
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
Former Texaco Research Center
Beacon (Glenham), New York

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LIST OF ACRONYMS

ASTs	Aboveground Storage Tanks
ASP	Analytical Services Protocol
Bgs	Below Ground Surface
C13	Carbon 13 Isotope
CB	Chlorobenzene
COC	Chain of Custody
CSIA	Compound Specific Isotope Analysis
DO	Dissolved Oxygen
DUSR	Data Usability Summary Report
DTW	Depth to Water
1,2 -DCB	1,2-Dichlorobenzene
EIM™	Environmental Information Management
EMC	Environmental Management Company (Chevron)
ELAP	Environmental Laboratory Approval Program
EPA	Environmental Protection Agency
ETC	Energy Technology Company (Chevron)
ft.	Feet
FTA	Fleet Test Area
GIS	Geographic Information System
HDPE	High Density Polyethylene
IDW	Investigation Derived Waste
LNAPL	Light Non-Aqueous Phase Liquid
Main Facility	Portion of the Site north of Fishkill Creek (a.k.a. “Main Campus”)
MS/MSD	Matrix Spike and Matrix Spike Duplicate
NAPL	Non-Aqueous Phase Liquid
NYCRR	New York Code Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OU	Operable Unit
P.E.	Professional Engineer

LIST OF ACRONYMS (CONTINUED)

ppm	Parts per million
PPE	Personal Protective Equipment
QA/QC	Quality Assurance and Quality Control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
redox	Reduction-Oxidation
RFI	RCRA Facility Investigation
SAP	Sampling and Analysis Plan
Site	Former Texaco Research Center Beacon
SRFI	Supplemental RFI
TCE	Trichloroethene
TOGS	Technical and Operational Guidance Series
TRCB	Texaco Research Center Beacon
VOCs	Volatile Organic Compounds
WATF	Washington Avenue Tank Farm
WWTP	Wastewater Treatment Plant

ENGINEER'S CERTIFICATION

CERTIFICATION OF COMPLETION

I, Craig F. Butler, certify that I am currently a New York State registered Professional Engineer (P.E.) and that the 2015 Quarterly Groundwater Sampling Event Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

Craig F. Butler, P.E.
New York, No. 080807

Date

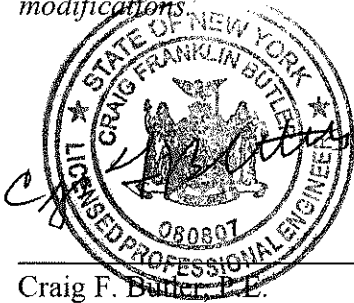
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Craig F. Butler, P.E.
New York, No. 080807

03/11/16

Date

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EXECUTIVE SUMMARY

The purpose of this report is to describe and document the results of the 2015 Quarterly Groundwater Sampling Events that were completed in March, June, September, and November 2015 at the former Texaco Research Center Beacon (TRCB) located in Beacon, New York (Site). A summary of monitoring results is provided below.

BUILDING 58/83 AREA

- Nine groundwater monitoring wells were sampled during the quarterly sampling program. Four of the wells were installed in the overburden, while the remaining five wells were bedrock wells. Depth to water (DTW) was encountered from 3.73 feet (ft.) below ground surface (bgs) to 7.43 ft. bgs in the overburden wells, while DTW in the bedrock wells varied from 4.50 ft. bgs to 17.85 ft. bgs.
- In general, DTW in both the overburden and bedrock wells was shallowest in spring and deepest during the fall and DTW behavior was similar to patterns observed in previous years.
- Volatile organic compounds (VOCs) and manganese were detected at concentrations that exceeded the New York State Department of Environmental Conservation (NYSDEC) Technical and Operational Guidance Series (TOGS) 1.1.1 Class GA groundwater screening criteria during all four quarterly sampling events in both overburden and bedrock groundwater. Chloride was only detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria in six of the nine wells sampled in the Building 58/83 Area (Overburden wells: Unknown Wells No. 1, 2, and 3 and Bedrock wells: SWMW-2, ITMW-13, and SWMW-125).
- General VOC concentrations were also observed to fluctuate over the course of the year in individual wells, with no discernible trend.

BUILDING 36 AREA

- Five bedrock groundwater monitoring wells were sampled during the quarterly sampling program. Depth to water was encountered from 6.35 ft. bgs to 18.72 ft. bgs.
- The general DTW behavior observed in the bedrock wells was very similar to that observed in the Building 58/83 Area.
- VOCs and manganese were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria in all four quarterly sampling events, with the exception of one well. The groundwater criteria for manganese was not exceeded in Well SWMW-113 during the third quarterly well sampling event. Chloride was detected at concentrations exceeding the groundwater screening criteria in only one well (SWMW-45) during the first three quarterly sampling events.
- General VOC concentrations were observed to fluctuate over the course of the year in individual wells, with no discernible trend.

BUILDINGS 45/55 AREA

- Nine groundwater monitoring wells were sampled during the quarterly sampling program. Seven of the wells were overburden wells and two were bedrock wells. Depth to water was encountered from 2.79 ft. bgs to 12.39 ft. bgs in the overburden wells, while DTW in the bedrock well varied from 3.10 ft. bgs to 9.02 ft. bgs.
- DTW observations in the bedrock wells were very similar to those observed in the Building 58/83 Area.
- VOC parameters and manganese were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events for all the overburden wells with the exception of one well (SWMW-48) which only exhibited a concentration exceeding the NYSDEC groundwater screening criteria for manganese during the fourth quarterly sampling event. Chloride was detected above the NYSDEC groundwater screening criteria in all the overburden wells for all four sampling events with the exception of one well (ITMW-24).
- Groundwater from bedrock wells (SWMW-44 and SWMW-27) contained VOC and manganese concentrations in exceedance of the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events with the exception of Well SWMW-27. Manganese exceeded the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria in Well SWMW-27 only during the second quarterly sampling event. Chloride was only detected at concentrations above the screening criteria during the second quarterly sampling event at Well SWMW-27.
- General VOC concentrations were observed to fluctuate over the course of the year in individual wells, with no discernible trend.

BUILDING 51 AREA

- Seventeen groundwater monitoring wells were sampled during the quarterly sampling program. Six of the wells were overburden wells, while the remaining eleven were bedrock wells. Depth to water was encountered from 7.97 ft. bgs to 17.11 ft. bgs in the overburden wells, while DTW in the bedrock wells varied from 7.53 ft. bgs to 26.83 ft. bgs.
- DTW in both the overburden and bedrock wells was shallowest during spring and deepest during the fall with the exception of two wells for each well type. Overburden wells SWMW-15 and SWMW-67 and bedrock wells ITMW-6 and SWMW-41 exhibited the deepest DTWs in the summer (June 2015).
- VOC parameters and manganese were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events for all the overburden wells with the exception of two wells. Manganese exceeded the NYSDEC groundwater screening criteria in Well SWMW-58 only during the first and third quarterly sampling events, while the manganese criteria was exceeded for well SWMW-113 only during the first sampling event. Chloride concentrations did not exceed the NYSDEC groundwater screening criteria in any overburden wells sampled.

- Within the bedrock wells, VOCs were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events, while manganese was detected in three of the eleven bedrock wells sampled at least once during quarterly sampling activities. Chloride was only detected above the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria in three of the eleven bedrock wells sampled at least once during quarterly sampling activities.
- VOC concentrations were observed to fluctuate over the course of the year in individual wells, with no discernible trend.

WASHINGTON AVENUE TANK FARM AREA

- Four overburden groundwater monitoring wells were sampled during the quarterly sampling program. Depth to water was encountered from 6.17 ft. bgs to 8.83 ft. bgs in the wells.
- DTW behavior observed in the overburden and bedrock wells was very similar to that observed in the Building 58/83 Area.
- VOCs and manganese were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria during all four quarterly sampling events in all the overburden wells. Chloride was detected above the NYSDEC groundwater screening criteria in only one overburden well (SWMW-31) at least once during quarterly sampling activities.
- VOC concentrations were observed to fluctuate over the course of the year in individual wells, with no discernible trend.

ANALYTICAL DATA COMPARISON

Geographic Information System (GIS) contouring of groundwater constituent concentrations and analytical data comparison was performed for all four quarterly groundwater sampling data sets and graphs were produced indicating chemical trend analysis for the four parameters mentioned above for chemical data collected from 2008, 2010, 2012, 2013, 2014, and 2015. The primary conclusion of the analysis was that natural attenuation through biodegradation of the organic parameters could be one of the contributors taking place at the Site assisting in the natural reduction of contaminants, but at a slow rate. This conclusion was based on the observed fluctuations of the VOC concentrations and observed plume extents (boundaries) throughout the course of the year (e.g., plume extents either stayed the same or shrank slightly) and from VOC concentration fluctuations observed from 2008 through 2015 trend analysis graphs. (General observation of VOC data showed either a general decrease in concentrations or a constant value concentration through the years with periodic increases.)

COMPOUND SPECIFIC ISOTOPE ANALYSIS

Compound Specific Isotope Analysis (CSIA) was performed at twelve groundwater monitoring wells (both overburden and bedrock), at the request of Chevron Environmental Management Company (EMC). CSIA was performed as a diagnostic tool to determine if natural biodegradation of chlorobenzene (CB) and 1,2-dichlorobenzene (1,2-DCB) was occurring at the TRCB facility and to evaluate if monitored natural attenuation could be a potential remedial alternative.

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Results of the CSIA sampling indicated that natural biodegradation of both CB and 1,2-DCB is taking place at the facility and that natural attenuation could be a potential remedial alternative. This conclusion was based on observing an enrichment of Carbon 13 (C13) isotope for both constituents in wells sampled downgradient of the source area wells (wells with higher constituent concentrations) while observing a corresponding decrease in CB and 1,2-DCB in the downgradient wells. Even though initial CSIA data are encouraging, further data collection and evaluation will be performed to determine if natural attenuation is a feasible remedial alternative.

SECTION 1

INTRODUCTION

1.1 PROJECT OBJECTIVES

The purpose of this report is to describe and document the results of the quarterly groundwater sampling events that were completed in March, June, September, and November 2015 at the former Texaco Research Center Beacon (TRCB) (See Figure 1).

The results presented in the Sitewide RCRA Facility Investigation (RFI) Report (Parsons, 2007a), Supplemental RFI (SRFI) (Parsons, 2009a), 2008 Sitewide Groundwater Sampling Event (Parsons, 2009b), 2010 Sitewide Groundwater Sampling Event (Parsons, 2010), 2012 Sitewide Groundwater Sampling Event (Parsons, 2013a), Concrete Foundation Drilling Investigation Event (Parsons 2013b), and 2013 Sitewide Groundwater Sampling Event (Parsons, 2014) were used to identify six areas of the Site (also, known as Operable Unit (OU 1A) (Main Facility) and OU- 1C (Former Washington Avenue Tank Farm Area)) where there were indications that groundwater has been impacted by chemical constituents, namely:

- **Building 51 and Northeast Areas (OU-1A)** - The Building 51 Area is located on the eastern side of the developed part of the Site. Historical mapping indicates that this area was used for drum storage and contained aboveground storage tanks (ASTs) and a cracking/distillation tower. The northeast portion of the Main Facility includes the Fleet Test Area (FTA) parking lots and the former Credit Union (Building 31).
- **Former Washington Avenue Tank Farm Area (OU-1C)** - The Former Washington Avenue Tank Farm (WATF) is located on an approximately 5.45 acre parcel on the south side of Fishkill Creek.
- **Building 36 and Building 58/83 Areas (OU-1A)** - The Building 36 Area and Building 58/83 Area is located in the western part of the Main Facility along the northern bank of Fishkill Creek. The area includes Buildings 36, 42, 52, 79 and 82.
- **Buildings 45/55 Area (OU-1A)** - The Building 45/55 Area is located in the central part of the Main Facility. The Building 45 Area includes the lower section of the Site along Fishkill Creek. There is a flat area located along the north side of Fishkill Creek downstream of the dam, with an elevation approximately twelve feet above the normal Fishkill Creek water level. The area is bordered to the east by Building 3, to the north and west by a sheer rock face, and to the south by the Creek. Texaco operations in this area included the sanitary and industrial wastewater treatment plants (WWTP). The Building 55 Area includes Building 55 (offices), Building 56 (garage), Building 29 (mechanical laboratory, fuel/lubricant testing), Building 26 (Boiler House), Building 44 (electrical switch house), Building 30 (Health and Safety) and Building 65 (laboratory).

The quarterly groundwater sampling events detailed in this report were designed to provide additional data to compare against data collected from previous groundwater sampling events (e.g., 2014 Quarterly Groundwater Sampling Events) and to provide groundwater data from specific wells located at the facility in order to determine the degree of contaminant degradation taking place within the subsurface, examine effects of groundwater level on contaminant concentrations,

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assist in the refinement of a site conceptual model(s), and assist in identifying potential remedial alternatives for the site. The results of the RFI, SRFI, 2008 Sitewide Groundwater Sampling Event, 2010 Sitewide Groundwater Sampling Event, 2012 Sitewide Groundwater Sampling Event, Concrete Foundation Drilling Investigation Event, and 2013 Sitewide Groundwater Sampling Event were used to identify groundwater monitoring wells that have historically indicated detectable VOC concentrations.

1.2 REPORT ORGANIZATION

This report has been organized into sections similar to those presented in previous reports.

- Section 1 presents an introduction and includes a discussion of the organization of this report.
- Section 2 provides a description of the completed scope of work. This includes the quality assurance and quality control (QA/QC) program, the database management program and a summary of the field methods used.
- Section 3 provides descriptions of each of the areas investigated, the scope of work completed, and the results of the investigations in those areas.
- Section 4 presents sample event conclusions and provides recommendations for future sampling events.
- Section 5 consists of a reference section.

SECTION 2

SCOPE OF WORK

2.1 INTRODUCTION

The purpose of this section is to describe and document the methods used during the field investigation. The quarterly groundwater sampling events were completed in accordance with the Generic Work Plan, Site Investigation Activities (Parsons, 2007b) and the revised project work plan (Parsons, Revised February 2015a) approved by the NYSDEC via electronic mail in the Spring of 2014.

2.2 SUMMARY OF WORK SCOPE

The scope of work for the 2015 Quarterly Groundwater Sampling Events included the measurement of groundwater elevations and collection and analyses of groundwater samples from specific groundwater monitoring wells (forty-three total) located at the TRCB facility. Thirty-four of the forty-three wells were sampled during all four quarters, while the additional nine wells were only sampled in one of the quarters. Sampling activities were performed in five of the six areas of the Site (Buildings 58/83 Area, Building 36 Area, Building 45/55 Area, Building 51 Area, and WATF Area) where groundwater has been impacted by chemical constituents. Wells that did not contain a measurable quantity of water or contained light non-aqueous phase liquid (LNAPL) were not sampled. Analytical results included in this report were validated, as specified in the revised Generic Quality Assurance Project Plan (QAPP) (Parsons, Revised March 2015b).

2.3 QA/QC PROGRAM

2.3.1 Field Duplicate and MS/MSD Samples, Wash Blanks, Trip Blanks

Field duplicate, matrix spike and matrix spike duplicate (MS/MSD) samples and sample blanks were collected and analyzed in accordance with the QAPP included in the Generic Work Plan (Parsons, 2007b).

2.3.2 Sample Custody and Custody Seals

Sample Chain-of-Custody (COC) logs and custody seals were used to ensure that sample integrity was not compromised subsequent to sample collection and during shipment to the laboratory. Shipment particulars, such as samples submitted, analyses requested, and sample custody were recorded on the COCs. The field team retained one copy of the COC and the laboratory received the remaining one copy for internal use.

2.3.3 Laboratory Analyses

The analyses were conducted using NYSDEC Analytical Services Protocol (ASP) dated September 1989 with revisions. The analytical work was performed by a laboratory approved by the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) for the categories of solid and hazardous waste. Chemical and physical analyses not covered by ASP procedures were conducted using procedures specified in the QAPP. Sample

custody, laboratory procedures, and other QA/QC requirements were performed in accordance with the specifications in the QAPP.

2.3.4 Data Validation

The samples were collected by Parsons and analyzed by Eurofins-Lancaster Laboratories, Lancaster, Pennsylvania following the procedures outlined in the revised Project QAPP (Parsons, Revised March 2015b).

The data submitted by the laboratory have been reviewed and validated, following the guidelines outlined in the project QAPP.

The analytical data were found to be acceptable in terms of deliverable completeness, accuracy, precision, representativeness, completeness and comparability. A copy of the Data Usability Summary Report (DUSR) for groundwater samples is included in Appendix A, while copies of the analytical laboratory reports with chain-of-custody documentation are included in Appendix C

2.4 DATABASE MANAGEMENT

The data generated during the groundwater sampling activities were stored and managed using LocusFocus Environmental Information Management (Locus EIM™) database software (Chevron's national environmental lab data management program used on all Chevron projects). Following data validation, the Locus EIM™ database was updated to reflect any changes as a result of data validation. These changes included concentration changes, where appropriate, and removal, addition, and/or changes to data qualifiers. The data used in this report were taken from the updated master database to ensure that only current, validated analytical results were used.

2.5 SELECTION OF SCREENING CRITERIA

NYSDEC has issued guidance for the screening of groundwater analytical results. In 1998, NYSDEC issued Division of Water TOGS 1.1.1: Ambient Groundwater Quality Standards and Guidance Values and Groundwater Effluent Limitations (NYSDEC, 1998). This document provides a summary of water quality standards regulated under New York Codes, Rules and Regulations (NYCRR) 703.5 and proposes guidance values for compounds where regulatory standards do not exist. Standards and guidance values have been developed for the specific class of fresh groundwater. The water class assigned to fresh groundwater in New York State is Class GA.

In this report, the Class GA Standards and Guidance Values published in TOGS 1.1.1 are presented as screening criteria for the purpose of screening the groundwater sample analytical results to identify areas of the Site where potential environmental impacts may exist. This approach is consistent with the reporting included in the RFI, SRFI, 2008 Sitewide Groundwater Sampling, 2010 Sitewide Groundwater Sampling Event, 2012 Sitewide Groundwater Sampling Event, Concrete Foundation Drilling Investigation, and 2013 Sitewide Groundwater Sampling Event Reports.

2.6 INVESTIGATION METHODS

2.6.1 Groundwater Sampling

Prior to groundwater sampling, water level measurements were performed at the specified monitoring wells. Water level elevations have been determined and referenced to the Texaco Site Datum. A summary of the water level elevations is included in Table 1.

Groundwater samples were collected from forty-three monitoring wells located at the facility. Groundwater samples were not collected from wells that did not contain a measurable volume of water or contained measureable non-aqueous phase liquid (NAPL).

Prior to sampling, wells were purged so that water representative of adjacent aquifer conditions was collected. The wells were purged using either dedicated high density polyethylene (HDPE) bailers or submersible pumps with dedicated polyurethane tubing, until three to five well volumes of water had been removed. The water levels were allowed to recover to static equilibrium prior to sampling. Copies of the groundwater sampling records are included in Appendix B.

All field information mentioned above was documented in an electronic tablet. Entries were of sufficient detail that a complete daily record of significant events, observations, and measurements was obtained.

Water from each well was collected using disposable HDPE bailers. The samples collected were analyzed in accordance with the approved QAPP. Groundwater samples were analyzed for volatile organic compounds (VOCs-benzene, chlorobenzene, trichlorobenzene, vinyl chloride, and cis-1,2-dichloroethylene) by Environmental Protection Agency (EPA) Method 8260 and natural attenuation parameters (sulfate, alkalinity, nitrate, manganese, iron (II) (a.k.a. ferrous iron), methane, ethane, ethene, carbon dioxide, sulfide, and chloride.).

All groundwater sampling activities followed protocols outlined in the revised Project Sampling and Analysis Plan (SAP) (Parsons, Revised March 2015c).

2.6.2 Investigation Derived Wastes

The investigation derived waste (IDW) consisted of purged groundwater, disposable bailers, tubing, and personal protective equipment (PPE). IDW water was collected in a polyurethane tank and transported to the on-site industrial wastewater treatment system for disposal, while all other IDW was properly disposed of.

SECTION 3

ANALYTICAL RESULTS

3.1 INTRODUCTION

Groundwater samples were collected from a minimum of thirty-four wells to a maximum of forty-three wells, depending on which quarterly sampling event was being performed. All groundwater samples were analyzed for VOCs (benzene, chlorobenzene, trichlorobenzene, vinyl chloride, and cis-1,2-dichloroethylene), sulfate, alkalinity, nitrate, manganese, iron (II) (a.k.a. ferrous iron), methane, ethane, ethene, carbon dioxide, sulfide, and chloride. VOCs, manganese, and chloride were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater quality screening criteria in some of the samples.

The following paragraphs provide summaries of the quarterly sampling program.

3.2 BUILDING 58/83 AREA

Nine groundwater monitoring wells were sampled during the quarterly sampling program. Four of the wells were overburden wells (GT-2, Unknown Wells 1, 2, and 3), while the remaining five wells were bedrock wells (SWMW-2, SWMW-114, SWMW-125, ITMW-13, and ITMW-14). Refer to Figure 2 for the well locations. Depth to water (DTW) was encountered from 3.73 ft. bgs (Unknown Well No. 1) to 7.43 ft. bgs (Unknown Well No. 2) in the overburden wells, while DTW in the bedrock wells varied from 4.50 ft. bgs (ITMW-14) to 17.85 ft. bgs (SWMW-114). In addition, it was observed that the general DTW in both the overburden and bedrock wells was shallowest during spring and deepest during the fall. Depth to water measurement observations were similar for both 2014 and 2015.

During the quarterly sampling events, one or more VOC parameters and manganese were detected at concentrations that exceeded the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events for both overburden and bedrock wells. Chloride was detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria in only six of the nine wells sampled in the Building 58/83 Area (Overburden wells: Unknown Wells No. 1, 2, and 3 and Bedrock wells: SWMW-2, ITMW-13, and SWMW-125). The groundwater criteria for chloride for the first quarterly sampling event was exceeded in Unknown Wells No. 1 and 2, while the NYSDEC chloride groundwater criteria for Unknown Well No. 3 was exceeded for the first and third quarterly sampling events. The groundwater criteria for chloride was exceeded in bedrock wells, SWMW-2 and ITMW-13 for all four quarterly sampling events, while the criteria was exceeded for SWMW-125 for only the first quarterly sampling event.

In general, VOC concentrations were also observed to fluctuate over the course of the year in individual wells, with no discernible trend.

3.3 BUILDING 36 AREA

Five bedrock groundwater monitoring wells (ITMW-30, ITMW-31, SWMW-45, SWMW-55, and SWMW-123) were sampled during the quarterly sampling program. Refer to Figure 2 for the well locations. Depth to water was encountered from 6.35 ft. bgs (ITMW-31) to 18.72 ft. bgs

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(SWMW-123). The general DTW observations in the bedrock wells were very similar to those observed in the Building 58/83 Area and were comparable to 2014 water level data.

During the sampling events; one or more VOC parameters and manganese were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria in all four quarterly sampling events, with the exception of one well. The groundwater criteria for manganese were not exceeded for Well SWMW-123 during the third quarterly well sampling event. Chloride was detected at concentrations exceeding the groundwater screening criteria in only one well (SWMW-45) during the first three quarterly sampling events.

In general, VOC concentrations were also observed to fluctuate over the course of the year in individual wells, with no discernible trend.

3.4 BUILDING 45/55 AREA

Nine groundwater monitoring wells were sampled during the quarterly sampling program. Seven of the wells were overburden wells (ITMW-24, ITMW-25, SWMW-25, SWMW-48, SWMW-10, SWMW-28, and SWMW-65), while the remaining two wells were bedrock wells (SWMW-44 and SWMW-27). Refer to Figure 2 for the well locations. Depth to water was encountered from 2.79 ft. bgs (SWMW-10) to 12.39 ft. bgs (ITMW-24) in the overburden wells, while DTW in the bedrock well varied from 3.10 ft. bgs (SWMW-44) to 9.02 ft. bgs (SWMW-27). The general DTW observations in the bedrock wells were very similar to those observed in the Building 58/83 Area and when compared to 2014 measurements.

During the quarterly sampling events, one or more VOC parameters and manganese were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events for all the overburden wells with the exception of well SWMW-48, which only exhibited a concentration exceeding the NYSDEC groundwater screening criteria for manganese during the fourth quarterly sampling event. Chloride was also detected above the NYSDEC groundwater screening criteria in all the overburden wells for all four sampling events with the exception of one well. The NYSDEC groundwater screening criteria for chloride was exceeded in well ITMW-24 only during the first quarterly sampling event.

Groundwater from bedrock wells (SWMW-44 and SWMW-27) contained VOC and manganese concentrations in exceedance of the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events with the exception of Well SWMW-27. The NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for manganese was exceeded in well SWMW-27 only during the second quarterly sampling event. Chloride was detected at concentrations above the screening criteria only during the second quarterly sampling event at well SWMW-27.

In general, VOC concentrations were also observed to fluctuate over the course of the year in individual wells, with no discernible trend.

3.5 BUILDING 51 AREA

Seventeen groundwater monitoring wells were sampled during the quarterly sampling program. Six of the wells were overburden wells (ITMW-5, SWMW-62, SWMW-113, SWMW-58, SWMW-15, and SWMW-67), while the remaining eleven wells were bedrock wells (ITMW-6, SWMW-13, SWMW-68, SWMW-56, SWMW-66, SWMW-112, SWMW-126,

SWMW-41, SWMW-14, SWMW-103, and SWMW-111). Refer to Figure 2 for the well locations. Depth to water was encountered from 7.97 ft. bgs (SWMW-62) to 17.11 ft. bgs (SWMW-15) in the overburden wells, while DTW in the bedrock wells varied from 7.53 ft. bgs (SWMW-126) to 26.83 ft. bgs (SWMW-68). The general DTW in both the overburden and bedrock wells was shallowest during spring and deepest during the fall with the exception of two wells for each well type. Overburden wells SWMW-15 and SWMW-67 and bedrock wells ITMW-6 and SWMW-41 exhibited the deepest DTWs in the summer (June 2015).

During the quarterly sampling events, one or more VOC parameters and manganese were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events for all the overburden wells with the exception of two wells. The NYSDEC groundwater screening criteria for manganese was exceeded in Well SWMW-58 during the first and third quarterly sampling events, while the criteria for manganese was exceeded in Well SWMW-113 only during the first sampling event. Chloride concentrations did not exceed the NYSDEC groundwater screening criteria in any overburden wells sampled.

Within the bedrock wells, VOCs were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events, while manganese was detected in three of the eleven bedrock wells sampled at least once during quarterly sampling activities. Wells SWMW-13, SWMW-68, SWMW-66, SWMW-112, SWMW-126, SWMW-41, SWMW-103, and SWMW-111 did not exhibit manganese concentrations exceeding the NYSDEC groundwater screening criteria. The NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for chloride was detected in three of the eleven bedrock wells sampled (SWMW-13, SWMW-66, and SWMW-112) at least once during quarterly sampling activities.

In general, VOC concentrations were also observed to fluctuate over the course of the year in individual wells, with no discernible trend.

3.6 WASHINGTON AVENUE TANK FARM AREA

Four overburden groundwater monitoring wells were sampled during the quarterly sampling program (SWMW-21, SWMW-30, SWMW-31, and SWMW-71). Refer to Figure 2 for the well locations. Depth to water was encountered from 6.17 ft. bgs (SWMW-31) to 8.83 ft. bgs (SWMW-30) in the wells. The general DTW in both the overburden and bedrock wells was shallowest during spring and deepest during the fall and was similar to 2014 measurements. NAPL was also detected in SWMW-21 during all four sampling events.

During the quarterly sampling events, VOCs and manganese were detected at concentrations exceeding the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria for all four quarterly sampling events, for all the overburden wells. Chloride was detected above the NYSDEC groundwater screening criteria in only one overburden well (SWMW-31) at least once during quarterly sampling activities.

In general, VOC concentrations were also observed to fluctuate over the course of the year in individual wells, with no discernible trend.

A summary of the water level elevations is included in Table 1 while a summary of quarterly groundwater analytical results are provided in Table 2.

DUSRs for all four quarterly well sampling events are provided in Appendix A, groundwater sampling records are provided in Appendix B, analytical data packages are included as

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Appendix C, and GIS iso-concentration figures for all four sampling quarters are provided in Appendix D. Appendix E includes graphs for DTW measurements collected from wells during sampling activities, pre and post sampling dissolved oxygen and reduction-oxidation (redox) potential measurements, VOC concentrations, and natural attenuation parameters.

3.7 ANALYTICAL DATA COMPARISON

Four parameters (benzene, vinyl chloride, trichloroethene, and chlorobenzene) from the 2015 quarterly sampling events were plotted on concentration contour maps using a GIS based groundwater mapping program. These four parameters were chosen because they represent the top four parameters of concern based on health risk criteria (e.g. carcinogenic parameters) that exist at the Site. GIS figures generated were 2-dimensional plan view iso-concentration contours with color-intensity fill. Figures were generated for each of the four parameters for each of the quarterly sampling events (figures are included in Appendix D). Parameters were mapped for both overburden and bedrock aquifers. The concentration distributions (i.e. maximum concentration and lateral extent of plume) were compared against one another to determine whether parameter concentrations and lateral extent were stable, expanding, or shrinking. In addition, graphs were produced showing chemical trend analysis for the four parameters mentioned above for chemical data collected from 2008, 2010, 2012, 2013, 2014, and 2015. Upon review of the iso-concentration contour figures and the trend analysis graphs (See Appendix E), it was concluded that natural attenuation through biodegradation of the organic parameters could be one of the contributors taking place at the Site assisting in the natural reduction of contaminants, but at a slow rate. This conclusion was based on the observed fluctuations of the VOC concentrations and observed plume extents (boundaries) throughout the course of the year (e.g., plume extents either stayed the same or shrank slightly) and from VOC concentration fluctuations observed from 2008 through 2015 trend analysis graphs (general observation of VOC data showed either a general decrease in concentrations or a relatively constant concentration through the years with periodic increases.).

