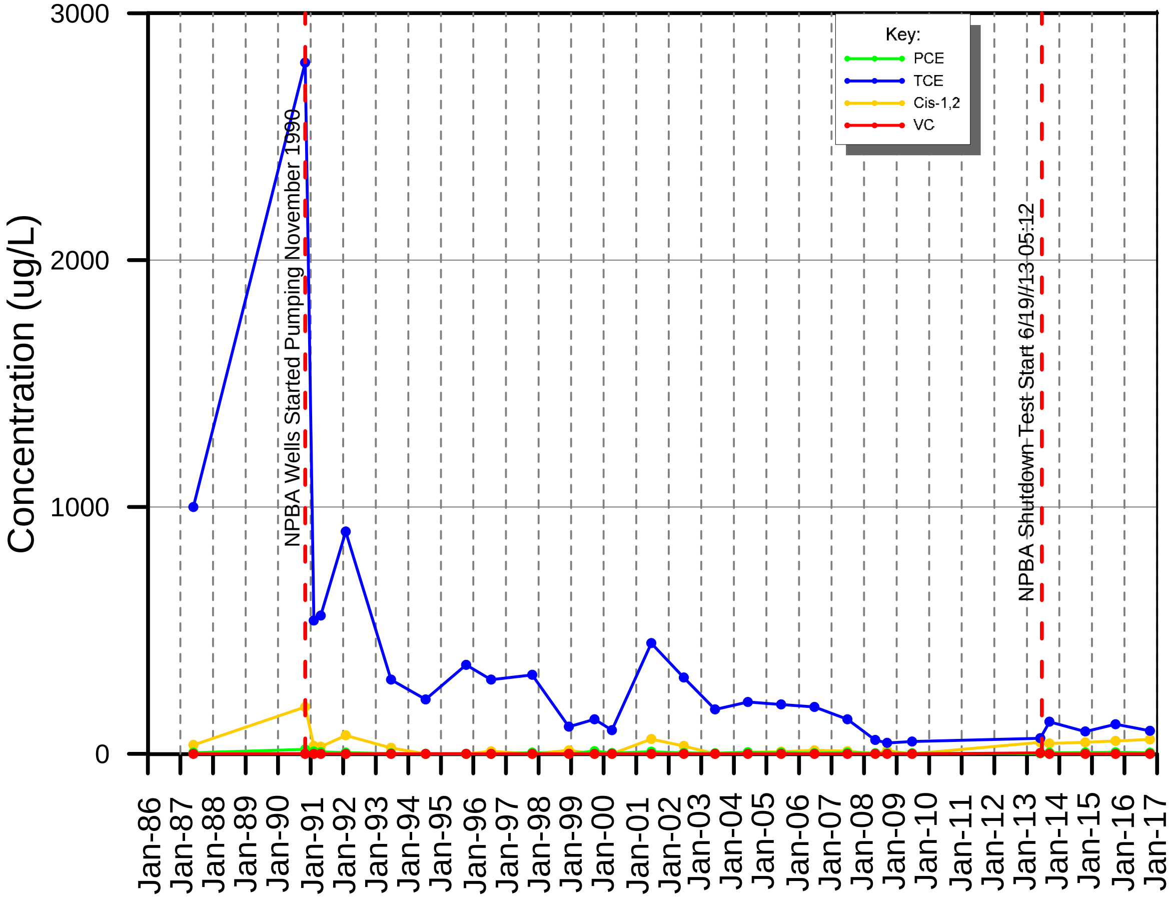
Jan-14
Jan-15
Jan-16
Jan-17

MW-12


Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17


Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

MW-12


3000
2000
1000
0
Concentration (ug/L)
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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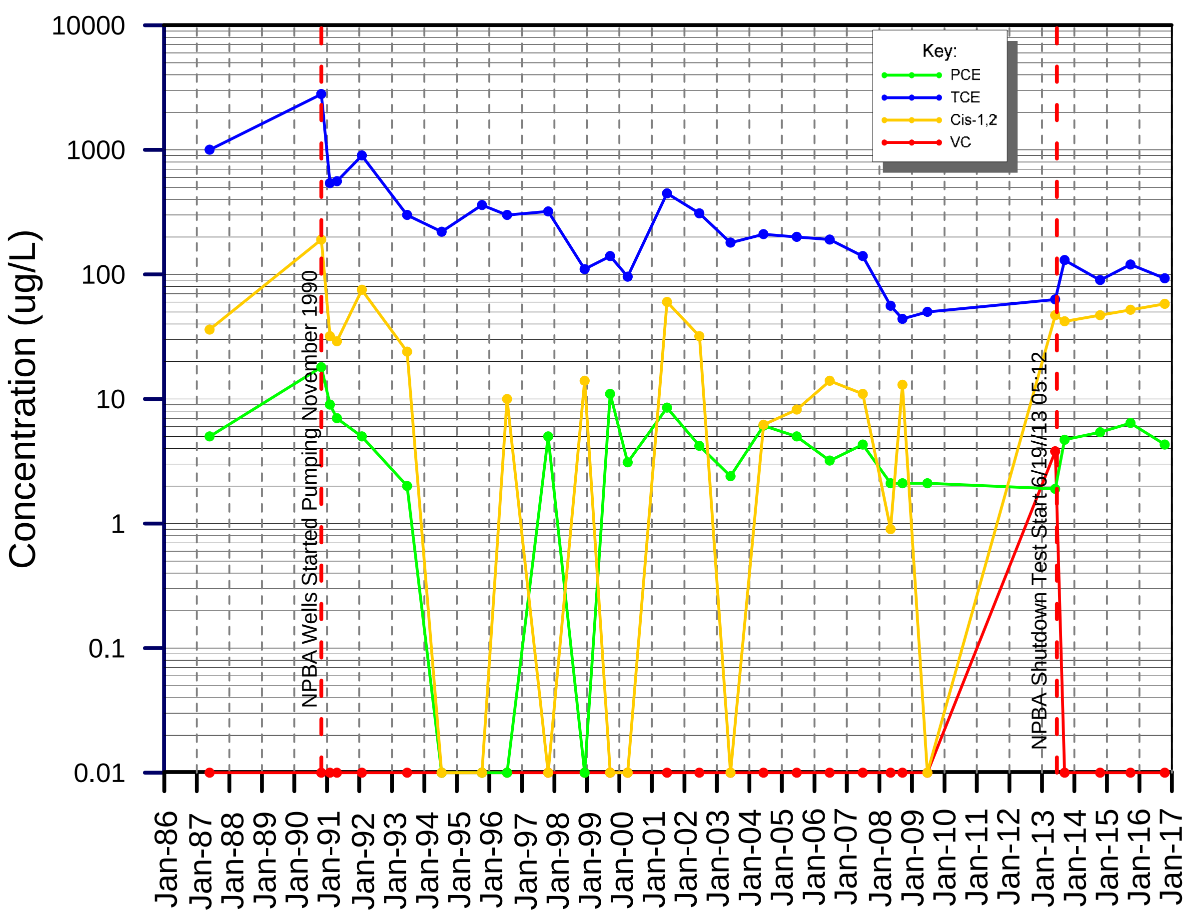
Jan-15
Jan-16
Jan-17


10000
1000
100
10
1
0.1
0.01
Concentration (ug/L)
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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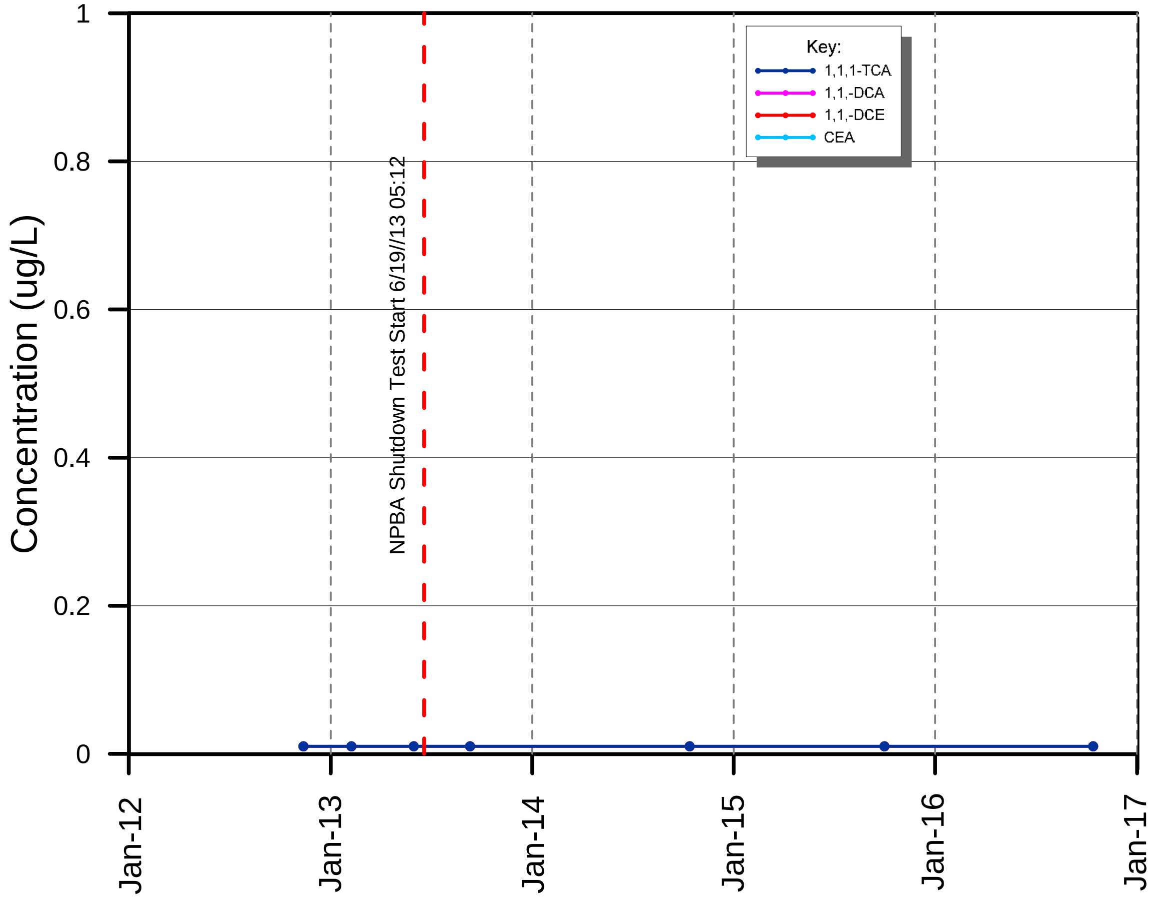
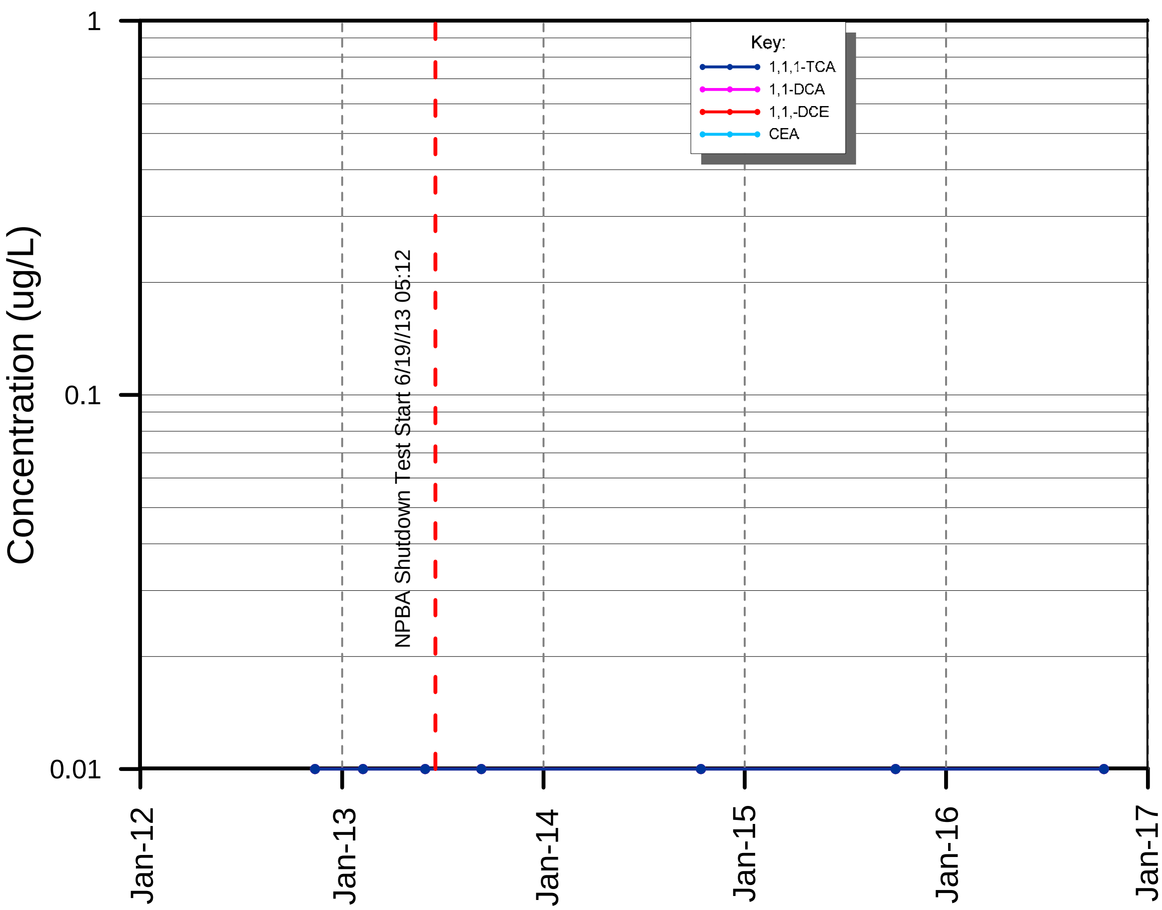
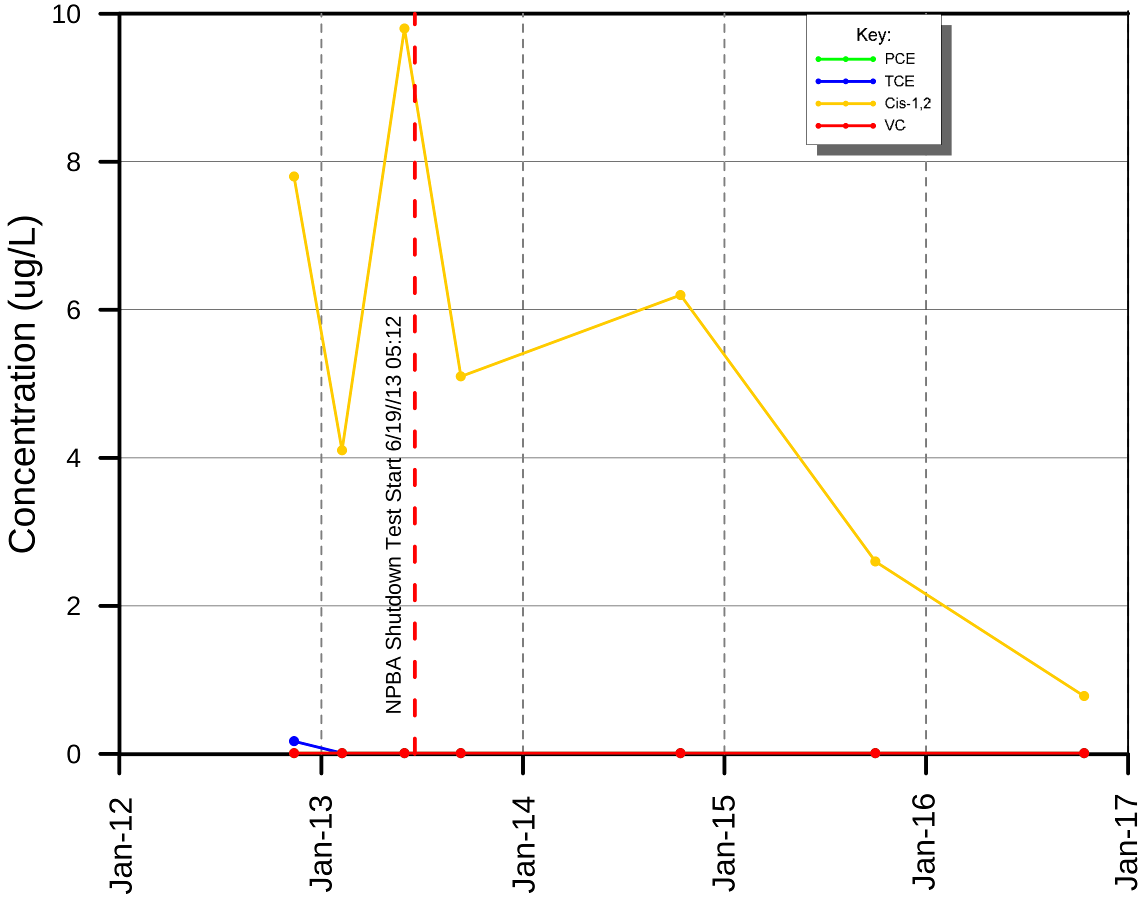
Jan-15
Jan-16
Jan-17

MW-142D

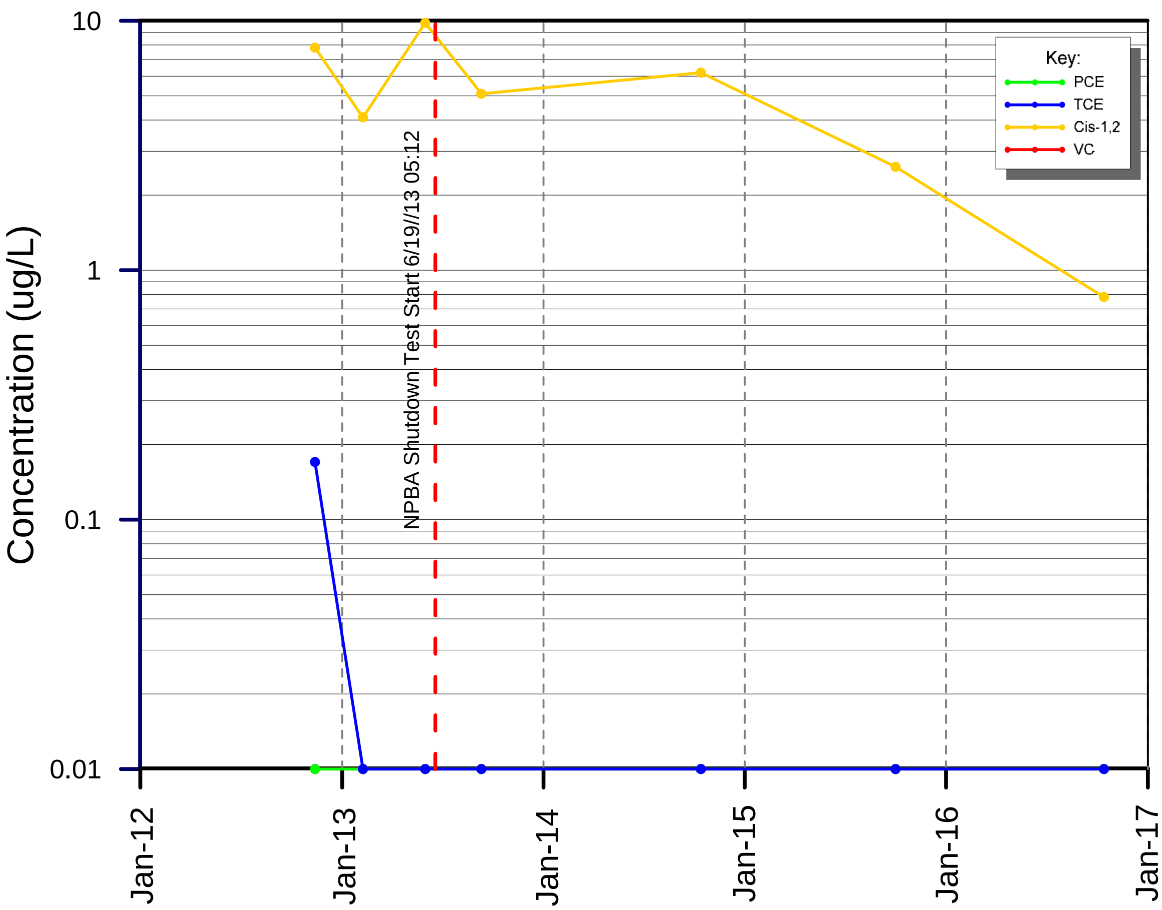

Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
1
0.1
0.01
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-142D

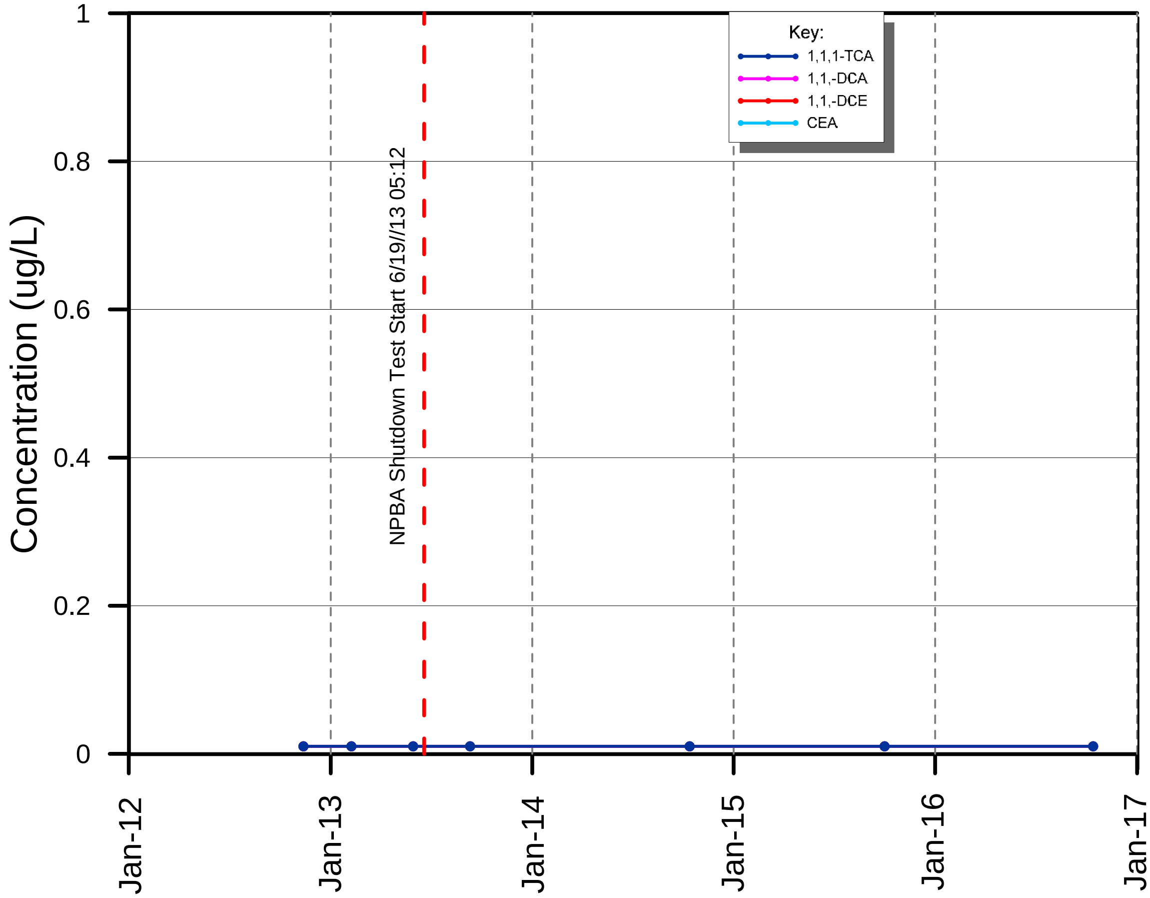


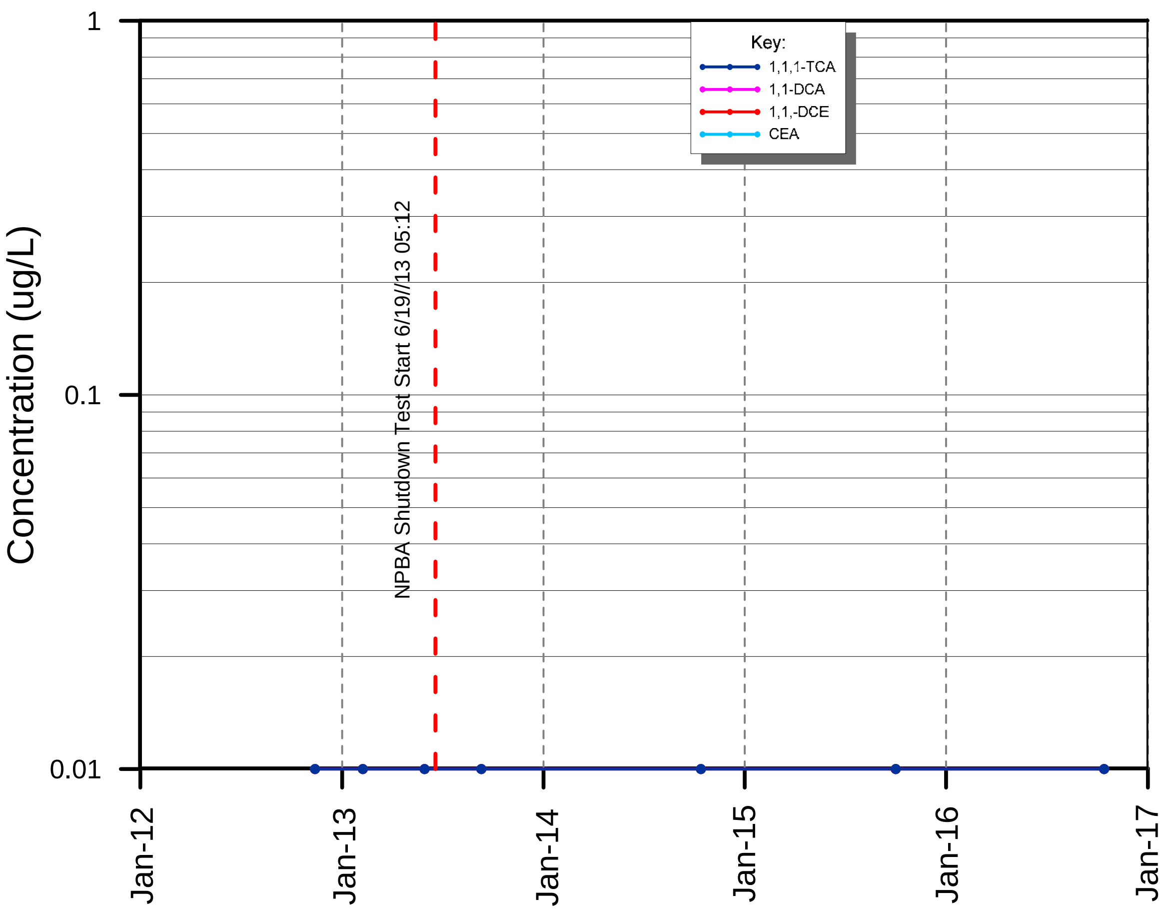
Concentration (ug/L)
10
8
6
4
2
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Shutdown Test Start 6/19/13 05:12
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17



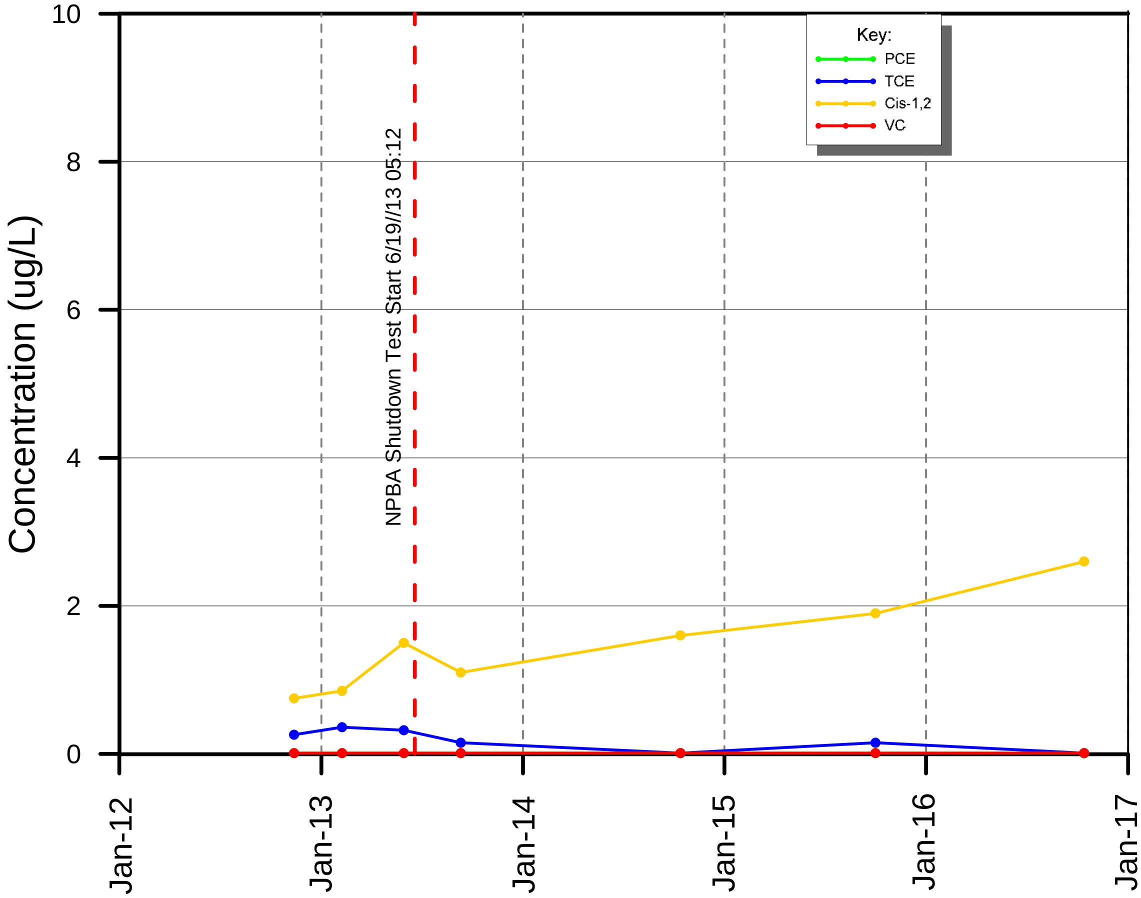
Concentration (ug/L)
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Shutdown Test Start 6/19/13 05:12
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-142S