Additional evidence indicating that natural attenuation through degradation could be occurring within the groundwater at the site can be seen in the graphs of natural attenuation parameters (included in Appendix E). Parameter graphs suggest that the potential for degradation of groundwater VOCs is taking place under both aerobic (presence of oxygen) and anaerobic (low, or no, oxygen present) conditions as determined through the presence of dissolved oxygen (DO). In general, DO measurements of less than 1.0 part per million (ppm) suggest anaerobic conditions, while DO measurements greater than 1.0 ppm suggest aerobic conditions. Redox potential measurements also suggest that degradation could be taking place under both conditions. Positive redox potential measurements indicate chemically oxidizing conditions (presence of oxygen), while negative measurements indicate chemically reducing conditions (lack of oxygen) in which microbial processes are taking place. Evidence that degradation is taking place by observing changes in redox potential is shown in graphs that depict general redox potential (for both overburden and bedrock groundwater) trending from negative in source area wells (where anaerobic conditions exist) to positive in downgradient wells (where aerobic conditions are present). Refer to Appendix E for graphs.

Other parameters that can indicate favorable conditions for degradation are nitrate, ferrous iron, sulfate, manganese, carbon dioxide, chloride, and alkalinity. Changes in nitrate and sulfate concentrations can indicate the presence of microbial processes, while increases in ferrous iron and manganese are indicative of reducing redox conditions. These parameters, in general,

suggested degradation was taking place. The general presence of alkalinity, carbon dioxide, and chloride at significant concentrations also suggest that degradation is occurring. Alkalinity is a byproduct of benzene degradation (main contaminant at the WATF Area), while carbon dioxide and chloride are end-products of reductive dechlorination.

3.8 COMPOUND SPECIFIC ISOTOPE ANALYSIS

During the 2015 quarterly well sampling program Parsons performed CSIA at twelve groundwater monitoring wells (both overburden and bedrock), at the request of Chevron EMC. The list of wells sampled was determined by Mr. Daniel Segal and Dr. Kammy Sra, Ph.D. of Chevron Energy Technology Company (ETC) and are identified in Table 3. CSIA was performed as a diagnostic tool to determine if natural biodegradation of CB and 1,2-dichlorobenzene (1,2-DCB) is occurring at the TRCB facility and to evaluate if monitored natural attenuation could be a potential remedial alternative. Analysis was performed by the University of Oklahoma, Geophysics laboratory.

Results of the CSIA sampling indicated that natural biodegradation of both CB and 1,2-DCB is taking place at the facility and that natural attenuation could be a potential remedial alternative. This conclusion was based on observing an enrichment of Carbon 13 (C13) isotope for both compounds in wells sampled downgradient of the source wells and observing corresponding CB and 1,2-DCB concentrations. The enrichment of C13 indicates that biological activity is occurring within the general subsurface from where the sample was collected, while observing a decrease of 1,2-DCB concentrations and an increase of CB concentrations (daughter product of 1,2-DCB) confirms that degradation is taking place.

Even though initial CSIA data are encouraging further data collection and evaluation will be performed to verify that natural attenuation is a feasible remedial alternative. An evaluation summary of CSIA results prepared by Dr. Kammy Sra, Ph.D. of Chevron ETC is provided in Appendix F.

SECTION 4

CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

The purpose of this section is to present conclusions for each area in which groundwater wells were sampled quarterly throughout 2015 and provide recommendations for future sampling/field event(s).

4.2 QUARTERLY GROUNDWATER SAMPLING PROGRAM CONCLUSIONS

Based on reviewing analytical results summarized in Section 3 and graphs presented in Appendix E, the following conclusions were made:

- VOCs, manganese, and chloride exist at concentrations both in overburden and bedrock wells that exceed the NYSDEC TOGS 1.1.1 Class GA groundwater screening criteria.
- In general, DTW in wells was shallowest during the spring and deepest during the fall with the exception of a few wells that exhibited deepest DTW water measurements during the summer (SWMW-15, SWMW-67, SWMW-41, and ITMW-6).
- In general, VOC concentrations were observed to fluctuate over the course of the year in individual wells, with no discernible trend.
- Groundwater plume boundaries either stayed the same or decreased slightly over the course of 2015 and followed the same general patterns when compared to 2014 results.
- Natural attenuation through biodegradation could be one of the contributing factors allowing natural reduction of groundwater contaminants to take place under both aerobic and anaerobic conditions.
- CSIA sampling results for CB and 1,2-DCB support the notion of natural attenuation through biodegradation taking place at the TRCB facility and could be a feasible remedial alternative. However, additional sampling and evaluation will be performed to confirm this conclusion.

4.3 RECOMMENDATIONS

Based on the aforementioned conclusions, it is recommended that another year of quarterly well sampling be performed at the Site to obtain additional seasonal groundwater data in order to better evaluate the degree that natural attenuation through biodegradation of the organic parameters is taking place at the Site and the rate it is occurring. Sampling will include the standard chemical parameters performed in 2014 and 2015, as well as CSIA analysis for trichloroethene (TCE) at the Building 51 area and biological sampling of one well at each groundwater plume area to determine the type of microbial organisms present within the groundwater. These additional data will assist in the refinement of the site conceptual model(s) and assist in identifying potential remedial alternatives for the site.

SECTION 5

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TABLES

TABLE 1
DEPTH TO WATER SUMMARY TABLE
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Date Measured		03/16/2015		03/17/2015		03/18/2015		03/19/2015		03/23/2015		06/15/2015		06/16/2015	
Location ID	Top of Casing Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)
GT-2	217.06 ⁽¹⁾	---	---	---	---	---	---	---	---	4.08	212.98	4.88	212.18	---	---
ITMW-5	220.18 ⁽¹⁾	---	---	9.18	211.0	---	---	---	---	---	---	---	---	---	---
ITMW-6	220.16 ⁽¹⁾	---	---	18.72	201.44	---	---	---	---	---	---	---	---	---	---
ITMW-13	216.58 ⁽¹⁾	---	---	---	---	---	---	---	---	6.13	210.45	9.04	207.54	---	---
ITMW-14	216.56 ⁽¹⁾	---	---	---	---	---	---	---	---	4.5	212.06	---	---	---	---
ITMW-24	236.98 ⁽¹⁾	---	---	---	---	---	---	6.41	230.57	---	---	---	---	---	---
ITMW-25	232.09 ⁽¹⁾	---	---	---	---	10.79	221.3	---	---	---	---	---	---	12.39	219.7
ITMW-30	231.55 ⁽¹⁾	---	---	---	---	---	---	---	---	6.8	224.75	---	---	---	---
ITMW-31	232.12 ⁽¹⁾	---	---	---	---	---	---	---	---	6.35	225.77	---	---	---	---
SWMW-2	216.56 ⁽¹⁾	---	---	---	---	---	---	---	---	4.81	211.75	6.11	210.45	---	---
SWMW-10	231.53 ⁽¹⁾	---	---	---	---	2.79	228.74	---	---	---	---	---	---	4	227.53
SWMW-13	236.34 ⁽¹⁾	---	---	---	---	46.55	189.79	---	---	---	---	---	---	---	---
SWMW-14	206.33 ⁽¹⁾	---	---	---	---	---	---	8.96	197.37	---	---	---	---	9.61	196.72
SWMW-15	220.97 ⁽¹⁾	---	---	12.76	208.21	---	---	---	---	---	---	---	---	---	---
SWMW-21	206.11 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-25	232.24 ⁽¹⁾	---	---	---	---	---	---	3.49	228.75	---	---	---	---	---	---
SWMW-27	185.65 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	9.02	176.63
SWMW-28	185.61 ⁽¹⁾	---	---	---	---	9.51	176.1	---	---	---	---	---	---	9.82	175.79
SWMW-30	205.44 ⁽¹⁾	7.81	197.63	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-31	203.82 ⁽¹⁾	6.17	197.65	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-41	206.02 ⁽¹⁾	---	---	---	---	---	---	8.13	197.89	---	---	---	---	10.84	195.18
SWMW-44	231.45 ⁽¹⁾	---	---	---	---	3.1	228.35	---	---	---	---	---	---	4.3	227.15
SWMW-45	229.99 ⁽¹⁾	---	---	---	---	---	---	---	---	12.3	217.69	---	---	---	---
SWMW-48	228.79 ⁽¹⁾	---	---	---	---	---	---	---	---	6.11	222.68	---	---	6.24	222.55
SWMW-55	230.19 ⁽¹⁾	---	---	---	---	---	---	---	---	13.55	216.64	---	---	---	---
SWMW-56	221.07 ⁽¹⁾	---	---	17.8	203.27	---	---	---	---	---	---	---	---	---	---
SWMW-58	219.38 ⁽¹⁾	---	---	12.33	207.05	---	---	---	---	---	---	---	---	---	---
SWMW-62	206.07 ⁽¹⁾	---	---	7.97	198.1	---	---	---	---	---	---	---	---	9.19	196.88
SWMW-65	185.81 ⁽¹⁾	---	---	---	---	8.13	177.68	---	---	---	---	---	---	9.06	176.75
SWMW-66	218.82 ⁽¹⁾	---	---	18.43	200.39	---	---	---	---	---	---	---	---	---	---
SWMW-67	224.58 ⁽¹⁾	---	---	---	---	9.58	215.0	---	---	---	---	---	---	---	---
SWMW-68	224.45 ⁽¹⁾	---	---	---	---	20.68	203.77	---	---	---	---	---	---	---	---
SWMW-71	207.54 ⁽¹⁾	6.66	200.88	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-103	217.08 ⁽¹⁾	---	---	---	---	17.88	199.2	---	---	---	---	---	---	---	---
SWMW-111	217.92 ⁽¹⁾	---	---	---	---	18.15	199.77	---	---	---	---	---	---	---	---
SWMW-112	206.8 ⁽¹⁾	---	---	7.79	199.01	---	---	---	---	---	---	---	---	9.89	196.91
SWMW-113	206.48 ⁽¹⁾	---	---	8.5	197.98	---	---	---	---	---	---	---	---	9.74	196.74
SWMW-114	219.07 ⁽¹⁾	---	---	---	---	---	---	---	---	13.68	205.39	16.22	202.85	---	---
SWMW-123	230.39 ⁽¹⁾	---	---	---	---	---	---	---	---	15.47	214.92	17.95	212.44	---	---
SWMW-125	219.63 ⁽¹⁾	---	---	---	---	---	---	---	---	11.01	208.62	13.48	206.15	---	---
SWMW-126	206.44 ⁽¹⁾	---	---	7.53	198.91	---	---	---	---	---	---	---	---	9.88	196.56
Unknown Well 1	216.73 ⁽¹⁾	---	---	---	---	---	---	---	---	3.73	213.0	---	---	---	---
Unknown Well 2	216.52 ⁽¹⁾	---	---	---	---	---	---	---	---	3.96	212.56	---	---	---	---
Unknown Well 3	216.74 ⁽¹⁾	---	---	---	---	---	---	---	---	3.98	212.76	---	---	---	---

TABLE 1
DEPTH TO WATER SUMMARY TABLE
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Date Measured		06/17/2015		06/18/2015		11/09/2015		11/10/2015		11/11/2015		11/12/2015		11/13/2015	
Location ID	Top of Casing Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)	Depth To Groundwater (ft)	Groundwater Elevation (ft)
GT-2	217.06 ⁽¹⁾	---	---	---	---	5.68	211.38	---	---	---	---	---	---	---	---
ITMW-5	220.18 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ITMW-6	220.16 ⁽¹⁾	23.04	197.12	---	---	---	---	---	---	---	---	21.63	198.53	---	---
ITMW-13	216.58 ⁽¹⁾	---	---	---	---	6.02	210.56	---	---	---	---	---	---	---	---
ITMW-14	216.56 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ITMW-24	236.98 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ITMW-25	232.09 ⁽¹⁾	---	---	---	---	---	---	12.11	219.98	---	---	---	---	---	---
ITMW-30	231.55 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ITMW-31	232.12 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-2	216.56 ⁽¹⁾	---	---	---	---	6.97	209.59	---	---	---	---	---	---	---	---
SWMW-10	231.53 ⁽¹⁾	---	---	---	---	---	---	4.85	226.68	---	---	---	---	---	---
SWMW-13	236.34 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-14	206.33 ⁽¹⁾	---	---	---	---	---	---	24.51	181.82	---	---	---	---	---	---
SWMW-15	220.97 ⁽¹⁾	17.11	203.86	---	---	---	---	---	---	---	---	7.75	213.22	---	---
SWMW-21	206.11 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	8.33	197.78	---	---
SWMW-25	232.24 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-27	185.65 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-28	185.61 ⁽¹⁾	---	---	---	---	---	---	---	---	10.01	175.6	---	---	---	---
SWMW-30	205.44 ⁽¹⁾	---	---	8.83	196.61	---	---	---	---	---	---	8.81	196.63	---	---
SWMW-31	203.82 ⁽¹⁾	---	---	7.13	196.69	---	---	---	---	---	---	7.14	196.68	---	---
SWMW-41	206.02 ⁽¹⁾	---	---	---	---	---	---	9.97	196.05	---	---	---	---	---	---
SWMW-44	231.45 ⁽¹⁾	---	---	---	---	---	---	4.89	226.56	---	---	---	---	---	---
SWMW-45	229.99 ⁽¹⁾	---	---	14.59	215.4	---	---	15.56	214.43	---	---	---	---	---	---
SWMW-48	228.79 ⁽¹⁾	---	---	---	---	---	---	6.51	222.28	---	---	---	---	---	---
SWMW-55	230.19 ⁽¹⁾	---	---	16.03	214.16	---	---	17.03	213.16	---	---	---	---	---	---
SWMW-56	221.07 ⁽¹⁾	22.77	198.3	---	---	---	---	---	---	---	---	---	---	23.3	197.77
SWMW-58	219.38 ⁽¹⁾	13.17	206.21	---	---	---	---	---	---	---	---	13.79	205.59	---	---
SWMW-62	206.07 ⁽¹⁾	---	---	---	---	---	---	9.79	196.28	---	---	---	---	---	---
SWMW-65	185.81 ⁽¹⁾	---	---	---	---	---	---	---	---	8.15	177.66	---	---	---	---
SWMW-66	218.82 ⁽¹⁾	21.09	197.73	---	---	---	---	---	---	---	---	21.58	197.24	---	---
SWMW-67	224.58 ⁽¹⁾	16.06	208.52	---	---	---	---	---	---	---	---	12.06	212.52	---	---
SWMW-68	224.45 ⁽¹⁾	23.81	200.64	---	---	---	---	---	---	---	---	26.83	197.62	---	---
SWMW-71	207.54 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-103	217.08 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SWMW-111	217.92 ⁽¹⁾	21.56	196.36	---	---	---	---	---	---	---	---	21.57	196.35	---	---
SWMW-112	206.8 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	10.58	196.22
SWMW-113	206.48 ⁽¹⁾	---	---	---	---	---	---	---	---	10.12	196.36	---	---	---	---
SWMW-114	219.07 ⁽¹⁾	---	---	---	---	17.85	201.22	---	---	---	---	---	---	---	---
SWMW-123	230.39 ⁽¹⁾	---	---	---	---	---	---	---	---	---	---	---	---	18.72	211.67
SWMW-125	219.63 ⁽¹⁾	---	---	---	---	15.72	203.91	---	---	---	---	---	---	---	---
SWMW-126	206.44 ⁽¹⁾	---	---	---	---	---	---	---	---	10.31	196.13	---	---	---	---
Unknown Well 1	216.73 ⁽¹⁾	---	---	6.74	209.99	7.28	209.45	---	---	---	---	---	---	---	---
Unknown Well 2	216.52 ⁽¹⁾	---	---	6.9	209.62	7.43	209.09	---	---	---	---	---	---	---	---
Unknown Well 3	216.74 ⁽¹⁾	---	---	6.49	210.25	---	---	---	---	---	---	---	---	---	---

NOTES: ft - Feet
--- - Depth to water not measured.
(1) - Top casing elevation referenced to site vertical datum established by Texaco in 1957.

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83	
Location ID:					GT-2		GT-2		GT-2		GT-2		ITMW-13		ITMW-13		ITMW-13		ITMW-13	
Field Sample ID:					CVX-0046-01		CVX-0047-01		CVX-0062-01		GT-2-W-4.00-151110		CVX-0046-02		CVX-0047-02		CVX-0062-02		ITMW-13-W-10.00-151110	
Date Sampled:					03/24/2015		06/15/2015		09/15/2015		11/10/2015		03/24/2015		06/15/2015		09/15/2015		11/10/2015	
SDG:					1548024		1569290		1593311		1608498		1548024		1569290		1593311		1608498	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	134		149		129		102		4080		2410		2240		2320	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	700		250	U	2400		250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	3.1	J	1.5	U	3.6	J	1.5	U	33.4		36.3		40.7		42.5	
RSKSOP-175 modified	Ethane	ug/l	NS	N	2.5	J	16	U	2.1	J	1.6	J	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	2	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	4100		7000		4000		4400		19		3	U	36		9.7	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	180000		157000		220000		215000		53700		92300		129000		112000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	40700	J	NA		NA		NA		4500	J	NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		57200	J	55800	J	51700	J	NA		940	J	940	J	1400	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	61	J	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	2.12		2.14		1.99		2.22		7.29		5.67		6.24		7.45	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	89		120		120		100		0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	340		360		220		270		31		16		20		11	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.5	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	110000	J	98000		130000		140000		82000	J	81000		130000		130000	

TABLE 2
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Location Group:					Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83	
Location ID:					ITMW-14		ITMW-30		ITMW-31		SWMW-2		SWMW-2		SWMW-2		SWMW-2		SWMW-45	
Field Sample ID:					CVX-0046-03		CVX-0046-04		CVX-0046-05		CVX-0046-11		CVX-0047-05		CVX-0062-07		SWMW-2-W-13.00-151110		CVX-0046-12	
Date Sampled:					03/24/2015		03/24/2015		03/24/2015		03/24/2015		06/15/2015		09/15/2015		11/10/2015		03/24/2015	
SDG:					1548024		1548024		1548024		1548024		1569290		1593311		1608498		1548024	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	236		102		4.6		1610		996		496		441		513	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	1.5	U	13.4		4.2	J	17.9		16.5		28.7		20.5		1.5	U
RSKSOP-175 modified	Ethane	ug/l	NS	N	3.6	J	1	U	1	U	1	U	1.1	J	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	3300		69		2300		130		240		170		61		520	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	132000		116000		115000		150000		267000		332000		332000		302000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	11300	J	1700	J	2700	J	7400	J	NA		NA		NA		4300	J
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		NA		5800	J	2800	J	1200	J	NA	
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	80	J	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	10.6		2.5		1.51		4.22		2.65		1.73		1.84		5.48	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	1	U	0.5	U	1		0.7	J	0.9	J	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	62		2		0.5	U	92		120		42		9		39	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	2	J	0.5	U	0.5	U	3		6		6		4		0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	1	U	0.5	U	0.5	U	1		2		2		1		0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	1	J	0.5	U	0.5	U	1		4		3		2		0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	82000	J	61000	J	49000	J	66000	J	76000		97000		81000		81000	J

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Location Group:					Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83	
Location ID:					SWMW-45		SWMW-45		SWMW-45		SWMW-45		SWMW-55		SWMW-55		SWMW-55		SWMW-55	
Field Sample ID:					CVX-0048-01		CVX-0050-13		CVX-0062-09		SWMW-45-W-17.00-151111		CVX-0046-14		CVX-0048-02		CVX-0050-14		CVX-0062-10	
Date Sampled:					06/16/2015		06/18/2015		09/15/2015		11/11/2015		03/24/2015		06/16/2015		06/18/2015		09/15/2015	
SDG:					1570206		1570520		1593311		1608899		1548024		1570206		1570520		1593311	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	700		NA		626		107		76		122		NA		82.4	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	NA		250	U	250	U	1400		450	J	NA		250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	1.9	J	NA		6.6		1.5	U	12.2		5.5		NA		12.7	
RSKSOP-175 modified	Ethane	ug/l	NS	N	NA		1	U	1	U	1	U	1	U	NA		1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	NA		1	U	1	U	1	U	1	U	NA		1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	NA		150		1400		770		370		NA		2200		2600	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	267000		NA		337000		84800		245000		239000		NA		236000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		NA		450	J	NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	2000	J	NA		7700	J	1100	J	NA		1600	J	NA		2500	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	NA		54	U	54	U	54	U	54	U	NA		54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	6.16		NA		6.17		0.726		2.47		3.17		NA		4.67	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	NA		0.5	U	0.5	U	0.5	U	1		NA		3	J	14	
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	NA		75		60		12		860		NA		2000		1400	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	NA		0.5	U	0.5	U	0.5	U	0.5	U	NA		3	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	NA		0.5	U	0.5	U	0.5	U	0.5	U	NA		3	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	NA		0.5	U	0.5	U	0.5	U	0.5	U	NA		3	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	NA		95000		110000		23000		77000	J	NA		98000		97000	

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Location Group:					Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83	
Location ID:					SWMW-55		SWMW-114		SWMW-114		SWMW-114		SWMW-114		SWMW-114		SWMW-123	
Field Sample ID:					SWMW-55-W-10.00-151111		CVX-0046-08		CVX-0047-03		CVX-0062-04		SWMW-114-W-40.00-151110		SWMW-114-WD-40.00-151110		CVX-0046-06	
Date Sampled:					11/11/2015		03/24/2015		06/15/2015		09/15/2015		11/10/2015		11/10/2015		03/24/2015	
SDG:					1608899		1548024		1569290		1593311		1608498		1608498		1548024	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		FD		FD	
Sample Type:					GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered														
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	5.3		58.9	J+	58.5		71.5		79.1		81.7		131	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	UJ	250	U	250	U	400	J	400	J	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	5.3		16.3		19.8		19.7		18.6		18.7		12.6	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	3	U	56		15		33		19		21		120	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	86900		142000		156000	J-	141000	J-	148000		149000		281000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		110	J	NA		NA		NA		NA		28	J
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	10	UJ	NA		10	UJ	NA		60	J	86	J	NA	
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	UJ	54	UJ	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.52		0.523		1.13	J-	0.466	J+	0.49		0.518		0.326	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.6	J
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	0.5	U	21		9		11		13		12		43	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	4		2		3		4		4		0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	250		140		170		250		250		0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.6	J	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	29000		20000	J	5400	J	15000		14000		12000		36000	J

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Location Group:					Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83		Building 36 58 83	
Location ID:					SWMW-123		SWMW-123		SWMW-123		SWMW-123		SWMW-125		SWMW-125		SWMW-125		SWMW-125	
Field Sample ID:					CVX-0046-09		CVX-0049-07		CVX-0062-05		SWMW-123-W-50.00-151113		CVX-0046-07		CVX-0046-10		CVX-0047-04		CVX-0047-07	
Date Sampled:					03/24/2015		06/17/2015		09/15/2015		11/13/2015		03/24/2015		03/24/2015		06/15/2015		06/15/2015	
SDG:					1548024		1570188		1593311		1609458		1548024		1548024		1569290		1569290	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		FD		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	122		128		137		141		486		467		195		193	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	12.1		12		17.9		13.2		5.6		5.6		5.4		6.8	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	1	U	1	U	1.9	J	1.4	J	3.2	J	2.9	J
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1.8	J	1.3	J	1.3	J	1.2	J
RSKSOP-175 modified	Methane	ug/l	NS	N	110		87		150		61		760		730		740		680	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	276000		271000		291000		296000		132000		132000		147000		137000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	31	J	NA		NA		NA		4800	J	4400	J	NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		10	UJ	21	J	440	J	NA		NA		2800	J	2700	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	U	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.315		0.431		0.186		0.334		13.2		12.2		9.62		9.9	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.6	J	0.5	J	0.7	J	0.5	U	4		4		4		4	
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	36		34		52		27		310		300		330		320	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	110		110		75		75	
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	250		250		270		280	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	7		7		5		5	
SW8015D	CARBON DIOXIDE	ug/l	NS	N	36000	J	26000		31000		33000		47000	J	48000	J	55000		53000	

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Location Group:	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83
Location ID:	SWMW-125	SWMW-125	SWMW-125	Unknown Well 1	Unknown Well 1	Unknown Well 1	Unknown Well 1	Unknown Well 1
Field Sample ID:	CVX-0062-06	CVX-0062-15	SWMW-125-W-29.00-151110	CVX-0046-15	CVX-0048-03	CVX-0050-15	CVX-0062-12	UNK-1-W-0.00-151110
Date Sampled:	09/15/2015	09/15/2015	11/10/2015	03/24/2015	06/16/2015	06/18/2015	09/15/2015	11/10/2015
SDG:	1593311	1593311	1608498	1548024	1570206	1570520	1593311	1608498
Sample Matrix:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Sample Purpose:	REG	FD	REG	REG	REG	REG	REG	REG
Sample Type:	GW	GW	GW	GW	GW	GW	GW	GW

Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	197		191		172		432		54.6		NA		153		163	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	250	U	NA		250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	6		6.1		5.5		10.9		1.5	U	NA		4.4	J	15.7	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1.7	J	1.7	J	1.3	J	1	U	NA		1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1.6	J	1.8	J	1.4	J	1	U	NA		1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	860		860		690		180		NA		55		18		100	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	152000		152000		146000		67900		98500		NA		139000		130000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		32700	J	NA		NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	2500	J	2700	J	2300	J	NA		14100	J	NA		28600	J	27600	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	U	54	U	54	U	NA		54	U	60	J
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	8.96		8.64		8		7.64		3.8		NA		6.71		7.7	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	4		4		3		0.8	J	NA		0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	320		270		300		230		NA		73		47		120	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	100		110		93		0.5	U	NA		0.5	U	0.5	U	0.6	J
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	270		240		270		0.7	J	NA		0.6	J	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	6		7		7		0.5	U	NA		0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	64000		64000		64000		73000	J	NA		67000		120000		140000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83	Building 36 58 83
Location ID:	Unknown Well 2	Unknown Well 2	Unknown Well 2	Unknown Well 2	Unknown Well 2	Unknown Well 3	Unknown Well 3	Unknown Well 3	Unknown Well 3
Field Sample ID:	CVX-0046-16	CVX-0048-04	CVX-0050-16	UNK-2-W-0.00-151110	CVX-0046-17	CVX-0048-05	CVX-0050-17	CVX-0062-13	
Date Sampled:	03/24/2015	06/16/2015	06/18/2015	11/10/2015	03/24/2015	06/16/2015	06/18/2015	09/15/2015	
SDG:	1548024	1570206	1570520	1608498	1548024	1570206	1570520	1593311	
Sample Matrix:	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	
Sample Purpose:	REG	REG	REG	REG	REG	REG	REG	REG	
Sample Type:	GW	GW	GW	GW	GW	GW	GW	GW	

Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	339		143		NA		NA		526		165		NA		570	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	NA		NA		250	U	250	U	NA		250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	7.7		4.2	J	NA		NA		9.7		2.9	J	NA		6.4	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	NA		1	U	NA		1	U	NA		1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	NA		1	U	NA		1	U	NA		1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	10		NA		6		NA		32		NA		35		65	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	NA		78000		NA		NA		58300		98200		NA		142000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		NA		10100	J	NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		11600	J	NA		NA		NA		10400	J	NA		15100	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	NA		54	U	NA		NA		54	U	54	U	NA		54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	NA		2.24		NA		NA		4.19		1.95		NA		3.7	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	1		NA		0.5	U	0.5	U	0.5	U	NA		0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	830		NA		69		0.5	U	20		NA		9		9	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	NA		0.5	U	0.5	U	0.5	U	NA		0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	NA		0.5	U	0.5	U	0.5	U	NA		0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	NA		0.5	U	0.5	U	0.5	U	NA		0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	86000	J	NA		83000		NA		87000	J	NA		69000		120000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area	
Location ID:					ITMW-24		ITMW-25		ITMW-25		ITMW-25		ITMW-25		SWMW-10		SWMW-10	
Field Sample ID:					CVX-0045-01		CVX-0045-02		CVX-0049-01		CVX-0060-01		ITMW-25-W-15.00-151111		CVX-0045-03		CVX-0049-02	
Date Sampled:					03/20/2015		03/20/2015		06/17/2015		09/10/2015		11/11/2015		03/20/2015		06/17/2015	
SDG:					1547125		1547125		1570188		1592070		1608899		1547125		1570188	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered														
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	443		196		158		201		149		142		212	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	114		29.9		26.9		22.9		53.9		47.6		9.6	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	2.8	J	12	
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	3.6	J	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	67		110		24		3	U	88		510		1200	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	156000		267000		251000		254000		274000		353000		338000	J-
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	2000	J	310	J	NA		NA		NA		920	J	NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		NA		6000	J	1400	J	880	J	NA		680	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	1200		54	U	54	U	54	U	54	U	85	J	490	
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.343		3.59		3.72		3.23		3.53		0.493		0.327	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.5	U	270		160		340		1		0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	6		0.5	U	70		49		57		200		82	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	13		0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	29		0.7	J
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U	4		0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	42000	J	35000	J	26000		34000		41000		39000	J	37000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area	
Location ID:					SWMW-10		SWMW-10		SWMW-25		SWMW-27		SWMW-28		SWMW-28		SWMW-28	
Field Sample ID:					CVX-0060-02		SWMW-10-W-4.00-151111		CVX-0045-06		CVX-0049-08		CVX-0045-07		CVX-0049-03		CVX-0062-08	
Date Sampled:					09/10/2015		11/11/2015		03/20/2015		06/17/2015		03/20/2015		06/17/2015		09/15/2015	
SDG:					1592070		1608899		1547125		1570188		1547125		1570188		1593311	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered														
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	178		162		36.8		314		256		347		318	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	1100		250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	2.1	J	5.9		105		11.9		16.7		13.7		8.9	
RSKSOP-175 modified	Ethane	ug/l	NS	N	3.7	J	13		1	U	1	U	2.4	J	4	J	1.4	J
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	2500		5400		3	U	18		1300		800		1600	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	475000		464000		130000		68400		245000		215000		239000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		78	J	NA		10900	J	NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	13300	J	1300	J	NA		44	J	NA		14100	J	13900	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	99	J	54	U	54	U	100	J	54	U	68	J
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	4.37		0.808		3.17		0.0658		2.35		1.69		1.89	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	1		1		0.5	U	6		9		2		3	
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	220		140		0.5	U	27		21		17		24	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	6		0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	7		0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	UJ	0.5	U	0.5	U	2		0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	55000		63000		23000	J	4000	U	48000	J	30000		34000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:	Building 45/55 Area
Location ID:	SWMW-28
Field Sample ID:	SWMW-28-W-4.00-151112
Date Sampled:	11/12/2015
SDG:	1609238
Sample Matrix:	WATER
Sample Purpose:	REG
Sample Type:	GW
	Building 45/55 Area
	SWMW-44
	CVX-0045-05
	03/20/2015
	1547125
	WATER
	FD
	GW
	Building 45/55 Area
	SWMW-44
	CVX-0045-09
	03/20/2015
	1547125
	WATER
	REG
	GW
	Building 45/55 Area
	SWMW-44
	CVX-0049-05
	06/17/2015
	1570188
	WATER
	REG
	GW
	Building 45/55 Area
	SWMW-44
	CVX-0060-03
	09/10/2015
	1592070
	WATER
	REG
	GW
	Building 45/55 Area
	SWMW-44
	CVX-0060-04
	09/10/2015
	1592070
	WATER
	FD
	GW
	Building 45/55 Area
	SWMW-44
	SWMW-44-W-15.00-151111
	11/11/2015
	1608899
	WATER
	REG
	GW

Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered														
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	263		150		138		244		184		180		165	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	8.3		66.2		67.1		20.1		16.2		18		70.7	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1.1	J	3.4	J	2.4	J	7.4		5.6		7.6		7.4	
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	5.3	J	3	J	17		9.4		12		11	
RSKSOP-175 modified	Methane	ug/l	NS	N	710		600	J	390	J	910		1200		1600		1500	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	236000		301000		300000		309000		437000		436000		416000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		720	J	640	J	NA		NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	17300	J	NA		NA		340	J	470	J	440	J	490	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	110	J	170		210		1200		470		450		250	
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	1.75		1.35		1.4		0.669		0.605		0.643		0.795	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	3		1		1		1	J	0.8	J	0.9	J	1	
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	17		200		200		220		170		200		220	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	48		48		25		20		24		35	
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	260		260		120		64		80		140	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	15		13		9		5	J	6	J	10	
SW8015D	CARBON DIOXIDE	ug/l	NS	N	35000		43000	J	45000	J	26000		34000		37000		48000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area		Building 45/55 Area	
Location ID:					SWMW-48		SWMW-48		SWMW-48		SWMW-48		SWMW-65		SWMW-65		SWMW-65	
Field Sample ID:					CVX-0046-13		CVX-0049-04		CVX-0060-05		SWMW-48-W-4.00-151111		CVX-0045-10		CVX-0049-06		CVX-0062-11	
Date Sampled:					03/24/2015		06/17/2015		09/10/2015		11/11/2015		03/20/2015		06/17/2015		09/15/2015	
SDG:					1548024		1570188		1592070		1608899		1547125		1570188		1593311	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered														
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	205		162		114		1.3	J	317		318		321	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	510		250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	50.4		8		11.7		7.2		38.3		29.9		29.5	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	3.4	J	3	U	3	U	3	U	3	U	3	U	17	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	210000		218000		306000		50100		158000		187000		251000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	1500	J	NA		NA		NA		69	J	NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		410	J	2000	J	110	J	NA		72	J	820	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.783		0.34		0.736		0.158		4.31		1.52		1.74	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	1		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	6	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.7	J
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.6	J
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	31000	J	28000		42000		4000	U	22000	J	22000		33000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					Building 45/55 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area	
Location ID:					SWMW-65		ITMW-5		ITMW-6		ITMW-6		ITMW-6		ITMW-6		SWMW-13		SWMW-14	
Field Sample ID:					SWMW-65-W-7.00-151112		CVX-0044-01		CVX-0044-07		CVX-0050-01		CVX-0062-03		ITMW-6-W-28.00-151112		CVX-0044-10		CVX-0045-04	
Date Sampled:					11/12/2015		03/19/2015		03/19/2015		06/18/2015		09/15/2015		11/12/2015		03/19/2015		03/20/2015	
SDG:					1609238		1546899		1546899		1570520		1593311		1609238		1546899		1547125	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	260		43.9		73.6		87		114		132		511		151	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	590		4000	J+	250	U	250	U	250	U	250	U	6900		3400	
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	21.7		54.7	J+	39		40.2		57.2		54.7		208		81.8	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	3	U	3	U	32		3	U	130		54		3	U	3	U
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	184000		168000		275000		278000		263000		266000		354000		295000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		310	J	170	J	NA		NA		NA		120	J	51	J
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	10	UJ	NA		NA		270	J	360	J	750	J	NA		NA	
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	220	U	54	U	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	1.47		0.75		0.375		0.421		0.702		0.879		0.0369		0.0399	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.5	U	1		1		1		1		0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	1	J	1	J	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	110		110		29		30		2		2	
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	6		83		91		4		5		14		18	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.5	U	1		0.9	J	1		1		0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	23000		71000	J	26000	J	23000		21000		22000		49000	J	28000	J

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
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BEACON, NEW YORK

Location Group:	Building 51 Area
Location ID:	SWMW-14
Field Sample ID:	CVX-0049-10
Date Sampled:	06/17/2015
SDG:	1570188
Sample Matrix:	WATER
Sample Purpose:	REG
Sample Type:	GW

Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered	Building 51 Area SWMW-14 CVX-0049-10 06/17/2015 1570188 WATER REG GW		Building 51 Area SWMW-14 CVX-0061-01 09/11/2015 1592327 WATER REG GW		Building 51 Area SWMW-14 SWMW-14-W-26.00-151111 11/11/2015 1608899 WATER REG GW		Building 51 Area SWMW-15 CVX-0044-02 03/19/2015 1546899 WATER REG GW		Building 51 Area SWMW-15 CVX-0050-03 06/18/2015 1570520 WATER REG GW		Building 51 Area SWMW-15 CVX-0061-02 09/11/2015 1592327 WATER REG GW		Building 51 Area SWMW-15 SWMW-15-W-5.00-151112 11/12/2015 1609238 WATER REG GW		Building 51 Area SWMW-41 CVX-0045-08 03/20/2015 1547125 WATER REG GW	
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	129		117		2.8		82.8		26.5		14		52.3		210	J+
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	3100		3900		250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	68.2		63.1		2.3	J	22.8		91.2		69.4		30.5		38.1	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	1	U	4.7	J	1.5	J	1	U	1.4	J	3.2	J
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1.2	J
RSKSOP-175 modified	Methane	ug/l	NS	N	3	U	3.8	J	3	U	3700		340		290		1200		390	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	251000		300000		42800		268000		290000		246000		300000		276000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		NA		NA		NA		NA		160	J
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	10	UJ	10	UJ	140	J	NA		8500	J	40000	J	8800	J	NA	
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	U	70	J	54	U	540	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.011		0.365		0.0214		9.5		3.87		10.7		4.88		0.288	J
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.5	U	0.5	U	80		8		10		51		14	J-
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	550		100		46		270		2	J-
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	1		1		0.5	U	3		5		1		5		290	J-
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	14		12		0.5	U	3		4		1		3		200	J-
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.5	UJ	0.5	U	2		0.5	U	0.5	UJ	1		19	J-
SW8015D	CARBON DIOXIDE	ug/l	NS	N	19000		21000		4000	U	120000	J	64000		84000		81000		28000	J

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Location Group:					Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area	
Location ID:					SWMW-41		SWMW-41		SWMW-41		SWMW-56		SWMW-56		SWMW-56		SWMW-56		SWMW-56	
Field Sample ID:					CVX-0049-11		CVX-0060-08		SWMW-41-W-25.00-151111		CVX-0044-03		CVX-0044-06		CVX-0050-07		CVX-0061-03		SWMW-56-W-35.00-151113	
Date Sampled:					06/17/2015		09/10/2015		11/11/2015		03/19/2015		03/19/2015		06/18/2015		09/11/2015		11/13/2015	
SDG:					1570188		1592070		1608899		1546899		1546899		1570520		1592327		1609458	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		FD		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	225		220		195		80.2		75.3		72.5		72.5		69.7	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	38		37.2		41.4		84.2		84.5		86.6		87		84.5	
RSKSOP-175 modified	Ethane	ug/l	NS	N	3.8	J	2.1	J	1.7	J	1.1	J	1.1	J	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1.2	J	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	420		290		250		200		210		60		30		180	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	263000		270000	J-	275000		290000		290000		284000		264000	J-	284000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		390	J	180	J	NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	160	J	170	J	180	J	NA		NA		110	J	110	J	140	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	UJ	54	U	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.224		0.224		0.209		0.0968	J	0.729	J	0.127		0.0681		0.131	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	12		19		22		1		1		1		1	J	1	
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	2		3	J	1		1	J	0.6	J	0.8	J	0.7	J	0.6	J
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	260		220		210		160		160		140		150		160	
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	230		160		180		310		310		250		300		300	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	25		14	J	19		3		3		3		2	J	3	
SW8015D	CARBON DIOXIDE	ug/l	NS	N	24000		22000		29000		26000	J	26000	J	20000		18000		19000	

TABLE 2
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Location Group:					Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area	
Location ID:					SWMW-58		SWMW-58		SWMW-58		SWMW-58		SWMW-62		SWMW-62		SWMW-62		SWMW-62	
Field Sample ID:					CVX-0044-04		CVX-0050-08		CVX-0061-04		SWMW-58-W-5.00-151112		CVX-0043-04		CVX-0049-12		CVX-0060-09		SWMW-62-W-4.00-151111	
Date Sampled:					03/19/2015		06/18/2015		09/11/2015		11/12/2015		03/18/2015		06/17/2015		09/10/2015		11/11/2015	
SDG:					1546899		1570520		1592327		1609238		1546494		1570188		1592070		1608899	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	173		104		49.9		205		61.6		42.9		44		26.2	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	5200		6100		530		5500		250	U	680		310	J	540	
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	40.4		42		27.2		60.3		35.5		36.7		37.4		35.8	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	3	U	3	U	3	U	3	U	7.6	J	3	U	3	U	3	U
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	205000		250000		112000		283000		250000		232000		237000		274000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	46	J	NA		NA		NA		37	J	NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		NA		10	J	22	J	NA		33	J	10	UJ	10	UJ
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	U	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.201		0.627		0.191		0.312		2.04		3.44		2.83		2.04	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	32		38		4		37		2		1		2		1	
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	32		29		9		31		8		5		7		4	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	40000	J	35000		47000		43000		44000	J	36000		32000		54000	

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Location Group:					Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area	
Location ID:					SWMW-66		SWMW-66		SWMW-66		SWMW-66		SWMW-67		SWMW-67		SWMW-67		SWMW-67	
Field Sample ID:					CVX-0044-05		CVX-0050-09		CVX-0061-09		SWMW-66-W-43.00-151113		CVX-0044-11		CVX-0050-10		CVX-0061-05		SWMW-67-W-3.00-151112	
Date Sampled:					03/19/2015		06/18/2015		09/11/2015		11/13/2015		03/19/2015		06/18/2015		09/11/2015		11/12/2015	
SDG:					1546899		1570520		1592327		1609458		1546899		1570520		1592327		1609238	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	733		945		1190		1150		5.5		9.6		9.7		5.6	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	2100		2300		3200		3000		1800		2300		1200		250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	68.4		77.3		95.8		94.6		45.7		193		200		73.1	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	3.5	J	3.9	J	30		12		3	U	3	U	3	U	3	U
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	224000		243000		229000		259000		262000		372000		369000		294000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		NA		14	J	NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		NA		12	J	10	UJ	NA		NA		10	UJ	100	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	UJ	54	U	54	U	54	U	540	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.0263		0.166		0.242		0.13		0.505		1.1		3.55		0.62	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.6	J	0.8	J	0.7	J	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	0.6	J	0.8	J	0.9	J	0.8	J	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	330		440		400		370		0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	180		230		240		210		18		83		77		62	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	6		12		14	J	10		0.5	U	0.5	U	0.5	UJ	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	28000	J	35000		36000		34000		33000	J	40000		52000		45000	

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Location Group:					Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area	
Location ID:					SWMW-68		SWMW-68		SWMW-68		SWMW-68		SWMW-68		SWMW-103		SWMW-111		SWMW-111	
Field Sample ID:					CVX-0044-12		CVX-0050-11		CVX-0051-01		CVX-0061-06		SWMW-68-W-31.00-151113		CVX-0044-08		CVX-0044-09		CVX-0050-02	
Date Sampled:					03/19/2015		06/18/2015		06/19/2015		09/11/2015		11/13/2015		03/19/2015		03/19/2015		06/18/2015	
SDG:					1546899		1570520		1570823		1592327		1609458		1546899		1546899		1570520	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	59.3		60.9		NA		65.4		78.1		70.8		107		148	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	1100		1100		NA		470	J	360	J	1200		2000		2600	
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	107		125		NA		111		115		45.9		97.3		115	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	NA		1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	NA		1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	3	U	4	J	NA		3	U	3	U	3	U	7.6		3	U
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	269000		269000		NA		243000		241000		418000		266000		700	U
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		NA		NA		60	J	51	J	NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		82	J	NA		10	UJ	10	UJ	NA		NA		12	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	NA		54	U	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.0697		0.255		NA		0.0496		0.159		0.041		0.0971		0.0364	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.5	U	NA		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	NA		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	63		49		NA		66		69		0.5	U	13		10	
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	300		350		NA		340		350		0.5	U	65		68	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	1	J	3		NA		0.9	J	2		0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	22000	J	21000		NA		16000		17000		33000	J	34000	J	35000	

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FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area	
Location ID:					SWMW-111		SWMW-111		SWMW-112		SWMW-112		SWMW-112		SWMW-112		SWMW-113		SWMW-113	
Field Sample ID:					CVX-0061-07		SWMW-111-W-40.00-151113		CVX-0043-01		CVX-0049-13		CVX-0060-10		SWMW-112-W-55.00-151113		CVX-0043-02		CVX-0049-14	
Date Sampled:					09/11/2015		11/13/2015		03/18/2015		06/17/2015		09/10/2015		11/13/2015		03/18/2015		06/17/2015	
SDG:					1592327		1609458		1546494		1570188		1592070		1609458		1546494		1570188	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	6.7		93.5		351		381		332		276		196		167	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	890		250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	10.5		55.5		36.3		37.5		37.8		33.6		46.7		49.3	
RSKSOP-175 modified	Ethane	ug/l	NS	N	1	U	1	U	3.3	J	4.6	J	2.1	J	1.2	J	1	U	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	3	U	3	U	460	J	460		210		100		5	UJ	100	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	42800		245000		262000		257000		260000		240000		285000		289000	J-
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		100	J	NA		NA		NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	110	J	46	J	NA		96	J	79	J	130	J	NA		10	UJ
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	U	54	U	54	U	54	U	54	U	54	UJ
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	0.0163		0.0104		0.221	J	0.22		0.189		0.168		0.253		0.616	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	0.5	U	0.5	U	2		2		2		1		0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	3		3		2		2		1		3	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	2		550		550		500		410		18		22	
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	13		250		290		250		120		12		12	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	UJ	0.5	U	12		12		9	J	4		0.5	U	0.6	J
SW8015D	CARBON DIOXIDE	ug/l	NS	N	4000	U	33000		27000	J	23000		22000		20000		29000	J	24000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area		Building 51 Area	
Location ID:					SWMW-113		SWMW-113		SWMW-113		SWMW-126		SWMW-126		SWMW-126		SWMW-126		SWMW-126	
Field Sample ID:					CVX-0050-18		CVX-0060-07		SWMW-113-W-20.00-151112		CVX-0043-03		CVX-0049-15		CVX-0049-16		CVX-0060-06		SWMW-126-W-40.00-151112	
Date Sampled:					06/18/2015		09/10/2015		11/12/2015		03/18/2015		06/17/2015		06/17/2015		09/10/2015		11/12/2015	
SDG:					1570520		1592070		1609238		1546494		1570188		1570188		1592070		1609238	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		FD		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	NA		161		123		208		188		195		169		151	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	NA		250	U	250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	NA		47.3		40.7		31.7		31.3		31.9		34.1		36.8	
RSKSOP-175 modified	Ethane	ug/l	NS	N	NA		1	U	1	U	2.1	J	1.9	J	2.3	J	1	U	1.4	J
RSKSOP-175 modified	Ethene	ug/l	NS	N	NA		1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	NA		3	U	39		190	J	120		160		34		89	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	NA		306000		303000		282000		270000		267000		278000		281000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		NA		NA		NA		NA		NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		10	UJ	58	J	NA		10	UJ	10	UJ	41	J	130	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	U	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	NA		0.586		0.636		0.212		0.186		0.172		0.142		0.238	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	NA		0.5	U	0.5	J	2		2		2		2		2	
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	NA		3		3		2		2		2		2		2	
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	NA		22		14		180		190		200		160		130	
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	NA		12		7		260		290		250		250		230	
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	NA		0.5	UJ	0.5	U	6		6		7		4	J	5	
SW8015D	CARBON DIOXIDE	ug/l	NS	N	NA		24000		36000		29000	J	25000		24000		22000		22000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					WATF Area		WATF Area		WATF Area		WATF Area		WATF Area		WATF Area		WATF Area		WATF Area	
Location ID:					SWMW-21		SWMW-21		SWMW-21		SWMW-21		SWMW-30		SWMW-30		SWMW-30		SWMW-30	
Field Sample ID:					CVX-0042-02		CVX-0050-04		CVX-0063-01		SWMW-21-W-3.00-151112		CVX-0042-03		CVX-0050-05		CVX-0063-02		SWMW-30-W-3.00-151112	
Date Sampled:					03/17/2015		06/18/2015		09/16/2015		11/12/2015		03/17/2015		06/18/2015		09/16/2015		11/12/2015	
SDG:					1546097		1570520		1593502		1609238		1546097		1570520		1593502		1609238	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered																
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	7.1		24.3		15.6		16.8		56.9		189		249		198	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	3.5	J	1.5	U	1.5	U	1.5	U	4.2	J	1.5	J	1.5	U	13.1	J
RSKSOP-175 modified	Ethane	ug/l	NS	N	9		7.4		14		11		3.6	J	1	U	5.4		4.1	J
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	J	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	4300		13000		10000		9000		4600		3300		4200		4700	
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	308000		341000		335000		338000		226000		296000		288000		315000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	21000	J	NA		NA		NA		18200	J	NA		NA		NA	
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	NA		17700	J	18700		36600	J	NA		17200	J	25600		19600	J
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	54	U	54	U	54	U	54	U	54	U	54	U	54	U	110	J
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	7.81		11.8		13.1		15.2		2.42		3.12		3.09		3.12	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	200		450		250		350		8		8		15		7	
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	1	U	1		1	U	1		0.9	J	0.9	J	1		0.6	J
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	1	U	1		1	U	1		0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	1	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	1	U	0.5	U	1	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	130000	J	98000		120000		140000		65000	J	81000		87000		96000	

TABLE 2
2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

Location Group:					WATF Area		WATF Area		WATF Area		WATF Area		WATF Area		WATF Area		WATF Area	
Location ID:					SWMW-30		SWMW-31		SWMW-31		SWMW-31		SWMW-31		SWMW-71		SWMW-71	
Field Sample ID:					SWMW-30-WD-3.00-151112		CVX-0042-04		CVX-0050-06		CVX-0063-03		SWMW-31-W-3.00-151112		CVX-0042-01		CVX-0042-05	
Date Sampled:					11/12/2015		03/17/2015		06/18/2015		09/16/2015		11/12/2015		03/17/2015		03/17/2015	
SDG:					1609238		1546097		1570520		1593502		1609238		1546097		1546097	
Sample Matrix:					WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose:					FD		REG		REG		REG		REG		FD		REG	
Sample Type:					GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Units	NYSDEC TOGS(1)	Filtered														
EPA 300.0	Chloride	mg/l	250.0 mg/l	N	203		151		209		257		277		26.9		27	
EPA 300.0	Nitrogen, Nitrate as N	ug/l	NS	N	250	U	250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	mg/l	250.0 mg/l	N	8.2	J	3.9	J	1.5	U	7.2		2.3	J	31.5		31.7	
RSKSOP-175 modified	Ethane	ug/l	NS	N	4.9	J	2.7	J	1	U	4	J	3.9	J	3	J	1	U
RSKSOP-175 modified	Ethene	ug/l	NS	N	1	U	1	U	1	U	1	U	1	U	1	U	1	U
RSKSOP-175 modified	Methane	ug/l	NS	N	4900		3200		3000		2700		3700		3200	J	260	J
SM 2320 B-1997	Alkalinity, Total as CaCO3	UGCACO3/L	NS	N	316000		307000		318000		324000		320000	J-	310000		308000	
SM 3500-Fe B modified-1997	Ferrous Iron	ug/l	NS	N	NA		28700	J	NA		NA		NA		12900	J	11600	J
SM 3500-Fe B-1997	Ferrous Iron	ug/l	NS	N	19600	J	NA		23000	J	19700		27500	J	NA		NA	
SM 4500-S2 D-2000	Sulfide	ug/l	NS	N	120	J	54	U	54	U	54	U	54	UJ	54	U	54	U
SW-846 6010C	Manganese	mg/l	0.3 mg/l	N	3		4.68	J	3.86		2.85		5.18		3.53		3.23	
SW-846 8260C	Benzene	ug/l	1.0 ug/l	N	10		12		13		25		21		4	J	0.6	J
SW-846 8260C	Chlorobenzene	ug/l	5.0 ug/l	N	0.8	J	1		3		3		2		0.8	J	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	ug/l	5.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	ug/l	2.0 ug/l	N	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	ug/l	NS	N	81000		84000	J	4000	U	75000		66000		96000	J	85000	J

Notes for Table 2

	Concentration of parameter(s) exceeds regulatory groundwater screening criterion.
J	The analyte was positively identified, but the quantitation is an estimation.
J+	Estimate biased high at the value given.
J-	Estimated biased low at the value given.
U	The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit.
UJ	The analyte was detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
ug/L	Micrograms per liter. (parts per billion)
ug CaCO ₃ /L	Micrograms of Calcium Carbonate per liter (parts per billion).
mg/L	Milligrams per liter. (parts per million)
NA	Not analyzed.
NS	Not specified.
Reg	Regular Sample
FD	Field Duplicate Sample
GW	Groundwater Sample
(1)	Groundwater criteria obtained from the NYSDEC document entitled, "Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998"; Errata Sheet for June 1998 Edition and amendments.

TABLE 3

**2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
COMPOUND SPECIFIC ISOTOPE ANALYSIS SUMMARY TABLE
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK**

Location	Sample I.D.	Parameter	Isotope Result ($\delta^{13}\text{C}$, 0/100)
Bldg 45-55 (Overburden wells)	SWMW-10	Chlorobenzene	ND
	ITMW-25	Chlorobenzene	-27.9
	SWMW-28	Chlorobenzene	-26.3
Bldg 45-55 (Bedrock wells)	SWMW-44	Chlorobenzene	-28.5
	SWMW-48	Chlorobenzene	ND
	SWMW-27	Chlorobenzene	-27.0
Bldg 58-83-36 (Bedrock wells/ Plume #1)	SWMW-45	Chlorobenzene	-28.0
	SWMW-55	Chlorobenzene	-26.8
	SWMW-123	Chlorobenzene	-26.4
Bldg 58-83-36 (Bedrock wells/ Plume #2)	SWMW-125	Chlorobenzene	-28.2
	SWMW-114	Chlorobenzene	-28.2
	ITMW-13	Chlorobenzene	-28.3
Bldg 45-55 (Overburden well)	ITMW-25	cis1,2-Dichloroethene	ND
Bldg 45-55 (Bedrock wells)	SWMW-44	cis1,2-Dichloroethene	-25.8
	SWMW-123	cis1,2-Dichloroethene	ND
Bldg 58-83-36 (Bedrock well / Plume #2)	SWMW-125	cis1,2-Dichloroethene	-27.2

Notes:

$\delta^{13}\text{C}$, 0/100 – Isotope unit of measurement for Carbon 13 isotope

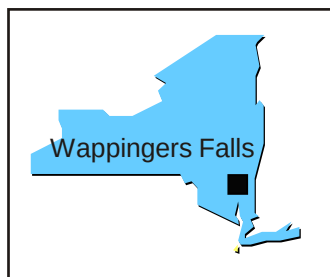
ND - Parameter not detected for the following reasons:

1. Parameter below method detection limit.
2. Parameter peak not resolved on gas chromatography by laboratory.

FIGURES



FIGURE 1



New York Quadrangle



SOURCE: U.S.G.S.
WAPPINGERS FALLS
QUADRANGLE

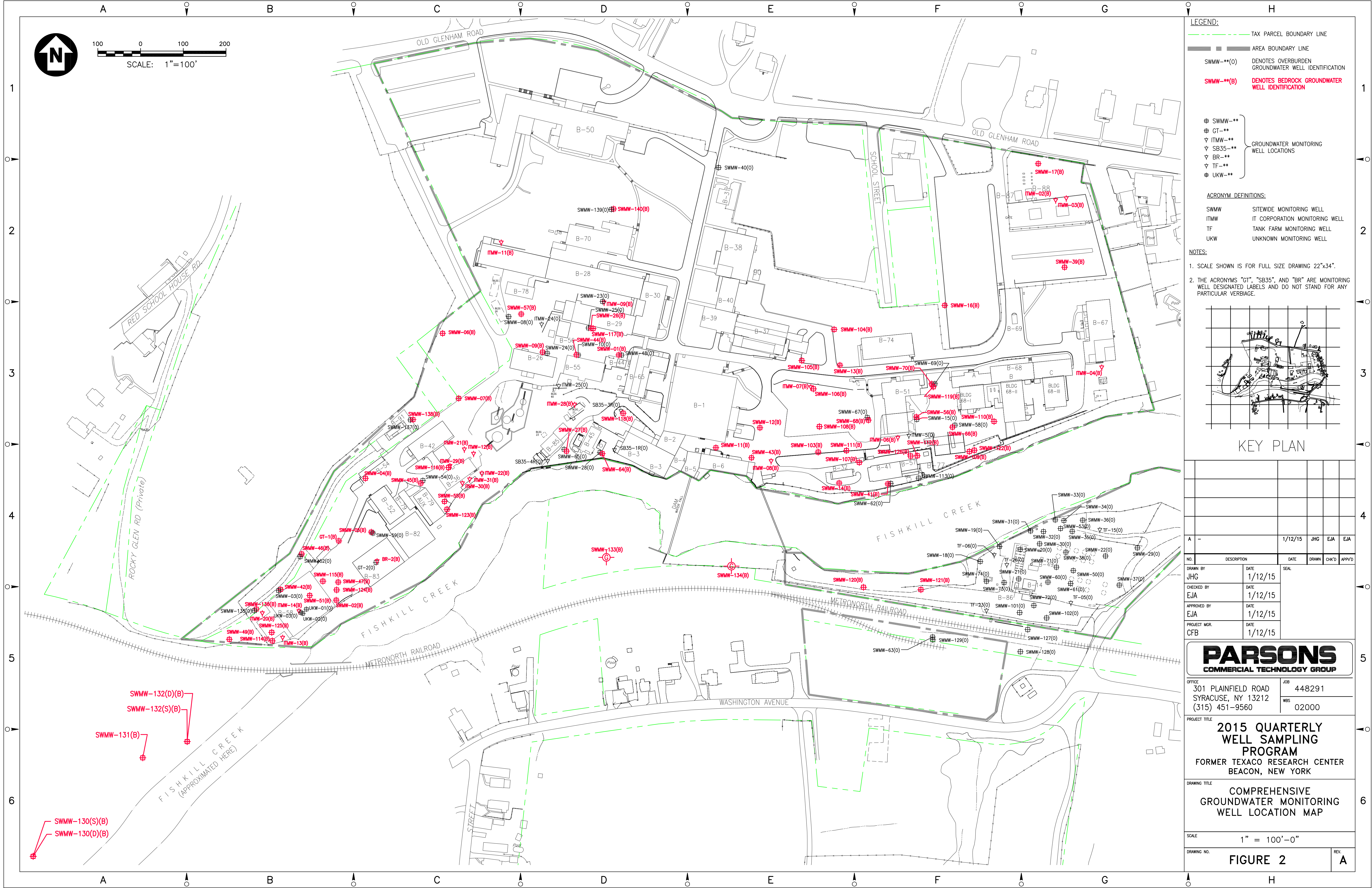


Chevron Environmental Management Company
(EMC)
Former Texaco Research Facility
Beacon, New York

SITE LOCATION MAP

PARSONS

301 PLAINFIELD ROAD * SUITE 350 * SYRACUSE, NY 13212 PHONE: (315) 451-9560



LEGEND:

--- TAX PARCEL BOUNDARY LINE

--- AREA BOUNDARY LINE

SWMW-**(O) DENOTES OVERBURDEN GROUNDWATER WELL IDENTIFICATION

SWMW-**(B) DENOTES BEDROCK GROUNDWATER WELL IDENTIFICATION

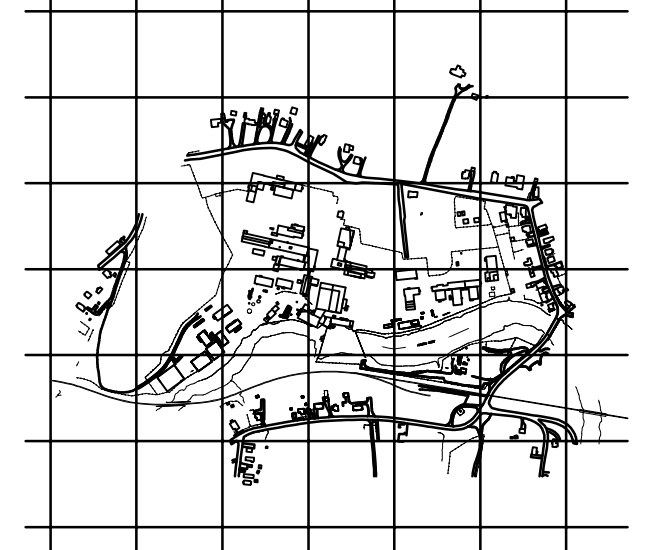
⊕ SWMW-**
⊕ GT-**
▽ ITMW-**
▽ SB35-**
▽ BR-**
▽ TF-**
⊕ UKW-**

GROUNDWATER MONITORING WELL LOCATIONS

ACRONYM DEFINITIONS:

SWMW SITEWIDE MONITORING WELL
ITMW IT CORPORATION MONITORING WELL
TF TANK FARM MONITORING WELL
UKW UNKNOWN MONITORING WELL

- NOTES:**
1. SCALE SHOWN IS FOR FULL SIZE DRAWING 22"x34".
2. THE ACRONYMS "GT", "SB35", AND "BR" ARE MONITORING WELL DESIGNATED LABELS AND DO NOT STAND FOR ANY PARTICULAR VERBIAGE.