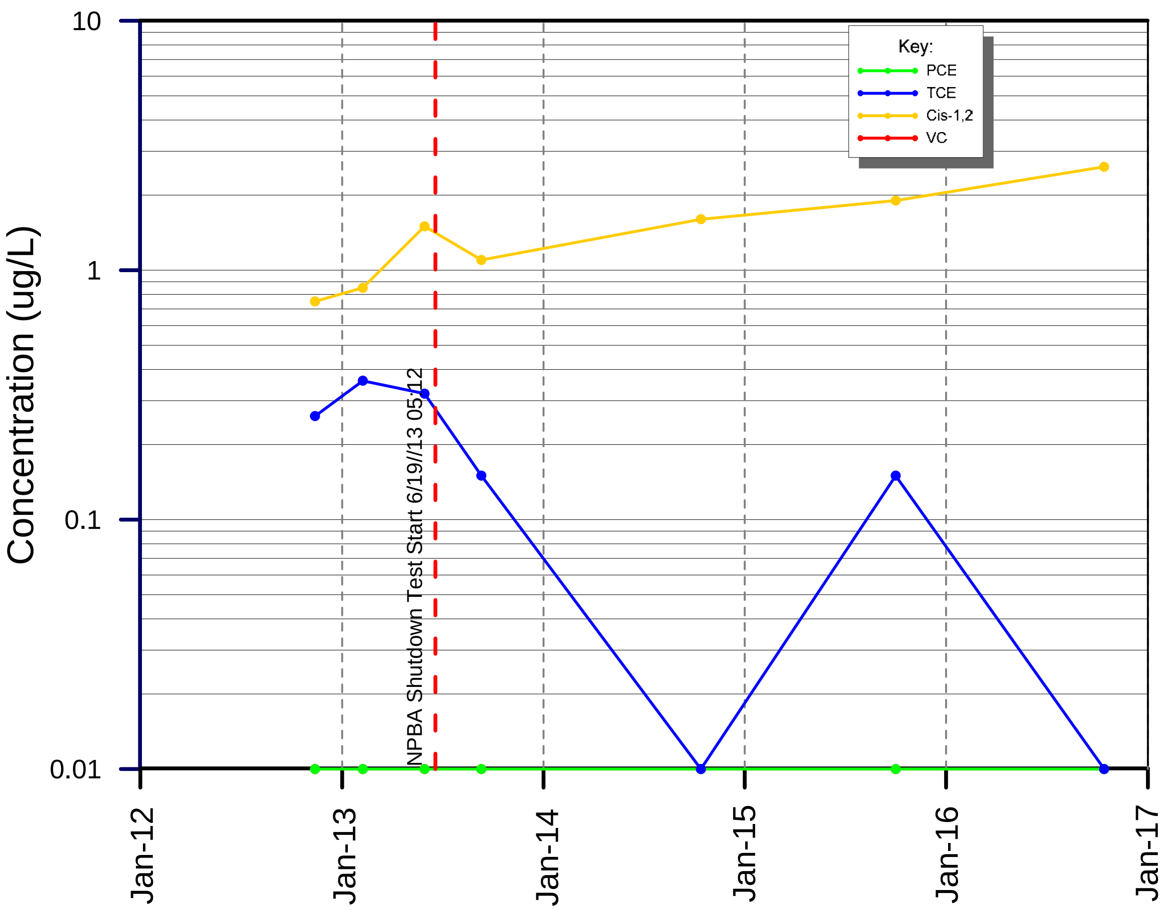

Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA


Concentration (ug/L)
1
0.1
0.01
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA

MW-142S

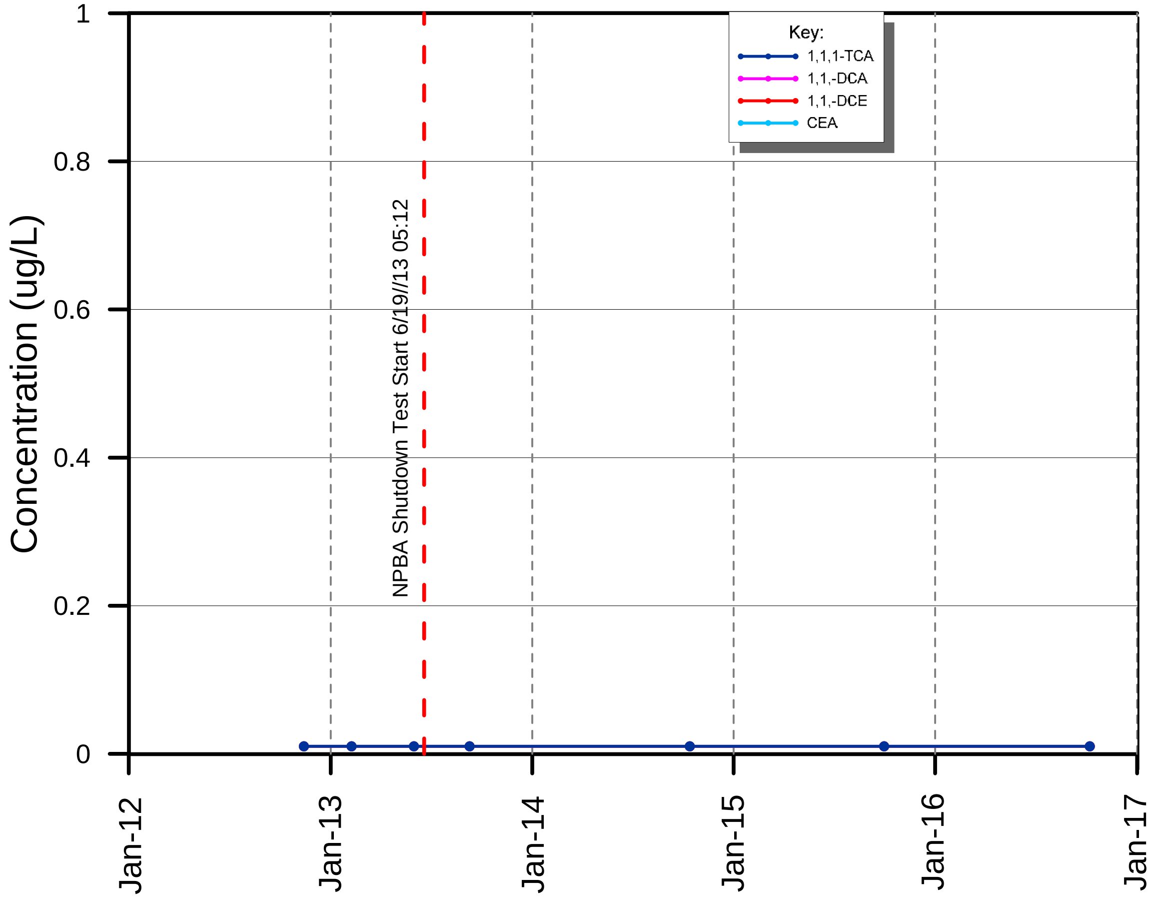


Concentration (ug/L)
10
8
6
4
2
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Shutdown Test Start 6/19/13 05:12
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

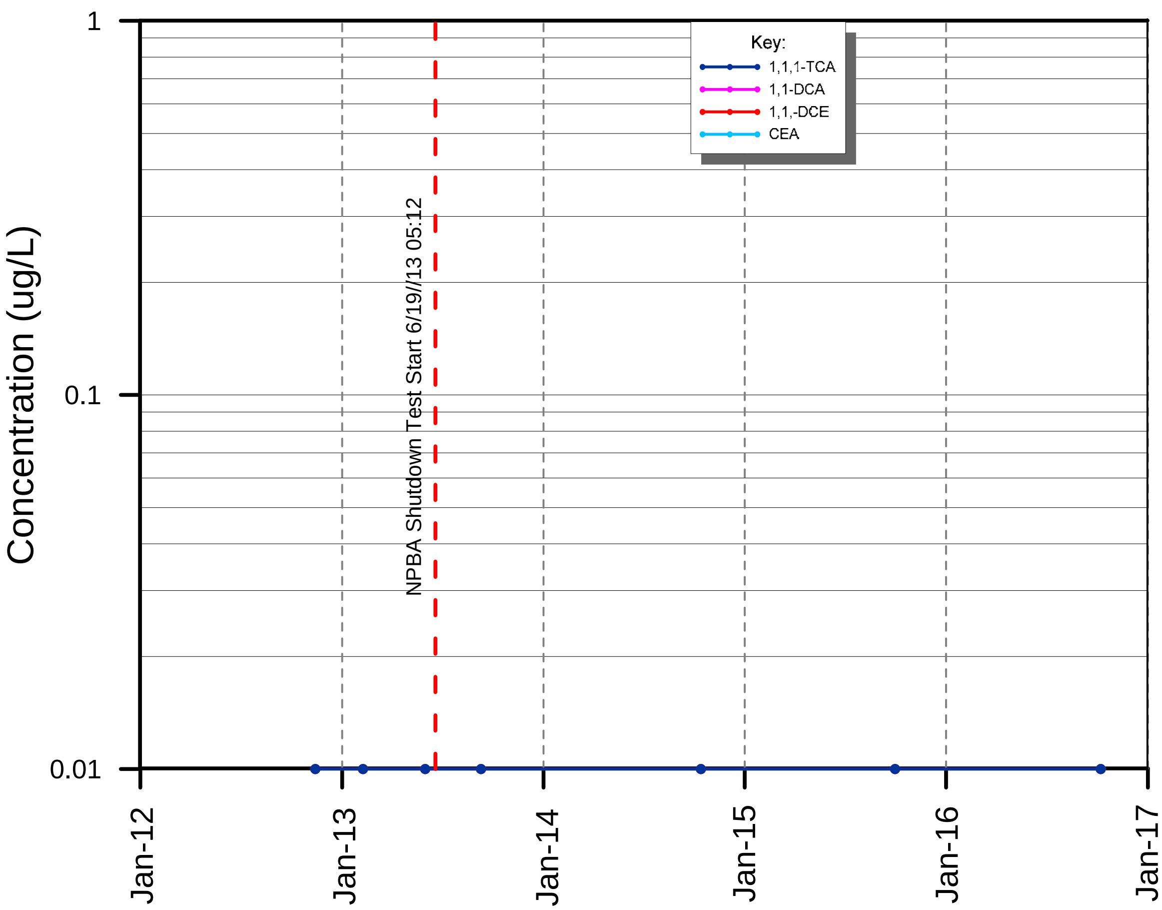


Concentration (ug/L)
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Shutdown Test Start 6/19/13 05:12
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-143D

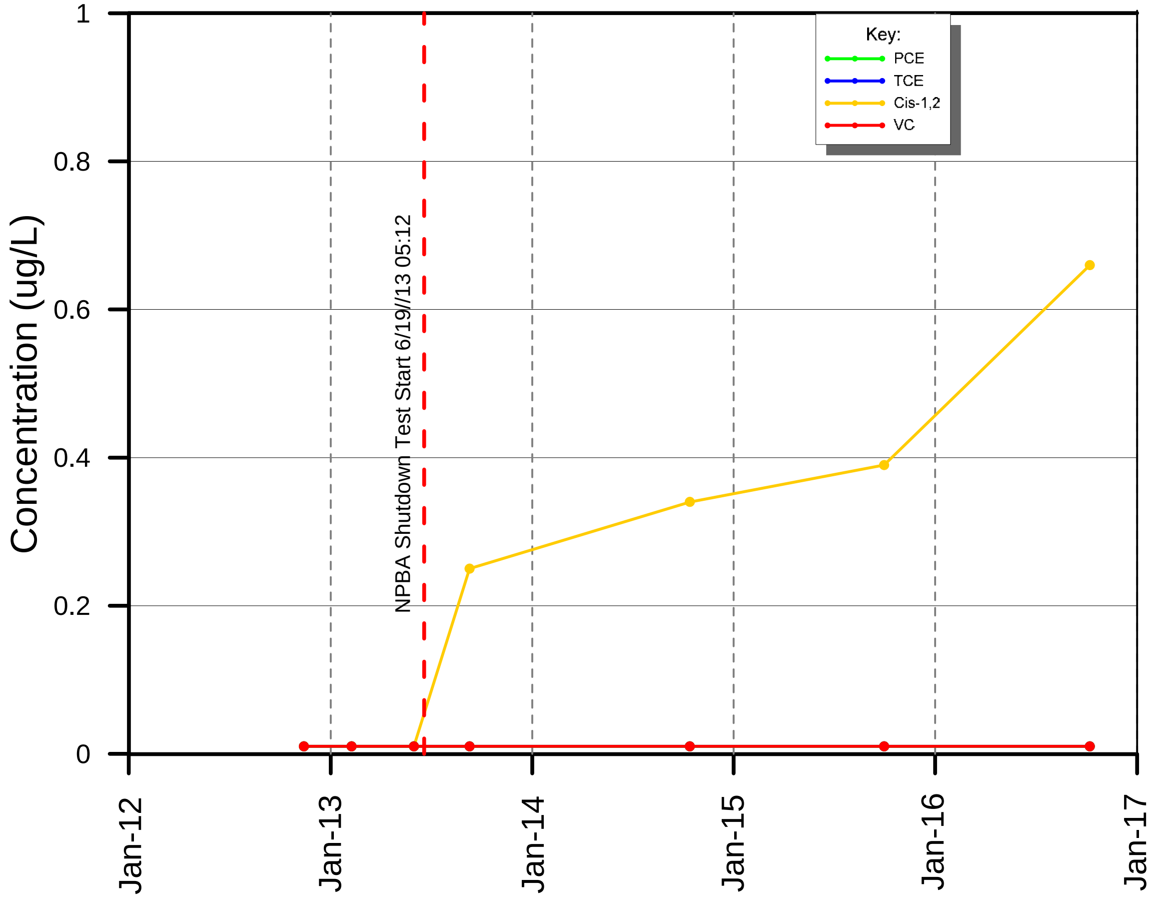


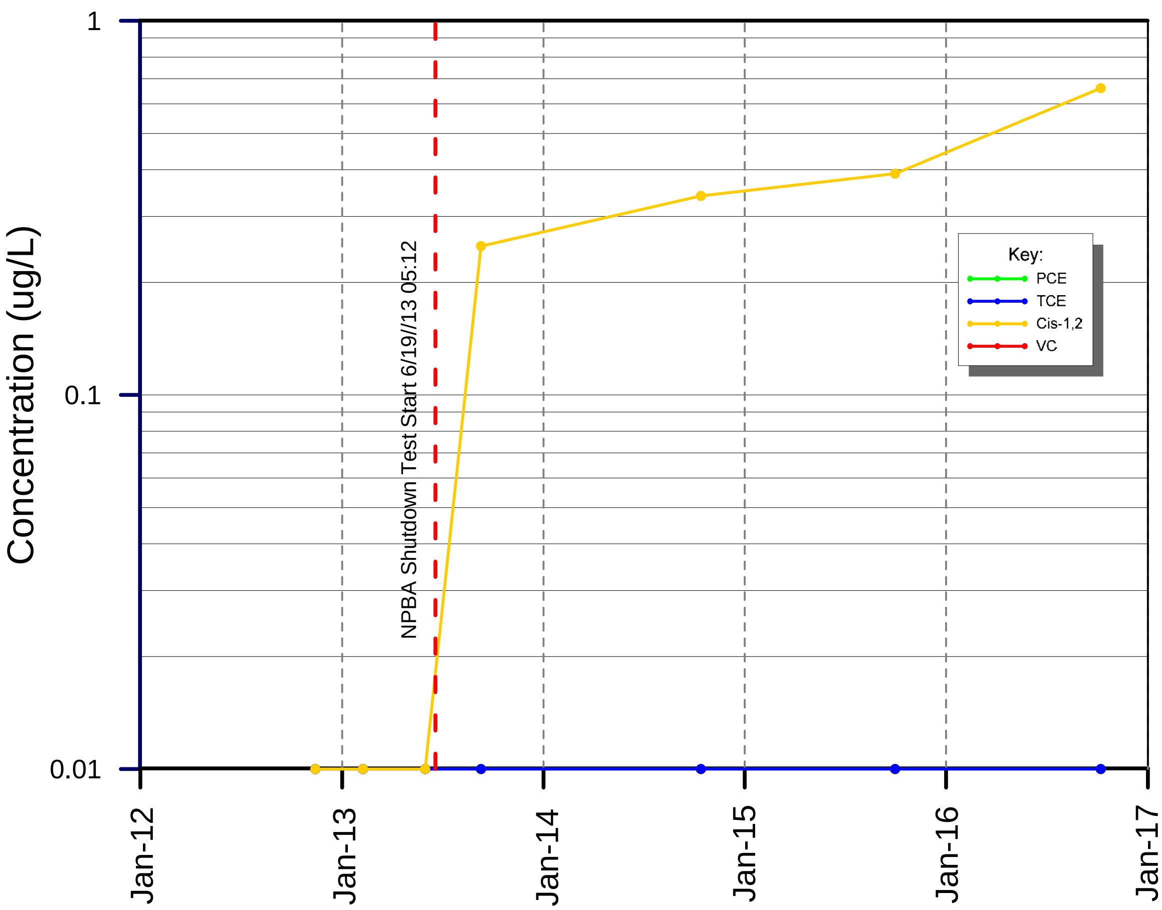
1
0.8
0.6
0.4
0.2
0
Concentration (ug/L)
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA



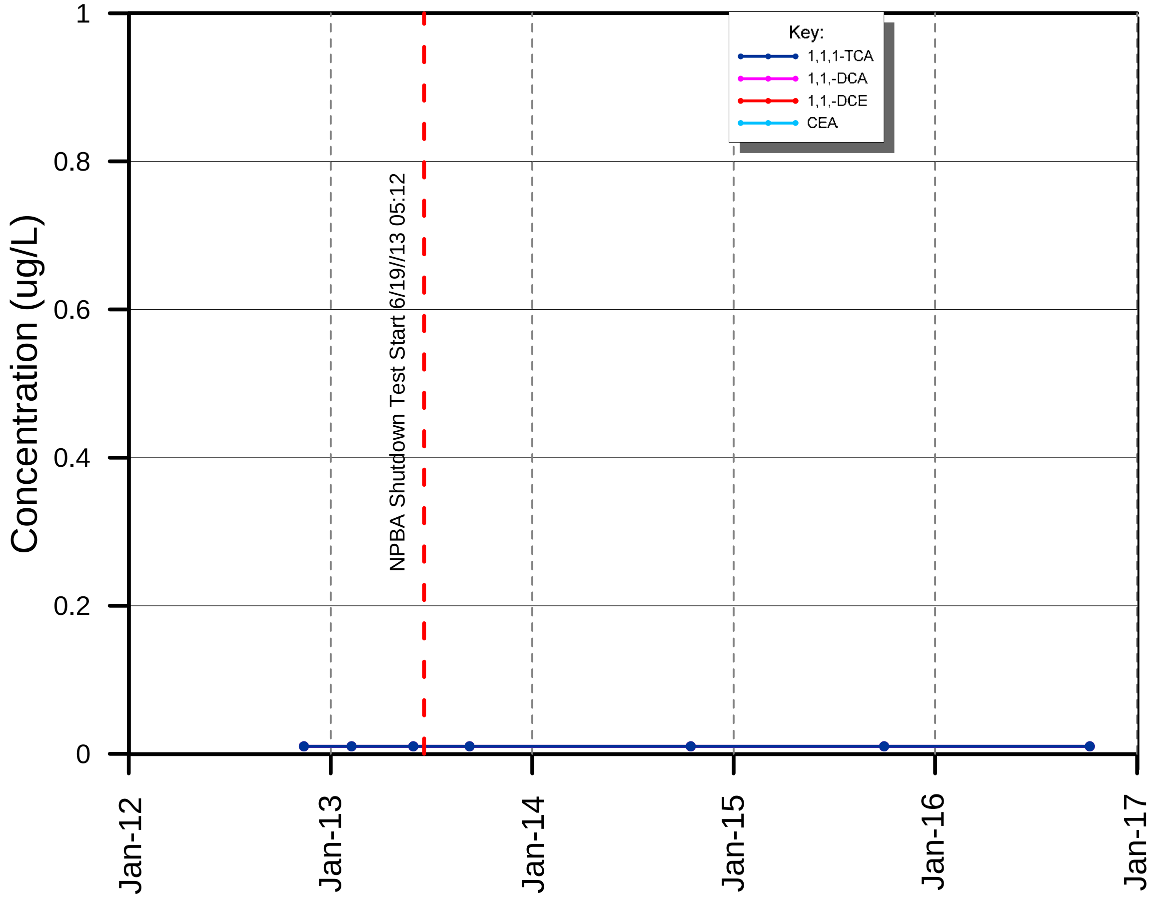
1
0.1
0.01
Concentration (ug/L)
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA

MW-143D

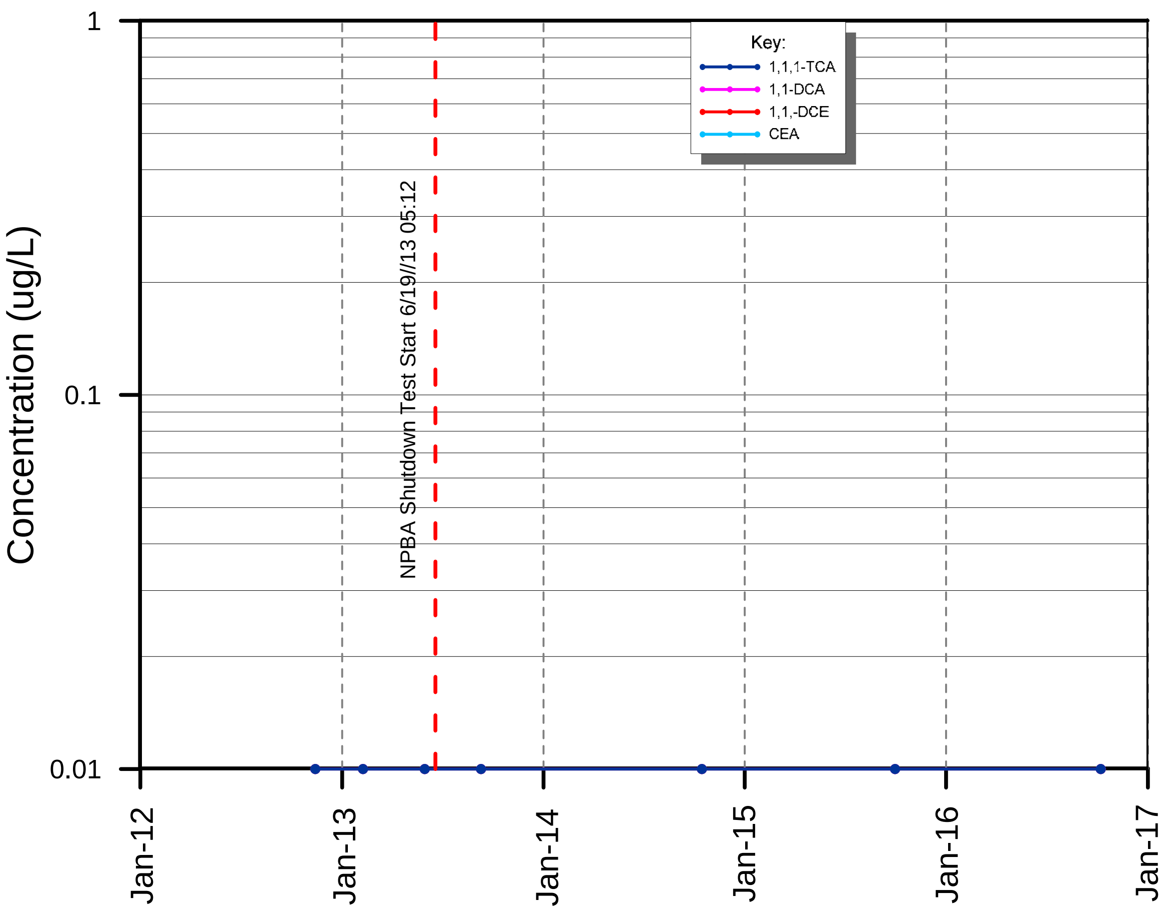

Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC


Concentration (ug/L)
1
0.1
0.01
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC

MW-143S

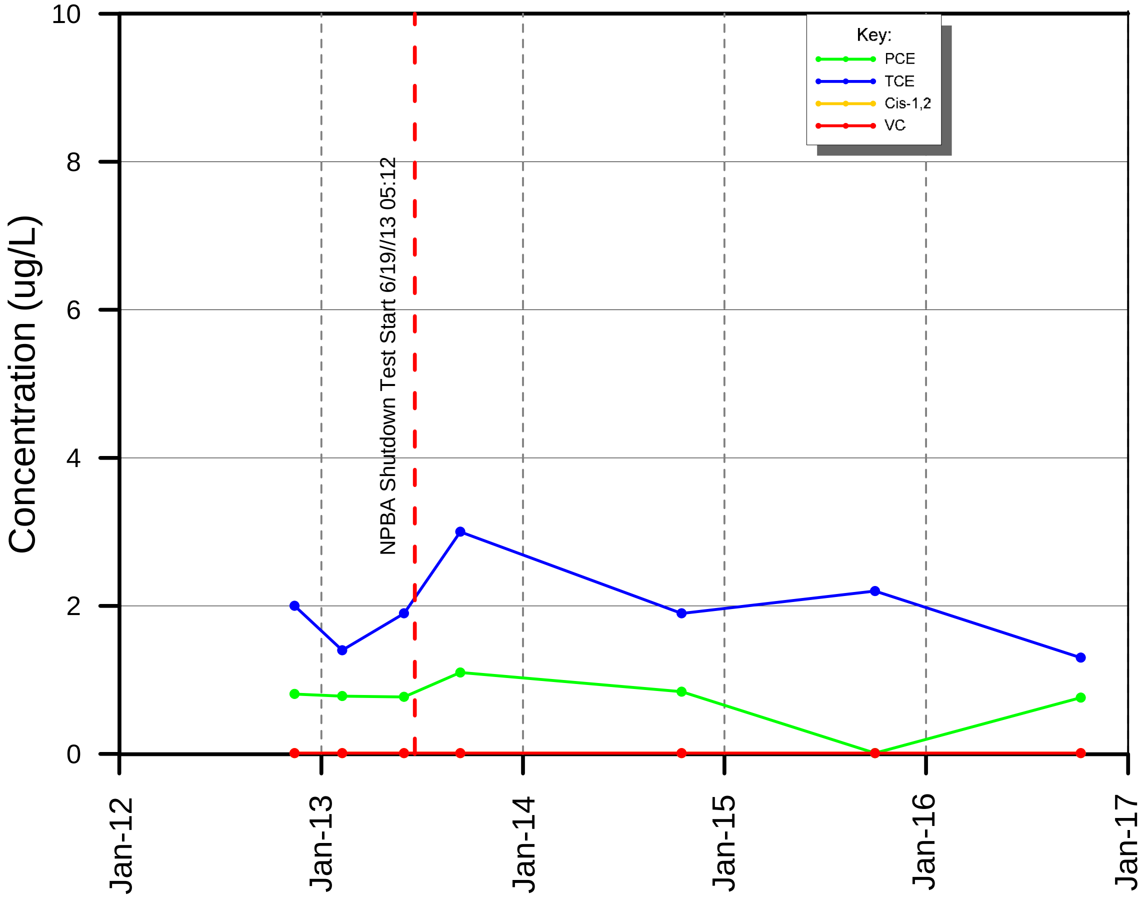


Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA

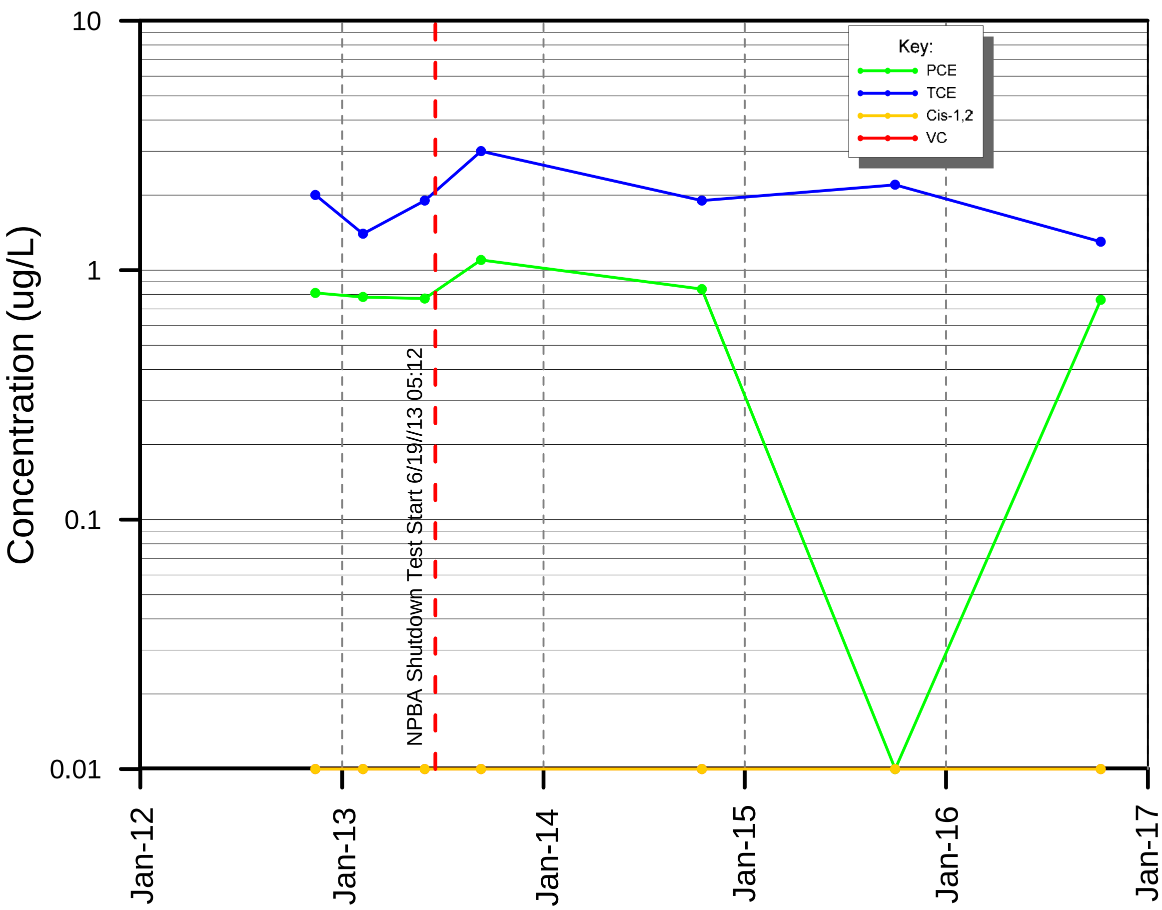


Concentration (ug/L)
1
0.1
0.01
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA

MW-143S

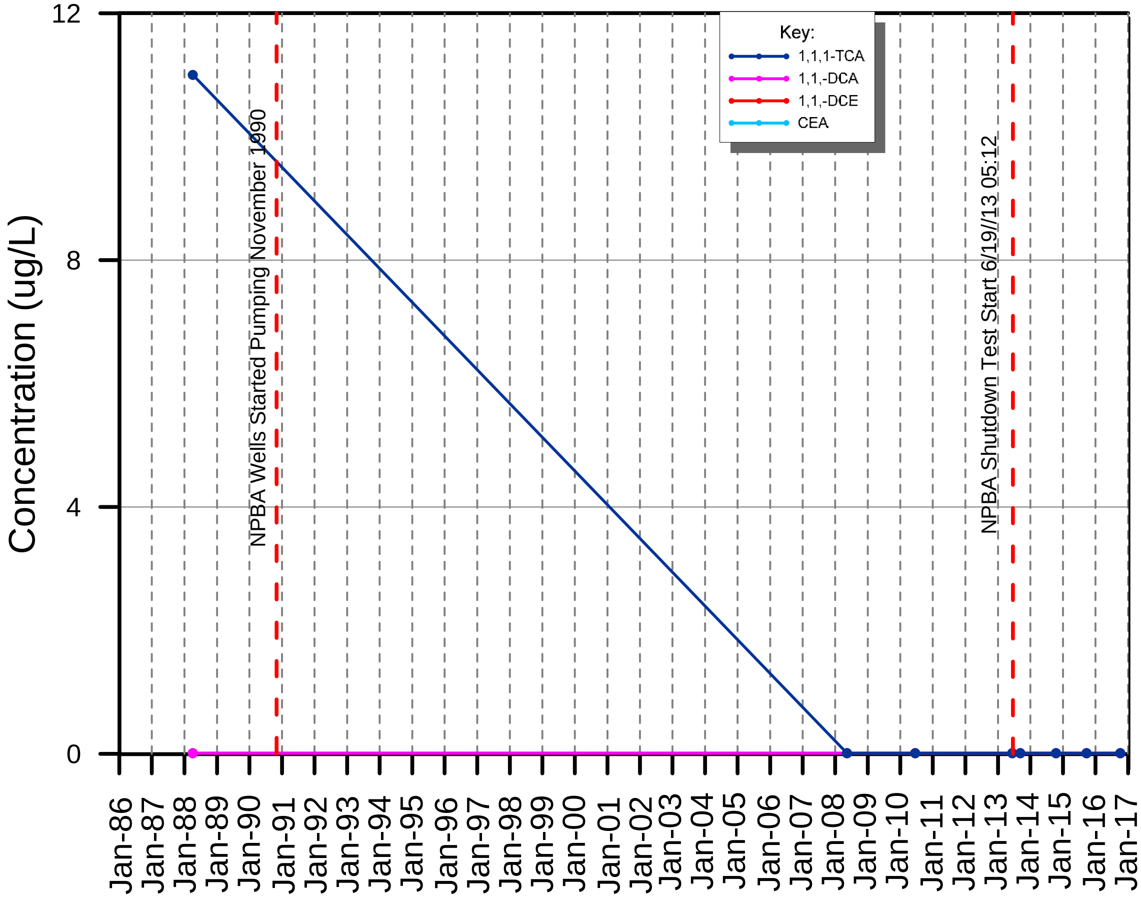


Concentration (ug/L)
10
8
6
4
2
0
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC



Concentration (ug/L)
10
1
0.1
0.01
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC

MW-16D


Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
Concentration (ug/L)
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
12
8
4
0
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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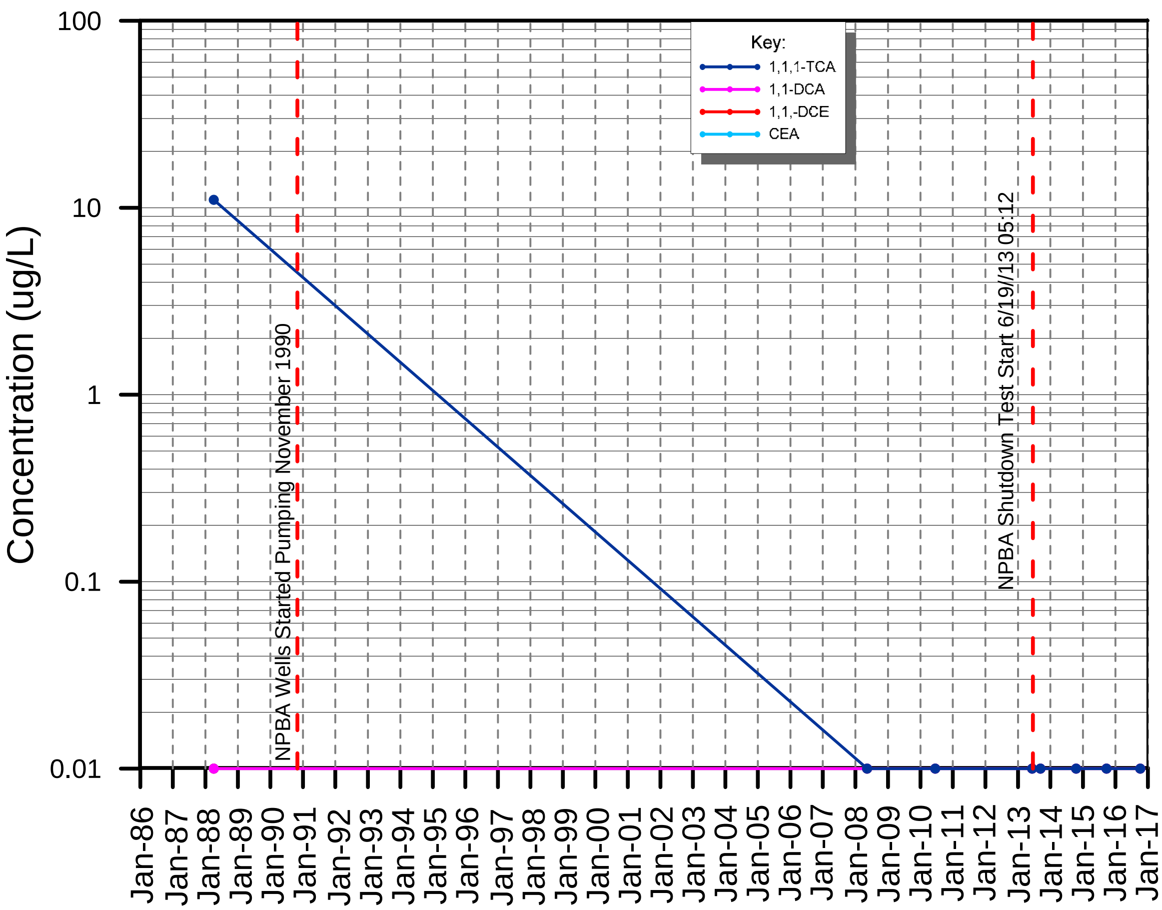
Jan-15
Jan-16
Jan-17


Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
Concentration (ug/L)
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
100
10
1
0.1
0.01
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
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Jan-12
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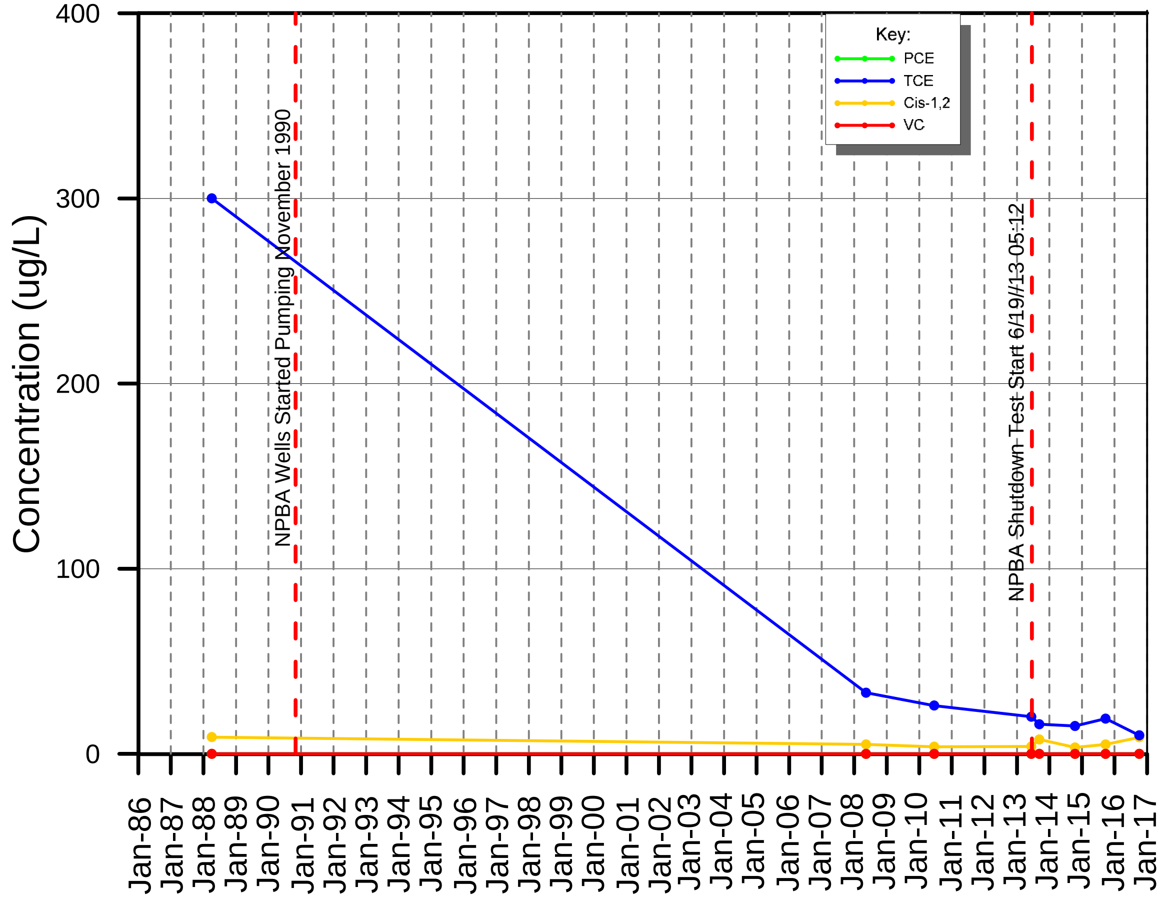
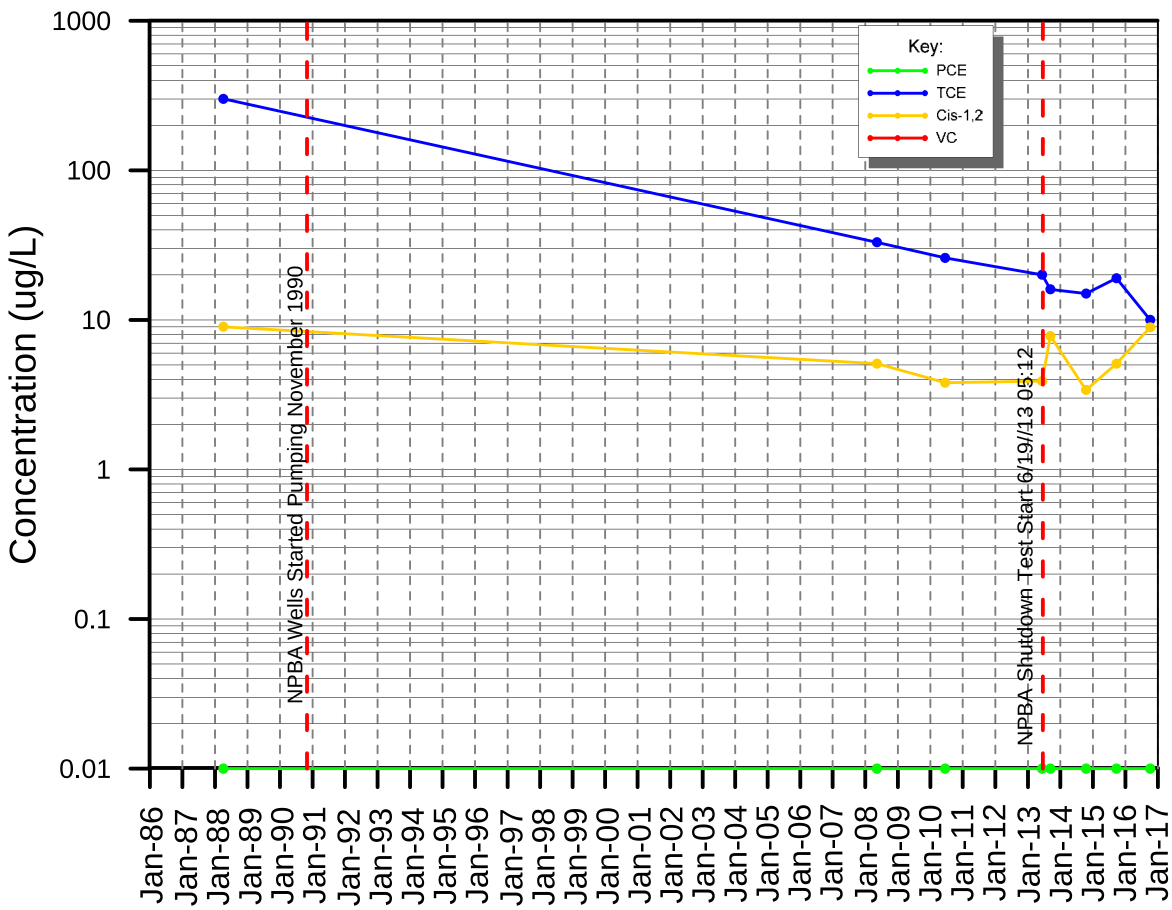
Jan-14
Jan-15
Jan-16
Jan-17

MW-16D

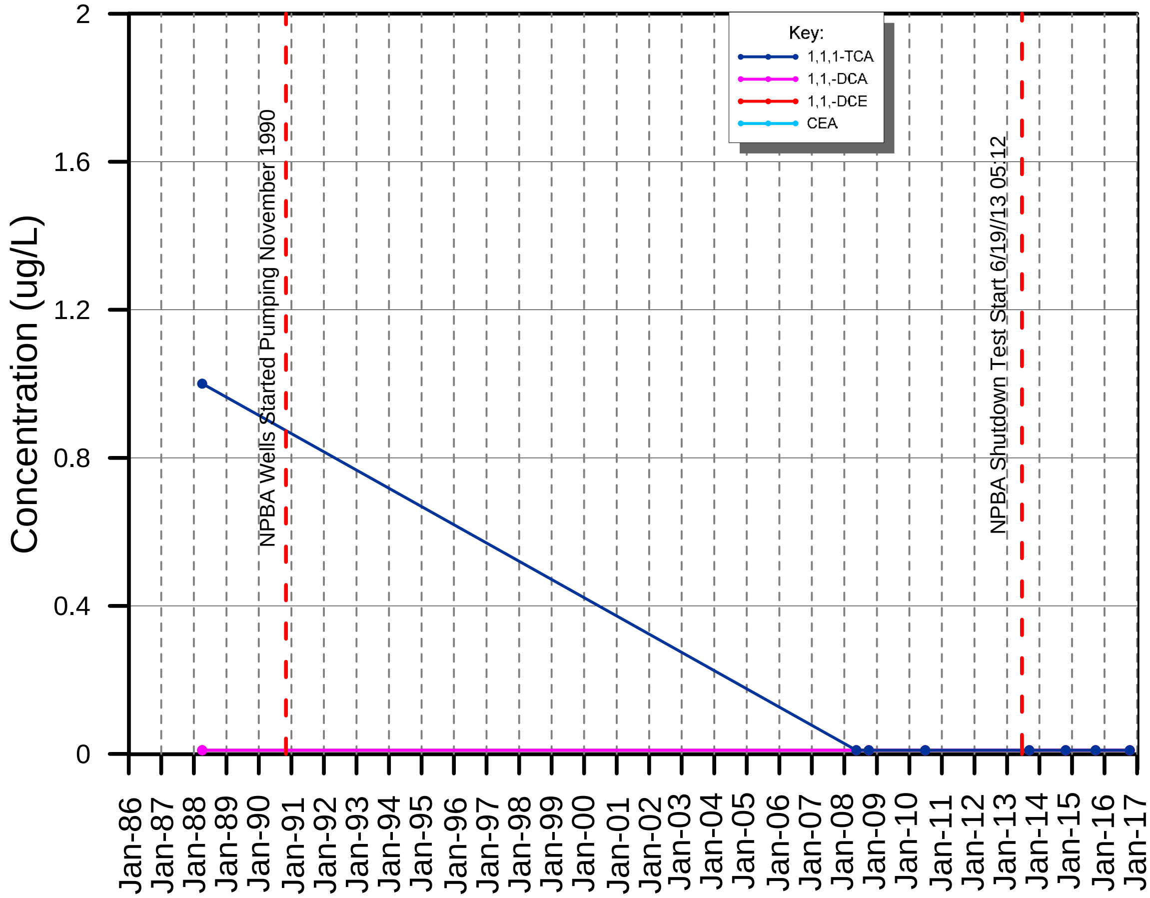


Concentration (ug/L)
400
300
200
100
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17



Concentration (ug/L)
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

MW-16S



Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
Concentration (ug/L)
2
1.6
1.2
0.8
0.4
0
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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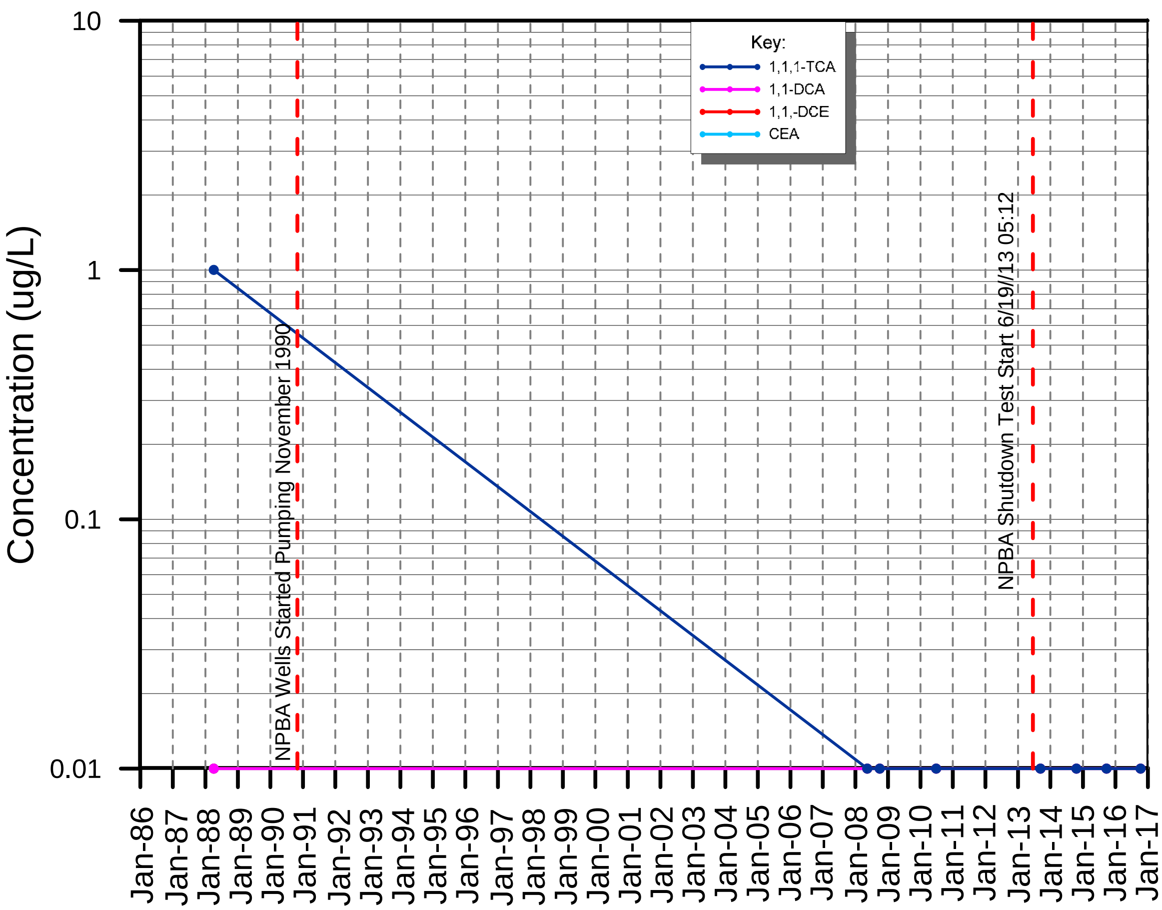
Jan-15
Jan-16
Jan-17



Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
Concentration (ug/L)
10
1
0.1
0.01
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
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Jan-06
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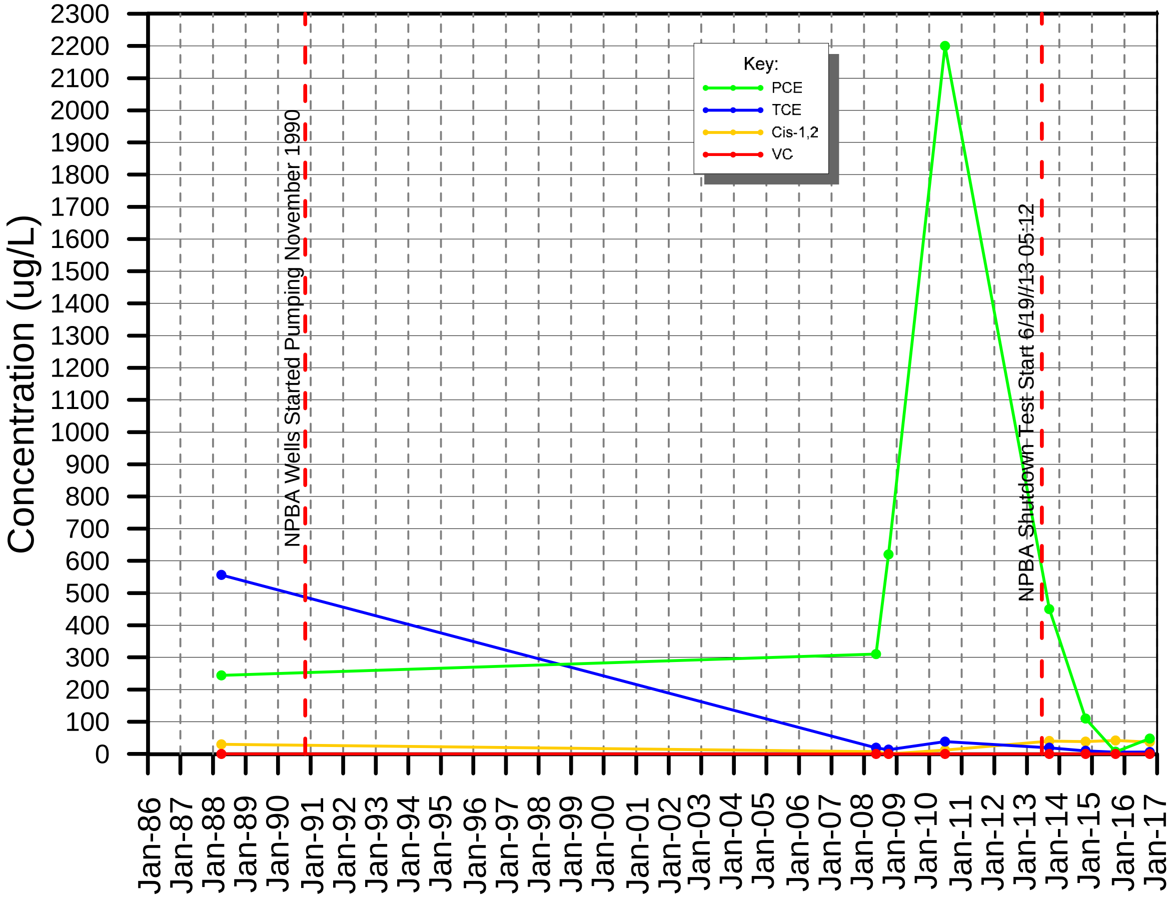
Jan-15
Jan-16
Jan-17

MW-16S



Concentration (ug/L)
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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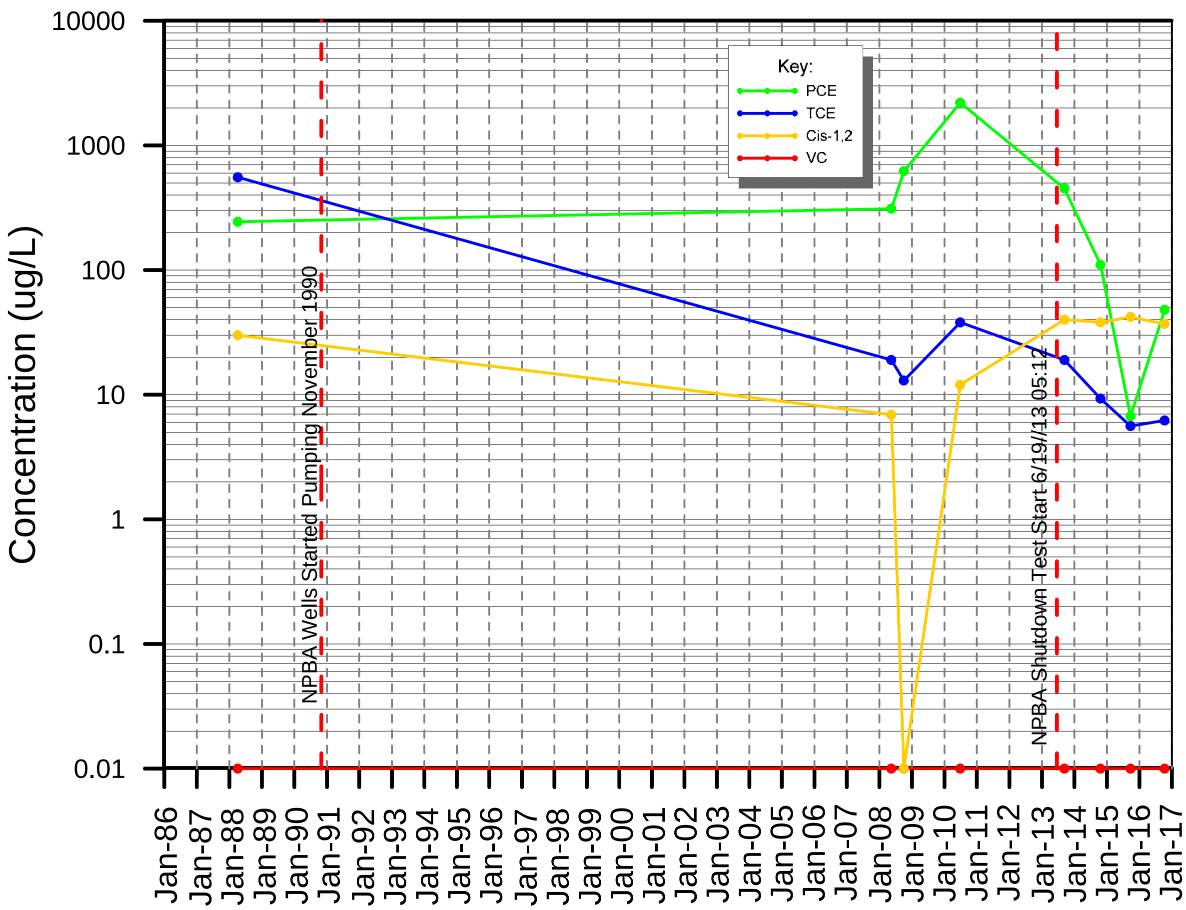
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
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Jan-11
Jan-12
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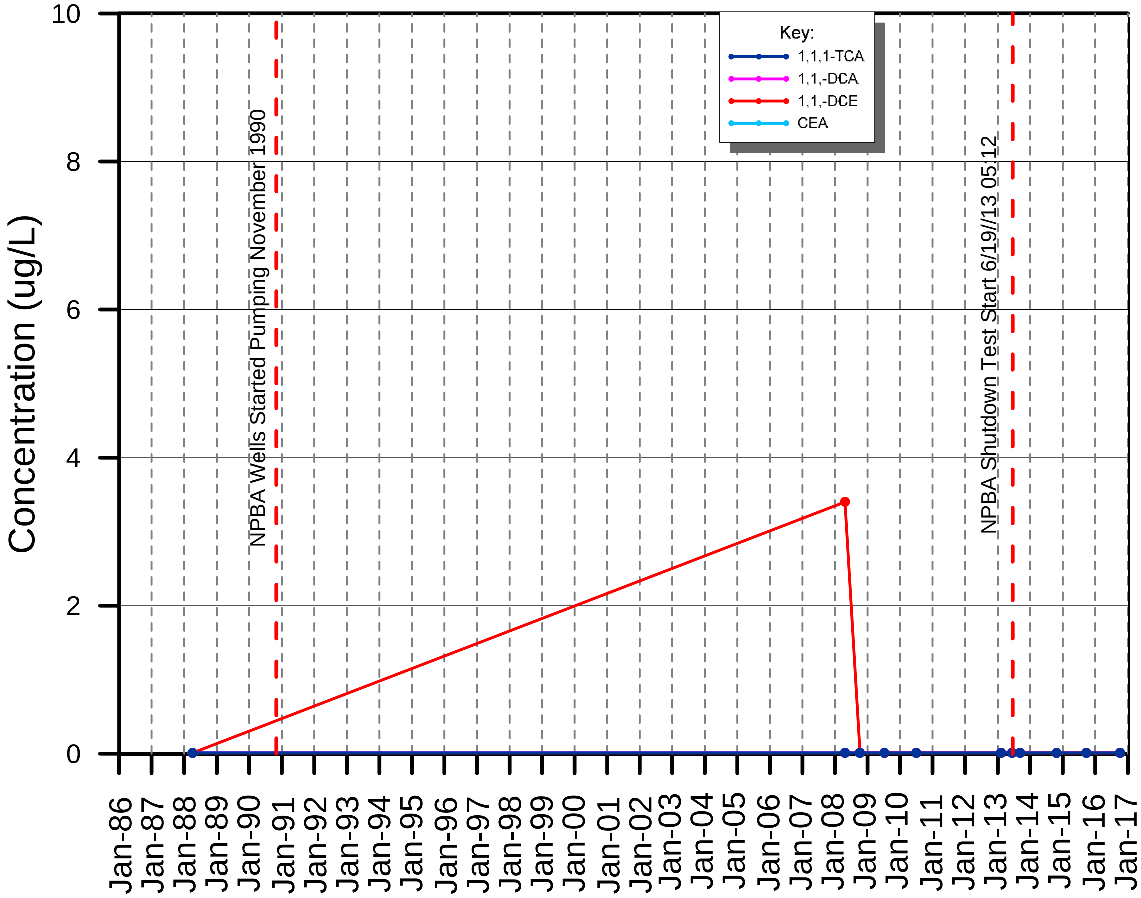
Jan-14
Jan-15
Jan-16
Jan-17