KEY PLAN

NO.		DESCRIPTION	DATE	DRAWN	CHK'D	APP'VD
A			1/12/15	JHG	EJA	EJA
B						
C						
D						
E						
F						
G						
H						

PARSONS
COMMERCIAL TECHNOLOGY GROUP

OFFICE: 301 PLAINFIELD ROAD
SYRACUSE, NY 13212
(315) 451-9560

JOB: 448291
WBS: 02000

PROJECT TITLE:
2015 QUARTERLY WELL SAMPLING PROGRAM
FORMER TEXACO RESEARCH CENTER
BEACON, NEW YORK

DRAWING TITLE:
COMPREHENSIVE GROUNDWATER MONITORING WELL LOCATION MAP

SCALE: 1" = 100'-0"

DRAWING NO. **FIGURE 2** REV. **A**

APPENDIX A

DATA USABILITY SUMMARY REPORTS (MARCH, JUNE, SEPTEMBER, AND NOVEMBER 2015) 2015 QUARTERLY SAMPLING EVENTS

DATA USABILITY SUMMARY REPORT 2015 1ST QUARTER GROUNDWATER SAMPLING

**Former Chevron Texaco Research Center
Beacon, New York**

Prepared For:



Mr. Mark Hendrickson

Chevron Environmental Management Company

Chevron Bellaire Office Building
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MAY 2015

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LIST OF ATTACHMENTS

ATTACHMENT A VALIDATED LABORATORY DATA

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected as part of the 2015 1st Quarter sampling event from the Chevron Beacon site from March 17, 2015 through March 24, 2015. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan
- QAPP
- July 2005 NYSDEC Analytical Services Protocol (ASP)
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review

The analytical laboratory for this project was Eurofins Laboratories (Eurofins) in Lancaster, Pennsylvania. This laboratory is certified to conduct project analyses through the New York State Department of Health (NYSDOH) and the National Environmental Laboratory Accreditation Program (NELAP).

1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 26-28 days for the project samples.

The laboratory data packages received from Eurofins were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized in Section 2.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, properly preserved, shipped under a COC record, and received at Eurofins within one day of sampling. All samples were received intact and in good condition at Eurofins.

1.3 LABORATORY ANALYTICAL METHODS

The groundwater samples were collected from the site and analyzed for certain volatiles including methane, ethane, and ethene; manganese; ferrous iron; carbon dioxide; chloride; nitrate; sulfate; total alkalinity; and sulfide. Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, and comparability (PARCC) are discussed for each analytical

PARSONS

method in Section 2 of this Data Usability Summary Report (DUSR). A USEPA Stage 4 data validation (i.e., full data validation) was conducted by Parsons on 10% of the project samples with the remaining 90% of the project samples undergoing a USEPA Stage 2B data validation which provides data defensibility. The laboratory data were reviewed and may be qualified with the following validation flags:

- "U" - not detected at the value given,
- "UJ" - estimated and not detected at the value given,
- "J" - estimated at the value given,
- "J+" - estimated biased high at the value given,
- "J-" - estimated biased low at the value given,
- "N" - presumptive evidence at the value given, and
- "R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis

Groundwater samples collected from the site were analyzed for certain volatiles using the USEPA SW-846 8260C analytical method and for methane, ethane, and ethene using the USEPA approved SOP RSK-175 analytical method. Certain results for these samples were qualified as estimated based upon surrogate recoveries, instrument calibrations, and field duplicate precision. The reported volatile analytical results were 100% complete (i.e., usable) for the data presented by Eurofins. PARCC requirements were met.

1.3.2 Metals Analysis

Groundwater samples collected from the site were analyzed for manganese and ferrous iron using the USEPA SW-846 6010C and SM3500 analytical methods, respectively. Certain reported results for these samples were qualified as estimated based upon sample holding times, serial dilutions, matrix spike recoveries, laboratory duplicate precision, and field duplicate precision. Certain reported results for these samples were considered unusable and qualified "R" based upon grossly exceeded holding times. The metals results were considered 94.4% complete (i.e., usable) for the data presented by Eurofins. PARCC requirements were met overall.

1.3.3 Wet Chemistry Analysis

Groundwater samples collected from the site were analyzed for carbon dioxide using the USEPA SW-846 8015D analytical method; nitrate, sulfate, and chloride using the USEPA 300.0 analytical method; total alkalinity using the SM2320B analytical method; and sulfide using the SM4500 analytical method. Certain reported results for these samples were qualified as estimated based upon sample holding times, matrix spike recoveries, and laboratory duplicate precision. The wet chemistry results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCC requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 1ST QUARTER GROUNDWATER SAMPLES

Data review has been completed for data packages generated by Eurofins containing groundwater samples collected from the site. These samples were contained within sample delivery groups (SDGs) CBC78, CBC79, CBC80, CBC81, and CBC82. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data were tabulated and are presented in Attachment A.

Data validation was performed for all samples in accordance with the project work plan, QAPP, NYSDEC ASP, and the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type.

2.1.1 Volatiles (Including Methane, Ethane, and Ethene)

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and trip blank contamination
- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of surrogate recoveries, blank contamination, initial calibrations, and field duplicate precision as discussed below.

Surrogate Recoveries

All sample surrogate recoveries were considered acceptable and within QC limits with the exception of the low recovery for the surrogate dibromofluoromethane (QC limit 80-116%R) in sample CVX-0045-08 (79%R). Therefore, results for this sample were considered estimated, possibly biased low, with positive results qualified “J-” and nondetected results qualified “UJ”.

Blank Contamination

The laboratory method blank associated with project samples collected on 3/18/15 contained methane at a concentration of 3.3 µg/L. Therefore, associated methane sample results less than the validation action concentration were considered not detected and qualified “U”.

Initial Calibrations

All percent relative standard deviations (%RSDs) were less than 30% in the initial calibrations associated with methane, ethane, and ethene project samples with the exception of methane (39%RSD) in the initial calibration associated with samples collected on 3/18/15. Therefore, the methane results for these samples were considered estimated with positive results qualified “J” and nondetected results qualified “UJ”.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision for benzene (167%RPD) and methane (170%RPD) associated with sample CVX-0042-05 and its field duplicate CVX-0042-01; and methane (42%RPD) and ethene (55%RPD) associated with sample CVX-0045-09 and its field duplicate CVX-0045-05. Therefore, the results for these compounds were considered estimated and qualified “J” for the affected parent sample and its field duplicate.

Usability

All volatile results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The volatile data presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

2.1.2 Manganese and Ferrous Iron

The following items were reviewed for compliancy in the manganese and ferrous iron analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Serial dilutions
- Interference check sample recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times, matrix spike recoveries, laboratory duplicate precision, serial dilutions, and field duplicate precision as discussed below.

Holding Times

All sample analytical holding times were within criteria with the exception of the ferrous iron holding times associated with all samples. All ferrous iron holding times grossly exceeded the 24-hour criteria by three to six days. Therefore, positive ferrous iron results were considered estimated and qualified “J” while nondetected ferrous iron results were considered unusable and qualified “R”.

Blank Contamination

The laboratory method blank associated with samples collected on 3/20/15 contained manganese at a concentration of 1.11 µg/L. Validation qualification of the associated samples was not required.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the low MS recovery for ferrous iron (68%R; QC limit 73-111%R) associated with sample CVX-0045-08; and the low MS/MSD recoveries for ferrous iron (70%R/70%R; QC limit 73-111%R) associated with sample CVX-0046-08. Therefore, the ferrous iron results for the associated parent samples were considered estimated, possibly biased low, with positive results qualified “J-” and nondetected results qualified “UJ”.

Laboratory Duplicate Precision

All laboratory duplicate precision results were considered acceptable and within QC limits with the exception of the laboratory duplicate precision for ferrous iron (34%RPD; QC limit 0-20%RPD) associated with samples collected on 3/20/15. Therefore, the ferrous iron results for these samples were considered estimated with positive results qualified “J” and nondetected results qualified “UJ”.

Serial Dilutions

All serial dilution results were less than the 10%D criteria with the exception of the serial dilutions for manganese (32%D, 44%D, 27%D, 17%D) associated with samples collected on 3/17/15, 3/18/15, 3/19/15, and 3/20/15, respectively. Therefore, the positive manganese results were considered estimated and qualified “J” for the affected samples.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision for manganese (153%RPD) and ferrous iron (74%RPD) associated with sample CVX-0044-03 and its field duplicate CVX-0044-06. Therefore, the results for these analytes were considered estimated and qualified “J” for the affected parent sample and its field duplicate.

Usability

All metals results for the groundwater samples were considered usable following data validation with the exception of certain nondetected ferrous iron results based upon grossly exceeded holding times.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The metals data for the groundwater samples presented by Eurofins were 94.4% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

2.1.3 Wet Chemistry

The following items were reviewed for compliancy in the wet chemistry analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision

- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times, blank contamination, matrix spike recoveries, and laboratory duplicate precision as discussed below.

Holding Times

All carbon dioxide samples exceeded the 7-day analytical holding time by two to seven days. Therefore, the carbon dioxide results were considered estimated and qualified “J” for all samples.

Blank Contamination

The laboratory method blanks associated with samples collected on 3/17/15 and 3/24/15 contained alkalinity below the reporting limit at concentrations of 1.6 and 1 mg/L, respectively. Validation qualification of the associated samples was not required.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the high matrix spike recoveries for nitrate (112%R; QC limit 90-110%R) and sulfate (111%R; QC limit 90-110%R) associated with sample CVX-0044-01; the high matrix spike recoveries for chloride (123%R, 119%R; QC limit 90-110%R) associated with samples CVX-0045-08 and CVX-0046-08. Therefore, positive results for these analytes were considered estimated, possibly biased high, and qualified “J+” for the affected samples.

Laboratory Duplicate Precision

All laboratory duplicate precision results were considered acceptable and within QC limits with the exception of the laboratory duplicate precision for nitrate (200%RPD; QC limit 0-20%RPD) associated with sample CVX-0046-08. Therefore, the nondetected nitrate result for this sample was considered estimated and qualified “UJ”.

Usability

All wet chemistry results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, and comparability. The wet chemistry data for the groundwater samples presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

Location ID					GT-2		ITMW-13		ITMW-14		ITMW-24		ITMW-25		ITMW-30		ITMW-31		ITMW-5	
Field Sample ID					CVX-0046-01		CVX-0046-02		CVX-0046-03		CVX-0045-01		CVX-0045-02		CVX-0046-04		CVX-0046-05		CVX-0044-01	
Date Sampled					03/24/2015		03/24/2015		03/24/2015		03/20/2015		03/20/2015		03/24/2015		03/24/2015		03/19/2015	
SDG					1548024		1548024		1548024		1547125		1547125		1548024		1548024		1546899	
Sample Matrix					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		REG		REG		REG		REG	
Sample Type					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units																
EPA 300.0	Chloride	16887-00-6	N	mg/l	134		4080		236		443		196		102		4.6		43.9	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		700		250 U		250 U		250 U		250 U		250 U		4000 J+	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	3.1 J		33.4		1.5 U		114		29.9		13.4		4.2 J		54.7 J+	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	2.5 J		1.0 U		3.6 J		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	4100		19		3300		67		110		69		2300		3.0 U	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	180000		53700		132000		156000		267000		116000		115000		168000	
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l	40700 J		4500 J		11300 J		2000 J		310 J		1700 J		2700 J		310 J	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U		54 U		54 U		1200		54 U		54 U		80 J		220 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	2.12		7.29		10.6		0.343		3.59		2.5		1.51		0.75	
SW-846 8260C	Benzene	71-43-2	N	ug/l	89		0.5 U		1 U		0.5 U		0.5 U		0.5 U		1		0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	340		31		62		6		0.5 U		2		0.5 U		0.5 U	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U		0.5 U		2 J		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U		0.5 U		1 U		0.5 U		0.5 U		0.5 U		0.5 U		6	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U		0.5 U		1 J		0.5 U		0.5 U		0.5 U		0.5 U		0.5 U	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	110000 J		82000 J		82000 J		42000 J		35000 J		61000 J		49000 J		71000 J	

Location ID					ITMW-6	SWMW-10	SWMW-103	SWMW-11	SWMW-112	SWMW-113	SWMW-114	SWMW-123
Field Sample ID					CVX-0044-07	CVX-0045-03	CVX-0044-08	CVX-0044-09	CVX-0043-01	CVX-0043-02	CVX-0046-08	CVX-0046-06
Date Sampled					03/19/2015	03/20/2015	03/19/2015	03/19/2015	03/18/2015	03/18/2015	03/24/2015	03/24/2015
SDG					1546899	1547125	1546899	1546899	1546494	1546494	1548024	1548024
Sample Matrix					WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	REG	REG	REG	REG	FD
Sample Type					GW	GW	GW	GW	GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units								
EPA 300.0	Chloride	16887-00-6	N	mg/l	73.6		142		107		351	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		250 U		1200		2000	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	39		47.6		97.3		36.3	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U		2.8 J		1.0 U		3.3 J	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U		3.6 J		1.0 U		1.0 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	32		510		3.0 U		7.6	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	275000		353000		418000		266000	
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l	170 J		920 J		60 J		51 J	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U		85 J		54 U		54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.375		0.493		0.041		0.0971	
SW-846 8260C	Benzene	71-43-2	N	ug/l	1		1		0.5 U		0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	1 J		200		0.5 U		0.5 U	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	110		13		0.5 U		13	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	83		29		0.5 U		65	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	1		4		0.5 U		0.5 U	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	26000 J		39000 J		33000 J		34000 J	

Location ID					SWMW-123	SWMW-125	SWMW-125	SWMW-126	SWMW-13	SWMW-14	SWMW-15	SWMW-2	
Field Sample ID					CVX-0046-09	CVX-0046-07	CVX-0046-10	CVX-0043-03	CVX-0044-10	CVX-0045-04	CVX-0044-02	CVX-0046-11	
Date Sampled					03/24/2015	03/24/2015	03/24/2015	03/18/2015	03/19/2015	03/20/2015	03/19/2015	03/24/2015	
SDG					1548024	1548024	1548024	1546494	1546899	1547125	1546899	1548024	
Sample Matrix					WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	
Sample Purpose					REG	FD	REG	REG	REG	REG	REG	REG	
Sample Type					GW	GW	GW	GW	GW	GW	GW	GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units									
EPA 300.0	Chloride	16887-00-6	N	mg/l	122		486		208	511	151	82.8	1610
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U	250 U	250 U	250 U	6900	3400	250 U	250 U	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	12.1	5.6	5.6	31.7	208	81.8	22.8	17.9	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U	1.9 J	1.4 J	2.1 J	1.0 U	1.0 U	4.7 J	1.0 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.8 J	1.3 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	110	760	730	190 J	3.0 U	3.0 U	3700	130	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	276000	132000	132000	282000	354000	295000	268000	150000	
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l	31 J	4800 J	4400 J		120 J	51 J		7400 J	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U	54 U	54 U	54 U	54 U	54 U	70 J	54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.315	13.2	12.2	0.212	0.0369	0.0399	9.5	4.22	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.6 J	4	4	2	0.5 U	0.5 U	80	0.7 J	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	36	310	300	2	0.5 U	0.5 U	550	92	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U	110	110	180	2	2	3	3	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U	250	250	260	14	18	3	1	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U	7	7	6	0.5 U	0.5 U	2	1	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	36000 J	47000 J	48000 J	29000 J	49000 J	28000 J	120000 J	66000 J	

Location ID					SWMW-21		SWMW-25		SWMW-28		SWMW-30		SWMW-31		SWMW-41		SWMW-44		SWMW-44	
Field Sample ID					CVX-0042-02		CVX-0045-06		CVX-0045-07		CVX-0042-03		CVX-0042-04		CVX-0045-08		CVX-0045-05		CVX-0045-09	
Date Sampled					03/17/2015		03/20/2015		03/20/2015		03/17/2015		03/17/2015		03/20/2015		03/20/2015		03/20/2015	
SDG					1546097		1547125		1547125		1546097		1546097		1547125		1547125		1547125	
Sample Matrix					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		REG		REG		FD		REG	
Sample Type					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units																
EPA 300.0	Chloride	16887-00-6	N	mg/l	7.1		36.8		256		56.9		151		210	J+	150		138	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250	U	1100		250	U	250	U	250	U	250	U	250	U	250	U
EPA 300.0	Sulfate	14808-79-8	N	mg/l	3.5	J	105		16.7		4.2	J	3.9	J	38.1		66.2		67.1	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	9.0		1.0	U	2.4	J	3.6	J	2.7	J	3.2	J	3.4	J	2.4	J
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.2	J	5.3	J	3.0	J
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	4300		3.0	U	1300		4600		3200		390		600	J	390	J
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	308000		130000		245000		226000		307000		276000		301000		300000	
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l	21000	J	78	J	10900	J	18200	J	28700	J	160	J	720	J	640	J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54	U	54	U	100	J	54	U	54	U	54	U	170		210	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	7.81		3.17		2.35		2.42		4.68	J	0.288	J	1.35		1.4	
SW-846 8260C	Benzene	71-43-2	N	ug/l	200		0.5	U	9		8		12		14	J-	1		1	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	1	U	0.5	U	21		0.9	J	1		2	J-	200		200	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	1	U	0.5	U	0.5	U	0.5	U	0.5	U	290	J-	48		48	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	1	U	0.5	U	0.5	U	0.5	U	0.5	U	200	J-	260		260	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	1	U	0.5	U	0.5	U	0.5	U	0.5	U	19	J-	15		13	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	130000	J	23000	J	48000	J	65000	J	84000	J	28000	J	43000	J	45000	J

Location ID					SWMW-45		SWMW-48		SWMW-55		SWMW-56		SWMW-56		SWMW-58		SWMW-62		SWMW-65	
Field Sample ID					CVX-0046-12		CVX-0046-13		CVX-0046-14		CVX-0044-03		CVX-0044-06		CVX-0044-04		CVX-0043-04		CVX-0045-10	
Date Sampled					03/24/2015		03/24/2015		03/24/2015		03/19/2015		03/19/2015		03/19/2015		03/18/2015		03/20/2015	
SDG					1548024		1548024		1548024		1546899		1546899		1546899		1546494		1547125	
Sample Matrix					WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		FD		REG		REG		REG	
Sample Type					GW		GW		GW		GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units																
EPA 300.0	Chloride	16887-00-6	N	mg/l	513		205		76		80.2		75.3		173		61.6		317	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		250 U		1400		250 U		250 U		5200		250 U		510	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	1.5 U		50.4		12.2		84.2		84.5		40.4		35.5		38.3	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U		1.0 U		1.0 U		1.1 J		1.1 J		1.0 U		1.0 U		1.0 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	520		3.4 J		370		200		210		3.0 U		7.6 J		3.0 U	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCAC03/L	302000		210000		245000		290000		290000		205000		250000		158000	
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l	4300 J		1500 J		450 J		390 J		180 J		46 J		37 J		69 J	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U		54 U		54 U		54 U		54 U		54 U		54 U		54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	5.48		0.783		2.47		0.0968 J		0.729 J		0.201		2.04		4.31	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U		0.5 U		1		1		1		0.5 U		0.5 U		0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	39		1		860		1 J		0.6 J		0.5 U		0.5 U		0.5 U	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U		0.5 U		0.5 U		160		160		32		2		0.5 U	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U		0.5 U		0.5 U		310		310		32		8		0.5 U	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U		0.5 U		0.5 U		3		3		0.5 U		0.5 U		0.5 U	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	81000 J		31000 J		77000 J		26000 J		26000 J		40000 J		44000 J		22000 J	

Location ID					SWMW-66	SWMW-67	SWMW-68	SWMW-71	SWMW-71	TB	TB	TB
Field Sample ID					CVX-0044-05	CVX-0044-11	CVX-0044-12	CVX-0042-01	CVX-0042-05	CVX-0042-06	CVX-0043-05	CVX-0044-13
Date Sampled					03/19/2015	03/19/2015	03/19/2015	03/17/2015	03/17/2015	03/17/2015	03/18/2015	03/19/2015
SDG					1546899	1546899	1546899	1546097	1546097	1546097	1546494	1546899
Sample Matrix					WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	FD	REG	TB	TB	TB
Sample Type					GW	GW	GW	GW	GW	BLKWATER	BLKWATER	BLKWATER
Analytical Method	Parameter Name	Parameter Code	Filtered	Units								
EPA 300.0	Chloride	16887-00-6	N	mg/l	733		5.5		26.9	27		
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	2100		1800		250 U	250 U		
EPA 300.0	Sulfate	14808-79-8	N	mg/l	68.4		45.7		31.5	31.7		
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U		1.0 U		1.0 U	1.0 U		
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U		1.0 U		1.0 U	1.0 U		
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3.5 J		3.0 U		3200 J	260 J		
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	224000		262000		310000	308000		
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l		R	14 J		12900 J	11600 J		
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U		54 U		54 U	54 U		
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.0263		0.505		3.53	3.23		
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U		0.5 U		4 J	0.6 J	0.5 U	0.5 U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.6 J		0.5 U		0.8 J	0.5 U	0.5 U	0.5 U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	330		0.5 U		63	0.5 U	0.5 U	0.5 U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	180		18		300	0.5 U	0.5 U	0.5 U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	6		0.5 U		1 J	0.5 U	0.5 U	0.5 U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	28000 J		33000 J		22000 J	96000 J	85000 J	

Location ID					TB		TB		TB		TB		TB		TB		Unknown Well 1		Unkn
Field Sample ID					CVX-0044-14		CVX-0045-11		CVX-0045-12		CVX-0046-18		CVX-0046-19		CVX-0046-20		CVX-0046-15		CVX-0
Date Sampled					03/19/2015		03/20/2015		03/20/2015		03/24/2015		03/24/2015		03/24/2015		03/24/2015		03/2
SDG					1546899		1547125		1547125		1548024		1548024		1548024		1548024		154
Sample Matrix					WATER		WATER		WATER		WATER		WATER		WATER		WATER		W
Sample Purpose					TB		TB		TB		TB		TB		TB		REG		R
Sample Type					BLKWATER		BLKWATER		BLKWATER		BLKWATER		BLKWATER		BLKWATER		GW		C
Analytical Method	Parameter Name	Parameter Code	Filtered	Units															
EPA 300.0	Chloride	16887-00-6	N	mg/l													432		339
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l													250	U	250
EPA 300.0	Sulfate	14808-79-8	N	mg/l													10.9		7.7
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l													1.0	U	1.0
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l													1.0	U	1.0
RSKSOP-175 modified	Methane	74-82-8	N	ug/l													180		10
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L													67900		
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l													32700	J	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l													54	U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l													7.64		
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.8	J	1
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	230		830
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.7	J	0.5
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l													73000	J	86000

Location ID					yn Well 2	Unknown Well 3	
Field Sample ID					046-16	CVX-0046-17	
Date Sampled					1/2015	03/24/2015	
SDG					8024	1548024	
Sample Matrix					WATER	WATER	
Sample Purpose					EG	REG	
Sample Type					W	GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units			
EPA 300.0	Chloride	16887-00-6	N	mg/l		526	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	U	250	U
EPA 300.0	Sulfate	14808-79-8	N	mg/l		9.7	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	U	1.0	U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	U	1.0	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l		32	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L		58300	
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l		10100	J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l		54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l		4.19	
SW-846 8260C	Benzene	71-43-2	N	ug/l		0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l		20	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	U	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	J	87000	J

**DATA USABILITY SUMMARY REPORT
2015 2ND QUARTER GROUNDWATER SAMPLING**

**Former Chevron Texaco Research Center
Beacon, New York**

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LIST OF ATTACHMENTS

ATTACHMENT A VALIDATED LABORATORY DATA

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected as part of the 2015 2nd Quarter sampling event from the Chevron Beacon site from June 15, 2015 through June 19, 2015. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan
- QAPP
- July 2005 NYSDEC Analytical Services Protocol (ASP)
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review

The analytical laboratory for this project was Eurofins Laboratories (Eurofins) in Lancaster, Pennsylvania. This laboratory is certified to conduct project analyses through the New York State Department of Health (NYSDOH) and the National Environmental Laboratory Accreditation Program (NELAP).

1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 26-45 days for the project samples.

The laboratory data packages received from Eurofins were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized in Section 2.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, properly preserved, shipped under a COC record, and received at Eurofins within one day of sampling. All samples were received intact and in good condition at Eurofins.

It was noted by the laboratory that the volatile and carbon dioxide samples collected on June 16, 2015 were lost in transit. These samples were recollected.

1.3 LABORATORY ANALYTICAL METHODS

The groundwater samples were collected from the site and analyzed for certain volatiles including methane, ethane, and ethene; manganese; ferrous iron; carbon dioxide; chloride; nitrate; sulfate; total alkalinity; and sulfide. Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from

PARSONS

the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method in Section 2 of this Data Usability Summary Report (DUSR). A USEPA Stage 4 data validation (i.e., full data validation) was conducted by Parsons on 10% of the project samples with the remaining 90% of the project samples undergoing a USEPA Stage 2B data validation which provides data defensibility. The laboratory data were reviewed and may be qualified with the following validation flags:

- "U" - not detected at the value given,
- "UJ" - estimated and not detected at the value given,
- "J" - estimated at the value given,
- "J+" - estimated biased high at the value given,
- "J-" - estimated biased low at the value given,
- "N" - presumptive evidence at the value given, and
- "R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis

Groundwater samples collected from the site were analyzed for certain volatiles using the USEPA SW-846 8260C analytical method and for methane, ethane, and ethene using the USEPA approved SOP RSK-175 analytical method. The results for these samples did not require qualification resulting from data validation. The reported volatile analytical results were 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

1.3.2 Metals Analysis

Groundwater samples collected from the site were analyzed for manganese and ferrous iron using the USEPA SW-846 6010C and SM3500 analytical methods, respectively. Certain reported results for these samples were qualified as estimated based upon sample holding times and matrix spike recoveries. Certain reported results for these samples were considered unusable and qualified "R" based upon grossly exceeded holding times. The metals results were considered 96.4% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met overall.

1.3.3 Wet Chemistry Analysis

Groundwater samples collected from the site were analyzed for carbon dioxide using the USEPA SW-846 8015D analytical method; nitrate, sulfate, and chloride using the USEPA 300.0 analytical method; total alkalinity using the SM2320B analytical method; and sulfide using the SM4500 analytical method. Certain reported results for these samples were qualified as estimated based upon matrix spike recoveries. The wet chemistry results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 2ND QUARTER GROUNDWATER SAMPLES

Data review has been completed for data packages generated by Eurofins containing groundwater samples collected from the site. These samples were contained within sample delivery groups (SDGs) CBC83, CBC84, CBC85, CBC86, and CBC87. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data were tabulated and are presented in Attachment A.

Data validation was performed for all samples in accordance with the project work plan, QAPP, NYSDEC ASP, and the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type.

2.1.1 Volatiles (Including Methane, Ethane, and Ethene)

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and trip blank contamination
- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols.

Usability

All volatile results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The volatile data presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

2.1.2 Manganese and Ferrous Iron

The following items were reviewed for compliancy in the manganese and ferrous iron analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Serial dilutions
- Interference check sample recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times and matrix spike recoveries as discussed below.

Holding Times

All sample analytical holding times were within criteria with the exception of the ferrous iron holding times associated with all samples. All ferrous iron holding times exceeded the 24-hour criteria by three to ten days. Therefore, positive ferrous iron results were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples. However, nondetected ferrous iron results for samples collected on June 18, 2015 were considered unusable and qualified “R” since holding times were grossly exceeded.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the low MS/MSD recoveries for manganese (46%R/74%R; QC limit 75-125%R) associated with sample CVX-0047-03. Therefore, the positive manganese result for the associated parent sample was considered estimated, possibly biased low, and qualified “J-”.

Usability

All metals results for the groundwater samples were considered usable following data validation with the exception of certain nondetected ferrous iron results based upon grossly exceeded holding times.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The metals data for the groundwater samples presented by Eurofins were 96.4% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

2.1.3 Wet Chemistry

The following items were reviewed for compliancy in the wet chemistry analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of matrix spike recoveries as discussed below.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the low matrix spike recoveries for sulfide (55%R, 62%R; QC limit 90-110%R) and total alkalinity (20%R, 23%R; QC limit 90-110%R) associated with sample CVX-0047-03; the

low matrix spike recoveries for sulfide (86%R, 119%R; QC limit 90-110%R) and total alkalinity (43%R, 44%R; QC limit 90-110%R) associated with sample CVX-0049-14; and the low matrix spike recovery for total alkalinity (42%R; QC limit 90-110%R) associated with sample CVX-0049-02. Therefore, results for these analytes were considered estimated, possibly biased low, with positive results qualified “J-” and nondetected results qualified “UJ” for the affected parent samples.

Usability

All wet chemistry results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The wet chemistry data for the groundwater samples presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

Location ID					GT-2		ITMW-6		ITMW-13		ITMW-25	
Field Sample ID					CVX-0047-01		CVX-0050-01		CVX-0047-02		CVX-0049-01	
Date Sampled					06/15/2015		06/18/2015		06/15/2015		06/17/2015	
SDG					1569290		1570520		1569290		1570188	
Sample Matrix					WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG	
Sample Type					GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units								
EPA 300.0	Chloride	16887-00-6	N	mg/l	149		87		2410		158	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		250 U		250 U		250 U	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	1.5 U		40.2		36.3		26.9	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	16 U		1.0 U		1.0 U		1.0 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	2.0 U		1.0 U		1.0 U		1.0 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	7000		3.0 U		3.0 U		24	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	157000		278000		92300		251000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	57200 J		270 J		940 J		6000 J	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U		54 U		54 U		54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	2.14		0.421		5.67		3.72	
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l					1 U		1 U	
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l					1 U		1 U	
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l					7		8	
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l					1 U		1 U	
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l					2 J		9	
SW-846 8260C	Benzene	71-43-2	N	ug/l	120		1		0.5 U		270	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	360		1 J		16		70	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U		110		0.5 U		0.5 U	
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l					0.5 U		14	
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l					0.5 U		4	
SW-846 8260C	o-Xylene	95-47-6	N	ug/l					0.5 U		22	
SW-846 8260C	Toluene	108-88-3	N	ug/l					0.5 U		4	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U		91		0.5 U		0.5 U	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U		0.9 J		0.5 U		0.5 U	
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l					0.5 U		26	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	98000		23000		81000		26000	

Location ID					SWMW-2	SWMW-10	SWMW-14	SWMW-15
Field Sample ID					CVX-0047-05	CVX-0049-02	CVX-0049-10	CVX-0050-03
Date Sampled					06/15/2015	06/17/2015	06/17/2015	06/18/2015
SDG					1569290	1570188	1570188	1570520
Sample Matrix					WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	REG
Sample Type					GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units				
EPA 300.0	Chloride	16887-00-6	N	mg/l	996	212	129	26.5
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U	250 U	3100	250 U
EPA 300.0	Sulfate	14808-79-8	N	mg/l	16.5	9.6	68.2	91.2
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.1 J	12	1.0 U	1.5 J
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.0 U	1.0 U	1.0 U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	240	1200	3.0 U	340
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	267000	338000 J-	251000	290000
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	5800 J	680 J	10 UJ	8500 J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U	490	54 U	54 U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	2.65	0.327	0.011	3.87
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l		1 U		
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l		1 U		
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l		4 J		
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l		1 J		
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l		4 J		
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.9 J	0.5 U	0.5 U	8
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	120	82	0.5 U	100
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	6	0.5 U	1	5
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l		0.5 U		
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l		0.5 U		
SW-846 8260C	o-Xylene	95-47-6	N	ug/l		0.5 U		
SW-846 8260C	Toluene	108-88-3	N	ug/l		0.5 U		
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	2	0.7 J	14	4
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	4	0.5 U	0.5 U	0.5 U
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l		0.5 U		
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	76000	37000	19000	64000

Location ID					SWMW-21	SWMW-27	SWMW-28	SWMW-30
Field Sample ID					CVX-0050-04	CVX-0049-08	CVX-0049-03	CVX-0050-05
Date Sampled					06/18/2015	06/17/2015	06/17/2015	06/18/2015
SDG					1570520	1570188	1570188	1570520
Sample Matrix					WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	REG
Sample Type					GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units				
EPA 300.0	Chloride	16887-00-6	N	mg/l	24.3	314	347	189
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U	250 U	250 U	250 U
EPA 300.0	Sulfate	14808-79-8	N	mg/l	1.5 U	11.9	13.7	1.5 J
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	7.4	1.0 U	4.0 J	1.0 U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.0 U	1.0 U	1.0 U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	13000	18	800	3300
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	341000	68400	215000	296000
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	17700 J	44 J	14100 J	17200 J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U	54 U	54 U	54 U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	11.8	0.0658	1.69	3.12
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l		1 U	1 U	
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l		1 U	1 U	
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l		17	1 U	
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l		1 U	1 U	
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l		6	3 J	
SW-846 8260C	Benzene	71-43-2	N	ug/l	450	6	2	8
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	1	27	17	0.9 J
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	1	6	0.5 U	0.5 U
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l		0.5 U	0.5 U	
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l		0.7 J	0.5 U	
SW-846 8260C	o-Xylene	95-47-6	N	ug/l		0.5 J	0.5 U	
SW-846 8260C	Toluene	108-88-3	N	ug/l		0.8 J	0.5 U	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U	7	0.5 U	0.5 U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U	2	0.5 U	0.5 U
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l		1	0.5 U	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	98000	4000 U	30000	81000

Location ID					SWMW-31	SWMW-41	SWMW-44	SWMW-45
Field Sample ID					CVX-0050-06	CVX-0049-11	CVX-0049-05	CVX-0048-01
Date Sampled					06/18/2015	06/17/2015	06/17/2015	06/16/2015
SDG					1570520	1570188	1570188	1570206
Sample Matrix					WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	REG
Sample Type					GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units				
EPA 300.0	Chloride	16887-00-6	N	mg/l	209	225	244	700
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U	250 U	250 U	250 U
EPA 300.0	Sulfate	14808-79-8	N	mg/l	1.5 U	38	20.1	1.9 J
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U	3.8 J	7.4	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.2 J	17	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3000	420	910	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	318000	263000	309000	267000
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	23000 J	160 J	340 J	2000 J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U	54 U	1200	54 U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	3.86	0.224	0.669	6.16
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l			1 U	
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l			1 U	
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l			47	
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l			3 J	
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l			16	
SW-846 8260C	Benzene	71-43-2	N	ug/l	13	12	1 J	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	3	2	220	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U	260	25	
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l			0.5 U	
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l			0.5 U	
SW-846 8260C	o-Xylene	95-47-6	N	ug/l			0.5 U	
SW-846 8260C	Toluene	108-88-3	N	ug/l			0.7 J	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U	230	120	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U	25	9	
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l			0.5 U	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	4000 U	24000	26000	

Location ID					SWMW-45	SWMW-48	SWMW-55	SWMW-55
Field Sample ID					CVX-0050-13	CVX-0049-04	CVX-0048-02	CVX-0050-14
Date Sampled					06/18/2015	06/17/2015	06/16/2015	06/18/2015
SDG					1570520	1570188	1570206	1570520
Sample Matrix					WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	REG
Sample Type					GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units				
EPA 300.0	Chloride	16887-00-6	N	mg/l		162	122	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l		250 U	450 J	
EPA 300.0	Sulfate	14808-79-8	N	mg/l		8	5.5	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U	1.0 U		1.0 U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.0 U		1.0 U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	150	3.0 U		2200
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L		218000	239000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l		410 J	1600 J	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l		54 U	54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l		0.34	3.17	
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l	1 U	1 U		5 U
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l	1 U	1 U		5 U
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l	1 U	1 U		5 U
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l	1 J	1 U		5 U
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l	6	2 J		6 J
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U	0.5 U		3 J
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	75	0.5 U		2000
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U	0.5 U		3 U
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l	0.5 U	0.5 U		3 U
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l	0.5 U	0.5 U		3 U
SW-846 8260C	o-Xylene	95-47-6	N	ug/l	0.5 U	0.5 U		3 U
SW-846 8260C	Toluene	108-88-3	N	ug/l	0.5 U	0.5 U		3 U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U	0.5 U		3 U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U	0.5 U		3 U
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l	0.5 U	0.5 U		3 U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	95000	28000		98000

Location ID					SWMW-56	SWMW-58	SWMW-62	SWMW-65
Field Sample ID					CVX-0050-07	CVX-0050-08	CVX-0049-12	CVX-0049-06
Date Sampled					06/18/2015	06/18/2015	06/17/2015	06/17/2015
SDG					1570520	1570520	1570188	1570188
Sample Matrix					WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	REG
Sample Type					GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units				
EPA 300.0	Chloride	16887-00-6	N	mg/l	72.5	104	42.9	318
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U	6100	680	250 U
EPA 300.0	Sulfate	14808-79-8	N	mg/l	86.6	42	36.7	29.9
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U	1.0 U	1.0 U	1.0 U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.0 U	1.0 U	1.0 U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	60	3.0 U	3.0 U	3.0 U
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	284000	250000	232000	187000
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	110 J	R	33 J	72 J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U	54 U	54 U	54 U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.127	0.627	3.44	1.52
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l				
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l				
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l				
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l				
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l				
SW-846 8260C	Benzene	71-43-2	N	ug/l	1	0.5 U	0.5 U	0.5 U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.8 J	0.5 U	0.5 U	0.5 U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	140	38	1	0.5 U
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l				
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l				
SW-846 8260C	o-Xylene	95-47-6	N	ug/l				
SW-846 8260C	Toluene	108-88-3	N	ug/l				
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	250	29	5	0.5 U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	3	0.5 U	0.5 U	0.5 U
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l				
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	20000	35000	36000	22000

Location ID					SWMW-66	SWMW-67	SWMW-68	SWMW-68
Field Sample ID					CVX-0050-09	CVX-0050-10	CVX-0050-11	CVX-0051-01
Date Sampled					06/18/2015	06/18/2015	06/18/2015	06/19/2015
SDG					1570520	1570520	1570520	1570823
Sample Matrix					WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	REG
Sample Type					GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units				
EPA 300.0	Chloride	16887-00-6	N	mg/l	945	9.6	60.9	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	2300	2300	1100	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	77.3	193	125	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U	1.0 U	1.0 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.0 U	1.0 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3.9 J	3.0 U	4.0 J	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	243000	372000	269000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l		R	82 J	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U	54 U		54 U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.166	1.1	0.255	
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l				
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l				
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l				
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l				
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l				
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.6 J	0.5 U	0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.8 J	0.5 U	0.5 U	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	440	0.5 U	49	
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l				
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l				
SW-846 8260C	o-Xylene	95-47-6	N	ug/l				
SW-846 8260C	Toluene	108-88-3	N	ug/l				
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	230	83	350	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	12	0.5 U	3	
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l				
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	35000	40000	21000	

Location ID					SWMW-111	SWMW-112	SWMW-113	SWMW-113
Field Sample ID					CVX-0050-02	CVX-0049-13	CVX-0049-14	CVX-0050-18
Date Sampled					06/18/2015	06/17/2015	06/17/2015	06/18/2015
SDG					1570520	1570188	1570188	1570520
Sample Matrix					WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	REG
Sample Type					GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units				
EPA 300.0	Chloride	16887-00-6	N	mg/l	148	381	167	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	2600	250 U	250 U	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	115	37.5	49.3	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U	4.6 J	1.0 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.0 U	1.0 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3.0 U	460	100	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	700 U	257000	289000 J-	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	12 J	96 J	10 UJ	
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 U	54 U	54 UJ	54 U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.0364	0.22	0.616	
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l				
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l				
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l				
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l				
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l				
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U	2	0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5 U	3	3	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	10	550	22	
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l				
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l				
SW-846 8260C	o-Xylene	95-47-6	N	ug/l				
SW-846 8260C	Toluene	108-88-3	N	ug/l				
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	68	290	12	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U	12	0.6 J	
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l				
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	35000	23000	24000	

Location ID					SWMW-114	SWMW-123	SWMW-125	SWMW-125
Field Sample ID					CVX-0047-03	CVX-0049-07	CVX-0047-04	CVX-0047-07
Date Sampled					06/15/2015	06/17/2015	06/15/2015	06/15/2015
SDG					1569290	1570188	1569290	1569290
Sample Matrix					WATER	WATER	WATER	WATER
Sample Purpose					REG	REG	REG	FD
Sample Type					GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units				
EPA 300.0	Chloride	16887-00-6	N	mg/l	58.5	128	195	193
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U	250 U	250 U	250 U
EPA 300.0	Sulfate	14808-79-8	N	mg/l	19.8	12	5.4	6.8
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U	1.0 U	3.2 J	2.9 J
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U	1.0 U	1.3 J	1.2 J
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	15	87	740	680
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	156000 J-	271000	147000	137000
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	10 UJ	10 UJ	2800 J	2700 J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54 UJ	54 U	54 U	54 U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	1.13 J-	0.431	9.62	9.9
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l	1 U	1 U	1 U	1 U
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l	1 U	1 U	1 U	1 U
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l	7	2 J	360	350
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l	1 U	1 U	4 J	4 J
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l	1 U	1 J	24	24
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U	0.5 J	4	4
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	9	34	330	320
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	2	0.5 U	75	75
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l	0.5 U	0.5 U	6	6
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l	0.5 U	0.5 U	5	5
SW-846 8260C	o-Xylene	95-47-6	N	ug/l	0.5 U	0.5 U	3	3
SW-846 8260C	Toluene	108-88-3	N	ug/l	0.5 U	0.5 U	11	10
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	140	0.5 U	270	280
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U	0.5 U	5	5
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l	0.5 U	0.5 U	8	8
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	5400 J	26000	55000	53000

Location ID					SWMW-126		SWMW-126		TB		TB	
Field Sample ID					CVX-0049-15		CVX-0049-16		CVX-0047-06		CVX-0049-09	
Date Sampled					06/17/2015		06/17/2015		06/15/2015		06/05/2015	
SDG					1570188		1570188		1569290		1570188	
Sample Matrix					WATER		WATER		WATER		WATER	
Sample Purpose					REG		FD		TB		TB	
Sample Type					GW		GW		BLKWATER		BLKWATER	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units								
EPA 300.0	Chloride	16887-00-6	N	mg/l		188		195				
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l		250 U		250 U				
EPA 300.0	Sulfate	14808-79-8	N	mg/l		31.3		31.9				
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l		1.9 J		2.3 J				
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l		1.0 U		1.0 U				
RSKSOP-175 modified	Methane	74-82-8	N	ug/l		120		160				
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L		270000		267000				
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l		10 UJ		10 UJ				
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l		54 U		54 U				
SW-846 6010C	Manganese	7439-96-5	N	mg/l		0.186		0.172				
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l						1 U		1 U
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l						1 U		1 U
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l						1 U		1 U
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l						1 U		1 U
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l						1 U		1 U
SW-846 8260C	Benzene	71-43-2	N	ug/l		2		2		0.5 U		0.5 U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l		2		2		0.5 U		0.5 U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l		190		200		0.5 U		0.5 U
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l						0.5 U		0.5 U
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l						0.5 U		0.5 U
SW-846 8260C	o-Xylene	95-47-6	N	ug/l						0.5 U		0.5 U
SW-846 8260C	Toluene	108-88-3	N	ug/l						0.5 U		0.5 U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l		290		250		0.5 U		0.5 U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l		6		7		0.5 U		0.5 U
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l						0.5 U		0.5 U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l		25000		24000				

Location ID					TB		Unknown Well 1		Unknown Well 1		Unknown Well 2	
Field Sample ID					CVX-0050-12		CVX-0048-03		CVX-0050-15		CVX-0048-04	
Date Sampled					06/05/2015		06/16/2015		06/18/2015		06/16/2015	
SDG					1570520		1570206		1570520		1570206	
Sample Matrix					WATER		WATER		WATER		WATER	
Sample Purpose					TB		REG		REG		REG	
Sample Type					BLKWATER		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units								
EPA 300.0	Chloride	16887-00-6	N	mg/l			54.6				143	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l			250	U			250	U
EPA 300.0	Sulfate	14808-79-8	N	mg/l			1.5	U			4.2	J
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l					1.0	U		
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l					1.0	U		
RSKSOP-175 modified	Methane	74-82-8	N	ug/l					55			
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L			98500				78000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l			14100	J			11600	J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l			54	U			54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l			3.8				2.24	
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l		1	U					
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l		1	U					
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l		1	U					
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l		1	U					
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l		1	U					
SW-846 8260C	Benzene	71-43-2	N	ug/l		0.5	U		0.5	U		
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l		0.5	U		73			
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l		0.5	U		0.5	U		
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l		0.5	U					
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l		0.5	U					
SW-846 8260C	o-Xylene	95-47-6	N	ug/l		0.5	U					
SW-846 8260C	Toluene	108-88-3	N	ug/l		0.5	U					
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l		0.5	U		0.6	J		
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l		0.5	U		0.5	U		
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l		0.5	U					
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l					67000			

Location ID					Unknown Well 2		Unknown Well 3		Unknown Well 3	
Field Sample ID					CVX-0050-16		CVX-0048-05		CVX-0050-17	
Date Sampled					06/18/2015		06/16/2015		06/18/2015	
SDG					1570520		1570206		1570520	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l			165			
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l			250 U			
EPA 300.0	Sulfate	14808-79-8	N	mg/l			2.9 J			
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0 U				1.0 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0 U				1.0 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	6.0				35	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L			98200			
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l			10400 J			
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l			54 U			
SW-846 6010C	Manganese	7439-96-5	N	mg/l			1.95			
SW-846 8260C	1,2,3-Trichlorobenzene	87-61-6	N	ug/l						
SW-846 8260C	1,2,4-Trichlorobenzene	120-82-1	N	ug/l						
SW-846 8260C	1,2-Dichlorobenzene (o-Dichlorobenzene)	95-50-1	N	ug/l						
SW-846 8260C	1,3-Dichlorobenzene	541-73-1	N	ug/l						
SW-846 8260C	1,4-Dichlorobenzene	106-46-7	N	ug/l						
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U				0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	69				9	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U				0.5 U	
SW-846 8260C	Ethylbenzene	100-41-4	N	ug/l						
SW-846 8260C	m+p-Xylene	179601-23-1	N	ug/l						
SW-846 8260C	o-Xylene	95-47-6	N	ug/l						
SW-846 8260C	Toluene	108-88-3	N	ug/l						
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U				0.5 U	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U				0.5 U	
SW-846 8260C	Xylenes, Total	1330-20-7	N	ug/l						
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	83000				69000	

**DATA USABILITY SUMMARY REPORT
2015 3RD QUARTER GROUNDWATER SAMPLING**

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LIST OF ATTACHMENTS

ATTACHMENT A VALIDATED LABORATORY DATA

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected as part of the 2015 3rd Quarter sampling event from the Chevron Beacon site from September 10, 2015 through September 16, 2015. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan
- QAPP
- July 2005 NYSDEC Analytical Services Protocol (ASP)
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review

The analytical laboratory for this project was Eurofins Laboratories (Eurofins) in Lancaster, Pennsylvania. This laboratory is certified to conduct project analyses through the New York State Department of Health (NYSDOH) and the National Environmental Laboratory Accreditation Program (NELAP).

1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 32-38 days for the project samples.

The laboratory data packages received from Eurofins were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized in Section 2.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, properly preserved, shipped under a COC record, and received at Eurofins within one day of sampling. All samples were received intact and in good condition at Eurofins.

1.3 LABORATORY ANALYTICAL METHODS

The groundwater samples were collected from the site and analyzed for certain volatiles including methane, ethane, and ethene; manganese; ferrous iron; carbon dioxide; chloride; nitrate; sulfate; total alkalinity; and sulfide. Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method in Section 2 of this Data Usability Summary Report (DUSR). A USEPA

PARSONS

Stage 4 data validation (i.e., full data validation) was conducted by Parsons on 10% of the project samples with the remaining 90% of the project samples undergoing a USEPA Stage 2B data validation which provides data defensibility. The laboratory data were reviewed and may be qualified with the following validation flags:

- "U" - not detected at the value given,
- "UJ" - estimated and not detected at the value given,
- "J" - estimated at the value given,
- "J+" - estimated biased high at the value given,
- "J-" - estimated biased low at the value given,
- "N" - presumptive evidence at the value given, and
- "R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis

Groundwater samples collected from the site were analyzed for certain volatiles using the USEPA SW-846 8260C analytical method and for methane, ethane, and ethene using the USEPA approved SOP RSK-175 analytical method. Certain results for these samples were qualified as estimated based upon instrument calibrations. The reported volatile analytical results were 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

1.3.2 Metals Analysis

Groundwater samples collected from the site were analyzed for manganese and ferrous iron using the USEPA SW-846 6010C and SM3500 analytical methods, respectively. Certain reported results for these samples were qualified as estimated based upon sample holding times and matrix spike recoveries. Certain reported results for these samples were considered unusable and qualified "R" based upon grossly exceeded holding times. The metals results were considered 98.6% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met overall.

1.3.3 Wet Chemistry Analysis

Groundwater samples collected from the site were analyzed for carbon dioxide using the USEPA SW-846 8015D analytical method; nitrate, sulfate, and chloride using the USEPA 300.0 analytical method; total alkalinity using the SM2320B analytical method; and sulfide using the SM4500 analytical method. Certain reported results for these samples were qualified as estimated based upon matrix spike recoveries. The wet chemistry results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 3RD QUARTER GROUNDWATER SAMPLES

Data review has been completed for data packages generated by Eurofins containing groundwater samples collected from the site. These samples were contained within sample delivery groups (SDGs) CBC91, CBC92, CBC93, and CBC94. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data were tabulated and are presented in Attachment A.

Data validation was performed for all samples in accordance with the project work plan, QAPP, NYSDEC ASP, and the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type.

2.1.1 Volatiles (Including Methane, Ethane, and Ethene)

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and trip blank contamination
- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD precision and accuracy and continuing calibrations.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the high MS accuracy result for trichloroethene (124%R; QC limit 80-120%R) during the spiked analyses of sample CVX-0060-08. Validation qualification of the parent sample was not required.

Continuing Calibrations

All continuing calibrations were compliant for all compounds with relative response factors (RRFs) greater than 0.05 and percent differences (%Ds) within $\pm 20\%$ with the exception of vinyl chloride (-22%D) in the continuing calibration associated with samples in SDGs CBC91 and CBC92. Therefore, the vinyl chloride results were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

Usability

All volatile results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The volatile data presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

2.1.2 Manganese and Ferrous Iron

The following items were reviewed for compliancy in the manganese and ferrous iron analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Serial dilutions
- Interference check sample recoveries
- Field duplicate precision
- Sample result verification and identification

- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times and matrix spike recoveries as discussed below.

Holding Times

All sample analytical holding times were within criteria with the exception of the ferrous iron holding times associated with samples in SDGs CBC91, CBC92, and CBC93. All ferrous iron holding times in these SDGs exceeded the 24-hour criteria by two to ten days. Therefore, positive ferrous iron results were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples. However, the nondetected ferrous iron result for sample CVX-0062-04 was considered unusable and qualified “R” since holding times were grossly exceeded.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the low matrix spike recoveries for ferrous iron (82%R, 85%R, 92%R; QC limit 93-105%R) associated with samples CVX-0060-08 and CVX-0062-04; and the high matrix spike recovery for manganese (126%R; QC limit 75-125%R) associated with sample CVX-0062-04. Therefore, the ferrous iron results for the associated parent samples were considered estimated, possibly biased low, with positive results qualified “J-” and nondetected results qualified “UJ”. The positive manganese result for parent sample CVX-0062-04 was considered estimated, possibly biased high, and qualified “J+”.

Usability

All metals results for the groundwater samples were considered usable following data validation with the exception of certain nondetected ferrous iron results based upon grossly exceeded holding times.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The metals data for the groundwater samples presented by Eurofins were 98.6% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

2.1.3 Wet Chemistry

The following items were reviewed for compliancy in the wet chemistry analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications

- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of matrix spike recoveries as discussed below.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the low matrix spike recoveries for sulfide (86%R, 73%R, 81%R; QC limit 90-110%R) and total alkalinity (21%R, 22%R, 25%R, 26%R; QC limit 90-110%R) associated with samples CVX-0060-08 and CVX-0062-04; the low matrix spike recovery for sulfide (72%R; QC limit 90-110%R) associated with sample CVX-0061-09; the low matrix spike recovery for total alkalinity (24%R; QC limit 90-110%R) associated with sample CVX-0061-03; and the high matrix spike recovery for nitrate (113%R; QC limit 90-110%R) associated with sample CVX-0062-04. Therefore, results for sulfide and total alkalinity were considered estimated, possibly biased low, with positive results qualified “J-” and nondetected results qualified “UJ” for the affected parent samples. Validation qualification of nitrate in parent sample CVX-0062-04 was not required.

Usability

All wet chemistry results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The wet chemistry data for the groundwater samples presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

Location ID					GT-2		ITMW-6		ITMW-13		ITMW-25		SWMW-2	
Field Sample ID					CVX-0062-01		CVX-0062-03		CVX-0062-02		CVX-0060-01		CVX-0062-07	
Date Sampled					09/15/2015		09/15/2015		09/15/2015		09/10/2015		09/15/2015	
SDG					1593311		1593311		1593311		1592070		1593311	
Sample Matrix					WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		REG	
Sample Type					GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units										
EPA 300.0	Chloride	16887-00-6	N	mg/l	129		114		2240		201		496	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		250 U		2400		250 U		250 U	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	3.6 J		57.2		40.7		22.9		28.7	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	2.1 J		1 U		1 U		1 U		1 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1 U		1 U		1 U		1 U		1 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	4000		130		36		3 U		170	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	220000		263000		129000		254000		332000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	55800 J		360 J		940 J		1400 J		2800 J	
SM 4500-S2 D-2000	Sulfide	12597-04-5	N	ug/l	61 J		54 U		54 U		54 U		54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	1.99		0.702		6.24		3.23		1.73	
SW-846 8260C	Benzene	71-43-2	N	ug/l	120		1		0.5 U		160		0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	220		0.5 U		20		49		42	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U		29		0.5 U		0.5 U		6	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U		4		0.5 U		0.5 U		2	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U		1		0.5 U		0.5 U		3	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	130000		21000		130000		34000		97000	

Location ID					SWMW-10		SWMW-14		SWMW-15		SWMW-21		SWMW-28	
Field Sample ID					CVX-0060-02		CVX-0061-01		CVX-0061-02		CVX-0063-01		CVX-0062-08	
Date Sampled					09/10/2015		09/11/2015		09/11/2015		09/16/2015		09/15/2015	
SDG					1592070		1592327		1592327		1593502		1593311	
Sample Matrix					WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		REG	
Sample Type					GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units										
EPA 300.0	Chloride	16887-00-6	N	mg/l	178		117		14		15.6		318	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		3900		250 U		250 U		250 U	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	2.1 J		63.1		69.4		1.5 U		8.9	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	3.7 J		1 U		1 U		14		1.4 J	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1 U		1 U		1 U		1 J		1 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	2500		3.8 J		290		10000		1600	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	475000		300000		246000		335000		239000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	13300 J		10 UJ		40000 J		18700		13900 J	
SM 4500-S2 D-2000	Sulfide	12597-04-5	N	ug/l	54 U		54 U		540 U		54 U		68 J	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	4.37		0.365		10.7		13.1		1.89	
SW-846 8260C	Benzene	71-43-2	N	ug/l	1		0.5 U		10		250		3	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	220		0.5 U		46		1 U		24	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U		1		1		1 U		0.5 U	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U		12		1		1 U		0.5 U	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 UJ		0.5 UJ		0.5 UJ		1 U		0.5 U	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	55000		21000		84000		120000		34000	

Location ID					SWMW-30		SWMW-31		SWMW-41		SWMW-44		SWMW-44	
Field Sample ID					CVX-0063-02		CVX-0063-03		CVX-0060-08		CVX-0060-03		CVX-0060-04	
Date Sampled					09/16/2015		09/16/2015		09/10/2015		09/10/2015		09/10/2015	
SDG					1593502		1593502		1592070		1592070		1592070	
Sample Matrix					WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		FD	
Sample Type					GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units										
EPA 300.0	Chloride	16887-00-6	N	mg/l	249		257		220		184		180	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		250 U		250 U		250 U		250 U	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	1.5 U		7.2		37.2		16.2		18	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	5.4		4 J		2.1 J		5.6		7.6	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1 U		1 U		1 U		9.4		12	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	4200		2700		290		1200		1600	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	288000		324000		270000 J-		437000		436000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	25600		19700		170 J		470 J		440 J	
SM 4500-S2 D-2000	Sulfide	12597-04-5	N	ug/l	54 U		54 U		54 UJ		470		450	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	3.09		2.85		0.224		0.605		0.643	
SW-846 8260C	Benzene	71-43-2	N	ug/l	15		25		19		0.8 J		0.9 J	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	1		3		3 J		170		200	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U		0.5 U		220		20		24	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U		0.5 U		160		64		80	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U		0.5 U		14 J		5 J		6 J	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	87000		75000		22000		34000		37000	

Location ID					SWMW-45		SWMW-48		SWMW-55		SWMW-56		SWMW-58	
Field Sample ID					CVX-0062-09		CVX-0060-05		CVX-0062-10		CVX-0061-03		CVX-0061-04	
Date Sampled					09/15/2015		09/10/2015		09/15/2015		09/11/2015		09/11/2015	
SDG					1593311		1592070		1593311		1592327		1592327	
Sample Matrix					WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		REG	
Sample Type					GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units										
EPA 300.0	Chloride	16887-00-6	N	mg/l	626		114		82.4		72.5		49.9	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		250 U		250 U		250 U		530	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	6.6		11.7		12.7		87		27.2	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1 U		1 U		1 U		1 U		1 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1 U		1 U		1 U		1 U		1 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	1400		3 U		2600		30		3 U	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	337000		306000		236000		264000 J-		112000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	7700 J		2000 J		2500 J		110 J		10 J	
SM 4500-S2 D-2000	Sulfide	12597-04-5	N	ug/l	54 U		54 U		54 U		54 U		54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	6.17		0.736		4.67		0.0681		0.191	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U		0.5 U		14		1 J		0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	60		0.5 U		1400		0.7 J		0.5 U	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U		0.5 U		0.5 U		150		4	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U		0.5 U		0.5 U		300		9	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 U		0.5 UJ		0.5 U		2 J		0.5 UJ	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	110000		42000		97000		18000		47000	

Location ID					SWMW-62		SWMW-65		SWMW-66		SWMW-67		SWMW-68	
Field Sample ID					CVX-0060-09		CVX-0062-11		CVX-0061-09		CVX-0061-05		CVX-0061-06	
Date Sampled					09/10/2015		09/15/2015		09/11/2015		09/11/2015		09/11/2015	
SDG					1592070		1593311		1592327		1592327		1592327	
Sample Matrix					WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		REG	
Sample Type					GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units										
EPA 300.0	Chloride	16887-00-6	N	mg/l	44		321		1190		9.7		65.4	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	310 J		250 U		3200		1200		470 J	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	37.4		29.5		95.8		200		111	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1 U		1 U		1 U		1 U		1 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1 U		1 U		1 U		1 U		1 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3 U		17		30		3 U		3 U	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	237000		251000		229000		369000		243000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	10 UJ		820 J		12 J		10 UJ		10 UJ	
SM 4500-S2 D-2000	Sulfide	12597-04-5	N	ug/l	54 U		54 U		54 UJ		540 U		54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	2.83		1.74		0.242		3.55		0.0496	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U		0.5 U		0.8 J		0.5 U		0.5 U	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5 U		6		0.9 J		0.5 U		0.5 U	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	2		0.7 J		400		0.5 U		66	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	7		0.6 J		240		77		340	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 UJ		0.5 U		14 J		0.5 UJ		0.9 J	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	32000		33000		36000		52000		16000	

Location ID					SWMW-111		SWMW-112		SWMW-113		SWMW-114		SWMW-123	
Field Sample ID					CVX-0061-07		CVX-0060-10		CVX-0060-07		CVX-0062-04		CVX-0062-05	
Date Sampled					09/11/2015		09/10/2015		09/10/2015		09/15/2015		09/15/2015	
SDG					1592327		1592070		1592070		1593311		1593311	
Sample Matrix					WATER		WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		REG		REG		REG	
Sample Type					GW		GW		GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units										
EPA 300.0	Chloride	16887-00-6	N	mg/l	6.7		332		161		71.5		137	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U		250 U		250 U		250 U		250 U	
EPA 300.0	Sulfate	14808-79-8	N	mg/l	10.5		37.8		47.3		19.7		17.9	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1 U		2.1 J		1 U		1 U		1 U	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1 U		1 U		1 U		1 U		1 U	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3 U		210		3 U		33		150	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	42800		260000		306000		141000 J-		291000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	110 J		79 J		10 UJ		R		21 J	
SM 4500-S2 D-2000	Sulfide	12597-04-5	N	ug/l	54 U		54 U		54 U		54 UJ		54 U	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.0163		0.189		0.586		0.466 J+		0.186	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5 U		2		0.5 U		0.5 U		0.7 J	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5 U		2		3		11		52	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5 U		500		22		3		0.5 U	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5 U		250		12		170		0.5 U	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5 UJ		9 J		0.5 UJ		0.5 U		0.5 U	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	4000 U		22000		24000		15000		31000	

Location ID					SWMW-125	SWMW-125	SWMW-126	Unknown Well 1	Unknown Well 3
Field Sample ID					CVX-0062-06	CVX-0062-15	CVX-0060-06	CVX-0062-12	CVX-0062-13
Date Sampled					09/15/2015	09/15/2015	09/10/2015	09/15/2015	09/15/2015
SDG					1593311	1593311	1592070	1593311	1593311
Sample Matrix					WATER	WATER	WATER	WATER	WATER
Sample Purpose					REG	FD	REG	REG	REG
Sample Type					GW	GW	GW	GW	GW
Analytical Method	Parameter Name	Parameter Code	Filtered	Units					
EPA 300.0	Chloride	16887-00-6	N	mg/l	197	191	169	153	570
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250 U	250 U	250 U	250 U	250 U
EPA 300.0	Sulfate	14808-79-8	N	mg/l	6	6.1	34.1	4.4 J	6.4
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.7 J	1.7 J	1 U	1 U	1 U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.6 J	1.8 J	1 U	1 U	1 U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	860	860	34	18	65
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	152000	152000	278000	139000	142000
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	2500 J	2700 J	41 J	28600 J	15100 J
SM 4500-S2 D-2000	Sulfide	12597-04-5	N	ug/l	54 U	54 U	54 U	54 U	54 U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	8.96	8.64	0.142	6.71	3.7
SW-846 8260C	Benzene	71-43-2	N	ug/l	4	4	2	0.5 U	0.5 U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	320	270	2	47	9
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	100	110	160	0.5 U	0.5 U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	270	240	250	0.5 U	0.5 U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	6	7	4 J	0.5 U	0.5 U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	64000	64000	22000	120000	120000

Location ID					TB		TB		TB		TB	
Field Sample ID					CVX-0060-11		CVX-0061-08		CVX-0062-14		TB4	
Date Sampled					09/10/2015		09/11/2015		09/15/2015		09/16/2015	
SDG					1592070		1592327		1593311		1593502	
Sample Matrix					WATER		WATER		WATER		WATER	
Sample Purpose					TB		TB		TB		TB	
Sample Type					BLKWATER		BLKWATER		BLKWATER		BLKWATER	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units								
EPA 300.0	Chloride	16887-00-6	N	mg/l								
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l								
EPA 300.0	Sulfate	14808-79-8	N	mg/l								
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l								
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l								
RSKSOP-175 modified	Methane	74-82-8	N	ug/l								
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L								
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l								
SM 4500-S2 D-2000	Sulfide	12597-04-5	N	ug/l								
SW-846 6010C	Manganese	7439-96-5	N	mg/l								
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	UJ	0.5	UJ	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l								

DATA USABILITY SUMMARY REPORT 2015 4TH QUARTER GROUNDWATER SAMPLING

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LIST OF ATTACHMENTS

ATTACHMENT A VALIDATED LABORATORY DATA

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected as part of the 2015 4th Quarter sampling event from the Chevron Beacon site from November 10, 2015 through November 13, 2015. Analytical results from these samples were validated and reviewed by Parsons for usability with respect to the following requirements:

- Work Plan
- QAPP
- July 2005 NYSDEC Analytical Services Protocol (ASP)
- USEPA Region II Standard Operating Procedures (SOPs) for organic and inorganic data review

The analytical laboratory for this project was Eurofins Laboratories (Eurofins) in Lancaster, Pennsylvania. This laboratory is certified to conduct project analyses through the New York State Department of Health (NYSDOH) and the National Environmental Laboratory Accreditation Program (NELAP).