MW-18D


Concentration (ug/L)
10
8
6
4
2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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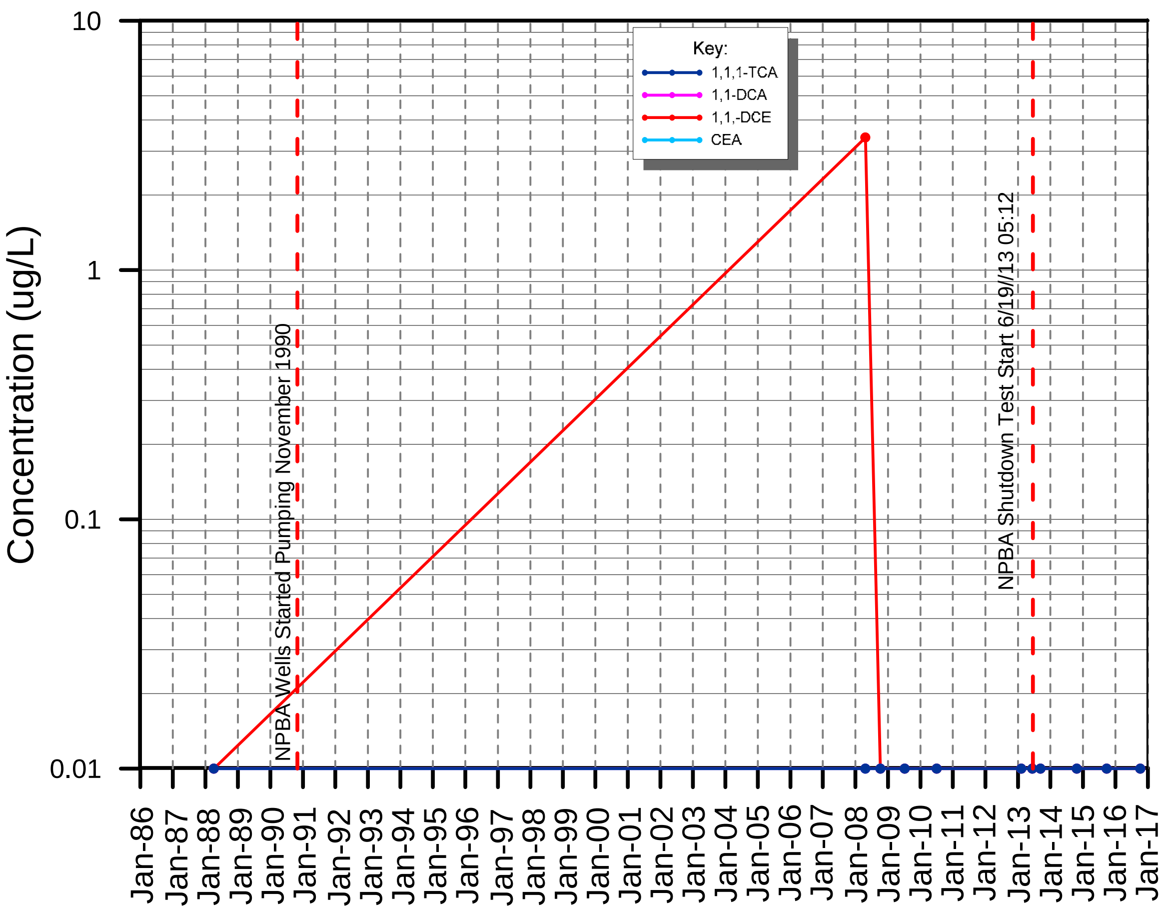
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
10
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
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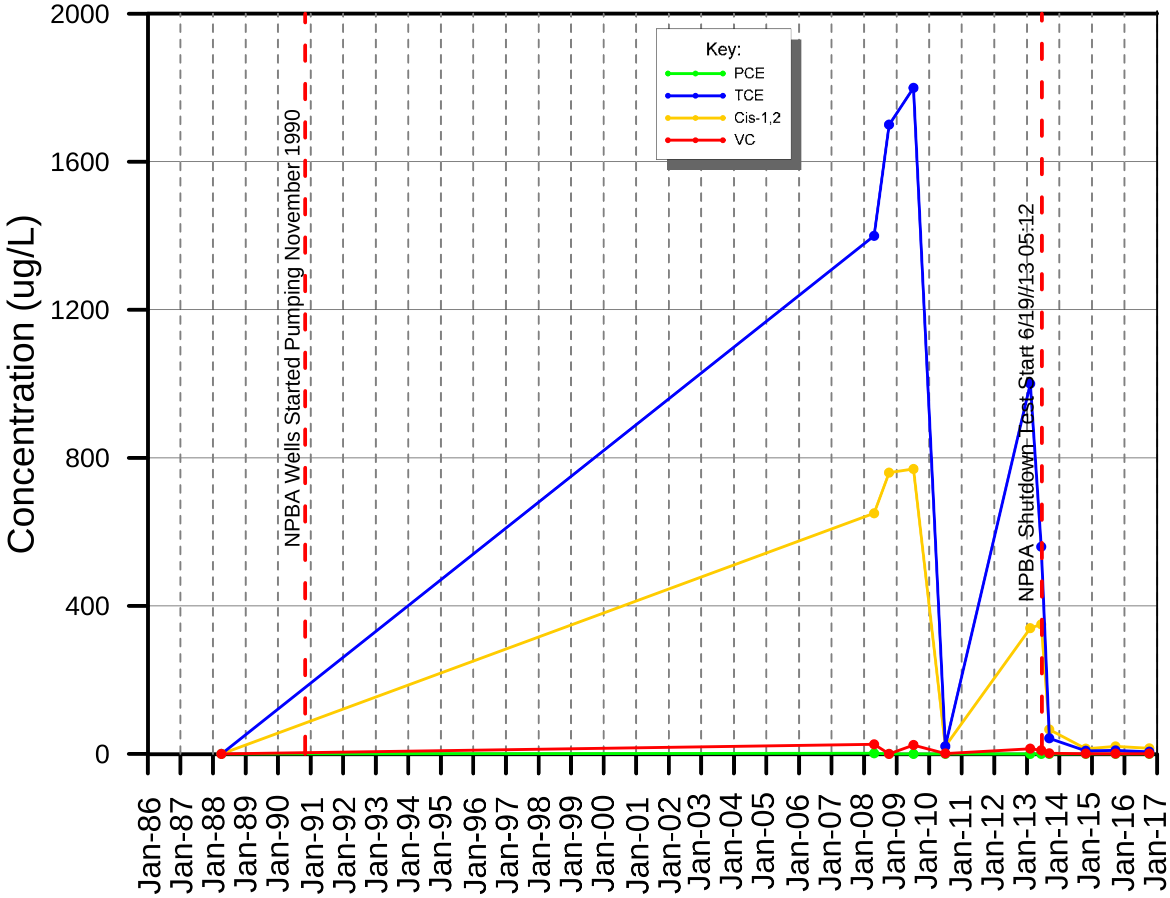
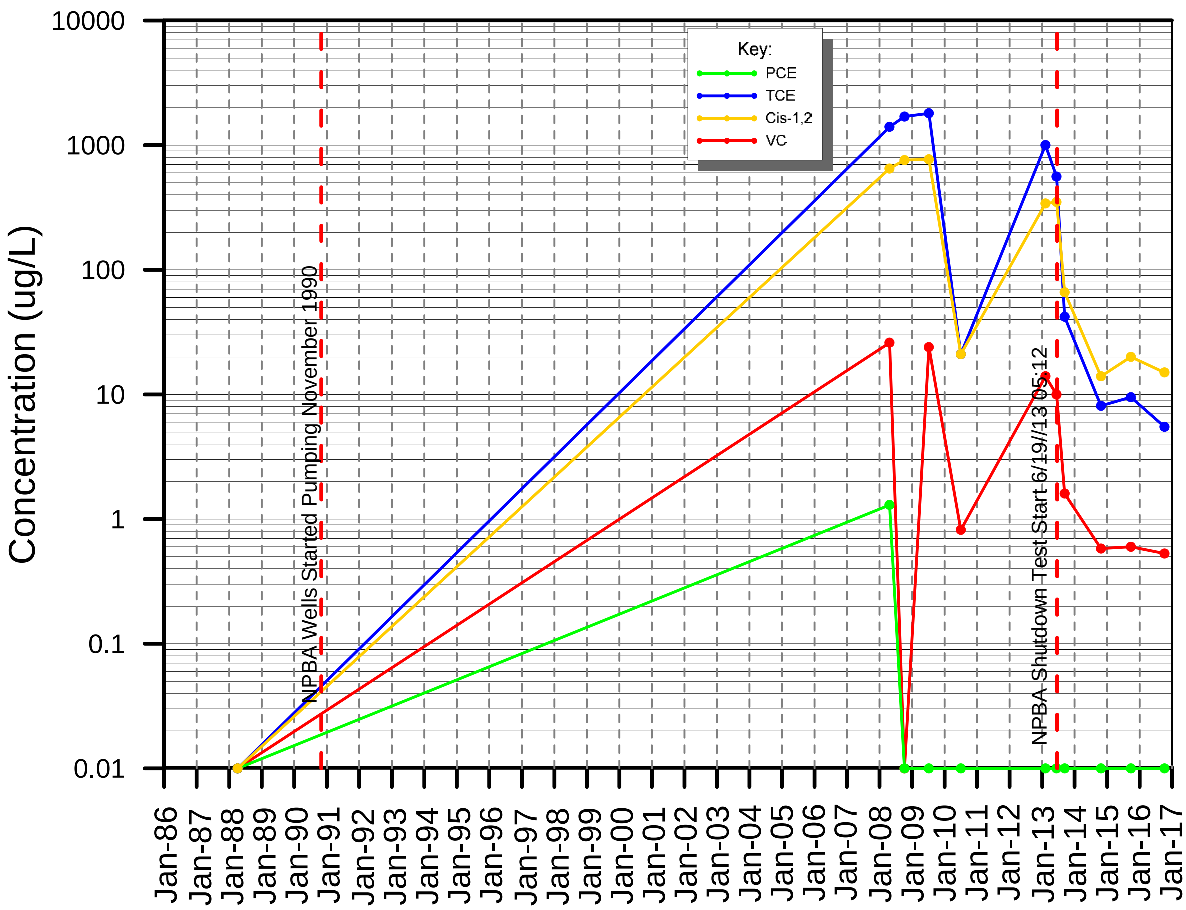
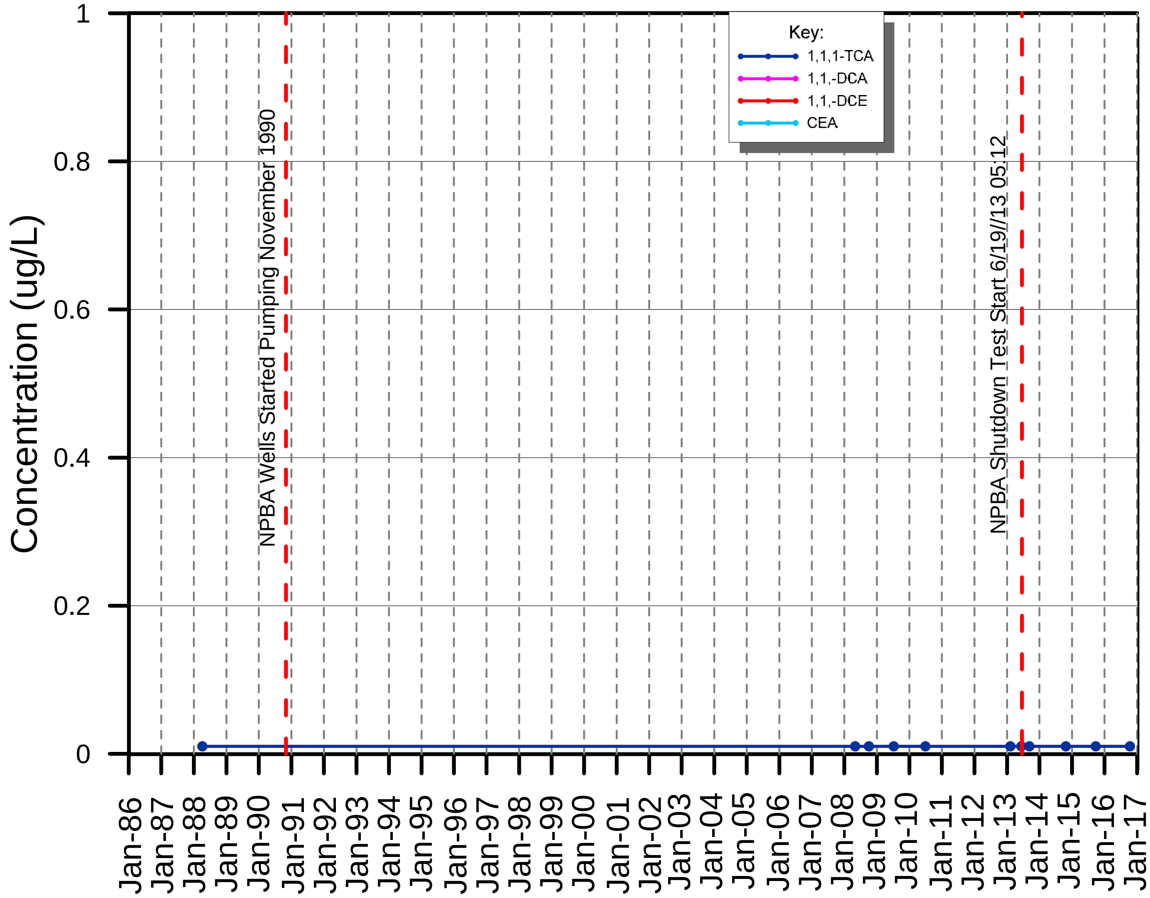
Jan-16
Jan-17

MW-18D


Concentration (ug/L)
2000
1600
1200
800
400
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17


Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

MW-18S



Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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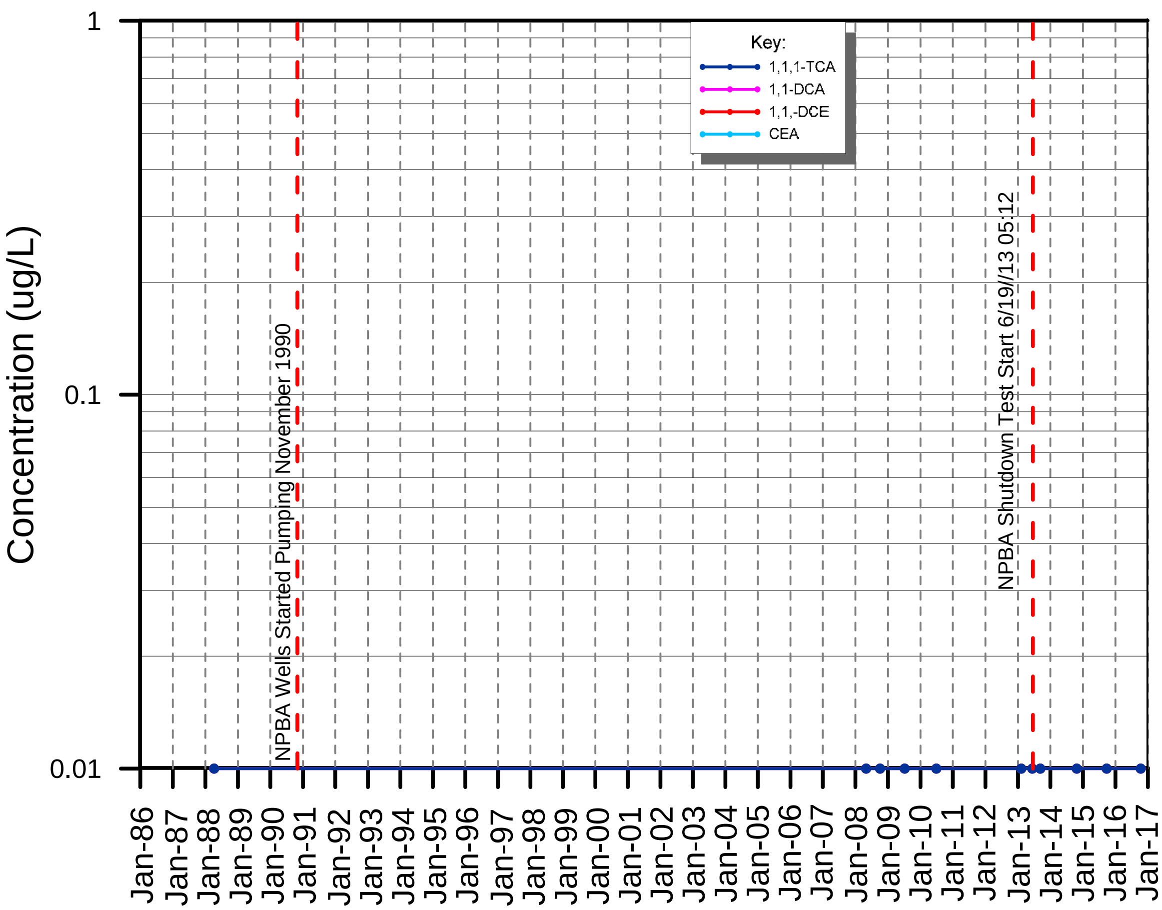
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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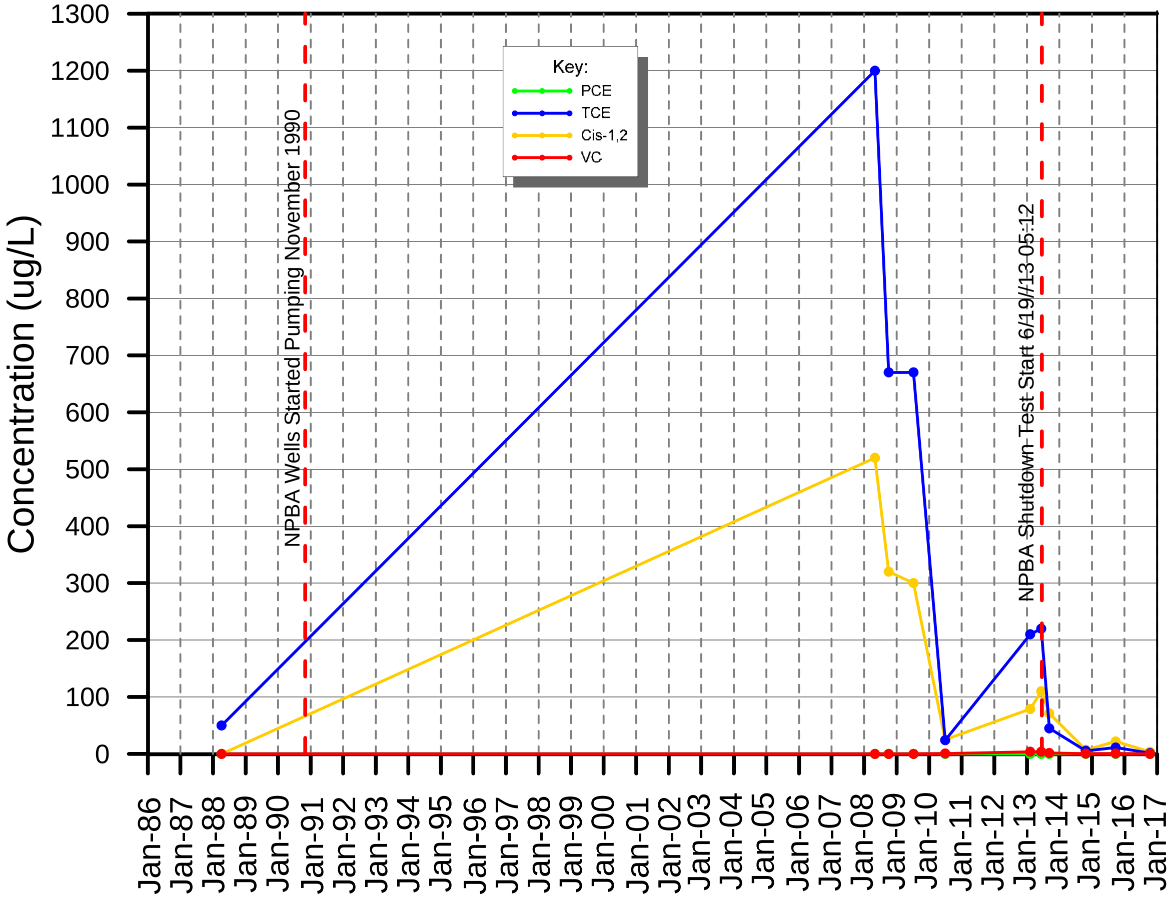
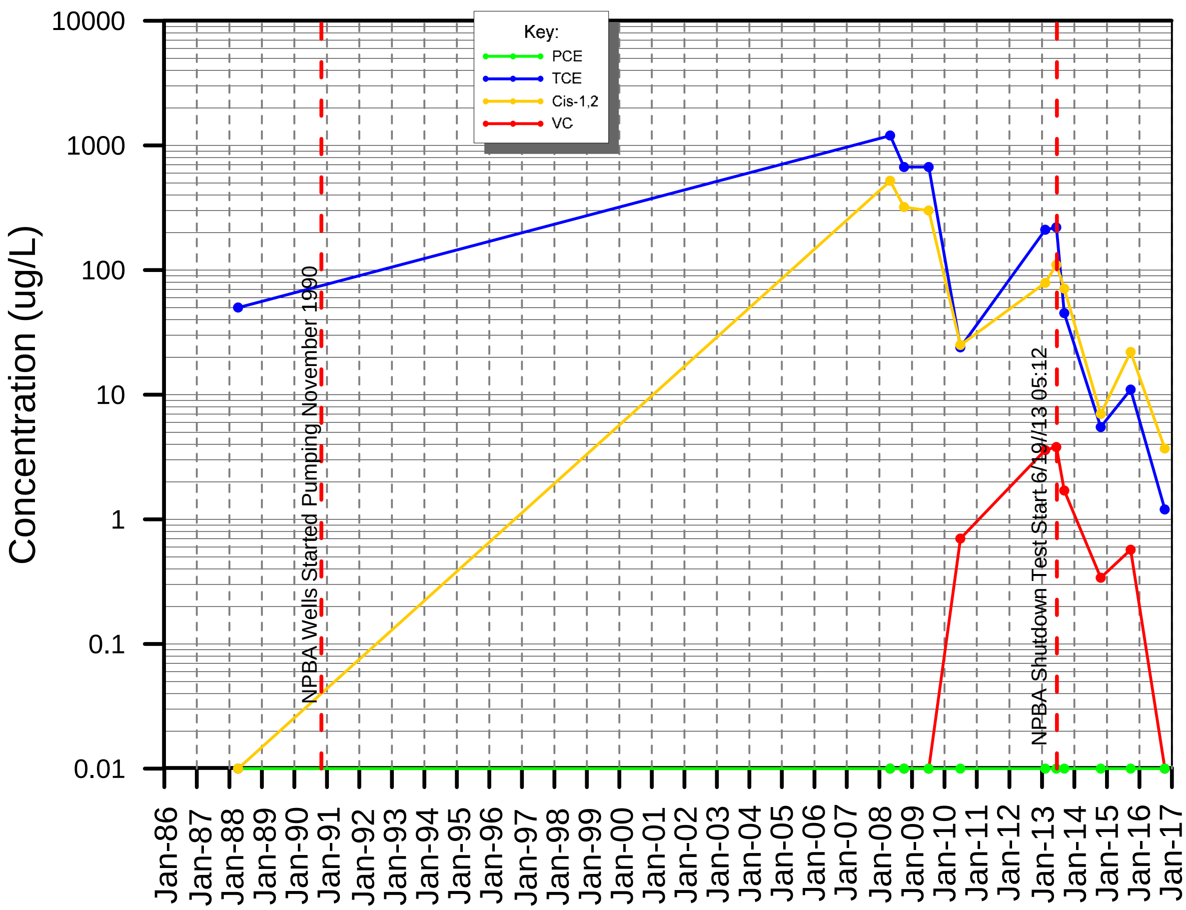
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-18S

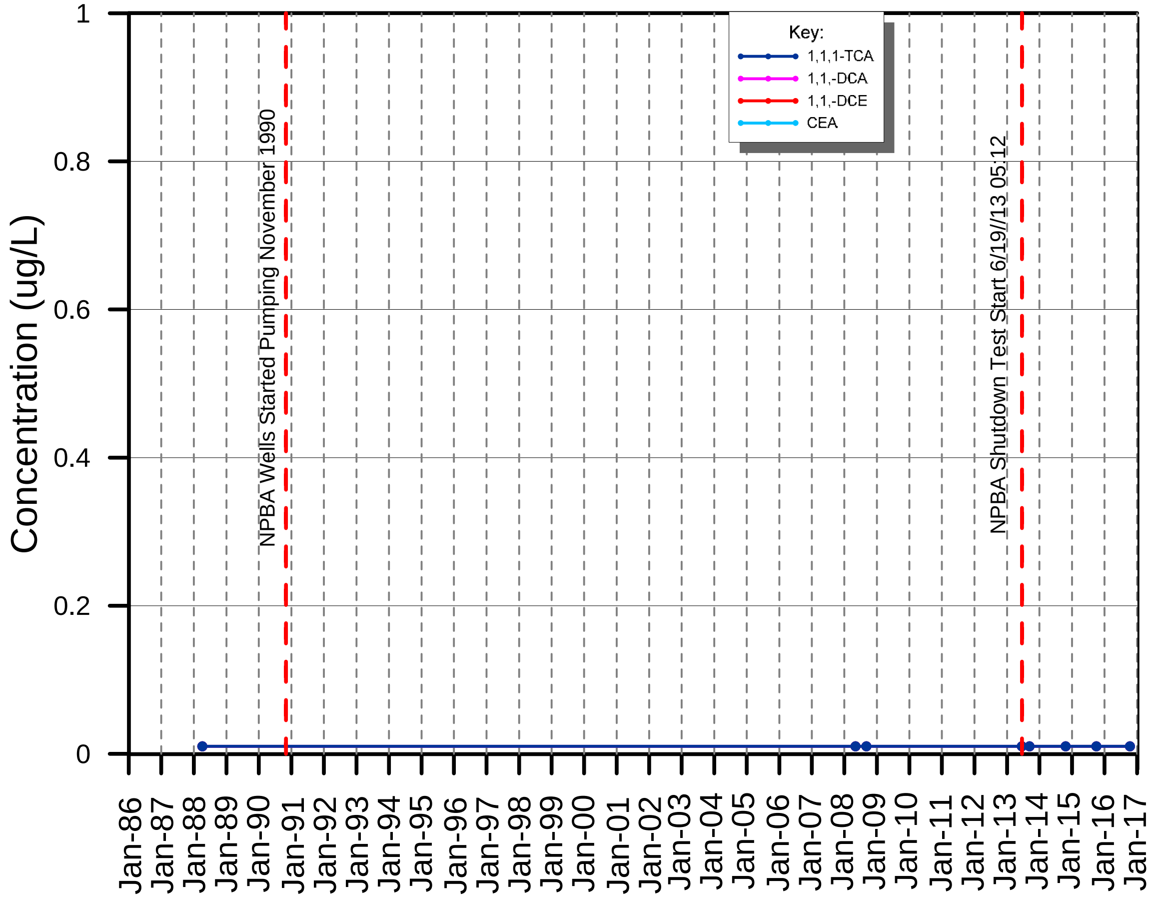


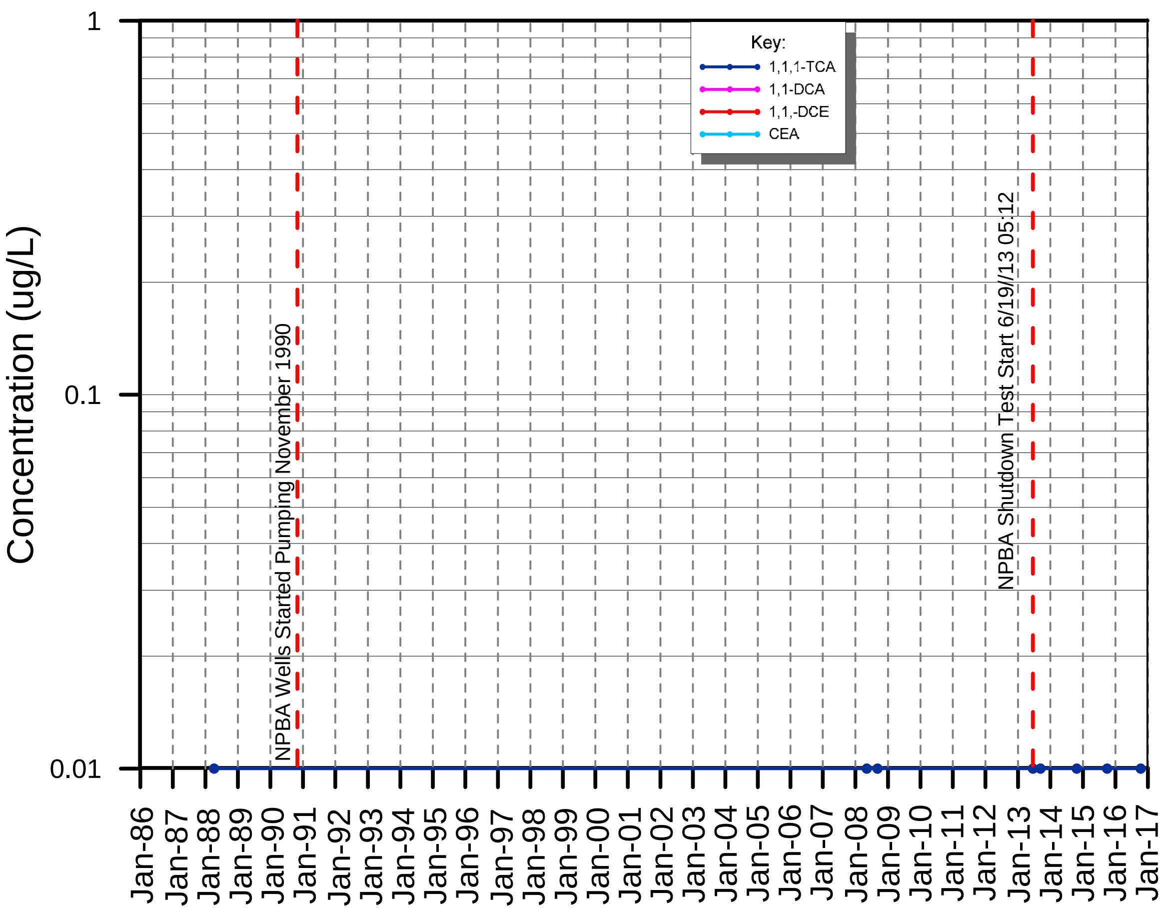
Concentration (ug/L)
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17