1.1 LABORATORY DATA PACKAGES

The laboratory data package turnaround time, defined as the time from sample receipt by the laboratory to receipt of the analytical data packages by Parsons, was 29-30 days for the project samples.

The laboratory data packages received from Eurofins were paginated, complete, and overall were of good quality. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report which is summarized in Section 2.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, properly preserved, shipped under a COC record, and received at Eurofins within one day of sampling. All samples were received intact and in good condition at Eurofins.

1.3 LABORATORY ANALYTICAL METHODS

The groundwater samples were collected from the site and analyzed for certain volatiles including methane, ethane, and ethene; manganese; ferrous iron; carbon dioxide; chloride; nitrate; sulfate; total alkalinity; and sulfide. Summaries of issues concerning these laboratory analyses are presented in Subsections 1.3.1 through 1.3.3. The data qualifications resulting from the data validation review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) are discussed for each analytical method in Section 2 of this Data Usability Summary Report (DUSR). A USEPA

PARSONS

Stage 4 data validation (i.e., full data validation) was conducted by Parsons on 10% of the project samples with the remaining 90% of the project samples undergoing a USEPA Stage 2B data validation which provides data defensibility. The laboratory data were reviewed and may be qualified with the following validation flags:

- "U" - not detected at the value given,
- "UJ" - estimated and not detected at the value given,
- "J" - estimated at the value given,
- "J+" - estimated biased high at the value given,
- "J-" - estimated biased low at the value given,
- "N" - presumptive evidence at the value given, and
- "R" - unusable value.

The validated laboratory data were tabulated and are presented in Attachment A.

1.3.1 Volatile Organic Analysis

Groundwater samples collected from the site were analyzed for certain volatiles using the USEPA SW-846 8260C analytical method and for methane, ethane, and ethene using the USEPA approved SOP RSK-175 analytical method. The results for these samples did not require qualification resulting from data validation. The reported volatile analytical results were 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

1.3.2 Metals Analysis

Groundwater samples collected from the site were analyzed for manganese and ferrous iron using the USEPA SW-846 6010C and SM3500 analytical methods, respectively. Certain reported results for these samples were qualified as estimated based upon sample holding times, matrix spike recoveries, and field duplicate precision. The metals results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met overall.

1.3.3 Wet Chemistry Analysis

Groundwater samples collected from the site were analyzed for carbon dioxide using the USEPA SW-846 8015D analytical method; nitrate, sulfate, and chloride using the USEPA 300.0 analytical method; total alkalinity using the SM2320B analytical method; and sulfide using the SM4500 analytical method. Certain reported results for these samples were qualified as estimated based upon matrix spike recoveries and field duplicate precision. The wet chemistry results were considered 100% complete (i.e., usable) for the data presented by Eurofins. PARCCS requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 4TH QUARTER GROUNDWATER SAMPLES

Data review has been completed for data packages generated by Eurofins containing groundwater samples collected from the site. These samples were contained within sample delivery groups (SDGs) CBC95, CBC96, CBC97, and CBC98. All of these samples were properly preserved, shipped under a COC record, and received intact by the analytical laboratory. The validated laboratory data were tabulated and are presented in Attachment A.

Data validation was performed for all samples in accordance with the project work plan, QAPP, NYSDEC ASP, and the USEPA Region II SOPs for organic and inorganic data review. This data validation and usability report is presented by analysis type.

2.1.1 Volatiles (Including Methane, Ethane, and Ethene)

The following items were reviewed for compliancy in the volatile analysis:

- Custody documentation
- Holding times
- Surrogate recoveries
- Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy
- Laboratory control sample (LCS) recoveries
- Laboratory method blank and trip blank contamination
- GC/MS instrument performance
- Sample result verification and identification
- Initial and continuing calibrations
- Internal standard area counts and retention times
- Field duplicate precision
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of MS/MSD precision and accuracy.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the low MSD accuracy result for ethane (82%R; QC limit 85-115%R) during the spiked analyses of sample SWMW-125-W-29.00-151110; the low MSD accuracy results for ethane (82%R; QC limit 85-115%R) and ethene (82%R; QC limit 85-115%R) during the spiked analyses of sample SWMW-45-W-17.00-151111; and the high MSD accuracy result for benzene (121%R; QC limit 78-120%R) and the low MS/MSD recoveries for ethane (80%R/78%R; QC limit 85-115%R) and ethene (80%R; QC limit 85-115%R) during the spiked analyses of sample SWMW-31-W-3.00-151112. Validation qualification of the parent sample was not required.

Usability

All volatile results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The volatile data presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

2.1.2 Manganese and Ferrous Iron

The following items were reviewed for compliancy in the manganese and ferrous iron analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Serial dilutions
- Interference check sample recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of holding times, blank contamination, matrix spike recoveries, and field duplicate precision as discussed below.

Holding Times

All sample analytical holding times were within criteria with the exception of the ferrous iron holding times associated with all samples. All ferrous iron holding times exceeded the 24-hour criteria by three to four days. Therefore, positive ferrous iron results were considered estimated with positive results qualified “J” and nondetected results qualified “UJ” for the affected samples.

Blank Contamination

The laboratory preparation blank associated with sample SWMW-126-W-40.00-151112 contained manganese less than the reporting limit at a concentration of 1.45 µg/L. Validation qualification of this sample was not required.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the high matrix spike recovery for ferrous iron (106%R; QC limit 93-105%R) associated with sample SWMW-31-W-3.00-151112. Therefore, the positive ferrous iron result was considered estimated, possibly biased high, and qualified “J+” for this sample.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the ferrous iron precision (36%RPD) associated with sample SWMW-114-W-40.00-151110 and its field duplicate SWMW-114-WD-40.00-151110. Therefore, the ferrous iron results were considered estimated and qualified “J” for the parent sample and its field duplicate.

Usability

All metals results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The metals data for the groundwater samples presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

2.1.3 Wet Chemistry

The following items were reviewed for compliancy in the wet chemistry analysis:

- Custody documentation
- Holding times
- Initial and continuing calibration verifications
- Initial and continuing calibration blank, and laboratory preparation blank contamination
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries
- Laboratory duplicate precision
- Laboratory control sample (LCS) recoveries
- Field duplicate precision
- Sample result verification and identification
- Quantitation limits
- Data completeness

These items were considered compliant and acceptable in accordance with the validation protocols with the exception of blank contamination, matrix spike recoveries, and field duplicate precision as discussed below.

Blank Contamination

The laboratory method blank associated with samples in SDG CBC96 contains total alkalinity less than the reporting limit at a concentration of 1.3 mg/L. Validation qualification of these samples was not required.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within QC limits with the exception of the low matrix spike recoveries for sulfide (43%R, 33%R; QC limit 90-110%R) and total alkalinity (87%R; QC limit 90-110%R) associated with sample SWMW-31-W-3.00-151112. Therefore, results for sulfide and total alkalinity were considered estimated, possibly biased low, with positive results qualified “J-” and nondetected results qualified “UJ” for the affected parent sample.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the sulfate precision (46%RPD) associated with sample SWMW-30-W-3.00-151112 and its field duplicate SWMW-30-WD-3.00-151112. Therefore, the positive sulfate results were considered estimated and qualified “J” for the associated parent sample and field duplicate.

Usability

All wet chemistry results for the groundwater samples were considered usable following data validation.

Summary

The quality assurance objectives for measurement data included considerations for precision, accuracy, representativeness, completeness, comparability, and sensitivity. The wet chemistry data for the groundwater samples presented by Eurofins were 100% complete (i.e., usable). The validated laboratory data are tabulated and presented in Attachment A.

ATTACHMENT A

VALIDATED LABORATORY DATA

Location ID					GT-2		ITMW-6		ITMW-13	
Field Sample ID					GT-2-W-4.00-151110		ITMW-6-W-28.00-151112		ITMW-13-W-10.00-151110	
Date Sampled					11/10/2015		11/12/2015		11/10/2015	
SDG					1608498		1609238		1608498	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	102		132		2320	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	1.5	U	54.7		42.5	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.6	J	1	U	1	U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	4400		54		9.7	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCACO3/L	215000		266000		112000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	51700	J	750	J	1400	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	2.22		0.879		7.45	
SW-846 8260C	Benzene	71-43-2	N	ug/l	100		1		0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	270		0.5	U	11	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	1	U	30		0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	1	U	5		0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	1	U	1		0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	140000		22000		130000	

Location ID					ITMW-25		SWMW-2		SWMW-10	
Field Sample ID					ITMW-25-W-15.00-151111		SWMW-2-W-13.00-151110		SWMW-10-W-4.00-151111	
Date Sampled					11/11/2015		11/10/2015		11/11/2015	
SDG					1608899		1608498		1608899	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	149		441		162	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	53.9		20.5		5.9	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U	1	U	13	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	88		61		5400	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCACO3/L	274000		332000		464000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	880	J	1200	J	1300	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	99	J
SW-846 6010C	Manganese	7439-96-5	N	mg/l	3.53		1.84		0.808	
SW-846 8260C	Benzene	71-43-2	N	ug/l	340		0.5	U	1	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	57		9		140	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	4		0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	1		0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	2		0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	41000		81000		63000	

Location ID					SWMW-14		SWMW-15		SWMW-21	
Field Sample ID					SWMW-14-W-26.00-151111		SWMW-15-W-5.00-151112		SWMW-21-W-3.00-151112	
Date Sampled					11/11/2015		11/12/2015		11/12/2015	
SDG					1608899		1609238		1609238	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	2.8		52.3		16.8	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	2.3	J	30.5		1.5	U
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U	1.4	J	11	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3	U	1200		9000	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCACO3/L	42800		300000		338000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	140	J	8800	J	36600	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.0214		4.88		15.2	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	51		350	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5	U	270		1	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	5		1	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	3		0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	1		0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	4000	U	81000		140000	

Location ID					SWMW-28		SWMW-30		SWMW-30	
Field Sample ID					SWMW-28-W-4.00-151112		SWMW-30-W-3.00-151112		SWMW-30-WD-3.00-151112	
Date Sampled					11/12/2015		11/12/2015		11/12/2015	
SDG					1609238		1609238		1609238	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		FD	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	263		198		203	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	8.3		13.1	J	8.2	J
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.1	J	4.1	J	4.9	J
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	710		4700		4900	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCACO3/L	236000		315000		316000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	17300	J	19600	J	19600	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	110	J	110	J	120	J
SW-846 6010C	Manganese	7439-96-5	N	mg/l	1.75		3.12		3	
SW-846 8260C	Benzene	71-43-2	N	ug/l	3		7		10	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	17		0.6	J	0.8	J
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	35000		96000		81000	

Location ID					SWMW-31		SWMW-41		SWMW-44	
Field Sample ID					SWMW-31-W-3.00-151112		SWMW-41-W-25.00-151111		SWMW-44-W-15.00-151111	
Date Sampled					11/12/2015		11/11/2015		11/11/2015	
SDG					1609238		1608899		1608899	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	277		195		165	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	2.3	J	41.4		70.7	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	3.9	J	1.7	J	7.4	
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	11	
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3700		250		1500	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	320000	J-	275000		416000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	27500	J	180	J	490	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	UJ	54	U	250	
SW-846 6010C	Manganese	7439-96-5	N	mg/l	5.18		0.209		0.795	
SW-846 8260C	Benzene	71-43-2	N	ug/l	21		22		1	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	2		1		220	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	210		35	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	180		140	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	19		10	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	66000		29000		48000	

Location ID					SWMW-45		SWMW-48		SWMW-55	
Field Sample ID					SWMW-45-W-17.00-151111		SWMW-48-W-4.00-151111		SWMW-55-W-10.00-151111	
Date Sampled					11/11/2015		11/11/2015		11/11/2015	
SDG					1608899		1608899		1608899	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	107		1.3	J	5.3	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	1.5	U	7.2		5.3	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	770		3	U	3	U
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	84800		50100		86900	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	1100	J	110	J	10	UJ
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.726		0.158		0.52	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	12		0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	23000		4000	U	29000	

Location ID					SWMW-56		SWMW-58		SWMW-62	
Field Sample ID					SWMW-56-W-35.00-151113		SWMW-58-W-5.00-151112		SWMW-62-W-4.00-151111	
Date Sampled					11/13/2015		11/12/2015		11/11/2015	
SDG					1609458		1609238		1608899	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	69.7		205		26.2	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	5500		540	
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	84.5		60.3		35.8	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	180		3	U	3	U
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCACO3/L	284000		283000		274000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	140	J	22	J	10	UJ
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.131		0.312		2.04	
SW-846 8260C	Benzene	71-43-2	N	ug/l	1		0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.6	J	0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	160		37		1	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	300		31		4	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	3		0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	19000		43000		54000	

Location ID					SWMW-65		SWMW-66		SWMW-67	
Field Sample ID					SWMW-65-W-7.00-151112		SWMW-66-W-43.00-151113		SWMW-67-W-3.00-151112	
Date Sampled					11/12/2015		11/13/2015		11/12/2015	
SDG					1609238		1609458		1609238	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	260		1150		5.6	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	590		3000		250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	21.7		94.6		73.1	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3	U	12		3	U
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	184000		259000		294000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	10	UJ	10	UJ	100	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	1.47		0.13		0.62	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	0.7	J	0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5	U	0.8	J	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	370		0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	210		62	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	10		0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	23000		34000		45000	

Location ID					SWMW-68		SWMW-111		SWMW-112	
Field Sample ID					SWMW-68-W-31.00-151113		SWMW-111-W-40.00-151113		SWMW-112-W-55.00-151113	
Date Sampled					11/13/2015		11/13/2015		11/13/2015	
SDG					1609458		1609458		1609458	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	78.1		93.5		276	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	360	J	890		250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	115		55.5		33.6	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U	1	U	1.2	J
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3	U	3	U	100	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	241000		245000		240000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	10	UJ	46	J	130	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.159		0.0104		0.168	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	0.5	U	1	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5	U	0.5	U	2	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	69		2		410	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	350		13		120	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	2		0.5	U	4	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	17000		33000		20000	

Location ID					SWMW-113		SWMW-114		SWMW-114	
Field Sample ID					SWMW-113-W-20.00-151112		SWMW-114-W-40.00-151110		SWMW-114-WD-40.00-151110	
Date Sampled					11/12/2015		11/10/2015		11/10/2015	
SDG					1609238		1608498		1608498	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		FD	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	123		79.1		81.7	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	400	J	400	J
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	40.7		18.6		18.7	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1	U	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	39		19		21	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCACO3/L	303000		148000		149000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	58	J	60	J	86	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.636		0.49		0.518	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	J	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	3		13		12	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	14		4		4	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	7		250		250	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	36000		14000		12000	

Location ID					SWMW-123		SWMW-125		SWMW-126	
Field Sample ID					SWMW-123-W-50.00-151113		SWMW-125-W-29.00-151110		SWMW-126-W-40.00-151112	
Date Sampled					11/13/2015		11/10/2015		11/12/2015	
SDG					1609458		1608498		1609238	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					REG		REG		REG	
Sample Type					GW		GW		GW	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l	141		172		151	
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U	250	U	250	U
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	13.2		5.5		36.8	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U	1.3	J	1.4	J
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U	1.4	J	1	U
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	61		690		89	
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	296000		146000		281000	
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	440	J	2300	J	130	J
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.334		8		0.238	
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	3		2	
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	27		300		2	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	93		130	
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	270		230	
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	7		5	
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	33000		64000		22000	

Location ID					Unknown Well 1		Unknown Well 2		TB		TB	
Field Sample ID					UNK-1-W-0.00-151110		UNK-2-W-0.00-151110		QA-WT1-151103		QA-WT2-151103	
Date Sampled					11/10/2015		11/10/2015		11/03/2015		11/03/2015	
SDG					1608498		1608498		1608498		1608899	
Sample Matrix					WATER		WATER		WATER		WATER	
Sample Purpose					REG		REG		TB		TB	
Sample Type					GW		GW		BLKWATER		BLKWATER	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units								
EPA 300.0	Chloride	16887-00-6	N	mg/l	163							
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l	250	U						
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l	15.7							
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1	U						
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1	U						
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	100							
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCAC03/L	130000							
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l	27600	J						
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l	60	J						
SW-846 6010C	Manganese	7439-96-5	N	mg/l	7.7							
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	120		0.5	U	0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.6	J	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	140000							

Location ID					TB		TB		TB	
Field Sample ID					QA-WT3-151103		QA-WT4-151103		QA-WT5-151103	
Date Sampled					11/03/2015		11/03/2015		11/03/2015	
SDG					1609238		1609238		1609458	
Sample Matrix					WATER		WATER		WATER	
Sample Purpose					TB		TB		TB	
Sample Type					BLKWATER		BLKWATER		BLKWATER	
Analytical Method	Parameter Name	Parameter Code	Filtered	Units						
EPA 300.0	Chloride	16887-00-6	N	mg/l						
EPA 300.0	Nitrogen, Nitrate as N	14797-55-8	N	ug/l						
EPA 300.0	Sulfate (SO4)	18785-72-3	N	mg/l						
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l						
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l						
RSKSOP-175 modified	Methane	74-82-8	N	ug/l						
SM 2320 B-1997	Alkalinity, Total as CaCO3	ALK	N	UGCACO3/L						
SM 3500-Fe B-1997	Ferrous Iron	15438-31-0	N	ug/l						
SM 4500-S2 D-2000	Sulfide	18496-25-8	N	ug/l						
SW-846 6010C	Manganese	7439-96-5	N	mg/l						
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	0.5	U	0.5	U	0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	0.5	U	0.5	U	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l						

APPENDIX B

GROUNDWATER SAMPLING RECORDS (MARCH, JUNE, SEPTEMBER, AND NOVEMBER 2015) 2015 QUARTERLY SAMPLING EVENTS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: GT-2			
Samplers: E Paccia		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 4.08		Depth to Well Bottom (ft): 7.75	
Method: Disposable rope & bailer					
Date: 03/23/2015	Time: 10:30 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:32	4.08	NA	0	NA	1.96	NA	NA	NA	3.4	Purge 3/23
10:40	NA	NA	0.3	6.49	11.57	173	1.02	4.57	-69	
10:45	NA	NA	0.7	6.46	12.98	81	0.911	3.71	-67	
10:50	NA	NA	1	6.46	8.29	49.9	0.887	3.52	-81	
10:52	NA	NA	1.3	6.45	12.13	32.0	0.892	3.67	-87	Well dry
10:30	NA	NA	1.3	NA	1.52	NA	NA	NA	-26.0	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 09:50	Total Volume of Water Purged: 1.3 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.38	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.851	Methyl alkalinity (mg/L)	180
Turbidity (NTU)	6.32	Ferrous Iron (mg/L)	1.8
DO (mg/L)	3.20		
Temp.(°C)	3.42		
ORP (mv)	-35		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: PID = 0.0 ppm Well volume= 0.6 gallon	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: ITMW-5			
Samplers: E Paccia		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 9.18		Depth to Well Bottom (ft): 28.4	
Method: Disposable rope & bailer					
Date: 03/17/2015		Time: 16:20 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:20	9.18	NA	0	NA	2.71	NA	NA	NA	37.8	Pre purge meas...
11:49	NA	NA	1.75	6.62	6.59	3807	0.916	10.06	92	Purge on 3/18
11:53	NA	NA	3.5	6.54	5.83	>4000	0.827	10.33	114	Dry at 4 gal
09:20	NA	NA	3.5	NA	1.31	NA	NA	NA	-7.3	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 09:20	Total Volume of Water Purged: 3.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.55	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.663	Methyl alkalinity (mg/L)	120
Turbidity (NTU)	48.3	Ferrous Iron (mg/L)	0
DO (mg/L)	7.25		
Temp.(°C)	10.35		
ORP (mv)	105		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: pid= 0.4 ppm Well volume = 3.1 gallons	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: ITMW-6			
Samplers: A Kowalczk		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 18.72		Depth to Well Bottom (ft): 46.44	
Method: Disposable rope & bailer					
Date: 03/17/2015	Time: 16:25 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:25	18.72	NA	0	NA	3.17	NA	NA	NA	37.6	Pre purge meas...
14:24	NA	NA	2.25	7.20	5.50	24.7	0.850	10.75	-11	Purge 3/18
14:27	NA	NA	4.5	7.21	3.77	45.2	0.841	11.72	-45	Dry at 6 gal
09:15	NA	NA	4.5	NA	2.89	NA	NA	NA	58.6	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 09:15	Total Volume of Water Purged: 4.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.17	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.817	Methyl alkalinity (mg/L)	120
Turbidity (NTU)	8.18	Ferrous Iron (mg/L)	0
DO (mg/L)	11.54		
Temp.(°C)	11.90		
ORP (mv)	19		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: PID = 0.0 ppm Well volume = 4.5 gallons	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>ITMW-13</u>			
Samplers: A Kowalczyk		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 6.13		Depth to Well Bottom (ft): 19.9	
Method: Disposable rope & bailer					
Date: 03/23/2015	Time: 11:50 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:50	6.13	NA	0	NA	2.01	NA	NA	NA	151.6	Purge 3/23
14:50	NA	NA	1.25	6.01	10.53	44.5	8.09	8.47	76	
14:55	NA	NA	2.5	5.92	6.94	42	10.9	8.32	81	
14:57	NA	NA	2.75	NA	NA	NA	NA	NA	NA	Well dry
11:45	NA	NA	2.75	NA	1.51	NA	NA	NA	110.8	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 11:20	Total Volume of Water Purged: 2.75 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.92	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	10.6	Methyl alkalinity (mg/L)	60
Turbidity (NTU)	5.96	Ferrous Iron (mg/L)	2.8
DO (mg/L)	12.12		
Temp.(°C)	5.55		
ORP (mv)	67		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: PID = 0.1 ppm Well volume = 2.2 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon						Well ID: ITMW-14		Manual Entry: 		Well Diameter: <u>2</u> inches	
Samplers: E Paccia						WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data Method: <u>Disposable rope & bailer</u>						Initial Depth to Water (ft): 4.5		Depth to Well Bottom (ft): 20.2			
Date: 03/23/2015		Time: 11:05 (HH:MM)		1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36	
				4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4	
										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments	
14:00	4.5	NA	2	6.29	3.49	12	0.950	8.88	-13	Purge 3/23. We...	

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: 03/24/2015	Time:(HH:MM) 10:45	Total Volume of Water Purged: 2 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.31	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.896	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	19.1	Ferrous Iron (mg/L)	1.0
DO (mg/L)	4.51		
Temp.(°C)	5.17		
ORP (mv)	-9		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

Comments:

PID = 581.3 ppm
 Well volume =
 0.1 ft of LNAPL in well, no DO or ORP readings. No post sample readings

		Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
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PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>ITMW-24</u>			
Samplers: <u>E Paccia</u>		Manual Entry: <u></u>		Well Diameter: <u>4</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>6.41</u>		Depth to Well Bottom (ft): <u>13.15</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/19/2015</u>	Time: <u>14:30</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:30	6.41	NA	0	NA	0.81	NA	NA	NA	-46.4	Purge 3/19
14:49	NA	NA	2.5	6.97	3.76	22	1.67	8.92	-147	
14:50	NA	NA	4.5	6.97	5.96	670	1.74	8.45	-142	
14:52	NA	NA	6.5	6.97	10.44	1067	1.75	8.25	-137	
14:54	NA	NA	8.5	6.95	4.25	1900	1.77	8.17	-133	
14:58	NA	NA	10.5	6.95	11.38	1910	1.76	8.04	-129	
15:01	NA	NA	12.5	6.95	4.71	2065	1.77	8.00	-125	
09:40	NA	NA	15.5	NA	1.04	NA	NA	NA	-37.6	Post sampling p...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/20/2015</u>	Time:(HH:MM) <u>09:35</u>	Total Volume of Water Purged: <u>15.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.72	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	2.00	Methyl alkalinity (mg/L)	120
Turbidity (NTU)	11.02	Ferrous Iron (mg/L)	0.4
DO (mg/L)	6.61		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	6.63
ORP (mv)	-84

Comments:

Well volume = 4.5 gallons
PID = 0.0 ppm

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>ITMW-25</u>		
Samplers: C Huey		Manual Entry: 	Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION				
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot				
Purging Data		Initial Depth to Water (ft): 10.79		Depth to Well Bottom (ft): 24.72
Method: Disposable rope & bailer				
Date: 03/18/2015	Time: 16:20 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16
		4-inch=0.64	6-inch=1.4	8-inch=2.5
				10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:20	10.79	NA	0	NA	1.21	NA	NA	NA	89.6	Pre purge meas...
14:39	NA	NA	1.25	7.10	6.83	34	1.09	9.99	-103	Purge 3/19
14:41	NA	NA	2.5	7.09	9.95	1676	1.14	10.35	-98	
14:42	NA	NA	3	NA	NA	NA	NA	NA	NA	Well dry
09:45	NA	NA	3	NA	1.75	NA	NA	NA	44.9	Post sampling p...

Sampling Data

Method: Disposable bailer & rope	Date: 03/20/2015	Time:(HH:MM) 09:30	Total Volume of Water Purged: 3 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.02	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.21	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	19.1	Ferrous Iron (mg/L)	0.2
DO (mg/L)	12.97		
Temp.(°C)	6.73		
ORP (mv)	-79		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: Pid= 0.9 ppm Well volume = 2.25 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>ITMW-30</u>			
Samplers: A Kowalczyk		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 6.8		Depth to Well Bottom (ft): 39.4	
Method: Disposable rope & bailer					
Date: 03/23/2015		Time: 08:55 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
09:00	6.80	NA	0	NA	1.75	NA	NA	NA	63.0		Purge 3/23
09:25	NA	NA	3	6.53	11.59	15.0	0.446	9.05	-44		
09:30	NA	NA	6	6.45	10.92	13.3	0.378	10.40	-46		
09:35	NA	NA	9	6.49	11.30	31.0	0.389	9.28	-82		Well dry
09:30	NA	NA	9	NA	1.16	NA	NA	NA	67.9		Post sampling r...

Sampling Data

Method: Disposable bailer & rope		Date: 03/24/2015	Time:(HH:MM) 09:15	Total Volume of Water Purged: 9 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.24	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.594	Methyl alkalinity (mg/L)	120
Turbidity (NTU)	5.69	Ferrous Iron (mg/L)	0.8
DO (mg/L)	3.72		
Temp.(°C)	5.57		
ORP (mv)	45		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: PID = 37.5 ppm Well volume = 5.2 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>ITMW-31</u>			
Samplers: <u>E Paccia</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>6.35</u>		Depth to Well Bottom (ft): <u>39.45</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/23/2015</u>	Time: <u>09:15</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:20	6.35	NA	0	NA	0.52	NA	NA	NA	-10.2	Purge 3/23
09:30	NA	NA	2.75	6.60	11.79	13.5	0.251	8.63	-82	
09:35	NA	NA	5.5	6.60	4.64	31.1	0.251	7.88	-87	
09:40	NA	NA	8.27	6.57	2.80	11.5	0.243	9.40	-93	
09:45	NA	NA	11	6.57	11.08	56.6	0.259	8.93	-96	
09:50	NA	NA	13.75	6.59	11.76	21.0	0.276	9.14	-87	
09:55	NA	NA	16.5	6.55	9.90	20	0.263	8.59	-88	
09:35	NA	NA	16.5	NA	0.61	NA	NA	NA	-3.2	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/24/2015</u>	Time:(HH:MM) <u>09:20\$</u>	Total Volume of Water Purged: <u>16.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.59	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.295	Methyl alkalinity (mg/L)	100
Turbidity (NTU)	25.7	Ferrous Iron (mg/L)	1.8
DO (mg/L)	4.04		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	7.52
ORP (mv)	-43

Comments:

PID = 55.0 ppm
Well volume = 5.3 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-2</u>			
Samplers: C Huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 4.81		Depth to Well Bottom (ft): 22.25	
Method: Disposable rope & bailer					
Date: 03/23/2015		Time: 10:40 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:45	4.81	NA	0	NA	1.50	NA	NA	NA	82.3	Purge 3/23
11:05	NA	Na	1.5	6.29	12.10	793	5.31	4.22	-28	
11:07	NA	NA	3	6.31	5.15	40	6.11	5.05	-20	
11:09	NA	NA	4.5	6.51	11.33	662	6.23	5.99	-33	
11:11	NA	NA	5.5	NA	NA	NA	NA	NA	NA	Well dry
10:25	NA	NA	5.5	NA	2.14	Na	NA	NA	76.8	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 10:00	Total Volume of Water Purged: 5.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.47	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	4.90	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	2.72	Ferrous Iron (mg/L)	0.8
DO (mg/L)	3.71		
Temp.(°C)	4.96		
ORP (mv)	-25		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: PID = 0.5 ppm well volume = 2.8 gallons	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-10</u>			
Samplers: <u>A Kowalczk</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>2.79</u>		Depth to Well Bottom (ft): <u>7.55</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/18/2015</u>		Time: <u>16:10</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
16:10	2.79	NA	0	NA	1.80	NA	NA	NA	73.4		Pre purge meas...
14:02	NA	NA	0.5	7.18	12.41	12.0	1.16	9.70	-70		Purge 3/19
14:04	NA	NA	1	7.20	12.73	23.1	1.18	8.94	-79		
14:06	NA	NA	1.5	7.24	12.93	54.5	1.19	8.57	-87		
14:08	NA	NA	2	7.27	12.92	65.5	1.20	8.47	-94		
14:11	NA	NA	2.5	7.27	8.93	45	1.21	8.43	-102		
14:12	NA	NA	3	7.27	9.23	71.4	1.21	8.39	-108		
10:25	NA	NA	3	NA	0.87	NA	NA	NA	-7.2		Post sampling p...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/20/2015</u>	Time:(HH:MM) <u>10:20</u>	Total Volume of Water Purged: <u>3</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.17	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.14	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	2.63	Ferrous Iron (mg/L)	1.2
DO (mg/L)	12.75		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	7.06
ORP (mv)	-115

Comments:

PID = 2.7 ppm
Well volume = 0.77 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-13			
Samplers: A Kowalczk		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 46.55		Depth to Well Bottom (ft): 73.2	
Method: Submersible pump w/ dedicated tubing					
Date: 03/18/2015	Time: 15:57 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:57	46.55	NA	0	NA	NA	NA	NA	NA	NA	PID = 0.0
16:10	NA	NA	2.5	6.95	12.78	61.5	2.64	10.77	137	
16:14	NA	NA	5	7.00	12.21	121	2.96	11.30	125	
16:16	NA	NA	7.5	6.99	12.24	46.6	2.79	11.37	119	
16:18	NA	NA	10	6.98	11.95	40.0	2.70	11.71	117	
16:20	NA	NA	12.5	6.99	9.03	80.0	2.67	11.57	108	Dry at 14 gal

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 10:50	Total Volume of Water Purged: 12.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.05	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	2.53	Methyl alkalinity (mg/L)	340
Turbidity (NTU)	11.3	Ferrous Iron (mg/L)	0
DO (mg/L)	11.89		
Temp.(°C)	11.19		
ORP (mv)	147		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: pid = 0.0 ppm well volume = 4.26 gal Dew too deep to collect pre and post DO and ORP readings	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-14			
Samplers: E Paccia		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 8.96		Depth to Well Bottom (ft): 39.2	
Method: Disposable rope & bailer					
Date: 03/19/2015	Time: 15:50 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:50	8.96	NA	0	NA	8.41	NA	NA	NA	99.2	Purge 3/19
15:55	NA	NA	2.5	7.65	12.23	32.3	0.271	11.87	-72	
16:00	NA	NA	5	7.29	8.05	90	0.757	12.25	-30	
16:05	NA	NA	7.5	7.20	7.01	2236	1.18	12.49	10	
16:10	NA	NA	8.25	NA	NA	NA	NA	NA	NA	Well dry
08:25	NA	NA	8.25	NA	3.03	NA	NA	NA	164.7	Post sampling p...

Sampling Data

Method: Disposable bailer & rope	Date: 03/20/2015	Time:(HH:MM) 08:05	Total Volume of Water Purged: 8.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.90	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.20	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	16.4	Ferrous Iron (mg/L)	0
DO (mg/L)	11.77		
Temp.(°C)	9.77		
ORP (mv)	101		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: pid = 0.0 ppm Well volume = 4.84 gallons	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-15			
Samplers: E Paccia		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 12.76		Depth to Well Bottom (ft): 23.82	
Method: Disposable rope & bailer					
Date: 03/17/2015		Time: 16:15 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
16:15	12.76	NA	0	NA	1.30	NA	NA	NA	-14.2		Pre purge readi...
11:27	NA	NA	1	6.54	5.53	976	0.898	10.59	-91		Purged on 3/18
11:33	NA	NA	2	6.56	7.28	3318	0.908	9.74	-83		Dry at 2 gal
08:30	NA	NA	2	NA	0.72	NA	NA	NA	-29.0		Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 08:30	Total Volume of Water Purged: 2 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.58	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.864	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	72.2	Ferrous Iron (mg/L)	2.2
DO (mg/L)	12.09		
Temp.(°C)	9.34		
ORP (mv)	-71		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: Pid= 125.7 ppm Well volume= 1.8 gallons	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-21			
Samplers: C Huey		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 5.98		Depth to Well Bottom (ft): 	
Method: Disposable rope & bailer					
Date: 03/16/2015	Time: 15:00 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:03	NA	NA	1	6.23	5.22	2133	0.691	10.41	-41	
15:07	NA	NA	2	6.16	4.06	2221	0.712	10.02	-43	
15:10	NA	NA	3	6.15	7.60	1894	0.755	9.69	-30	
15:12	NA	NA	4	6.10	3.50	2186	0.790	9.62	-15	
15:14	NA	NA	5	6.09	3.74	2469	0.827	9.74	-11	
15:17	NA	NA	6.5	6.12	6.06	1973	0.876	9.82	-22	Well dry

Sampling Data

Method: Disposable bailer & rope	Date: 03/17/2015	Time:(HH:MM) 10:00	Total Volume of Water Purged: 6.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.24	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.495	Methyl alkalinity (mg/L)	200
Turbidity (NTU)	12.35	Ferrous Iron (mg/L)	1.6
DO (mg/L)	12.07		
Temp.(°C)	5.79		
ORP (mv)	-23		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: Film of NAPL. PID=178 ppm. No post sampling DO or ORP readings.	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-25</u>			
Samplers: <u>E Paccia</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>3.49</u>		Depth to Well Bottom (ft): <u>10.1</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/19/2015</u>		Time: <u>14:25</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

											Enter turbidity limit: <u>1</u> NTU
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:24	3.49	NA	0	NA	3.03	NA	NA	NA	139.1		Purge 3/19
15:50	NA	NA	0.5	7.10	11.83	75.6	0.634	8.52	-105		
15:55	NA	NA	1	7.11	10.26	60.5	0.596	8.36	-83		
15:03	NA	NA	1.75	7.06	12.28	91.2	0.593	8.18	-66		
15:05	NA	NA	2.5	7.01	12.64	18.5	0.585	8.14	-54		
15:08	NA	NA	3.25	7.02	12.75	24.7	0.588	8.10	-41		
15:11	NA	NA	4	6.99	12.74	70.3	0.579	8.04	-24		
10:00	NA	NA	4	NA	2.14	NA	NA	NA	70.6		Post sampling p...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/20/2015</u>	Time:(HH:MM) <u>09:55</u>	Total Volume of Water Purged: <u>4</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.08	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.654	Methyl alkalinity (mg/L)	100
Turbidity (NTU)	45.5	Ferrous Iron (mg/L)	0
DO (mg/L)	5.77		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	7.00
ORP (mv)	-51

Comments:

Well volume = 1.1 gallons
Pid= 0.0 ppm

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-28</u>			
Samplers: <u>C Huey</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>9.51</u>		Depth to Well Bottom (ft): <u>15.6</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/18/2015</u>	Time: <u>16:00</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:00	9.51	NA	0	NA	4.04	NA	NA	NA	191.6	Pre purge meas...
13:25	NA	NA	0.5	6.97	4.14	657	1.14	9.78	-77	Purge 3/19
13:27	NA	NA	1	7.00	5.33	1733	1.20	10.13	-89	
13:30	NA	NA	1.5	7.01	11.24	2397	1.23	10.20	-94	
13:33	NA	NA	2	7.01	5.72	2018	1.20	9.76	-91	
13:36	NA	NA	2.5	7.05	10.62	>4000	1.29	9.80	-99	
13:40	NA	NA	3	7.03	11.52	2739	1.22	9.77	-98	
09:10	NA	NA	3	NA	1.62	NA	NA	NA	-31.3	Post sampling p...

Sampling Data		Date: <u>03/20/2015</u>		Time:(HH:MM) <u>08:55</u>		Total Volume of Water Purged: <u>3</u> (gal)	
Method: <u>Disposable bailer & rope</u>							

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.97	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.17	Methyl alkalinity (mg/L)	200
Turbidity (NTU)	1827	Ferrous Iron (mg/L)	1.6
DO (mg/L)	7.44		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	7.39
ORP (mv)	-88

Comments:

pid= 0.0 ppm
Well volume = 1 gallon

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-30</u>			
Samplers: E Paccia		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 7.81		Depth to Well Bottom (ft): 14.5	
Method: Disposable rope & bailer					
Date: 03/16/2015	Time: 15:25 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:36	7.81	NA	0	NA	1.40	NA	NA	NA	-36	
16:11	NA	NA	0.5	6.59	2.81	83.3	0.787	7.27	-75	
16:14	NA	NA	1	6.58	3.30	81	0.724	7.47	-68	
16:17	NA	NA	1.5	6.62	4.12	113	0.652	6.95	-63	
16:20	NA	NA	2	6.69	2.85	657	0.633	7.14	-65	
16:22	NA	NA	2.5	6.72	4.19	854	0.629	7.09	-66	
16:25	NA	NA	3	6.67	2.83	667	0.623	6.82	-61	
16:27	NA	NA	3.5	6.73	4.01	1154	0.640	6.76	-65	
16:30	NA	NA	4	6.75	3.58	838	0.580	6.68	-59	
10:30	NA	NA	4	NA	1.14	NA	NA	NA	-30.3	Final DO and O...

Sampling Data

Method: Disposable bailer & rope		Date: 03/17/2015	Time:(HH:MM) 09:55	Total Volume of Water Purged: 4 (gal)																																	
<table border="1"> <thead> <tr> <th colspan="2">STABILIZED PARAMETERS</th> <th colspan="2">HACH TEST KITS</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>6.33</td> <td>Phenol alkalinity (mg/L)</td> <td>0</td> </tr> <tr> <td>Spec. Cond. (mS/cm)</td> <td></td> <td>Methyl alkalinity (mg/L)</td> <td></td> </tr> </tbody> </table>				STABILIZED PARAMETERS		HACH TEST KITS		pH	6.33	Phenol alkalinity (mg/L)	0	Spec. Cond. (mS/cm)		Methyl alkalinity (mg/L)		<table border="1"> <thead> <tr> <th colspan="5">SAMPLE SET</th> </tr> <tr> <th>Parameter</th> <th></th> <th>Bottle</th> <th>Pres.</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>Benzene</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> <tr> <td>Chlorobenzene</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> </tbody> </table>		SAMPLE SET					Parameter		Bottle	Pres.	Method	Benzene	☒	3- 40 mL vials	N/A	SW-846 8260	Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
STABILIZED PARAMETERS		HACH TEST KITS																																			
pH	6.33	Phenol alkalinity (mg/L)	0																																		
Spec. Cond. (mS/cm)		Methyl alkalinity (mg/L)																																			
SAMPLE SET																																					
Parameter		Bottle	Pres.	Method																																	
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260																																	
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260																																	

	0.788		200
Turbidity (NTU)	79	Ferrous Iron (mg/L)	2.0
DO (mg/L)	3.48		
Temp.(°C)	6.34		
ORP (mv)	-61		

Comments:

Pid=0.0 Ppm.
Well volume = 1.1 gallons

Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-31			
Samplers: C Huey		Manual Entry: 		Well Diameter: 4 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 6.17		Depth to Well Bottom (ft): 10.9	
Method: Disposable rope & bailer					
Date: 03/16/2015		Time: 15:45 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
16:05	6.17	NA	0	NA	0.87	NA	NA	NA	-73		
16:25	NA	NA	1.5	6.57	3.28	1684	1.07	6.57	-75		
16:35	NA	NA	3	6.65	3.57	698	0.962	6.49	-83		
16:38	NA	NA	4	NA	NA	NA	NA	NA	NA		Well dry
10:30	NA	NA	4	NA	1.27	NA	NA	NA	-51.6		Final readings o...

Sampling Data

Method: Disposable bailer & rope		Date: 03/17/2015	Time:(HH:MM) 09:25	Total Volume of Water Purged: 4 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.03	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.04	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	67.7	Ferrous Iron (mg/L)	1.6
DO (mg/L)	10.70		
Temp.(°C)	6.34		
ORP (mv)	-33		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: Pid= 0.0 ppm. Well volume = 3.03 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-41</u>			
Samplers: C Huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 8.13		Depth to Well Bottom (ft): 43.55	
Method: Disposable rope & bailer					
Date: 03/19/2015	Time: 15:35 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:35	8.13	NA	0	NA	2.03	NA	NA	NA	144.8	Purge 3/19
15:43	NA	NA	3	7.14	11.25	31.2	1.26	12.13	-26	
15:48	Na	NA	6	7.15	11.34	48.9	1.29	12.62	-50	
15:53	NA	NA	9	7.17	11.69	187	1.30	12.83	-64	
16:00	NA	NA	11.5	7.23	11.86	651	1.30	12.41	-66	Well dry
08:30	NA	NA	11.5	NA	1.36	NA	NA	NA	165.1	Post sampling p...

Sampling Data

Method: Disposable bailer & rope	Date: 03/20/2015	Time:(HH:MM) 08:15	Total Volume of Water Purged: 11.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.48	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.28	Methyl alkalinity (mg/L)	200
Turbidity (NTU)	12.8	Ferrous Iron (mg/L)	0
DO (mg/L)	1.89		
Temp.(°C)	10.61		
ORP (mv)	65		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: Pid= 28.8 ppm Well volume = 5.7 gallons MS/MSD collected	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-44</u>			
Samplers: <u>C Huey</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>3.1</u>		Depth to Well Bottom (ft): <u>29.05</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/18/2015</u>		Time: <u>16:15</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:15	3.10	NA	0	NA	1.27	NA	NA	NA	116.5	Pre purge meas...
14:16	NA	NA	2.5	7.12	9.03	6.35	1.17	9.67	-100	Purge 3/19
14:19	NA	NA	5	7.14	7.29	11.9	1.18	9.98	-96	
14:23	NA	NA	7.5	7.17	7.45	6.31	1.17	10.07	-108	
14:28	NA	NA	10	7.21	11.59	4.70	1.17	10.04	-117	
14:31	NA	NA	12.5	7.17	10.57	5.20	1.17	10.10	-118	
14:34	NA	NA	15	7.16	4.80	3.43	1.17	10.33	-115	
10:10	NA	NA	15	NA	2.05	NA	NA	NA	26.5	Post sampling p...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/20/2015</u>	Time:(HH:MM) <u>10:00</u>	Total Volume of Water Purged: <u>15</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.05	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.17	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	2.97	Ferrous Iron (mg/L)	1.0
DO (mg/L)	12.68		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	7.66
ORP (mv)	-93

Comments:

PID = 3.9 ppm
Well volume = 4.2 gallons
Collected duplicate SWMW-144 @ 12:01

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-45		
Samplers: E Paccia		Manual Entry: 	Well Diameter: 2 inches	
WATER VOLUME CALCULATION				
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot				
Purging Data		Initial Depth to Water (ft): 12.3		Depth to Well Bottom (ft): 30.25
Method: Disposable rope & bailer				
Date: 03/23/2015	Time: 09:15 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16
		4-inch=0.64	6-inch=1.4	8-inch=2.5
				10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:20	12.30	NA	0	NA	1.24	NA	NA	NA	49.3	Purge 3/23
09:55	NA	NA	1.5	6.56	11.16	82.3	2.13	8.72	-85	
09:57	NA	NA	3	6.64	11.19	1178	2.13	9.18	-85	
09:59	NA	NA	4.5	6.60	10.65	88	2.10	10.79	-81	
10:00	NA	NA	4.75	NA	NA	NA	Na	NA	Na	
09:50	NA	NA	4.75	NA	1.57	NA	NA	NA	87.4	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 09:35	Total Volume of Water Purged: 4.75 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.44	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.98	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	5.29	Ferrous Iron (mg/L)	1.4
DO (mg/L)	5.04		
Temp.(°C)	8.19		
ORP (mv)	-22		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: pid = 95.9 ppm Well volume = 2.9 gallons	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-48			
Samplers: E Paccia		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 6.11		Depth to Well Bottom (ft): 9.05	
Method: Disposable rope & bailer					
Date: 03/23/2015		Time: 08:10 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
08:10	6.11	NA	0	NA	1.89	NA	NA	NA	115.9		Purge 3/23
08:17	NA	NA	0.25	6.62	4.39	102	1.23	8.11	-3		
08:19	NA	NA	0.5	6.71	7.19	833	1.20	6.70	-48		Well dry
08:25	NA	NA	0.5	NA	4.12	NA	NA	NA	147.2		Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 08:15	Total Volume of Water Purged: 0.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.29	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.28	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	9.38	Ferrous Iron (mg/L)	0
DO (mg/L)	10.32		
Temp.(°C)	5.45		
ORP (mv)	162		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: pid = 0.0 ppm Well volume = 0.5 gallons	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-55</u>			
Samplers: E Paccia		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 13.55		Depth to Well Bottom (ft): 19.23	
Method: Disposable rope & bailer					
Date: 03/23/2015	Time: 08:40 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
08:45	13.55	NA	0	NA	5.70	NA	NA	NA	150.1	Purge 3/23
09:10	NA	NA	0.5	6.79	7.30	34.1	0.827	9.11	111	
09:13	NA	NA	1	6.63	11.04	44.5	0.794	8.80	-2	
09:16	NA	NA	1.25	NA	NA	NA	NA	NA	NA	Well dry
09:10	NA	NA	1.25	NA	3.06	NA	NA	NA	56.8	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 08:50	Total Volume of Water Purged: 1.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.63	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.782	Methyl alkalinity (mg/L)	180
Turbidity (NTU)	8.17	Ferrous Iron (mg/L)	0.2
DO (mg/L)	12.02		
Temp.(°C)	7.81		
ORP (mv)	49		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: PID = 0.0 ppm Well volume = 0.91		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-56</u>			
Samplers: C Huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 17.8		Depth to Well Bottom (ft): 54.8	
Method: Disposable rope & bailer					
Date: 03/17/2015		Time: 16:10 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:10	17.8	NA	0	NA	5.13	NA	NA	NA	116.4	Pre purge readi...
11:40	NA	NA	3	7.18	4.95	57.9	0.932	11.63	-74	Purged on 3/18
11:46	NA	NA	6	7.37	6.73	85.0	0.936	12.14	-31	Dry at 7 gal
08:35	NA	NA	6	NA	2.54	NA	NA	NA	121.6	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 08:35	Total Volume of Water Purged: 6 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.29	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.948	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	9.31	Ferrous Iron (mg/L)	0
DO (mg/L)	8.01		
Temp.(°C)	11.00		
ORP (mv)	165		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: pid= 1.5 ppm Well volume = 6 gallons Duplicate collected	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-58			
Samplers: E Paccia		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 12.33		Depth to Well Bottom (ft): 28.95	
Method: Disposable rope & bailer					
Date: 03/17/2015	Time: 16:05 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:05	12.33	NA	0	NA	5.54	NA	NA	NA	118.7	Pre purge readi...
11:00	NA	NA	1.5	6.78	9.40	87.3	0.857	8.78	170	Purging on 3/18
11:04	NA	NA	3.0	6.85	6.49	680	0.877	9.79	174	
11:07	NA	NA	4.5	6.90	5.65	1142	1.09	11.06	178	
11:10	NA	NA	6	6.94	5.32	2656	1.21	11.73	180	
11:21	NA	NA	7.5	7.04	4.36	2259	1.37	12.46	168	Dry at 7.5 gal
08:15	NA	NA	7.5	NA	7.20	NA	NA	NA	167.2	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 08:15	Total Volume of Water Purged: 7.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.95	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.11	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	6.61	Ferrous Iron (mg/L)	0
DO (mg/L)	12.25		
Temp.(°C)	10.30		
ORP (mv)	184		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: pid= 2.7 Ppm Well volume = 2.7 gallons	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
PARSONS					

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-62</u>			
Samplers: C Huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 7.97		Depth to Well Bottom (ft): 18.35	
Method: Disposable rope & bailer					
Date: 03/17/2015	Time: 14:45 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:45	7.97	NA	0	NA	0.97	NA	NA	NA	115.5	
14:50	NA	NA	1	6.92	9.96	1228	0.726	11.07	38	
14:55	NA	NA	2	6.86	5.39	2397	0.720	10.82	64	
14:58	NA	NA	2.25	NA	NA	NA	NA	NA	NA	Well dry
09:45	NA	NA	NA	NA	2.03	NA	NA	NA	160.2	Post measurem...

Sampling Data

Method: Disposable bailer & rope	Date: 03/18/2015	Time:(HH:MM) 09:35	Total Volume of Water Purged: 2.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.13	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.763	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	34.0	Ferrous Iron (mg/L)	0.0
DO (mg/L)	4.79		
Temp.(°C)	6.10		
ORP (mv)	134		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: pid= 0.0 Well volume = 1.67 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-65</u>			
Samplers: <u>E Paccia</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>8.13</u>		Depth to Well Bottom (ft): <u>15.55</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/18/2015</u>		Time: <u>16:05</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:05	8.13	NA	0	NA	3.76	NA	NA	NA	192.7	Pre purge meas...
13:20	NA	NA	0.75	7.35	15.01	79	1.43	9.33	111	Purge on 3/19
13:23	NA	NA	1.5	7.19	8.13	2144	1.45	9.13	118	
13:25	NA	NA	2.25	7.14	12.65	>4000	1.39	9.19	129	
13:27	NA	NA	3	7.11	6.70	4017	1.31	9.35	135	
13:29	NA	NA	3.75	7.08	5.10	>4000	1.33	9.50	138	
13:31	NA	NA	4.5	7.08	4.61	>4000	1.30	9.70	36	
09:00	NA	NA	4.5	NA	7.37	NA	NA	NA	176.7	Post sampling p...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/20/2015</u>	Time:(HH:MM) <u>08:50</u>	Total Volume of Water Purged: <u>4.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.98	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.34	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	44.1	Ferrous Iron (mg/L)	0
DO (mg/L)	11.11		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	7.64
ORP (mv)	119

Comments:

pid= 0.0 ppm.
Well volume = 1.2 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-66</u>			
Samplers: C Huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 18.43		Depth to Well Bottom (ft): 59.05	
Method: Disposable rope & bailer					
Date: 03/17/2015	Time: 16:00 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:00	18.43	NA	0	NA	4.30	NA	NA	NA	82.2	Pre sampling re...
11:13	NA	NA	3.5	7.41	7.78	54.8	0.462	11.89	164	Purged on 3/18
11:16	NA	NA	7	7.28	6.83	39.4	1.01	12.40	169	
11:20	NA	NA	10.5	7.15	5.59	756	2.11	12.81	171	Dry at 12.5 gal
08:05	NA	NA	10.5	NA	5.49	NA	NA	NA	186.4	3/19: Post sam...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 08:05	Total Volume of Water Purged: 10.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.69	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	2.87	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	10.75	Ferrous Iron (mg/L)	0
DO (mg/L)	7.90		
Temp.(°C)	11.84		
ORP (mv)	210		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: PID = 0.0 ppm. Well volume = 6.5 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-67	
Samplers: E paccia		Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 9.58	
Date: 03/18/2015		Time: 13:43 (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:43	9.58	NA	0	NA	6.80	NA	NA	NA	164.1		
14:09	NA	NA	1.5	7.06	7.97	149	0.555	9.91	135		
14:12	NA	NA	3	6.90	7.40	174	0.641	9.75	150		
14:15	NA	NA	4.5	6.92	7.14	935	0.646	9.75	155		
14:17	NA	NA	6	6.97	6.65	>4000	0.601	9.68	158		
14:21	NA	NA	7.5	6.94	6.42	>4000	0.954	10.64	163		Well dry at 7.5 ...
09:40	NA	NA	7.5	NA	5.49	NA	NA	NA	105.1		Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 09:40	Total Volume of Water Purged: 7.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.20	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.620	Methyl alkalinity (mg/L)	180
Turbidity (NTU)	24.9	Ferrous Iron (mg/L)	0
DO (mg/L)	8.50		
Temp.(°C)	9.97		
ORP (mv)	100		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: PID = 0.0 ppm well volume = 3.17 gal	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-68			
Samplers: C Huey		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 20.68		Depth to Well Bottom (ft): 53.37	
Method: Submersible pump w/ dedicated tubing					
Date: 03/18/2015	Time: 13:38 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
13:38	20.68	NA	0	NA	2.62	NA	NA	NA	171.2	
13:43	NA	NA	2.5	7.21	4.50	76.8	0.894	11.38	125	
13:50	NA	NA	5	7.21	6.52	20.7	0.905	11.59	122	
13:53	NA	NA	7.5	7.21	3.23	16.0	0.898	12.13	120	
13:57	NA	NA	10	7.22	4.52	36.8	0.898	11.96	118	
14:01	NA	NA	12.5	7.19	3.07	86.0	0.918	12.05	119	
14:04	NA	NA	15	7.16	2.85	181	0.889	12.42	120	
14:08	NA	NA	17.5	7.20	4.05	704	0.946	13.23	115	Dry at 18 gal
09:35	NA	NA	17.5	NA	6.88	NA	NA	NA	112.7	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 09:35	Total Volume of Water Purged: 17.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.20	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.888	Methyl alkalinity (mg/L)	200
Turbidity (NTU)	8.38	Ferrous Iron (mg/L)	0

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	11.44
Temp.(°C)	11.29
ORP (mv)	-34

Comments:

Pid= 0.9 ppm
Well volume =5.2 gal

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon						Well ID: SWMW-103		Manual Entry: 		Well Diameter: <u>2</u> inches	
Samplers: E Paccia						WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data Method: Submersible pump w/ dedicated tubing						Initial Depth to Water (ft): 17.88		Depth to Well Bottom (ft): 64.6			
Date: 03/18/2015		Time: 15:16 (HH:MM)		1-inch=0.041 1.5-inch=0.092 2-inch=0.16 3-inch=0.36 4-inch=0.64 6-inch=1.4 8-inch=2.5 10-inch=4							
										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments	
15:16	17.88	NA	0	NA	6.44	NA	NA	NA	146.2	Pid= 0.0	
15:42	NA	NA	4	7.23	9.75	12.0	1.09	11.39	125		
15:49	NA	NA	8	7.35	11.08	42.7	0.784	11.26	113	Dry at 8 gal	
10:15	NA	NA	8	NA	6.62	NA	NA	NA	136.6	Post sampling r...	