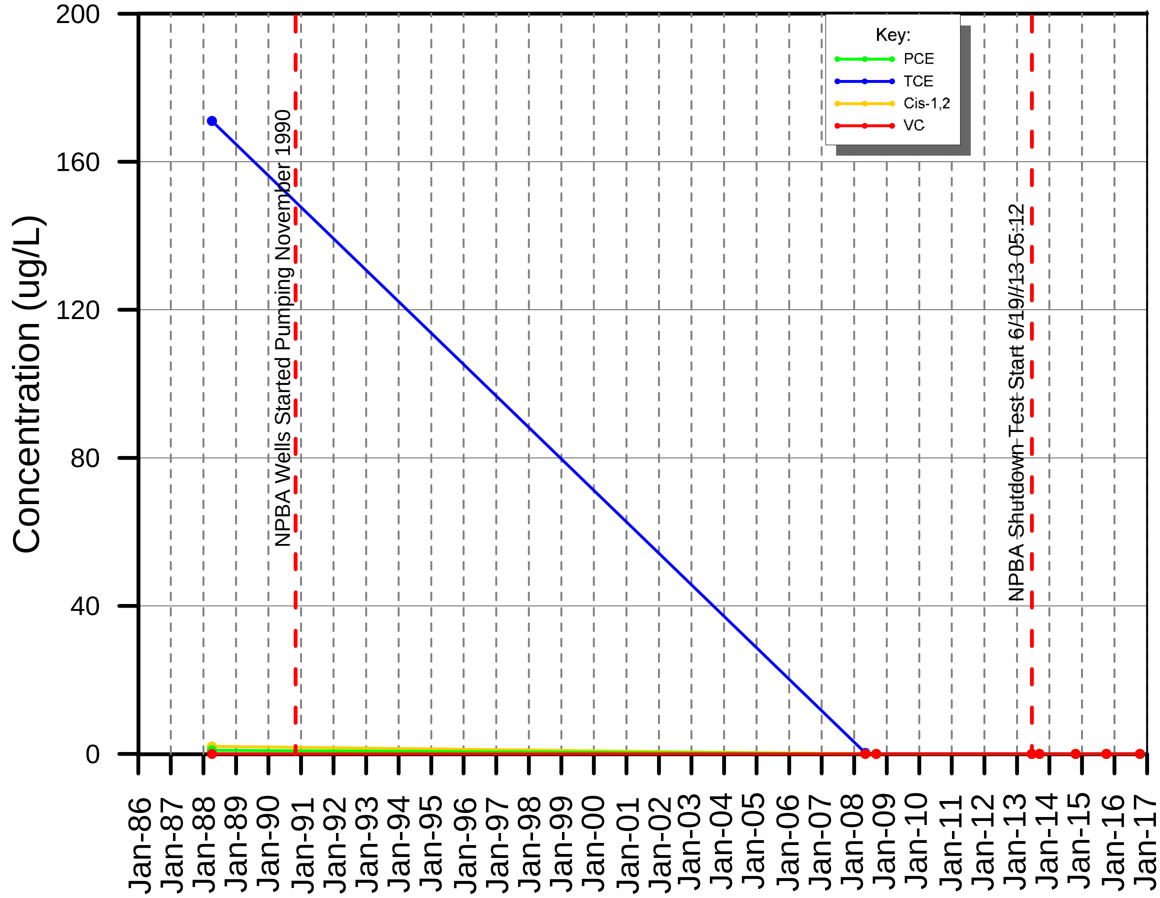
Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19/13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

MW-20D


Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17


Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

MW-20D



Concentration (ug/L)
200
160
120
80
40
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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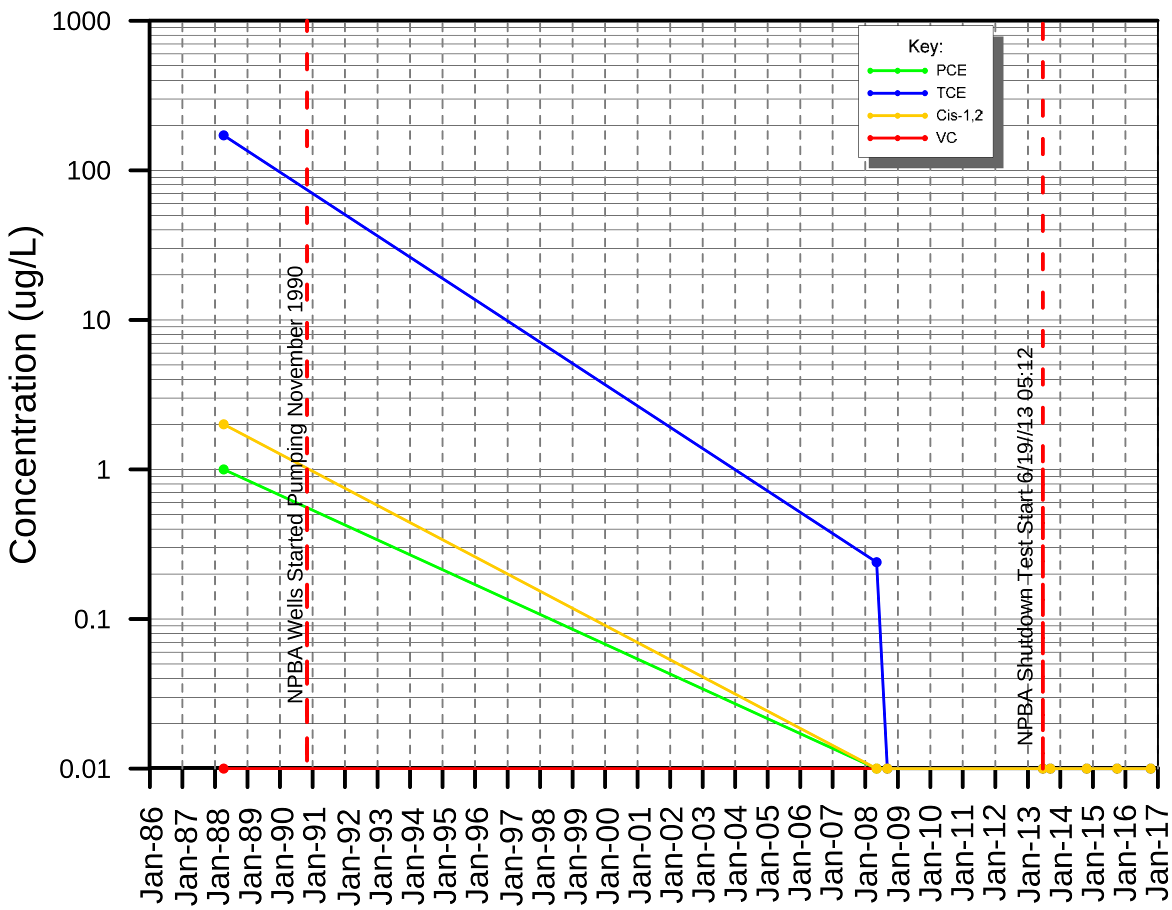
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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Jan-11
Jan-12
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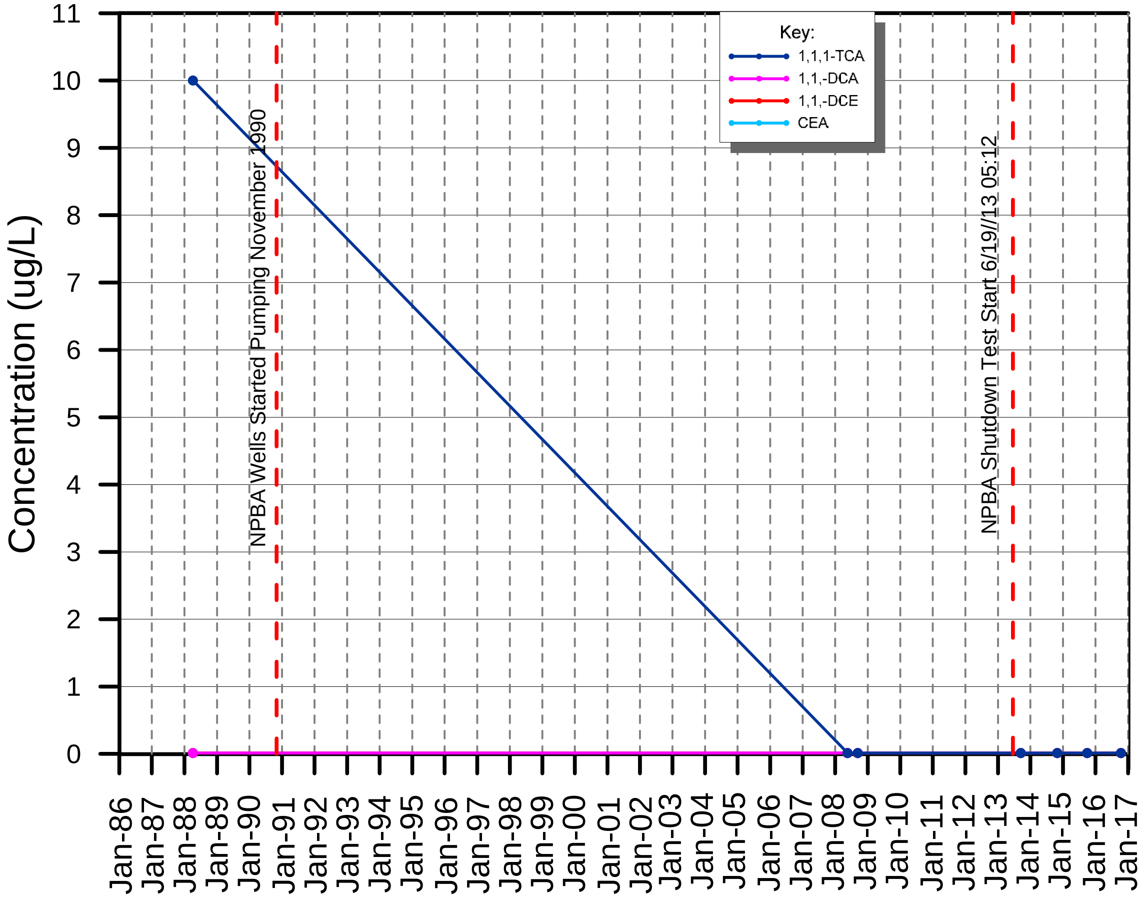
Jan-14
Jan-15
Jan-16
Jan-17

MW-20M



Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
0
1
2
3
4
5
6
7
8
9
10
11
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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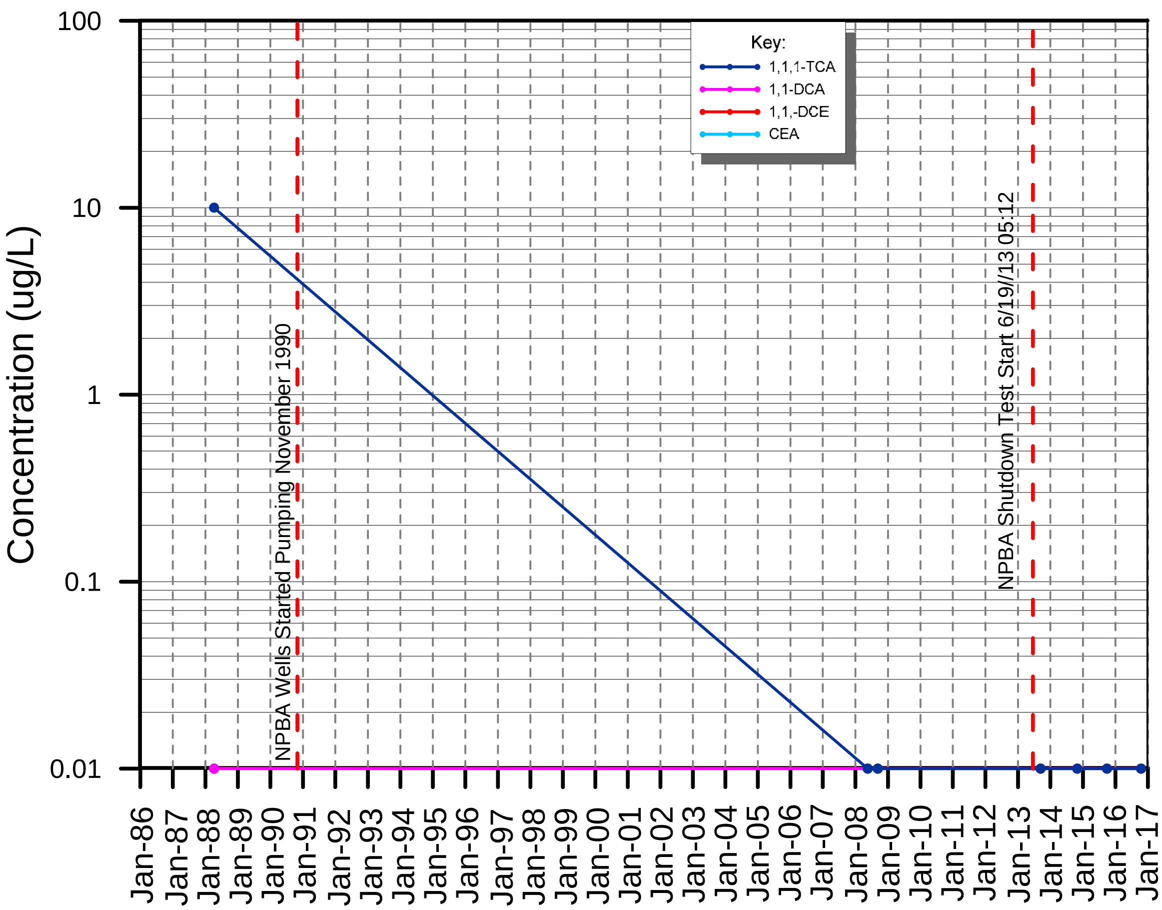
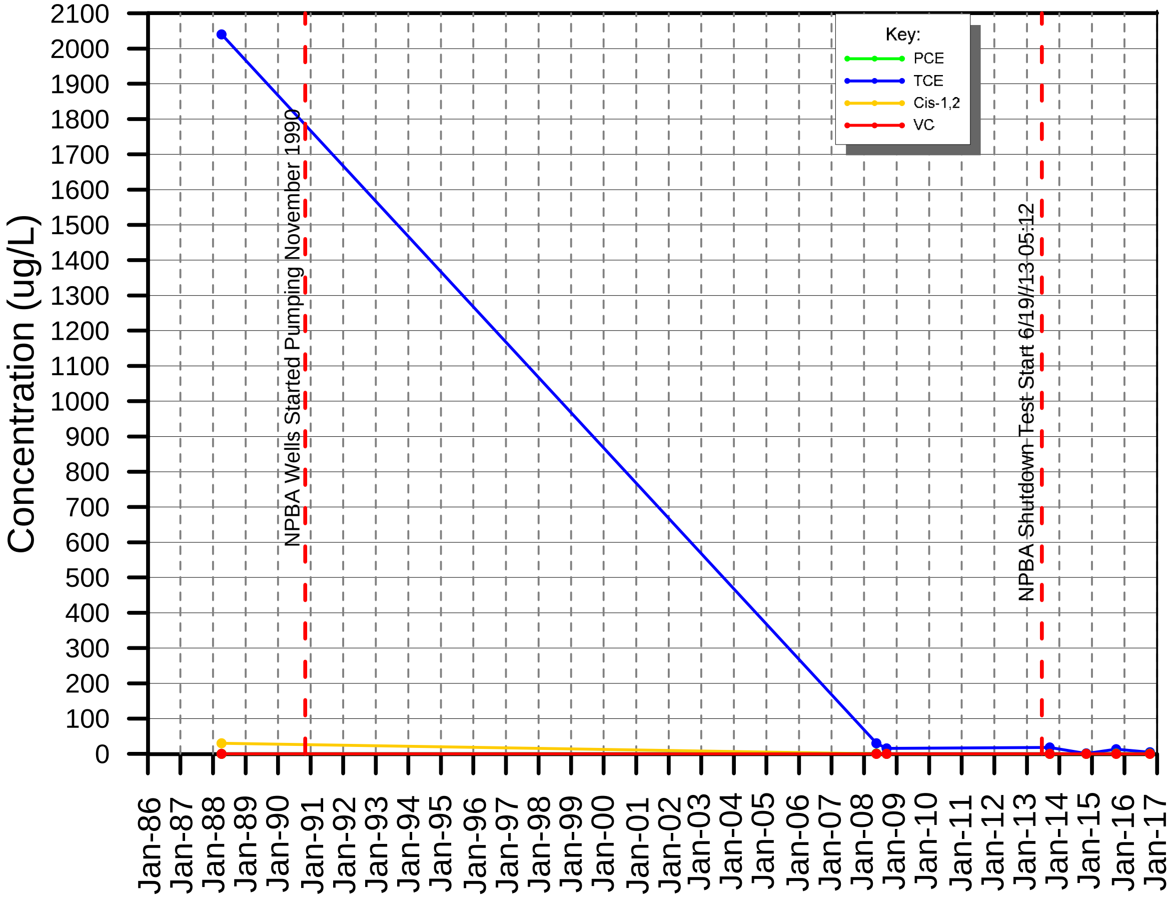
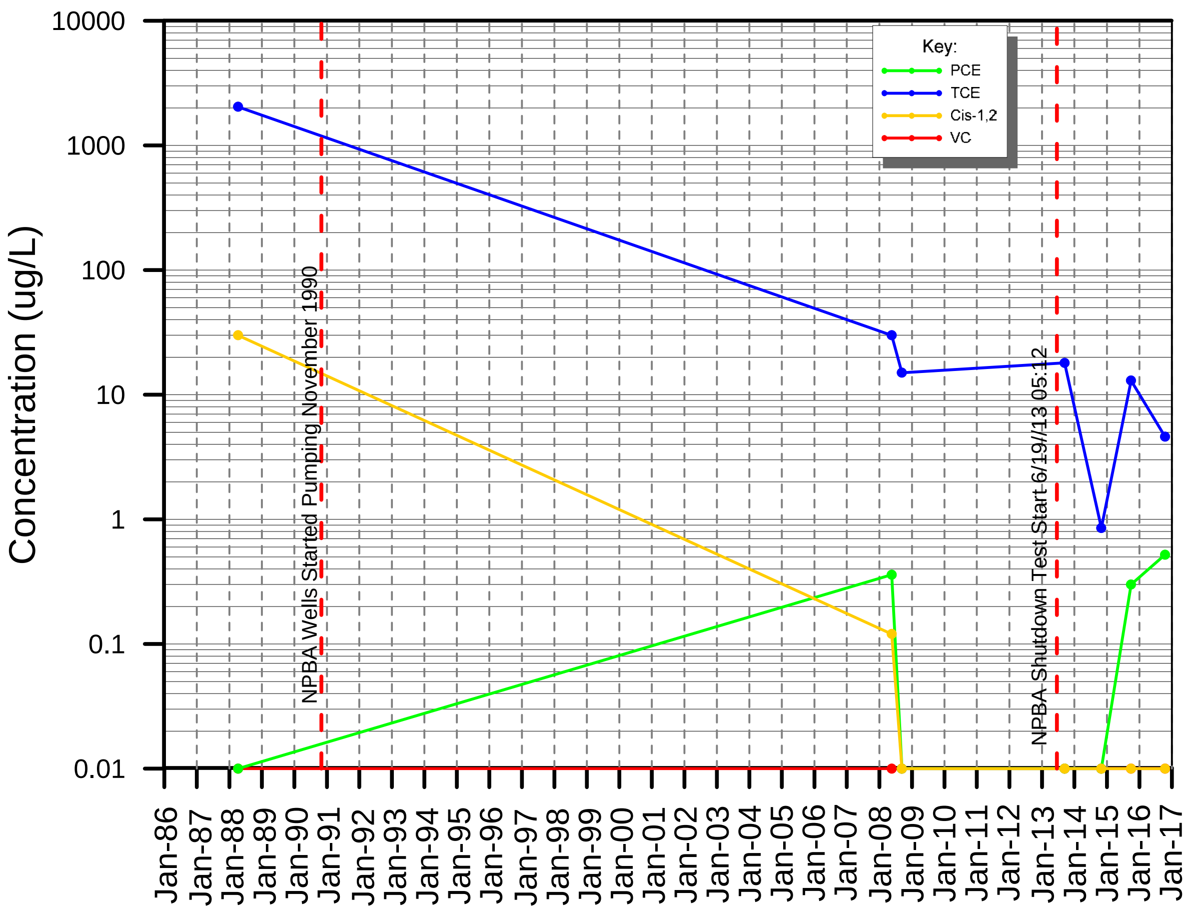
Jan-15
Jan-16
Jan-17



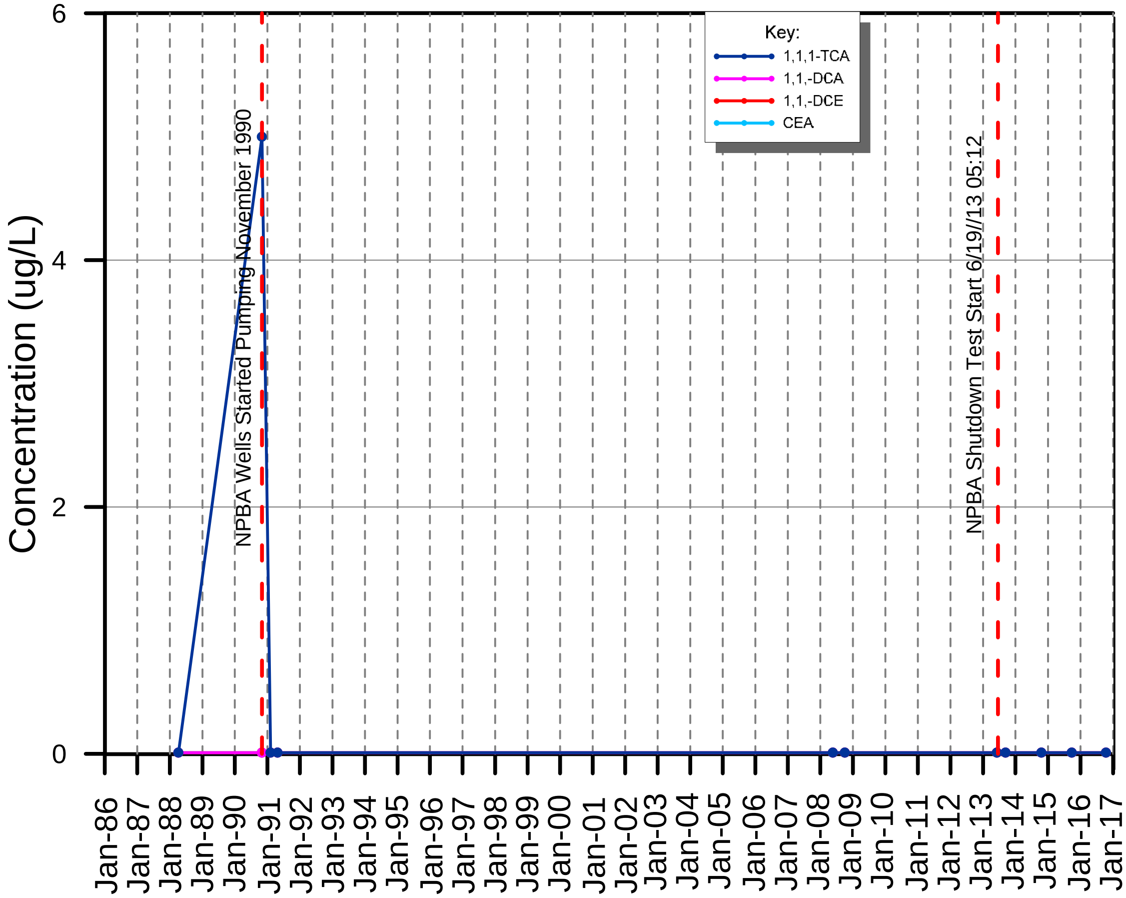
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
0.01
0.1
1
10
100
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-20M


Concentration (ug/L)
2100
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17


Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

MW-20S



Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
0
2
4
6
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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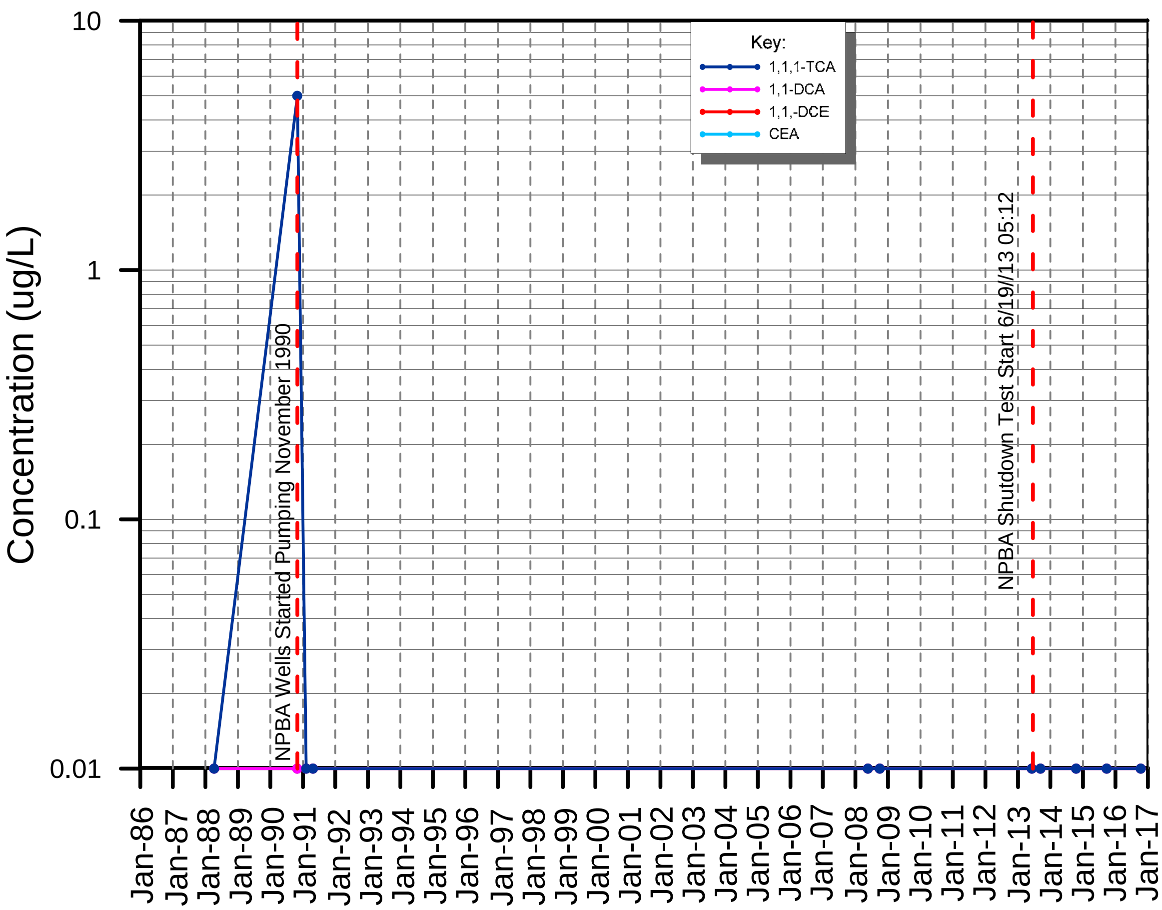
Jan-15
Jan-16
Jan-17



Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
0.01
0.1
1
10
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
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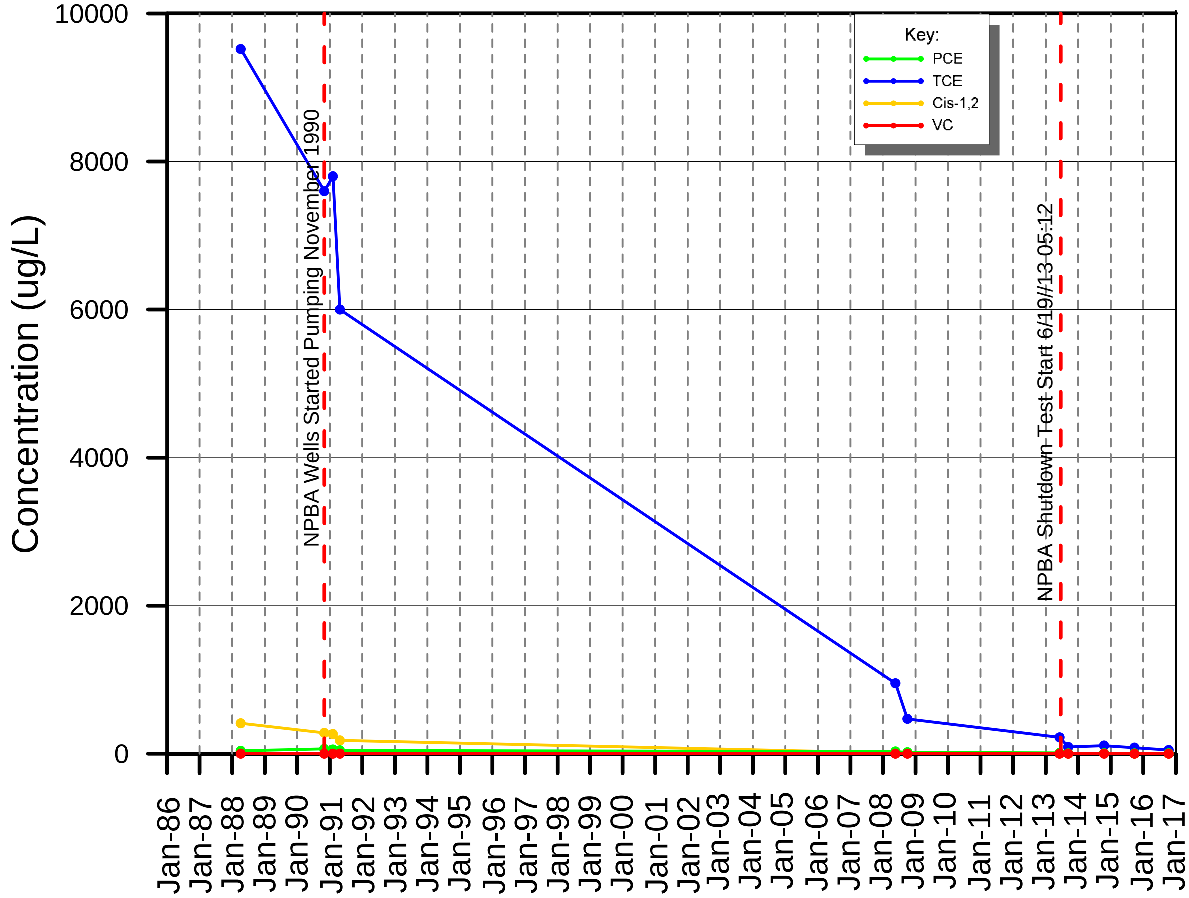
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-20S



Concentration (ug/L)
10000
8000
6000
4000
2000
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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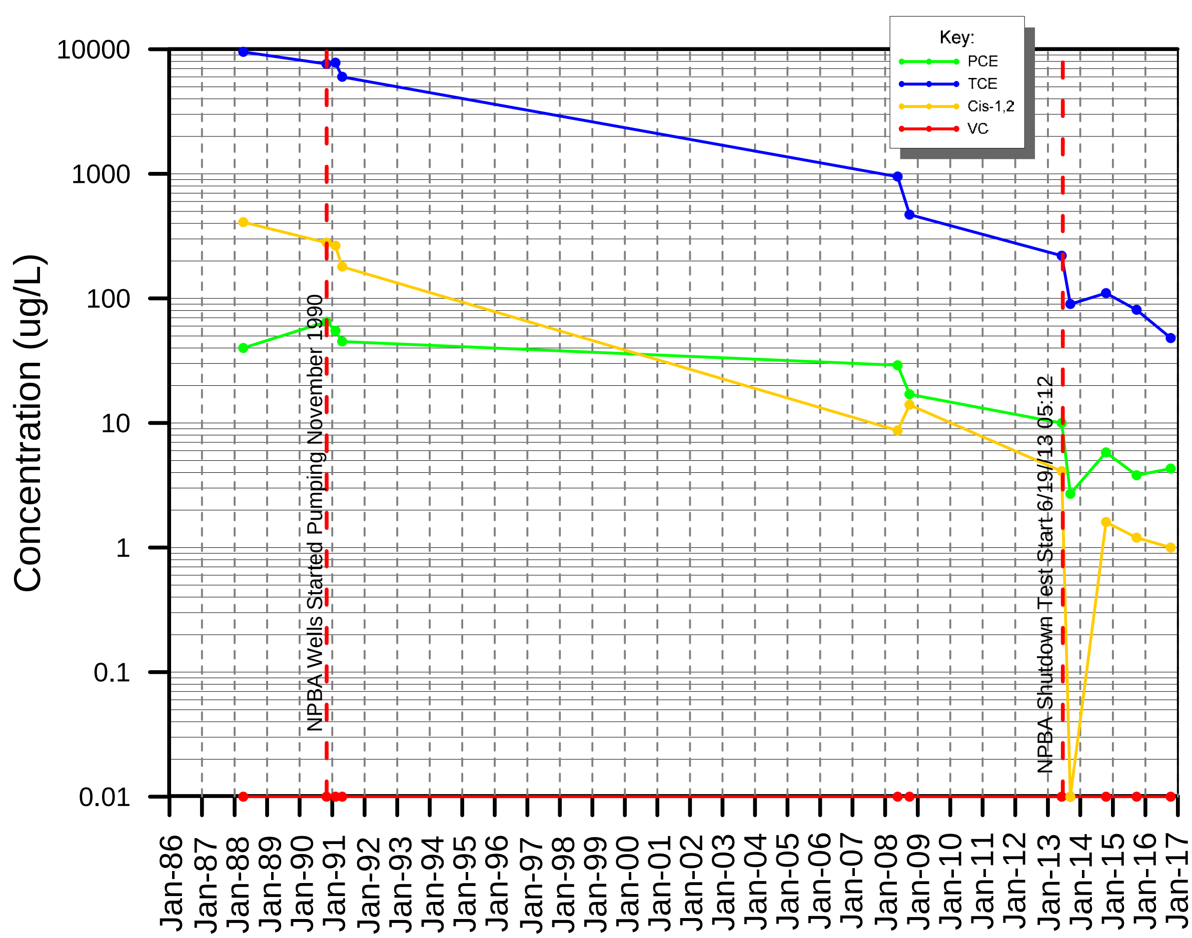
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
10000
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
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Jan-08
Jan-09
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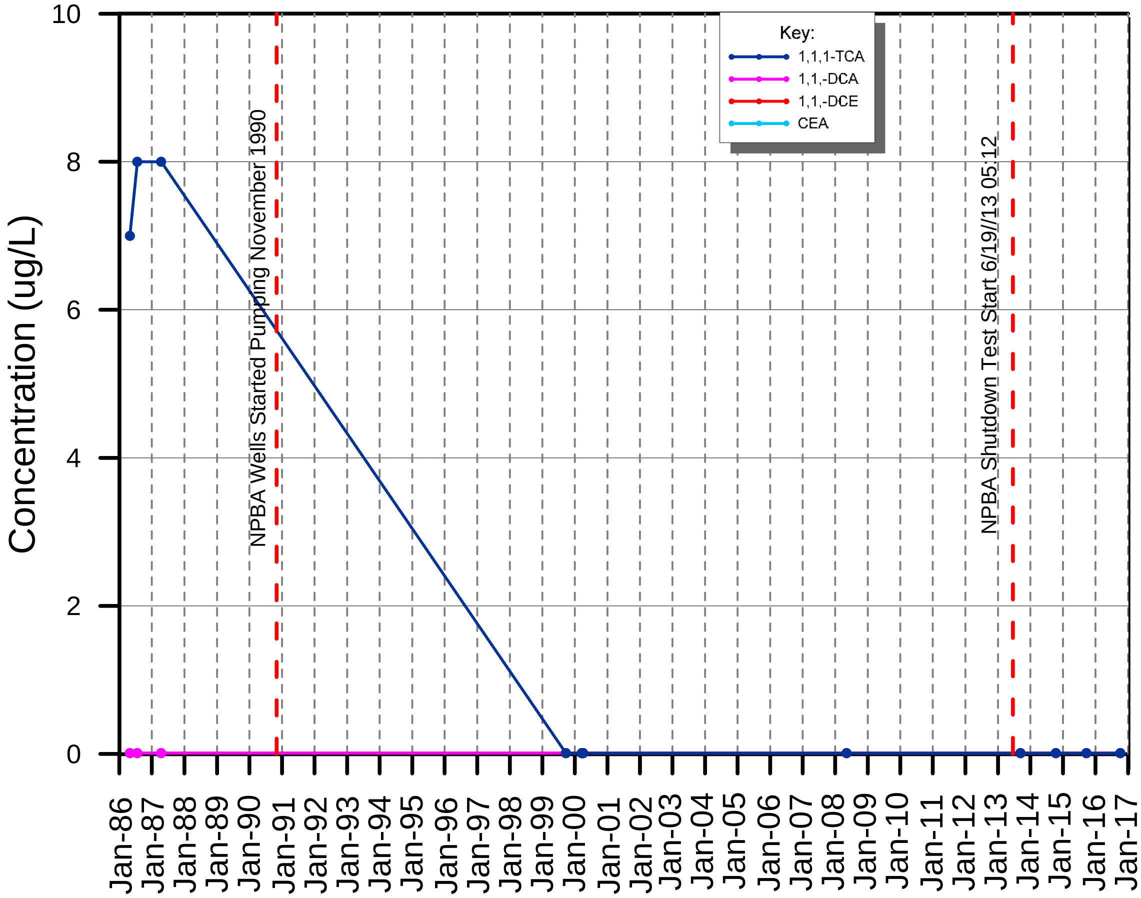
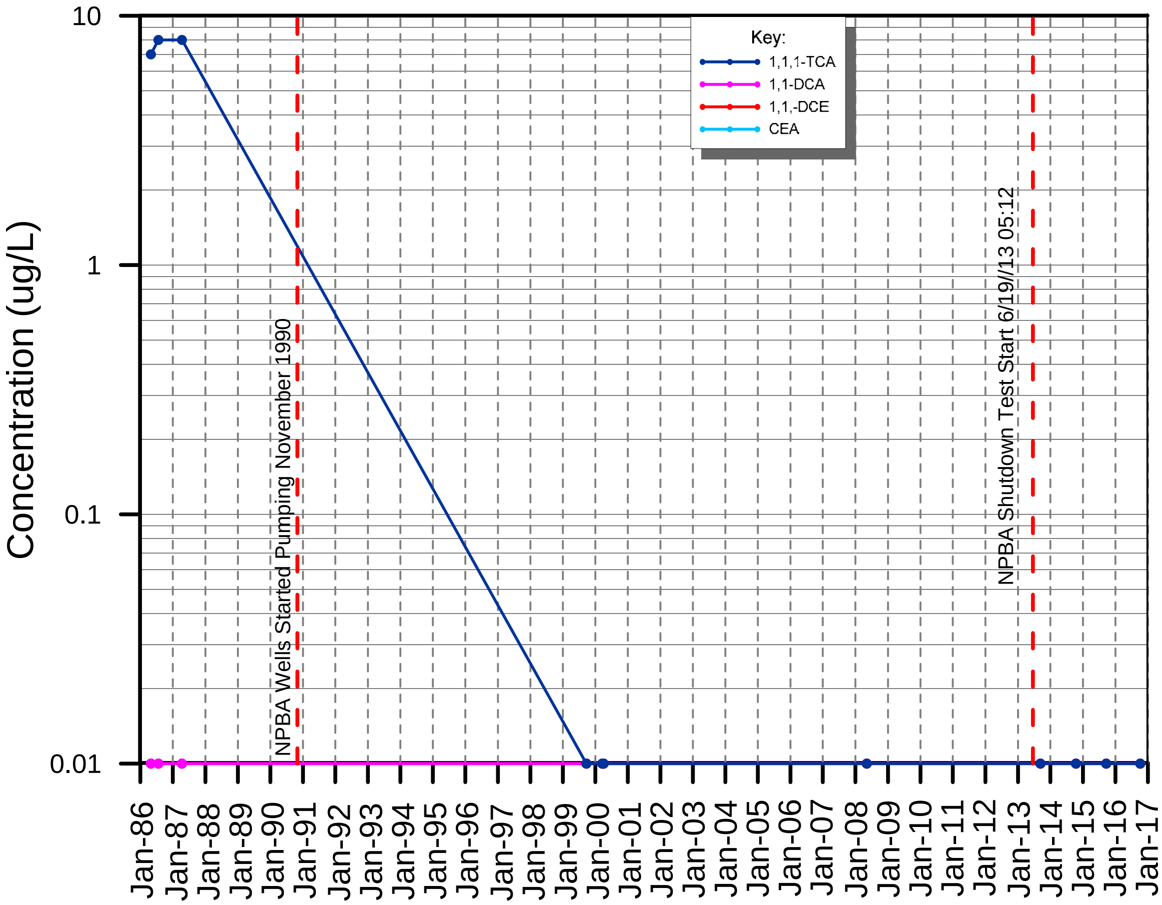
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-3

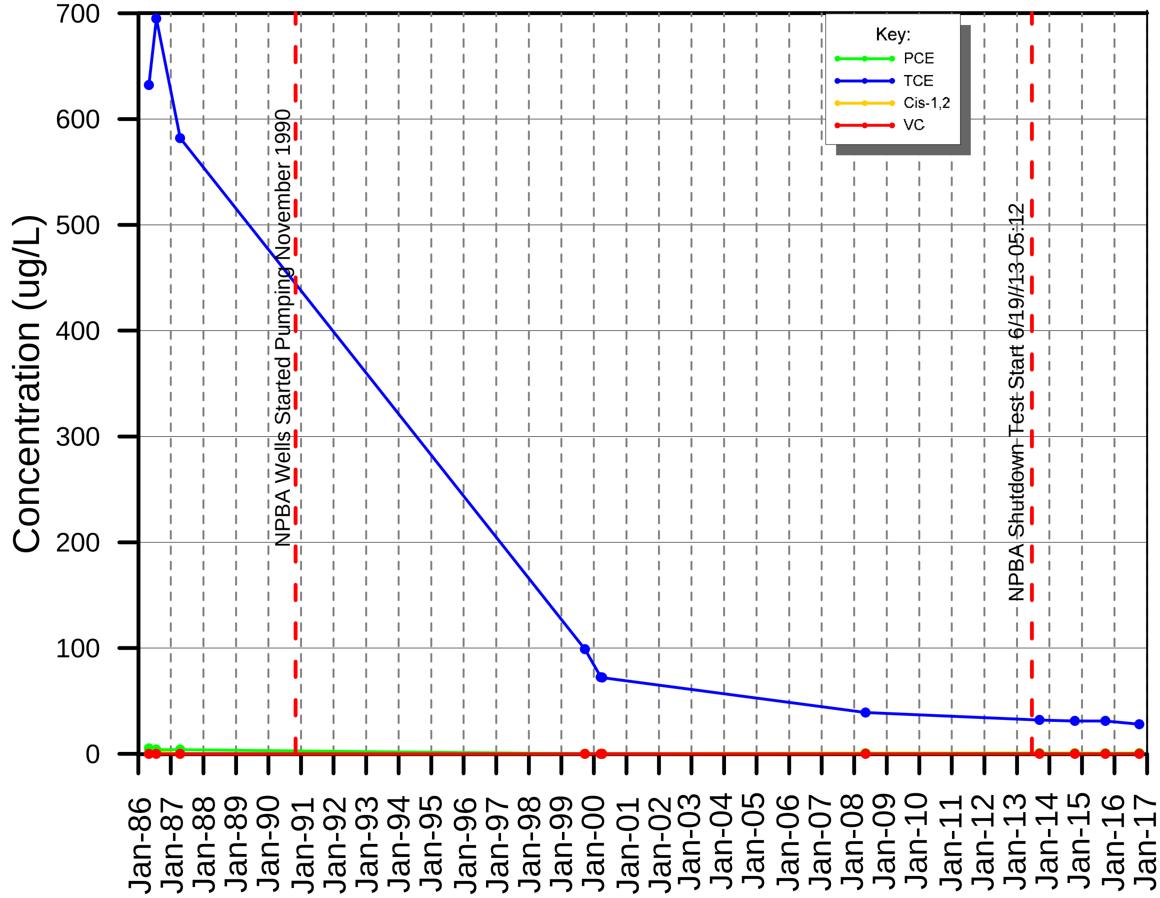


Concentration (ug/L)
0
2
4
6
8
10
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17



Concentration (ug/L)
0.01
0.1
1
10
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

MW-3


Concentration (ug/L)
700
600
500
400
300
200
100
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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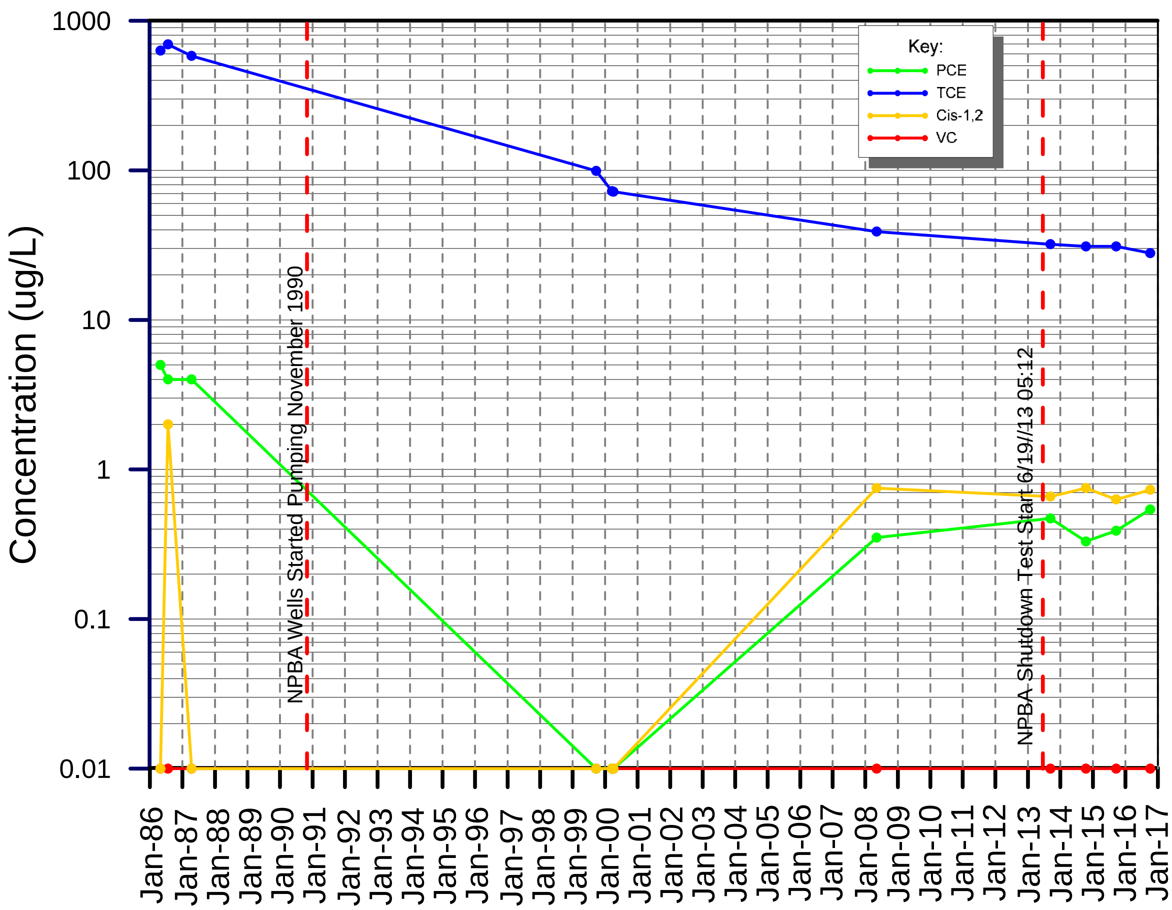
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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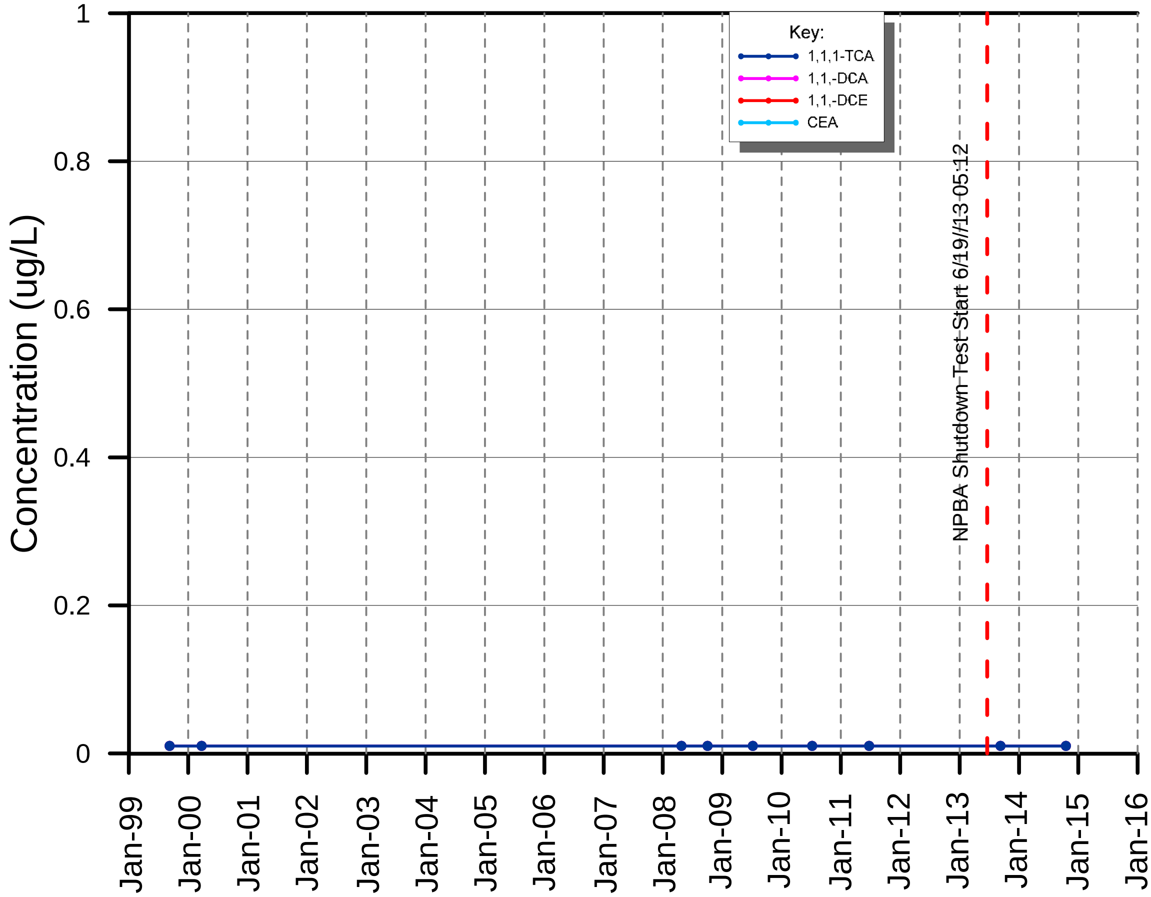
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-77


Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
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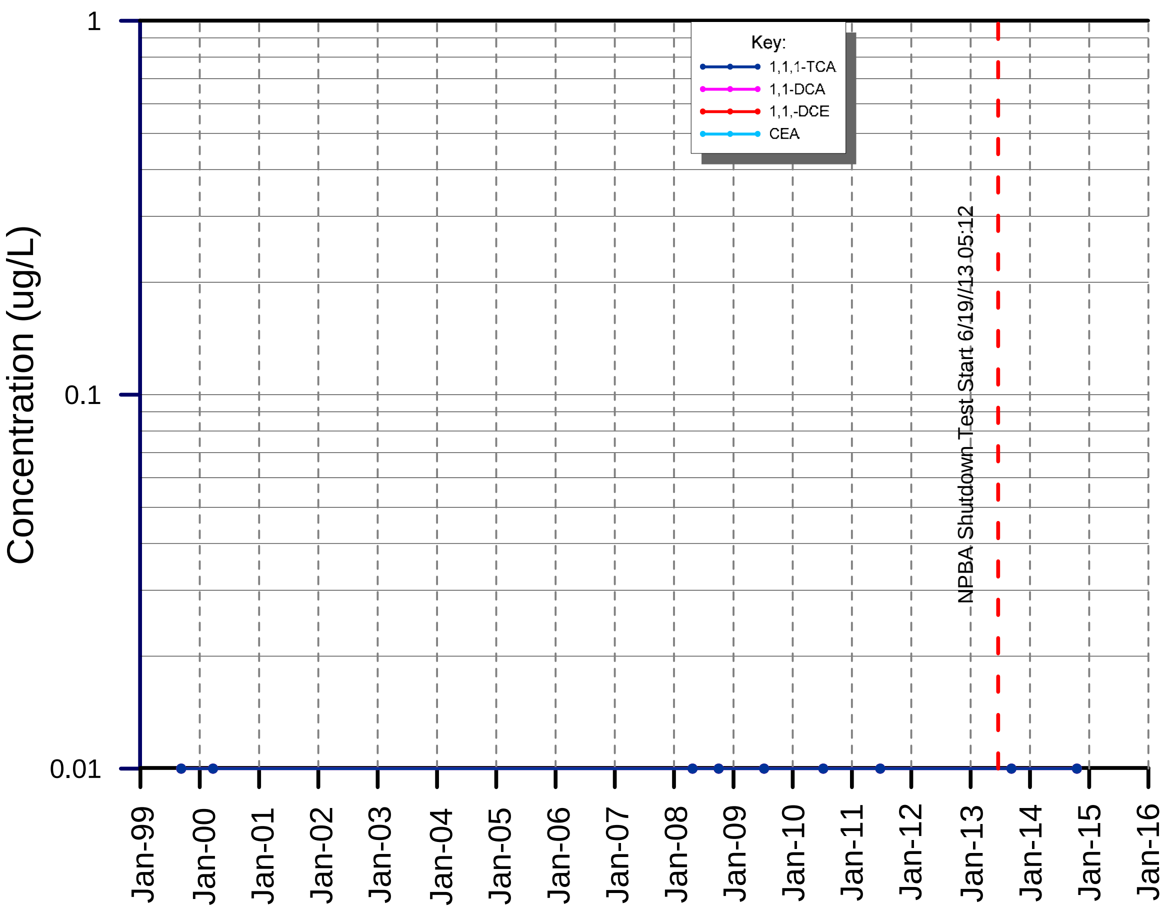
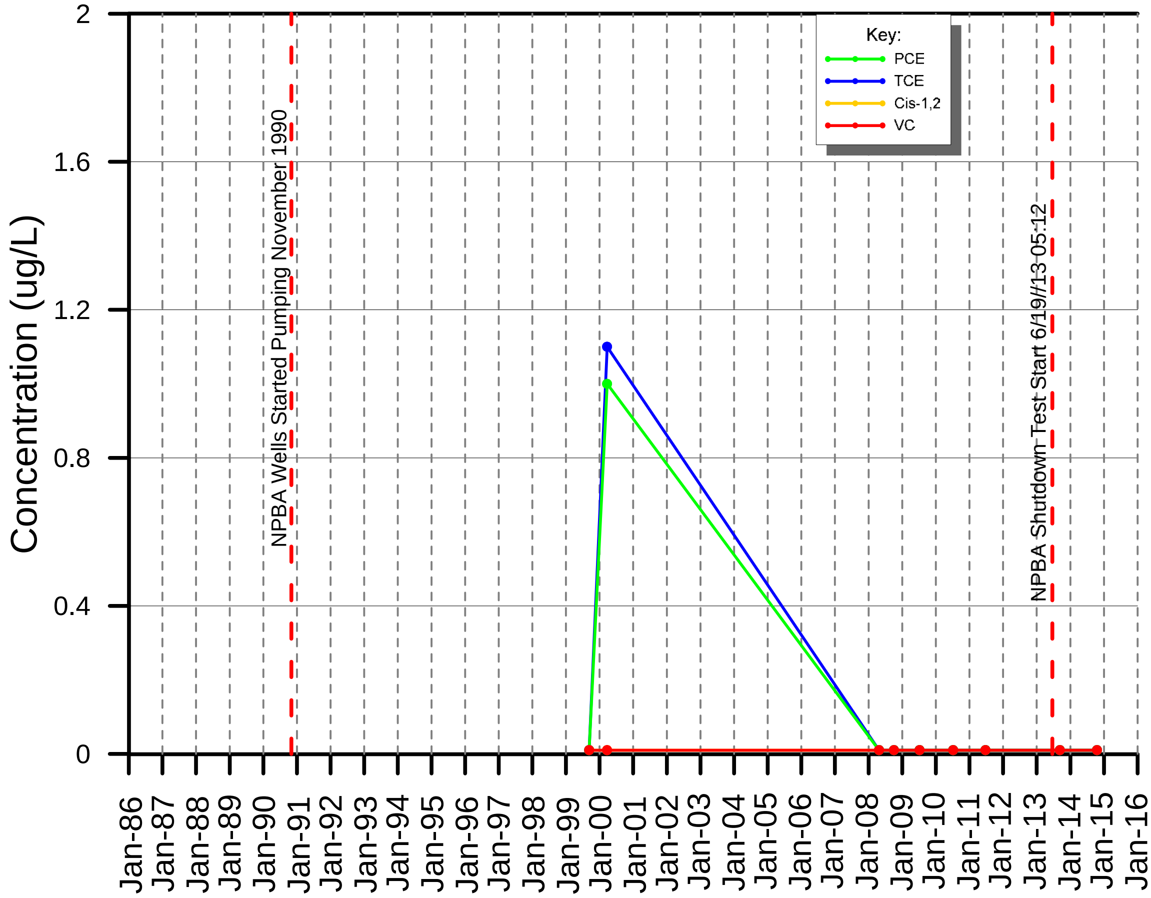
Jan-14
Jan-15
Jan-16


Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19//13 05:12
Concentration (ug/L)
1
0.1
0.01
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16

MW-77



Concentration (ug/L)
2
1.6
1.2
0.8
0.4
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13-05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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Jan-11
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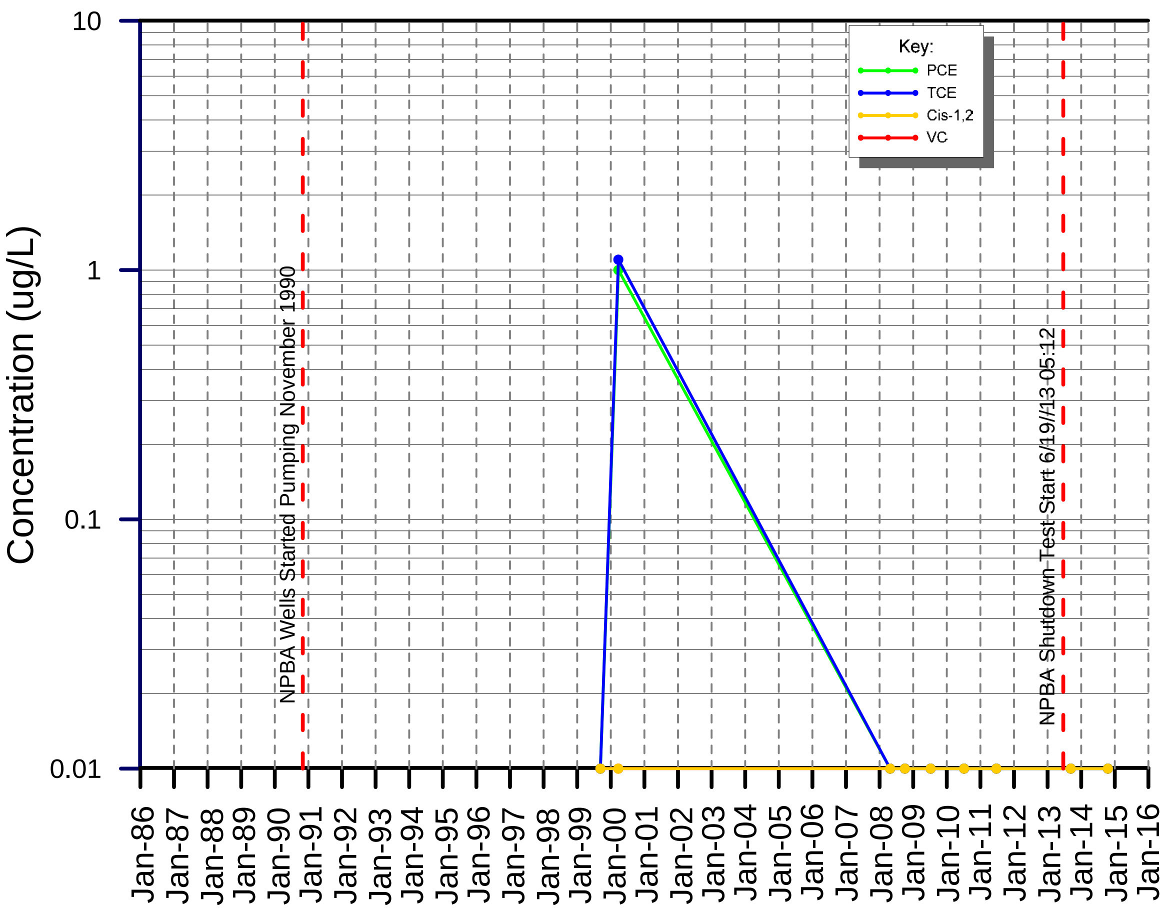
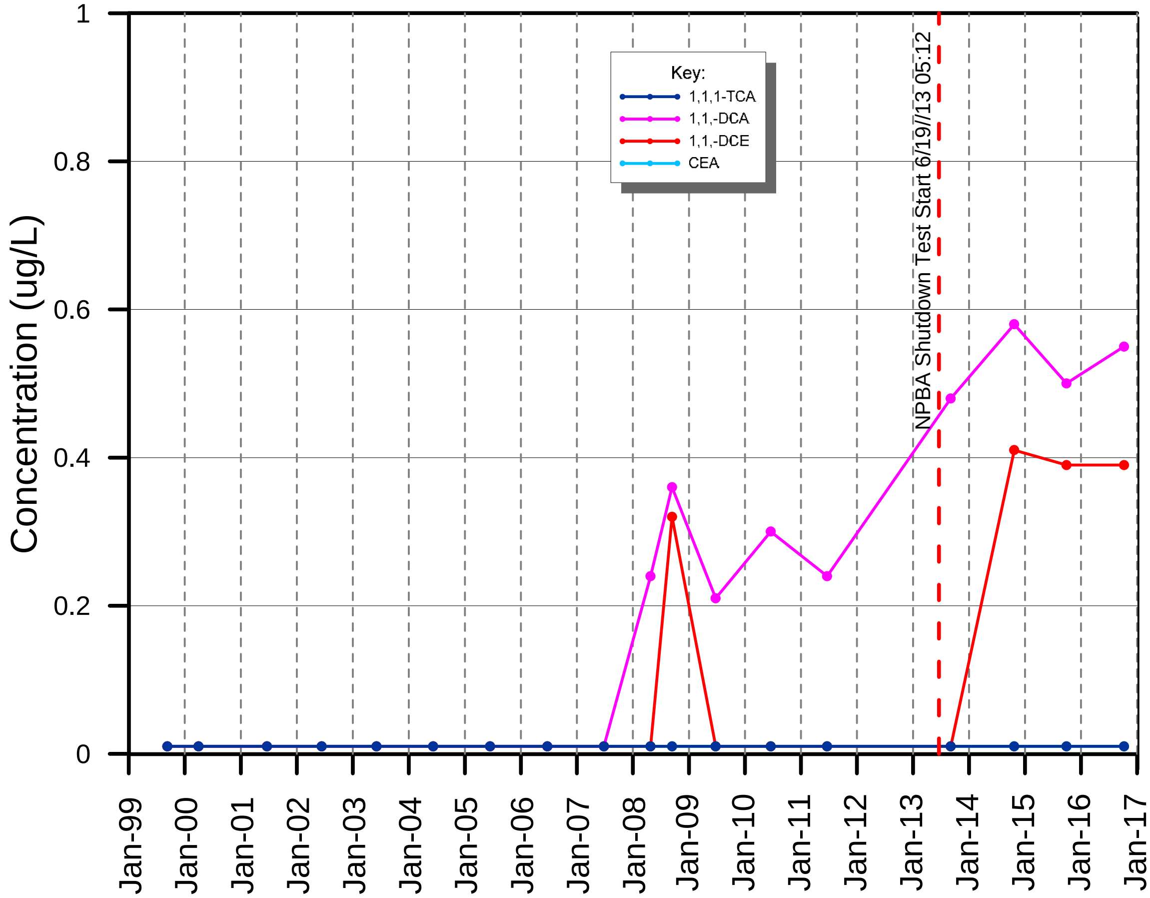
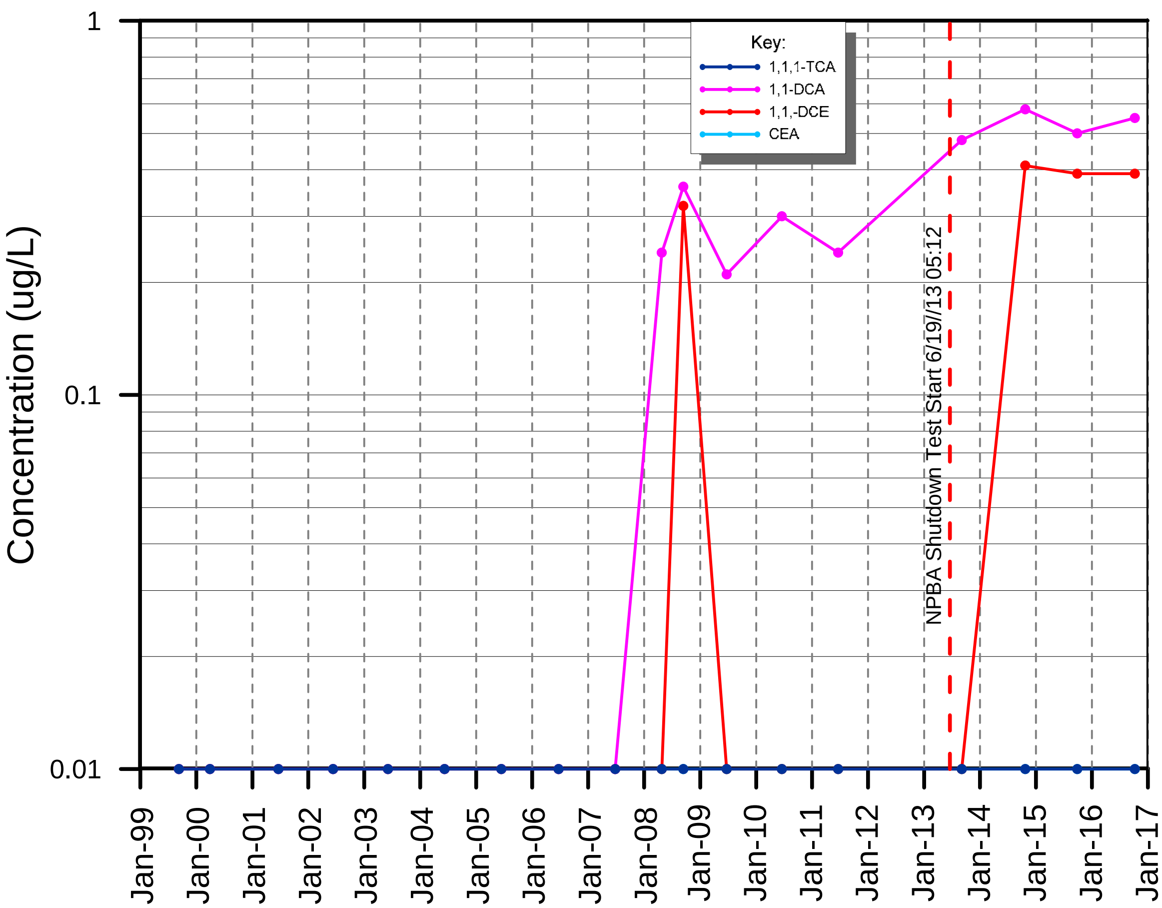
Jan-14
Jan-15
Jan-16



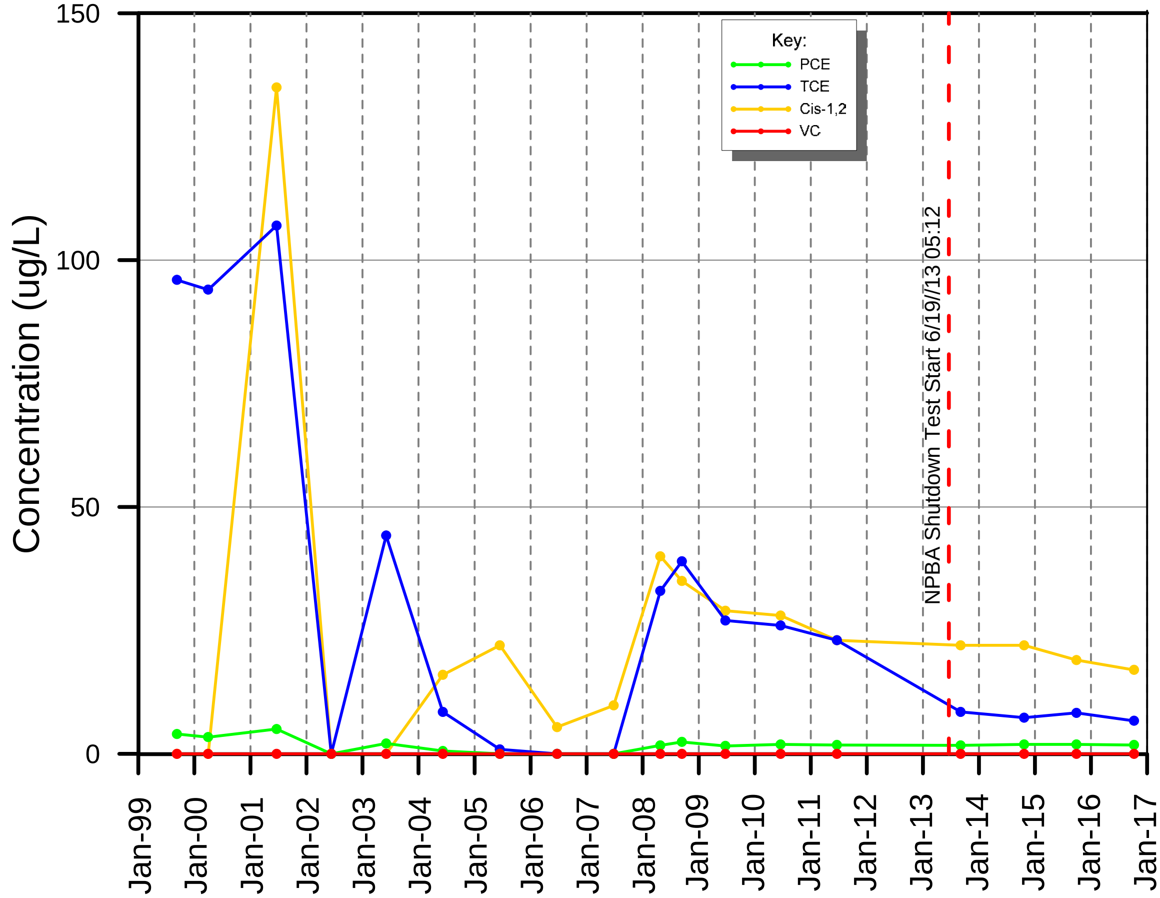
Concentration (ug/L)
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13-05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16

MW-82

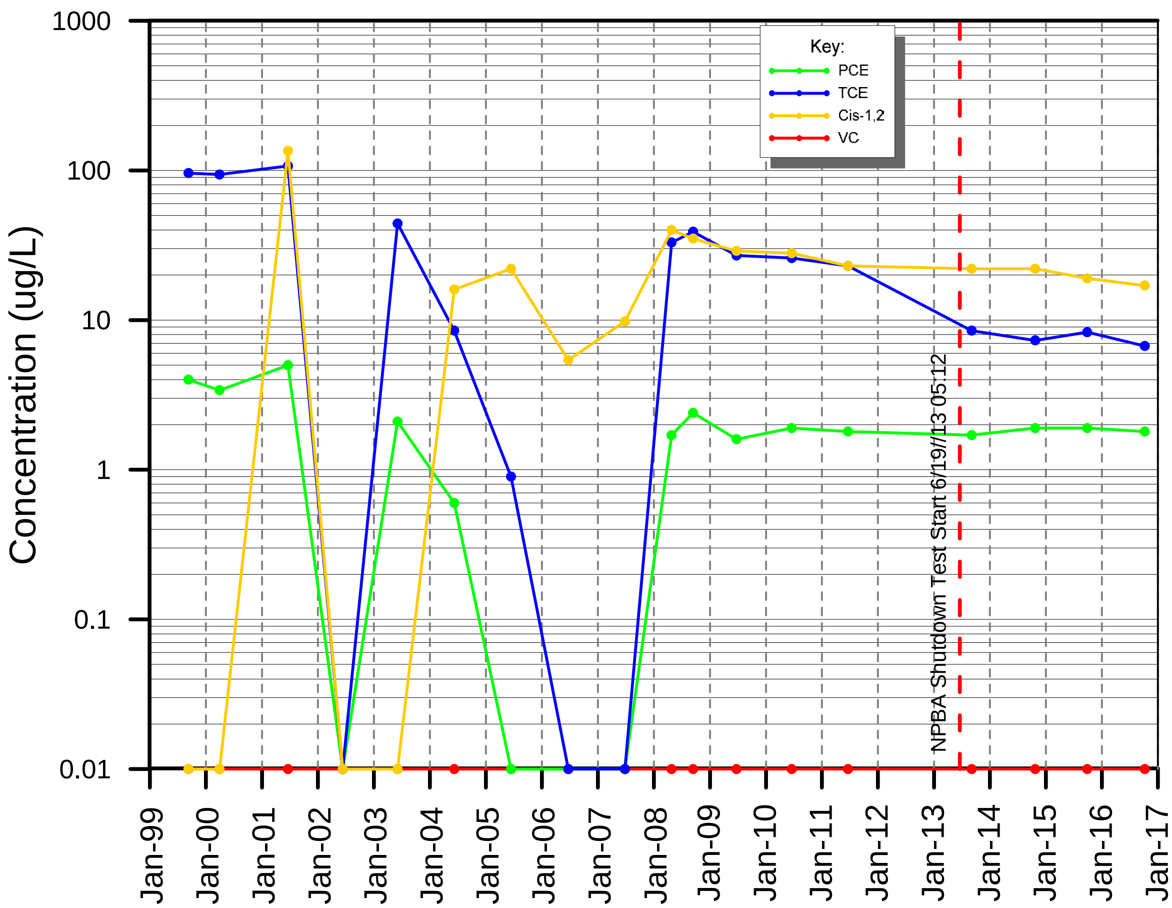

Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19/13 05:12
Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17


Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Shutdown Test Start 6/19/13 05:12
Concentration (ug/L)
1
0.1
0.01
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-82

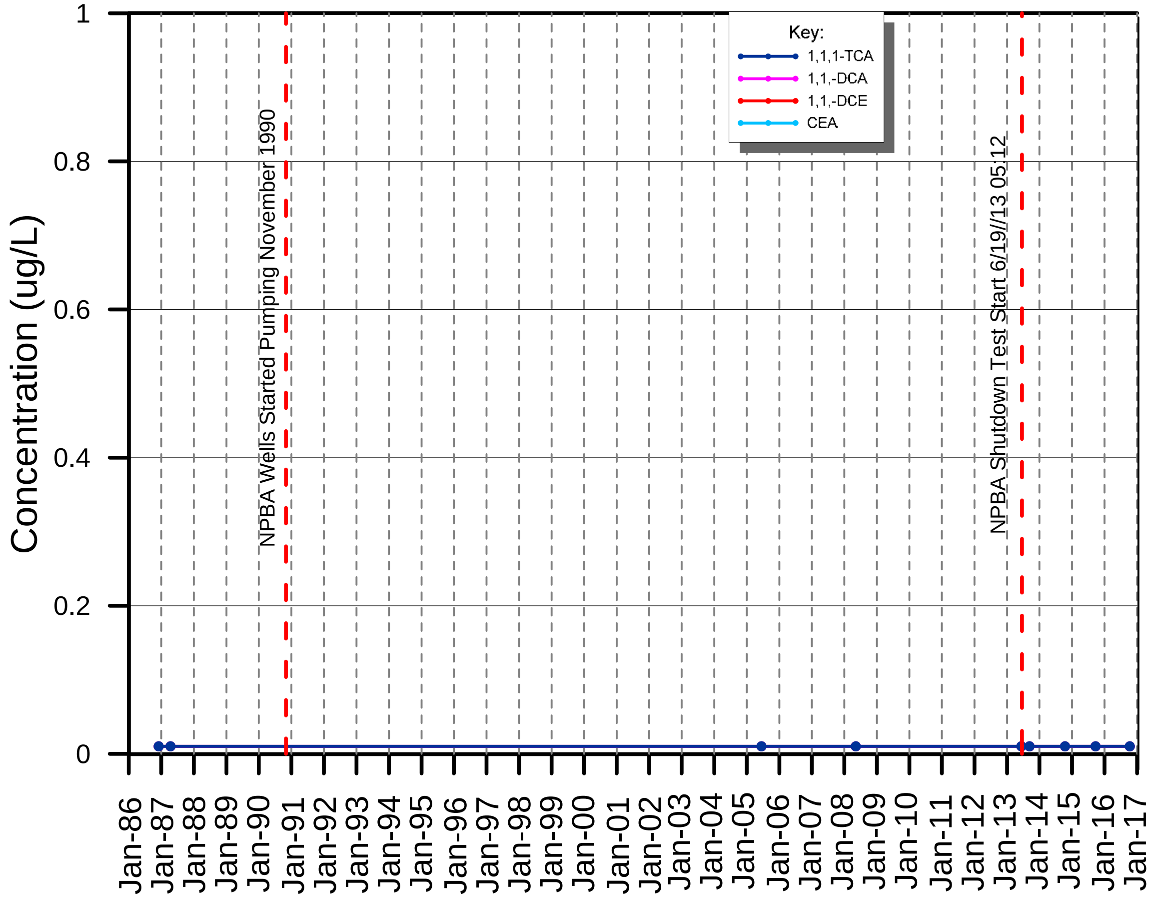


Concentration (ug/L)
150
100
50
0
Key:
PCE
TCE
Cis-1,2
VC
NPBA Shutdown Test Start 6/19/13 05:12
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17



Concentration (ug/L)
1000
100
10
1
0.1
0.01
Key:
PCE
TCE
Cis-1,2
VC
NPBA Shutdown Test Start 6/19/13 05:12
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-9


Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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Jan-09
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Jan-11
Jan-12
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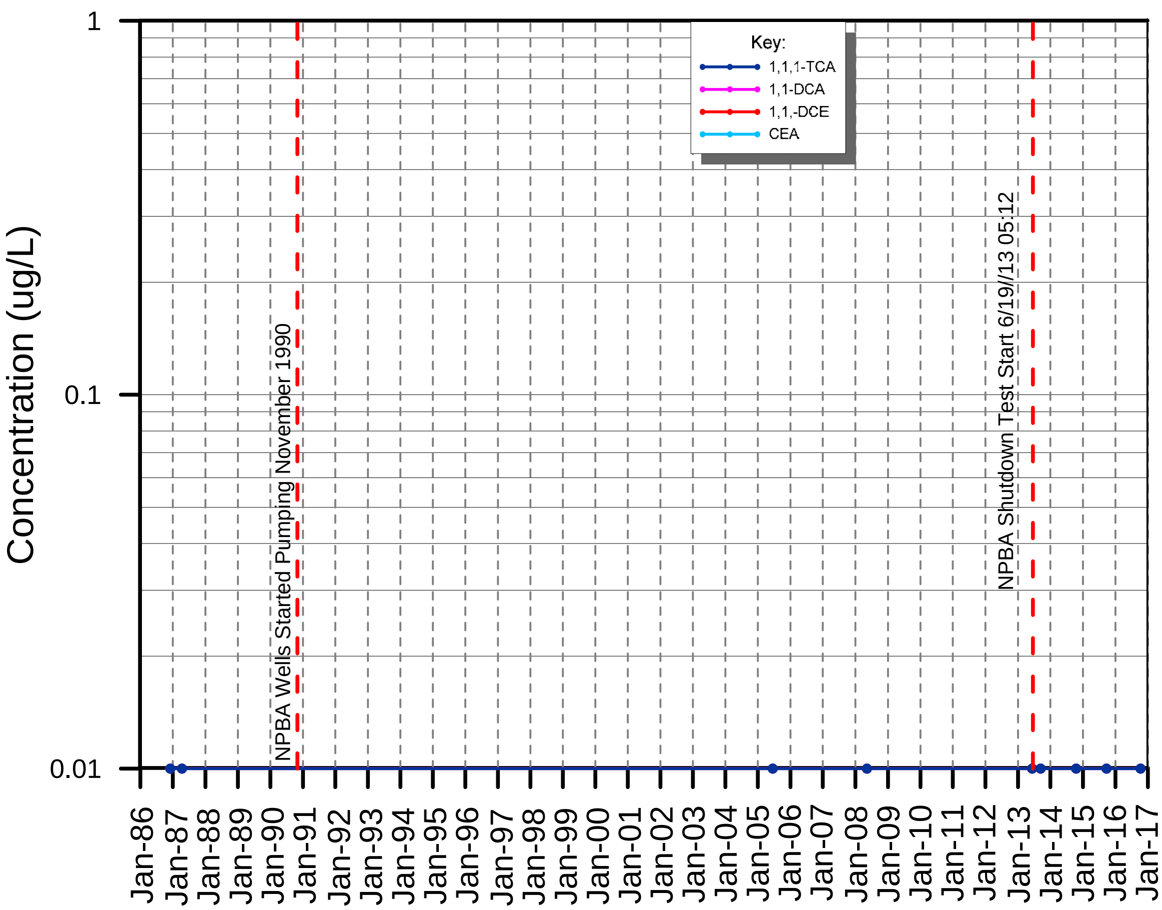
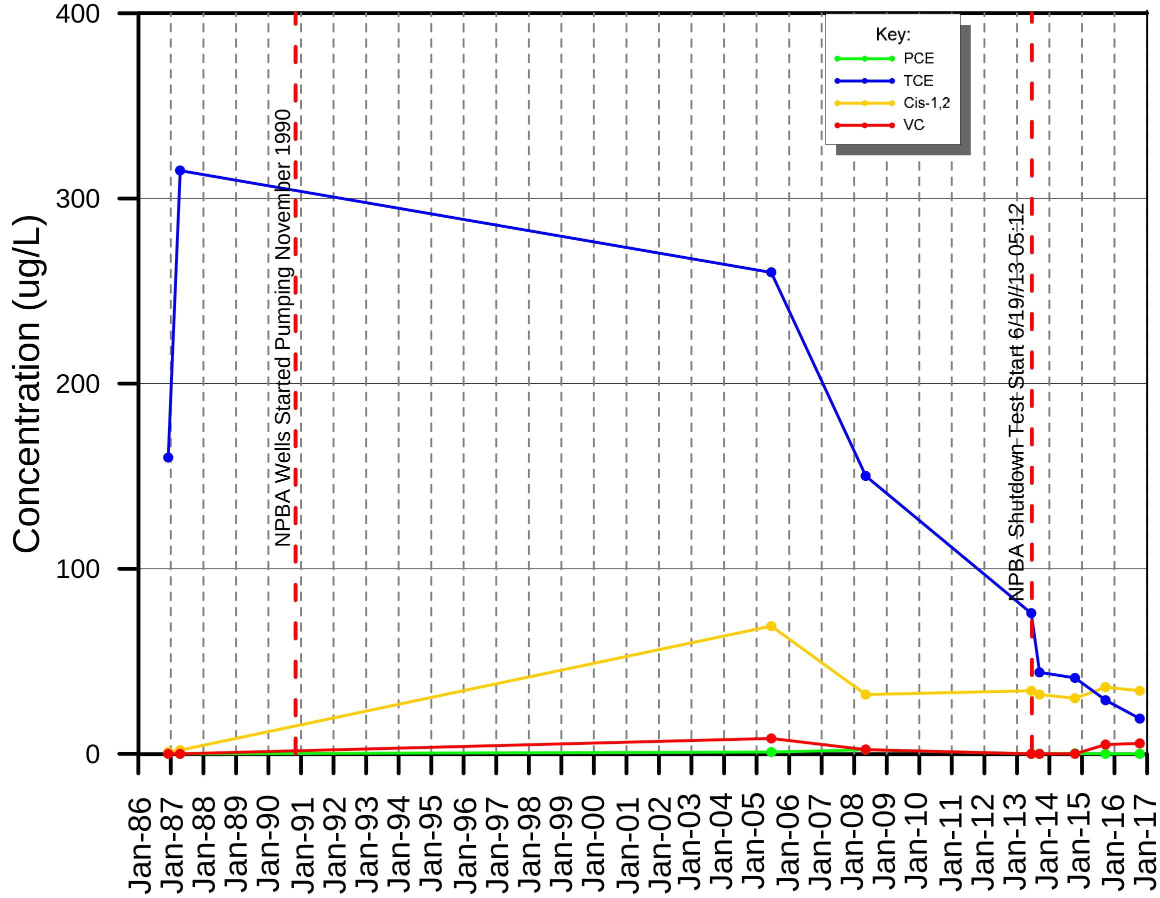
Jan-14
Jan-15
Jan-16
Jan-17


Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
Concentration (ug/L)
1
0.1
0.01
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

MW-9



400
300
200
100
0
Concentration (ug/L)
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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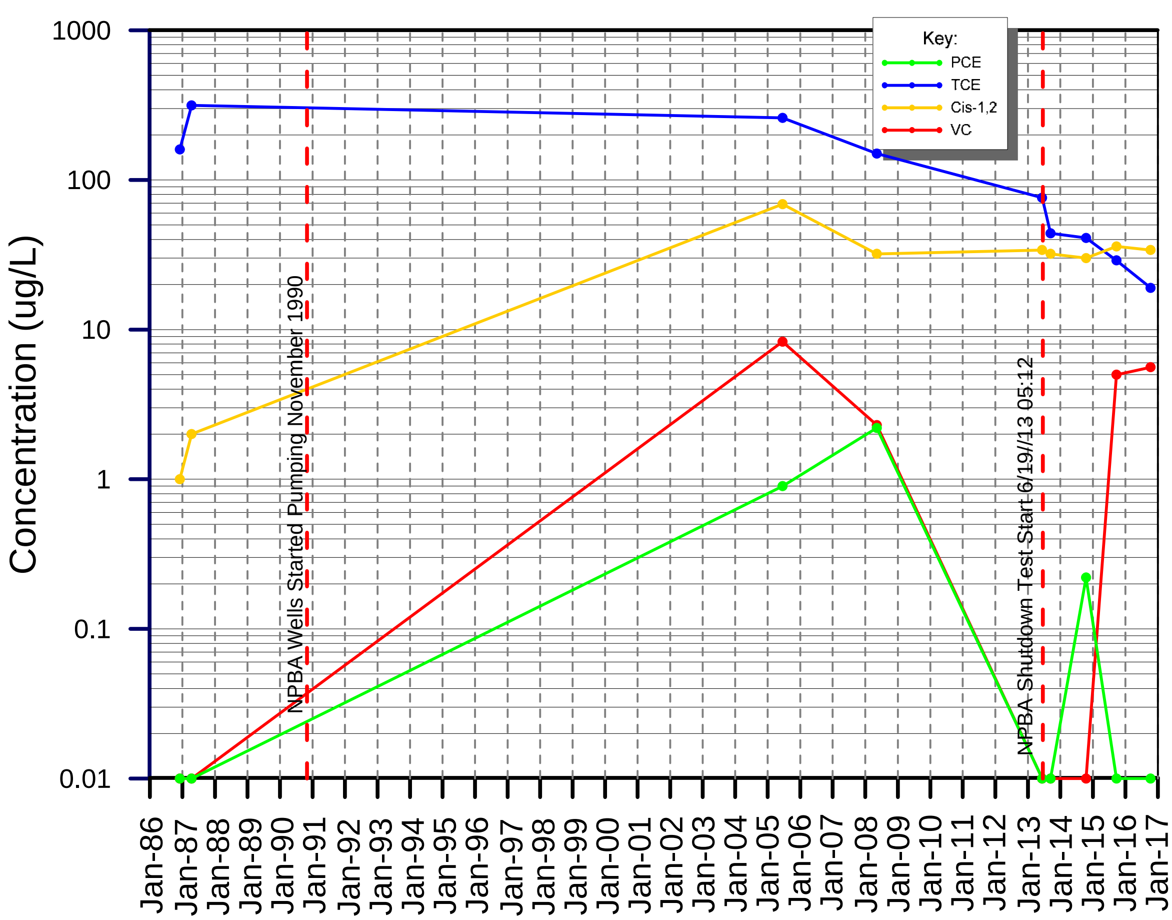
Jan-15
Jan-16
Jan-17



1000
100
10
1
0.1
0.01
Concentration (ug/L)
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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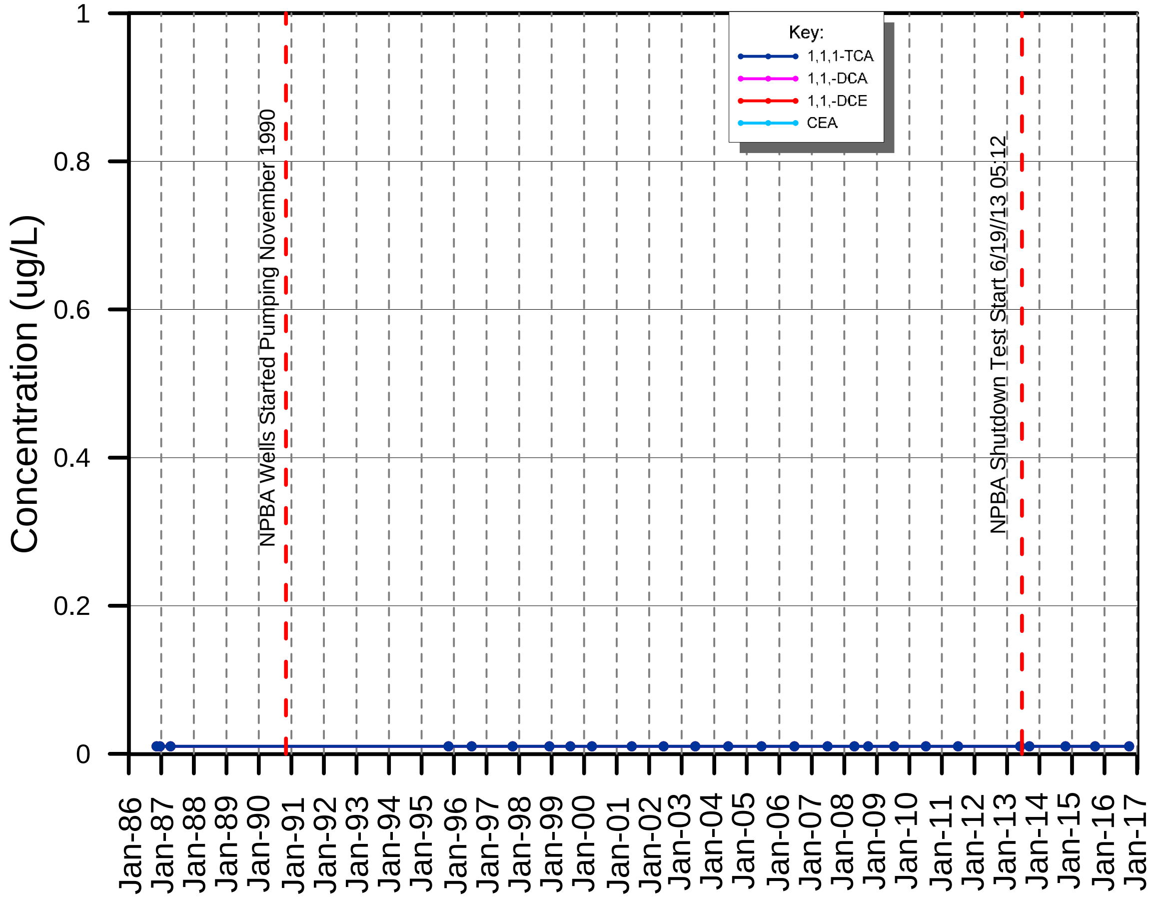
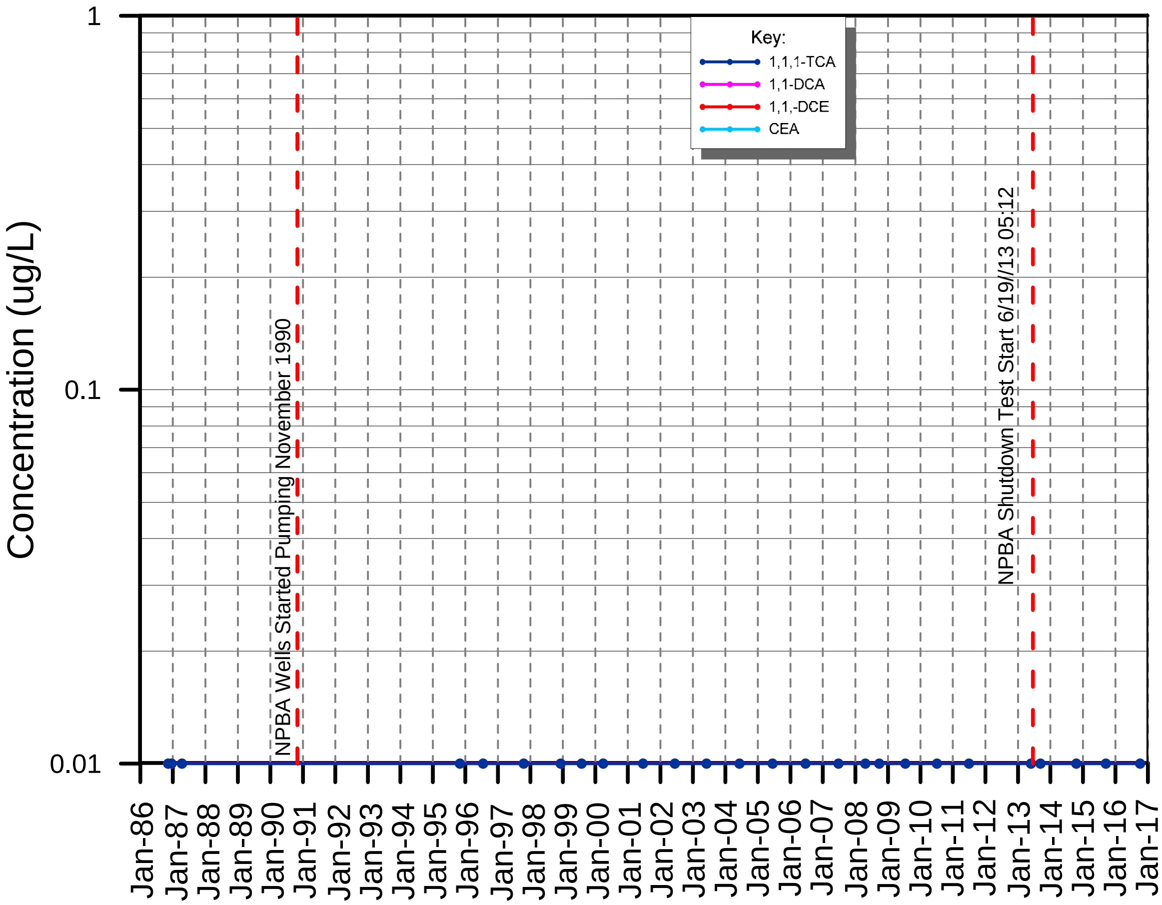
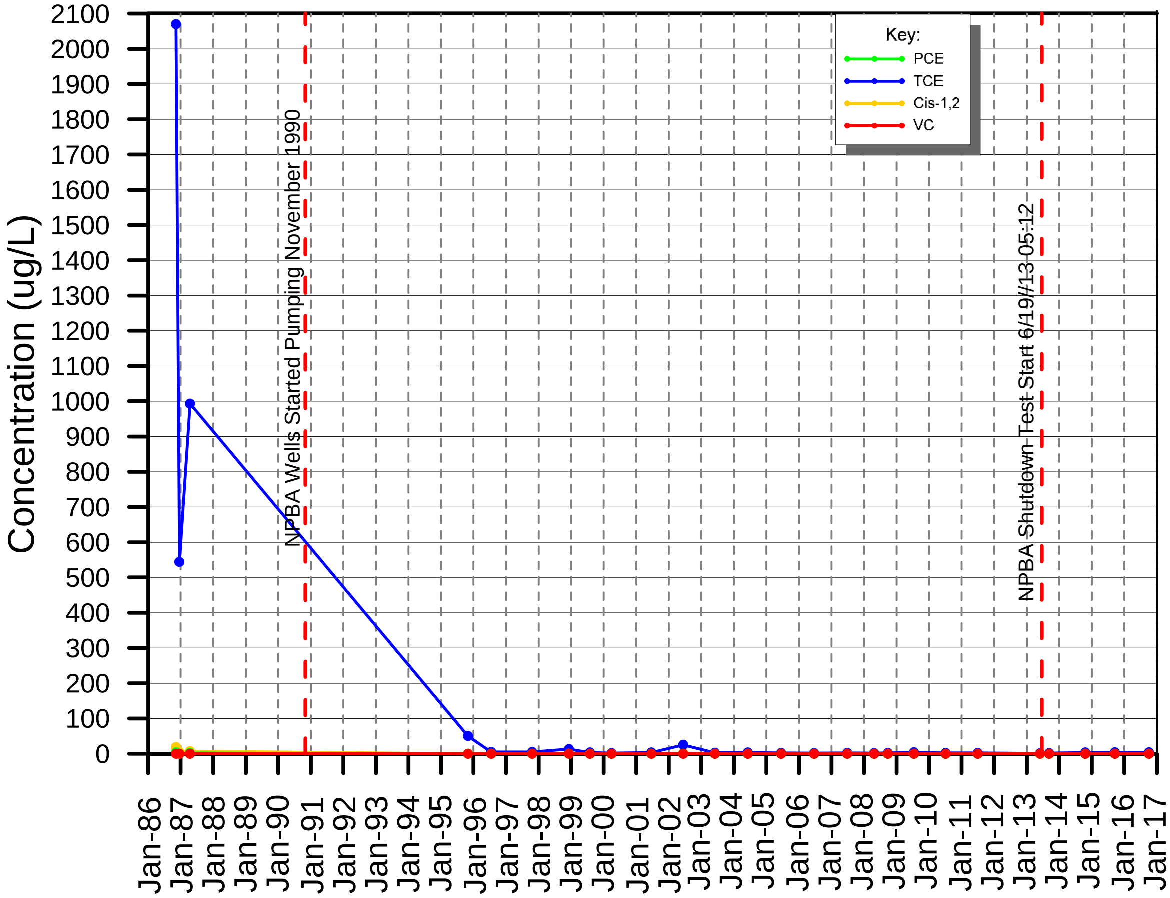
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

RW-2


Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17


Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17

RW-2


Concentration (ug/L)
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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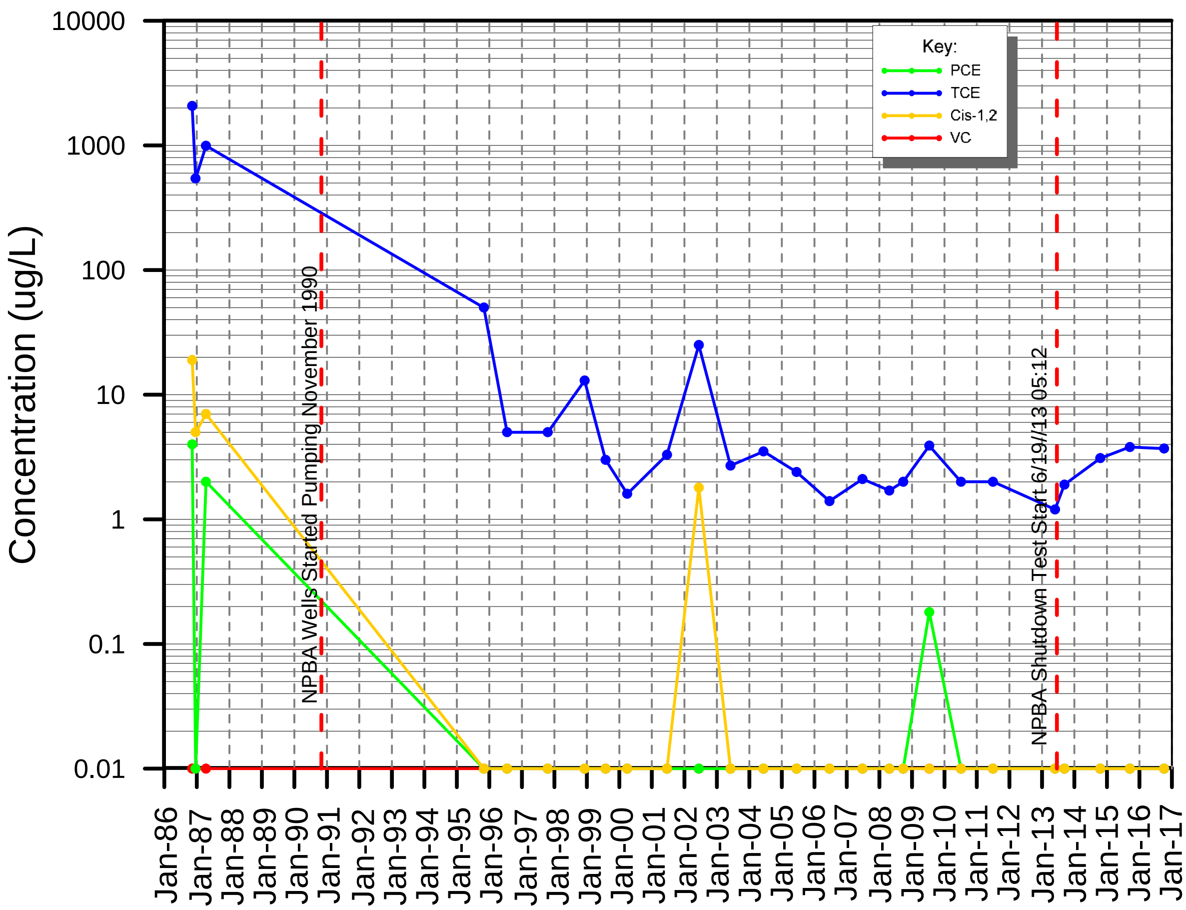
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
Key:
PCE
TCE
Cis-1,2
VC
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
0.01
0.1
1
10
100
1000
10000
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
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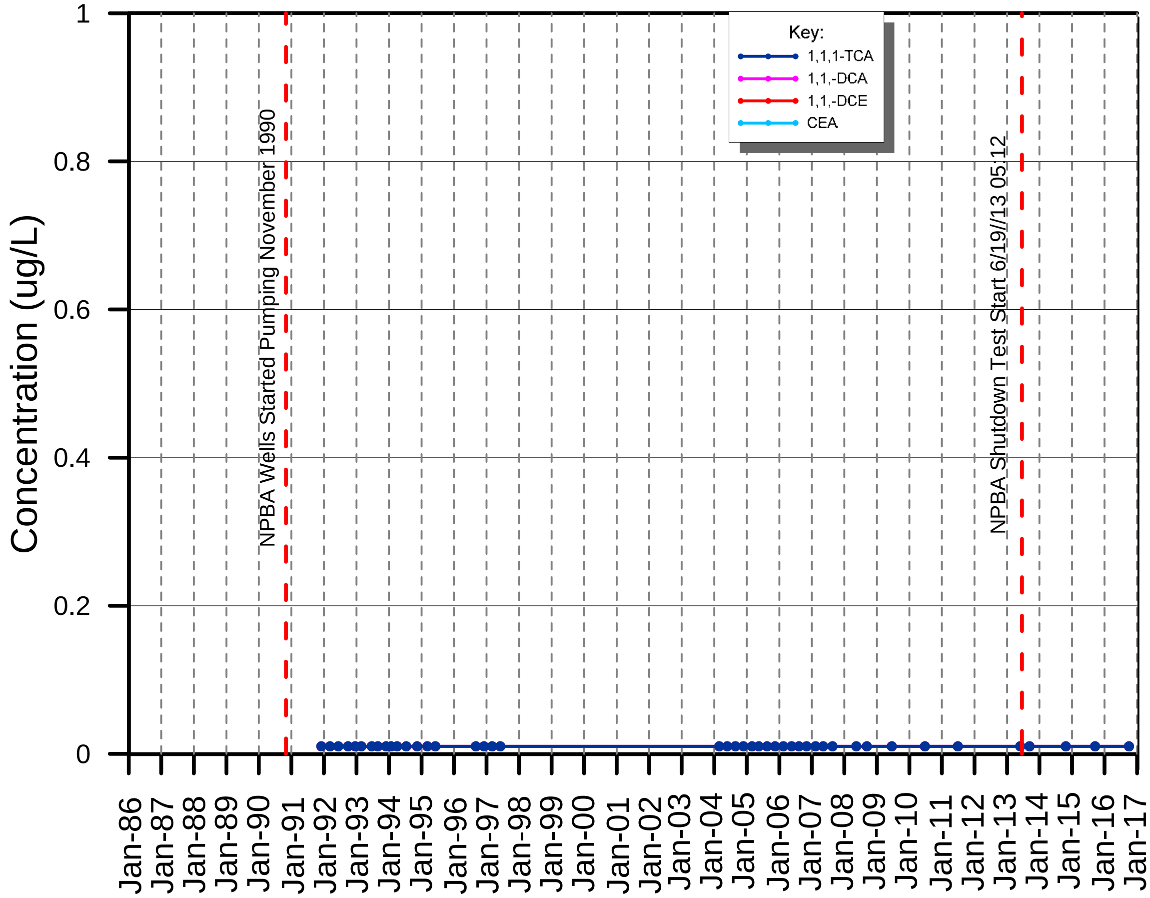
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

RW-4 (Folk)


Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
Key:
1,1,1-TCA
1,1,-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
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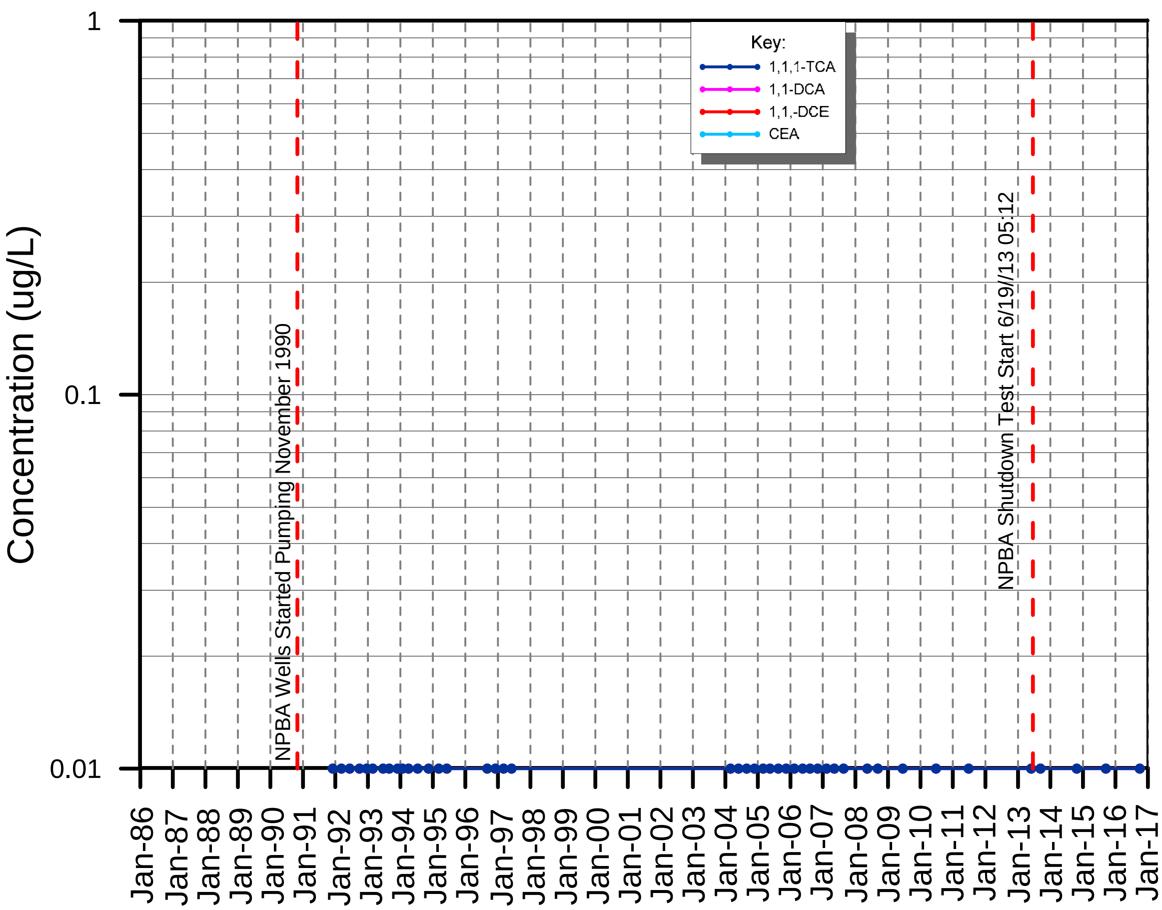
Jan-15
Jan-16
Jan-17


Concentration (ug/L)
1
0.1
0.01
Key:
1,1,1-TCA
1,1-DCA
1,1,-DCE
CEA
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
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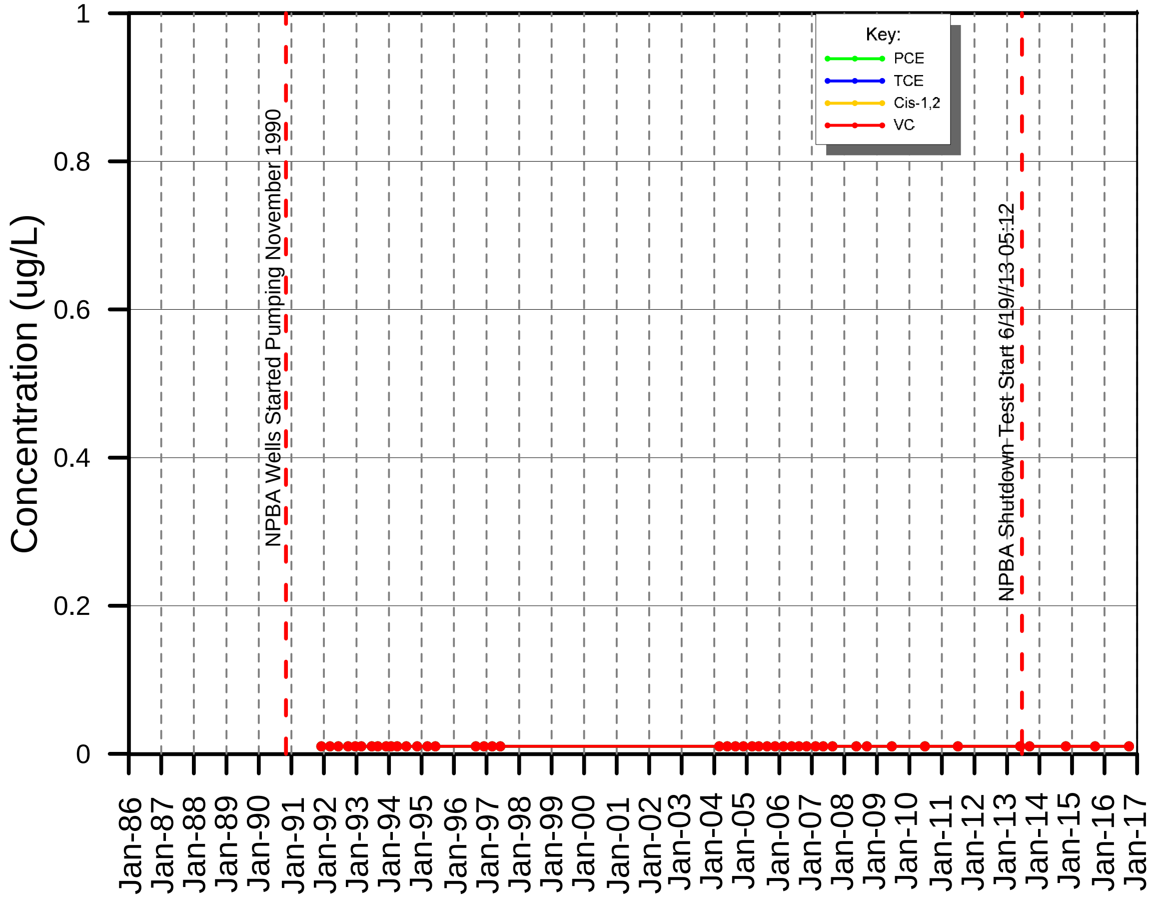
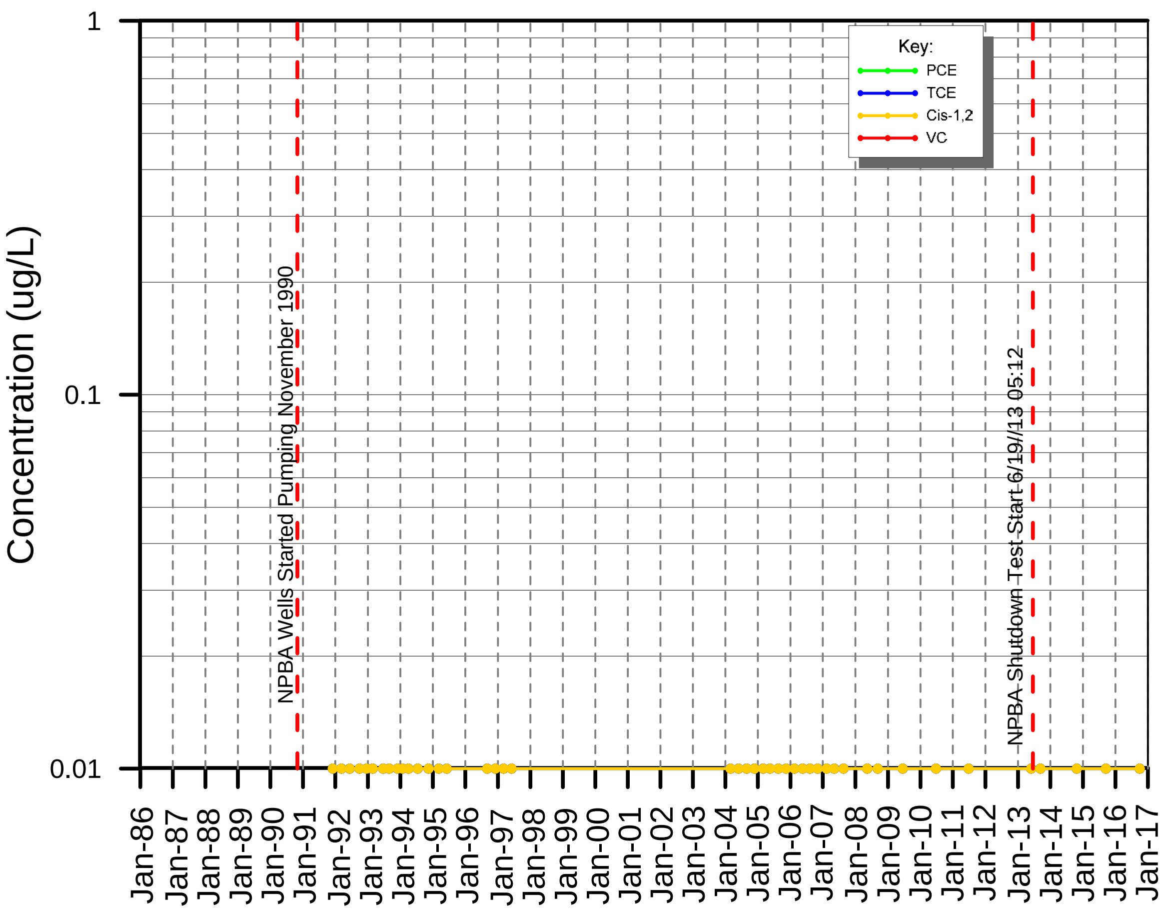
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17

RW-4 (Folk)



Concentration (ug/L)
1
0.8
0.6
0.4
0.2
0
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17



Concentration (ug/L)
1
0.1
0.01
NPBA Wells Started Pumping November 1990
NPBA Shutdown Test Start 6/19//13 05:12
Key:
PCE
TCE
Cis-1,2
VC
Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03 Jan-04 Jan-05 Jan-06 Jan-07 Jan-08 Jan-09 Jan-10 Jan-11 Jan-12 Jan-13 Jan-14 Jan-15 Jan-16 Jan-17