Sampling Data Method: Disposable bailer & rope		Date: 03/19/2015		Time:(HH:MM) 10:15		Total Volume of Water Purged: 8 (gal)	
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STABILIZED PARAMETERS				HACH TEST KITS			
pH	7.36	Phenol alkalinity (mg/L)	0				
Spec. Cond. (mS/cm)	1.12	Methyl alkalinity (mg/L)	240				
Turbidity (NTU)	6.77	Ferrous Iron (mg/L)	0				
DO (mg/L)	12.01						
Temp.(°C)	11.29						
ORP (mv)	118						

SAMPLE SET				
Parameter	Bottle	Pres.	Method	
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: PID = 0.0 Well volume = 7.5 gal	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-111		
Samplers: E Paccia		Manual Entry: 	Well Diameter: 2 inches	
WATER VOLUME CALCULATION				
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot				
Purging Data		Initial Depth to Water (ft): 18.15		Depth to Well Bottom (ft): 60.15
Method: Submersible pump w/ dedicated tubing				
Date: 03/18/2015	Time: 14:41 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16
		4-inch=0.64	6-inch=1.4	8-inch=2.5
				10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:41	18.15	NA	0	NA	7.16	NA	NA	NA	134.2	PID = 0.0
14:56	NA	NA	4	7.23	3.55	708	0.887	12.14	100	
15:01	NA	NA	8	7.24	3.45	67	0.790	12.87	101	
15:07	NA	NA	12	7.17	2.92	89.7	0.875	12.56	102	
15:10	NA	NA	16	7.19	4.24	166	0.764	12.72	103	
15:13	NA	NA	20	7.12	3.13	130	0.991	12.99	107	
15:16	NA	NA	24	7.13	3.24	131	1.05	12.89	106	
10:10	NA	NA	25	NA	3.02	NA	NA	NA	126.7	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/19/2015	Time:(HH:MM) 10:10	Total Volume of Water Purged: 25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.02	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.00	Methyl alkalinity (mg/L)	180
Turbidity (NTU)	21.3	Ferrous Iron (mg/L)	0
DO (mg/L)	11.61		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	10.82
ORP (mv)	131

Comments:

PID =
well volume = 7.7 gal

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-112			
Samplers: E Paccia		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data			Initial Depth to Water (ft): 7.79		Depth to Well Bottom (ft): 63.9
Method: Submersible pump w/ dedicated tubing					
Date: 03/17/2015		Time: 14:00 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:00	7.79	NA	0	NA	2.23	NA	NA	NA	81.2		
15:40	NA	NA	4.5	7.53	6.33	25.5	0.417	11.80	93		
15:46	NA	NA	9	7.25	10.59	21.9	0.708	11.69	22		
15:52	NA	NA	13.5	7.16	10.61	17.7	0.939	11.70	10		
15:57	NA	NA	18	7.18	8.47	24.0	1.07	12.28	3		
15:58	NA	NA	20.5	NA	NA	NA	NA	NA	NA		Well dry
09:15	NA	NA	NA	NA	2.52	NA	NA	NA	159.2		

Sampling Data

Method: Disposable bailer & rope	Date: 03/18/2015	Time:(HH:MM) 08:50	Total Volume of Water Purged: 20.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.09	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.56	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	6.89	Ferrous Iron (mg/L)	0.0
DO (mg/L)	5.15		
Temp.(°C)	7.64		
ORP (mv)	93		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: pid=0.0 ppm Well volume = 9 gallons MS/MSD collected	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-113</u>			
Samplers: <u>C Huey</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>8.5</u>		Depth to Well Bottom (ft): <u>30.5</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/17/2015</u>		Time: <u>14:00</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:15	8.5	NA	0	NA	1.32	NA	NA	NA	131.4		
14:30	NA	NA	1.75	7.14	3.36	58.5	1.14	11.05	14		
14:35	NA	NA	3.5	7.13	4.34	141	1.17	11.02	29		
14:35	NA	NA	5.25	7.13	2.60	32	1.18	11.48	-5		
14:41	NA	NA	7	7.12	2.64	72	1.21	11.47	20		
14:45	NA	NA	8.75	7.12	10.10	103	1.20	11.90	6		
14:50	NA	NA	10.5	7.12	3.76	96	1.21	11.55	31		
09:15	NA	NA	NA	NA	2.05	NA	NA	NA	173.5		Post measurem...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/18/2015</u>	Time:(HH:MM) <u>09:10</u>	Total Volume of Water Purged: <u>10.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.19	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.21	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	20.5	Ferrous Iron (mg/L)	0.0
DO (mg/L)	3.88		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	4.81
ORP (mv)	129

Comments:

Pid= 0.0

Well volume = 3.5

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-114</u>			
Samplers: <u>C Huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>13.68</u>		Depth to Well Bottom (ft): <u>48.2</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/23/2015</u>	Time: <u>11:45</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:50	13.68	NA	0	NA	1.96	NA	NA	NA	78.6	Purge 3/23
14:20	NA	NA	2.25	7.07	11.01	3.66	0.493	10.92	-46	
14:30	NA	NA	5.25	7.12	10.93	4.45	0.494	11.07	-32	
14:35	NA	NA	8.25	6.83	10.93	3.84	0.577	10.90	-40	
14:45	NA	NA	11.25	7.06	2.67	3.67	0.514	11.23	-2	
14:52	NA	NA	14.25	6.96	10.59	2.25	1.21	10.41	0	
14:59	NA	NA	17.25	7.10	4.04	3.30	0.602	10.83	7	
11:45	NA	NA	17.25	NA	1.91	NA	NA	NA	49.6	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/24/2015</u>	Time:(HH:MM) <u>11:10</u>	Total Volume of Water Purged: <u>17.25</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.62	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.567	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	1.25	Ferrous Iron (mg/L)	0
DO (mg/L)	10.38		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	6.13
ORP (mv)	21

Comments:

PID =0.3 ppm
Well volume = 5.5 gallons
MS/MSD collected

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-123		
Samplers: C Huey		Manual Entry: 	Well Diameter: 2 inches	
WATER VOLUME CALCULATION				
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot				
Purging Data		Initial Depth to Water (ft): 15.47		Depth to Well Bottom (ft): 79.3
Method: Submersible pump w/ dedicated tubing				
Date: 03/23/2015	Time: 08:35 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16
		4-inch=0.64	6-inch=1.4	8-inch=2.5
				10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
08:40	15.47	NA	0	NA	7.22	NA	NA	NA	141.0	Purge 3/23
09:00	NA	NA	5.5	7.17	10.54	9.47	0.955	10.68	97	
09:07	NA	NA	11	7.18	5.12	14.0	0.979	10.28	98	
09:15	NA	NA	16.5	6.96	5.50	34.4	0.955	10.55	1	
09:22	NA	NA	18.5	NA	NA	NA	NA	NA	NA	Well dry
09:15	NA	NA	18.5	NA	4.69	NA	NA	NA	111.6	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 08:45	Total Volume of Water Purged: 18.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.77	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.986	Methyl alkalinity (mg/L)	180
Turbidity (NTU)	3.31	Ferrous Iron (mg/L)	0
DO (mg/L)	6.55		
Temp.(°C)	9.85		
ORP (mv)	139		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: Pid= 0.1 ppm Well volume = 10.25 gallons Duplicate collected SWMW-1123 @ 12:01	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-125</u>			
Samplers: <u>E Paccia</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>11.01</u>		Depth to Well Bottom (ft): <u>41.7</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/23/2015</u>	Time: <u>11:50</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:50	11.01	NA	0	NA	1.44	NA	NA	NA	91.2	Purge 3/23
14:10	NA	NA	2.5	7.11	9.16	16.6	0.598	11.46	-44	
14:15	NA	NA	5	6.53	10.14	31.5	1.06	11.23	-31	
14:20	NA	NA	7.5	6.44	10.71	51.7	1.41	10.91	-27	
14:25	NA	NA	10	6.36	10.90	29.5	1.67	10.77	-20	
14:30	NA	NA	12.5	6.38	10.96	29.3	1.76	10.65	-22	
14:35	NA	NA	15	6.36	11.11	40.1	1.85	10.59	-29	
11:30	NA	NA	15	NA	1.88	NA	NA	NA	56.4	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>03/24/2015</u>	Time:(HH:MM) <u>11:00</u>	Total Volume of Water Purged: <u>15</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.31	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.65	Methyl alkalinity (mg/L)	100
Turbidity (NTU)	13.2	Ferrous Iron (mg/L)	2.6
DO (mg/L)	12.30		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	5.57
ORP (mv)	1

Comments:

pid = 5.9 ppm
Well volume = 4.9 gallons
Duplicate SWMW-1125 @ 12:15

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon					Well ID: SWMW-126						
Samplers: A Kowalczk					Manual Entry: 		Well Diameter: 2 inches				
WATER VOLUME CALCULATION											
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot											
Purging Data					Initial Depth to Water (ft): 7.53			Depth to Well Bottom (ft): 49.2			
Method: Submersible pump w/ dedicated tubing											
Date: 03/17/2015		Time: 13:40 (HH:MM)			1-inch=0.041		1.5-inch=0.092		2-inch=0.16		3-inch=0.36
					4-inch=0.64		6-inch=1.4		8-inch=2.5		10-inch=4
										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:42	7.53	NA	0	NA	1.49	NA	NA	NA	114.5		
14:15	NA	NA	1	6.52	3.83	23.5	0.861	11.64	159		
14:23	NA	NA	2	6.99	6.20	8.55	0.896	12.42	26		
14:27	NA	NA	3	7.11	2.96	6.82	0.937	12.55	-16		
14:38	NA	NA	4	7.08	2.48	4.15	1.05	12.01	-16		
14:43	NA	NA	6	7.09	2.30	5.10	1.02	12.75	-10		
14:55	NA	NA	9	7.12	10.20	4.13	1.04	12.79	-10		
15:00	NA	NA	12	7.05	3.06	5.13	0.983	12.65	2		
15:05	NA	NA	15	7.13	10.02	3.37	1.04	13.21	-21		
15:08	NA	NA	18	7.15	2.01	37.8	1.09	13.77	-17		
15:13	NA	NA	20.5	NA	NA	NA	NA	NA	NA		Well dry
08:50	NA	NA	NA	NA	2.54	NA	NA	NA	167.6		Post measurem...
Sampling Data											
Method: Disposable bailer & rope					Date: 03/18/2015			Time:(HH:MM) 08:35		Total Volume of Water Purged: 20.5 (gal)	

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.57	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.14	Methyl alkalinity (mg/L)	300
Turbidity (NTU)	9.15	Ferrous Iron (mg/L)	0.0
DO (mg/L)	3.24		
Temp.(°C)	8.22		
ORP (mv)	191		

Comments:

Pid= 1.0 ppm.
Well volume = 6.67 gallons

SAMPLE SET

Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>Unknown Well 1</u>			
Samplers: <u>C Huey</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>3.73</u>		Depth to Well Bottom (ft): <u>8.4</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>03/23/2015</u>		Time: <u>10:55</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:00	3.73	NA	0	NA	1.47	NA	NA	NA	32.4	Purge 3/23
11:18	NA	NA	0.25	6.55	13.02	65.3	1.31	4.08	-38	
11:20	NA	NA	0.5	6.39	12.87	32.2	1.22	3.67	-28	
11:21	NA	NA	0.75	6.36	13.05	31.5	1.37	3.51	-28	
11:22	NA	NA	1	6.32	12.74	16.6	1.45	3.76	-29	
11:23	NA	NA	1.25	6.32	12.82	26.5	1.48	3.66	-29	
11:23	NA	NA	1.5	6.32	12.79	37.4	1.49	3.48	-30	
11:24	NA	NA	1.75	6.30	12.95	52.5	1.50	3.33	-29	
11:25	NA	NA	2	6.28	6.65	39.2	1.50	2.95	-27	
11:25	NA	NA	2.25	6.25	12.43	35.1	1.51	3.06	-25	
10:35	NA	NA	2.25	NA	1.81	NA	NA	NA	35.7	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>		Date: <u>03/24/2015</u>		Time:(HH:MM) <u>10:05</u>		Total Volume of Water Purged: <u>2.25</u> (gal)	
STABILIZED PARAMETERS		HACH TEST KITS		SAMPLE SET			
				Parameter	Bottle	Pres.	Method

pH	6.25	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.47	Methyl alkalinity (mg/L)	80
Turbidity (NTU)	5.61	Ferrous Iron (mg/L)	1.2
DO (mg/L)	3.35		
Temp.(°C)	3.60		
ORP (mv)	-34		

Comments:

PID = 0.0 ppm

Well volume = 0.75 gallons

Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>Unknown Well 2</u>			
Samplers: E Paccia		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 3.96		Depth to Well Bottom (ft): 7.62	
Method: Disposable rope & bailer					
Date: 03/23/2015		Time: 11:00 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:00	3.96	NA	0	NA	1.47	NA	NA	NA	41.3		Purge 3/23
11:30	NA	NA	0.3	6.26	5.41	51.9	0.758	3.11	8		
11:35	NA	NA	0.6	6.11	6.34	91.2	1.10	3.45	21		Well dry
10:50	NA	NA	0.6	NA	3.12	NA	NA	NA	46.7		Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 10:10	Total Volume of Water Purged: 0.6 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.96	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.09	Methyl alkalinity (mg/L)	60
Turbidity (NTU)	11.9	Ferrous Iron (mg/L)	2.2
DO (mg/L)	5.73		
Temp.(°C)	3.29		
ORP (mv)	67		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☐	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☐	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☐	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☐	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: PID = 0.0 ppm Well volume = 0.6 gallons	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>Unknown Well 3</u>			
Samplers: E Paccia		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 3.98		Depth to Well Bottom (ft): 7.1	
Method: Disposable rope & bailer					
Date: 03/23/2015		Time: 11:00 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				3-inch=0.36	
				8-inch=2.5	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:03	3.98	NA	0	NA	1.61	NA	NA	NA	78.6		Purge 3/23
11:40	NA	NA	0.25	6.28	12.97	23.9	1.46	3.15	4		
11:42	NA	NA	0.5	6.19	8.55	65.9	1.96	3.15	18		
11:43	NA	NA	0.75	6.09	7.14	40.8	2.15	3.30	16		
10:30	NA	NA	0.75	NA	4.39	NA	NA	NA	58.1		Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 03/24/2015	Time:(HH:MM) 10:15	Total Volume of Water Purged: 0.75 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.13	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.84	Methyl alkalinity (mg/L)	60
Turbidity (NTU)	6.60	Ferrous Iron (mg/L)	1.4
DO (mg/L)	6.15		
Temp.(°C)	3.41		
ORP (mv)	27		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: PID = 0.0 ppm Well volume = 0.5 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: Manual Entry: SWMW-27	
Samplers: C huey		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Submersible pump w/ dedicated tubing		Initial Depth to Water (ft): 9.02	
Date: 06/16/2015		Time: 11:30 (HH:MM)	
		1-inch=0.041	1.5-inch=0.092
		4-inch=0.64	6-inch=1.4
		2-inch=0.16	3-inch=0.36
		8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:30	9.02	NA	0	NA	0.42	NA	NA	NA	-94.9		PID = 0.8 ppm
11:53	NA	NA	4	7.00	0.0	72.1	0.864	14.36	-112		
11:56	NA	NA	8	7.14	4.63	171	0.859	14.18	-115		
11:58	NA	NA	9	NA	NA	NA	NA	NA	NA		Well dry
10:30	NA	NA	9	NA	7.86	NA	NA	NA	-120.8		Post purge read...

Sampling Data

Method: Disposable bailer & rope	Date: 06/17/2015	Time:(HH:MM) 09:55	Total Volume of Water Purged: 9 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.83	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.775	Methyl alkalinity (mg/L)	100
Turbidity (NTU)	23.5	Ferrous Iron (mg/L)	0
DO (mg/L)	9.77		
Temp.(°C)	15.99		
ORP (mv)	189		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 22.5 gallons Isotope samples collected		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: GT-2	
Samplers: A Kowalczk		Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 4.88	
Date: 06/15/2015		Time: 10:20 (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
10:20	4.88	NA	0	NA	0.60	NA	NA	NA	-75.1		PID = 0.0 ppm
10:30	NA	NA	0.25	6.45	8.83	69.5	1.42	15.96	-76		
10:33	NA	NA	0.5	6.47	4.31	142	1.04	16.20	-77		
10:36	NA	NA	0.75	6.49	1.39	237	1.01	16.63	-73		Well dry
14:50	NA	NA	0.75	NA	0.23	NA	NA	NA	-77.2		Final readings

Sampling Data

Method: Disposable bailer & rope	Date: 06/15/2015	Time:(HH:MM) 14:40	Total Volume of Water Purged: 0.75 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.59	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.52	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	57.7	Ferrous Iron (mg/L)	2.0
DO (mg/L)	0.0		
Temp.(°C)	18.15		
ORP (mv)	-86		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: Purged 6/15/15. 3 well volumes = 1.6 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>ITMW-6</u>			
Samplers: <u>C huey</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>23.04</u>		Depth to Well Bottom (ft): <u>48</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/17/2015</u>		Time: <u>15:30</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:30	23.04	NA	0	NA	0.75	NA	NA	NA	-115.4	PID = 0.0 ppm
16:10	NA	NA	2	7.38	0.51	32.9	0.793	19.97	140	
16:12	NA	NA	4	7.42	2.21	27.1	0.661	20.34	35	
16:15	NA	NA	6	7.41	0.0	102	0.646	20.06	-19	
16:20	NA	NA	8	7.41	9.46	9.38	0.639	19.68	-33	
16:25	NA	NA	10	7.41	9.50	10.5	0.654	19.55	-40	
16:30	NA	NA	12	7.41	9.54	12.0	0.686	19.17	-50	
14:15	NA	NA	12	NA	1.07	NA	NA	NA	32.9	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/18/2015</u>	Time:(HH:MM) <u>13:05</u>	Total Volume of Water Purged: <u>12</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.10	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.721	Methyl alkalinity (mg/L)	60
Turbidity (NTU)	14.4	Ferrous Iron (mg/L)	0.4
DO (mg/L)	0.0		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	17.47
ORP (mv)	203

Comments:

3 x well volume = 12 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>ITMW-13</u>			
Samplers: <u>C huey</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>9.04</u>		Depth to Well Bottom (ft): <u>20</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/15/2015</u>		Time: <u>11:20</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:20	9.04	NA	0	NA	0.38	NA	NA	Na	-45.9	PID = 0.0 ppm
11:40	NA	NA	1	6.71	0.0	114	6.48	13.33	46	
11:45	NA	NA	2	6.72	0.0	478	6.71	12.14	59	
11:50	NA	NA	2.5	Na	NA	NA	NA	NA	NA	Well dry
14:00	NA	NA	2.5	NA	5.08	NA	NA	NA	-56.5	Final readings

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/15/2015</u>	Time:(HH:MM) <u>14:10</u>	Total Volume of Water Purged: <u>2.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.68	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	8.04	Methyl alkalinity (mg/L)	100
Turbidity (NTU)	23.3	Ferrous Iron (mg/L)	1.8
DO (mg/L)	7.00		
Temp.(°C)	14.70		
ORP (mv)	93		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: 3 well volume = 5.3 gallons. Collected CSIA sample for chlorobenzene and dichlorobenzene (hold).		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon				Well ID: ITMW-14						
Samplers: C huey				Manual Entry: 		Well Diameter: 2 inches				
WATER VOLUME CALCULATION										
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot										
Purging Data				Initial Depth to Water (ft): 6.76		Depth to Well Bottom (ft): 				
Method: Disposable rope & bailer										
Date: 06/15/2015		Time: 15:25 (HH:MM)		1-inch=0.041		1.5-inch=0.092				
				2-inch=0.16		3-inch=0.36				
				4-inch=0.64		6-inch=1.4				
				8-inch=2.5		10-inch=4				
Enter turbidity limit: 1 NTU										
SC = Stabilization check										
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
NA	NA	na	na	na	na	na	na	na	na	

Sampling Data

Method: Select...	Date: 	Time:(HH:MM) 	Total Volume of Water Purged: (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH		Phenol alkalinity (mg/L)	
Spec. Cond. (mS/cm)		Methyl alkalinity (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)			
Temp.(°C)			
ORP (mv)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☐	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☐	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☐	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☐	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☐	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☐	2- 40 mL vials	N/A	EPA 300.0
Manganese	☐	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☐	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☐	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☐	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☐	250 mL poly or 2 40 mL vials	N/A	
Chloride	☐	2- 40 mL vials	N/A	EPA 300.0
cDCE	☐	3- 40 mL vials	N/A	SW-846 8260
Ethene	☐	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☐	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

Comments:

Product encountered at 6.75 ft btoc. No purge, no sample.

		Methane	☐	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
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PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>ITMW-25</u>			
Samplers: D douglass		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 12.39		Depth to Well Bottom (ft): 24.8	
Method: Disposable rope & bailer					
Date: 06/16/2015	Time: 10:30 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:30	12.39	NA	0	NA	0.75	NA	NA	NA	-31.5	PID = 0.0 ppm
10:45	NA	NA	1	6.81	0.0	40.1	0.786	14.00	-95	
10:48	NA	NA	2	6.79	0.0	1000	0.852	14.12	-95	
10:52	NA	NA	3	6.76	0.0	1000	0.865	16.19	-78	
10:56	NA	NA	4	6.76	0.0	1000	0.861	15.63	-77	
11:07	NA	NA	5	6.78	0.24	1000	0.835	14.62	-77	Well dry
09:40	NA	NA	5	NA	3.35	NA	NA	NA	-113.1	Post purge read...

Sampling Data

Method: Disposable bailer & rope	Date: 06/17/2015	Time:(HH:MM) 08:55	Total Volume of Water Purged: 5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.10	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.773	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	34.0	Ferrous Iron (mg/L)	0
DO (mg/L)	4.33		
Temp.(°C)	17.30		
ORP (mv)	124		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 6 gallons Isotope samples collected	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-2</u>		
Samplers: <u>D Douglass</u>		Manual Entry: 	Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION				
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot				
Purging Data		Initial Depth to Water (ft): <u>6.11</u>		Depth to Well Bottom (ft): <u>23.6</u>
Method: <u>Disposable rope & bailer</u>				
Date: <u>06/15/2015</u>	Time: <u>10:10</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16
		4-inch=0.64	6-inch=1.4	8-inch=2.5
				10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:10	6.11	NA	0	NA	0.73	NA	NA	NA	-86.4	PID = 0.0
10:25	NA	NA	1.5	5.94	1.94	421	4.68	17.93	-44	
10:30	NA	NA	3	6.09	11.20	392	4.49	15.53	-39	
10:34	NA	NA	4.5	6.17	1.35	308	4.59	14.88	-35	
10:37	NA	NA	6	6.24	5.91	278	4.43	14.33	-32	
10:40	NA	NA	7.5	NA	NA	NA	NA	NA	NA	
10:44	NA	NA	9	6.40	8.77	357	4.44	14.66	-31	Well dry
14:35	NA	NA	9	NA	0.55	NA	NA	NA	-68.6	Final readings.

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/15/2015</u>	Time:(HH:MM) <u>14:30</u>	Total Volume of Water Purged: <u>9</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.56	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	4.16	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	21.5	Ferrous Iron (mg/L)	1.8
DO (mg/L)	7.40		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	16.97
ORP (mv)	-44

Comments:

3 well volumes = 8.4 gallons

Purged 6/15/15.

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-10</u>			
Samplers: <u>A kowalczk</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>4</u>		Depth to Well Bottom (ft): <u>9</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/16/2015</u>	Time: <u>10:15</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:15	4.00	NA	0	NA	0.63	NA	NA	NA	-85.9	PID = 2.0 ppm
10:22	NA	NA	0.5	6.47	6.48	18	1.02	18.76	-33	
10:25	NA	NA	1	6.49	0.47	84.8	1.05	18.25	-47	
10:28	NA	NA	1.5	6.55	6.95	234	1.05	18.02	-59	
10:31	NA	NA	2	6.58	5.36	83.5	1.08	17.69	-63	
10:33	NA	NA	2.5	6.62	0.0	209	1.08	17.51	-68	
10:37	NA	NA	3	6.68	6.89	121	1.09	17.61	-73	
09:00	NA	NA	3	NA	0.30	NA	NA	NA	-141.3	Final readings 6...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/17/2015</u>	Time:(HH:MM) <u>08:25</u>	Total Volume of Water Purged: <u>3</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.99	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.01	Methyl alkalinity (mg/L)	390
Turbidity (NTU)	4.22	Ferrous Iron (mg/L)	0
DO (mg/L)	9.88		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	20.49
ORP (mv)	12

Comments:

3 x well volume = 2.5 gallons

Isotope samples collected

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-14			
Samplers: D douglass		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 9.61		Depth to Well Bottom (ft): 40	
Method: Disposable rope & bailer					
Date: 06/16/2015	Time: 14:45 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:45	9.61	NA	0	NA	4.95	NA	NA	NA	-72.6	PID = 0.0 ppm
15:31	NA	NA	2.5	7.37	2.60	22.1	0.256	22.60	47	
15:35	NA	NA	5	7.22	1.10	37.9	0.347	22.31	62	
15:40	NA	NA	7.5	7.13	0.0	417	0.627	21.03	77	
15:45	NA	NA	10	7.10	1.04	836	0.790	19.32	86	
15:48	NA	NA	12.5	7.16	7.29	1000	0.784	16.82	92	Well dry
15:40	NA	NA	12.5	NA	2.34	NA	NA	NA	-116.4	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 06/17/2015	Time:(HH:MM) 12:20	Total Volume of Water Purged: 12.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.39	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.807	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	29.1	Ferrous Iron (mg/L)	0
DO (mg/L)	0.0		
Temp.(°C)	17.09		
ORP (mv)	59		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 15 gallons	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-15</u>			
Samplers: C huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 17.11		Depth to Well Bottom (ft): 25	
Method: Disposable rope & bailer					
Date: 06/17/2015		Time: 15:00 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:00	17.11	NA	0	NA	0.22	NA	NA	NA	-119.6		Pid= 1.8 ppm
08:02	NA	NA	0.75	6.30	3.26	165	0.659	13.92	19		
08:06	NA	NA	1.5	6.63	1.84	1000	0.645	13.72	-40		
08:13	NA	NA	2.25	6.77	0.0	1000	0.615	13.70	-55		Well dry
14:40	NA	NA	2.25	NA	1.21	NA	NA	NA	-11.6		Post sampling r...

Sampling Data

Method: Disposable bailer & rope		Date: 06/18/2015	Time:(HH:MM) 13:55	Total Volume of Water Purged: 2.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.11	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.583	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	67.8	Ferrous Iron (mg/L)	1.6
DO (mg/L)	0.0		
Temp.(°C)	15.72		
ORP (mv)	-34		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 4 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-28			
Samplers: D douglass		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 9.82		Depth to Well Bottom (ft): 16.5	
Method: Disposable rope & bailer					
Date: 06/16/2015	Time: 11:20 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:20	9.82	NA	0	NA	0.48	NA	NA	NA	-110.3	PID = 2.0 ppm
11:28	NA	NA	0.5	6.86	6.39	284	1.04	15.41	-112	
11:33	NA	NA	1	6.82	0.0	272	1.06	14.70	-108	
11:37	NA	NA	1.5	6.80	0.0	428	1.06	14.26	-104	
11:39	NA	NA	2	6.82	0.0	612	1.04	13.58	-102	
11:42	NA	NA	2.5	6.81	0.0	612	1.03	14.46	-100	
11:45	NA	NA	3	6.80	6.44	1000	1.03	14.04	-97	
10:45	NA	NA	3	NA	0.16	NA	NA	NA	-162.5	Post purge read...

Sampling Data

Method: Disposable bailer & rope	Date: 06/17/2015	Time:(HH:MM) 10:20	Total Volume of Water Purged: 3 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.12	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.995	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	49.7	Ferrous Iron (mg/L)	1.8
DO (mg/L)	0.0		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	17.51
ORP (mv)	-80

Comments:

3 x well volume = 3.3 gallons

Isotope samples collected

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-30</u>			
Samplers: <u>D Douglass</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>8.83</u>		Depth to Well Bottom (ft): <u>14.78</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/18/2015</u>	Time: <u>09:00</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:00	8.83	NA	0	NA	0.23	NA	NA	NA	-55.2	PID = 0.0 ppm
09:33	NA	NA	0.5	7.29	4.48	111	1.10	14.46	-94	
09:35	NA	NA	1	7.13	0.0	345	0.982	14.37	-82	
09:40	NA	NA	1.5	6.92	0.19	399	0.900	14.36	-70	
09:43	NA	NA	2	6.88	0.0	446	0.880	13.91	-67	
09:45	NA	NA	2.5	6.89	0.0	483	0.881	13.91	-71	
09:47	NA	NA	3	6.87	0.0	450	0.855	13.96	-64	
15:00	NA	NA	3	NA	0.17	NA	NA	NA	-57.3	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/18/2015</u>	Time:(HH:MM) <u>14:40</u>	Total Volume of Water Purged: <u>3</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.05	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.941	Methyl alkalinity (mg/L)	320
Turbidity (NTU)	80.3	Ferrous Iron (mg/L)	1.8
DO (mg/L)	0.0		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	16.80
ORP (mv)	-86

Comments:

3x well volume = 3 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-31</u>			
Samplers: <u>C huey</u>		Manual Entry: 		Well Diameter: <u>4</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>7.13</u>		Depth to Well Bottom (ft): <u>11.2</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/18/2015</u>	Time: <u>09:10</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
09:10	7.13	NA	0	NA	0.17	NA	NA	NA	-69.7	PID = 0.3 ppm
09:31	NA	NA	1.5	6.93	2.21	587	0.948	14.50	-80	
09:34	NA	NA	3	6.96	0.0	976	0.975	14.36	-82	
09:36	NA	NA	4.5	7.00	6.01	877	0.966	14.38	-83	
09:39	NA	NA	6	6.97	3.24	970	0.975	14.51	-82	
09:42	NA	NA	7.5	6.97	0.0	1000	0.976	14.45	-81	
09:45	NA	NA	9	6.96	0.0	1000	0.971	14.50	-81	
15:10	NA	NA	9	NA	0.15	NA	NA	NA	-52.7	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/18/2015</u>	Time:(HH:MM) <u>14:50</u>	Total Volume of Water Purged: <u>9</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.99	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.937	Methyl alkalinity (mg/L)	340
Turbidity (NTU)	804	Ferrous Iron (mg/L)	1.4
DO (mg/L)	3.48		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	16.58
ORP (mv)	-83

Comments:

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-41</u>			
Samplers: C huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 10.84		Depth to Well Bottom (ft): 45	
Method: Disposable rope & bailer					
Date: 06/16/2015	Time: 14:40 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:40	10.84	NA	0	NA	1.52	NA	NA	NA	-81.3	PID = 03 ppm
15:50	NA	NA	2.75	7.22	5.71	178	0.454	20.82	-28	
15:55	NA	NA	5.5	6.94	0.0	45.3	0.941	20.70	-19	
15:00	NA	NA	8.25	6.96	0.0	269	1.03	19.98	-18	
15:05	NA	NA	9	NA	NA	NA	NA	NA	NA	Well dry
15:30	NA	NA	9	NA	0.69	NA	NA	NA	-118.0	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 06/17/2015	Time:(HH:MM) 11:55	Total Volume of Water Purged: 9 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.22	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.934	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	14.4	Ferrous Iron (mg/L)	0.4
DO (mg/L)	0.0		
Temp.(°C)	18.21		
ORP (mv)	37		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: 3 x well volume = 16.4 gallons	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 mL vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-44</u>			
Samplers: <u>C huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>4.3</u>		Depth to Well Bottom (ft): <u>30</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/16/2015</u>		Time: <u>10:20</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				3-inch=0.36	
				8-inch=2.5	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:20	4.30	NA	0	NA	0.28	NA	NA	NA	-131.7	PID = 1.3 ppm
10:30	NA	NA	2.25	6.69	2.71	11.1	1.11	16.62	-74	
10:35	NA	NA	4.5	6.74	0.0	5.72	1.11	16.11	-86	
10:38	NA	NA	6.75	6.74	0.0	10.3	1.11	15.99	-87	
10:41	NA	NA	9	6.75	7.02	5.08	1.10	15.72	-92	
10:44	NA	NA	11.25	6.76	0.0	6.19	1.10	15.23	-94	
10:47	NA	NA	13.5	6.78	0.0	4.58	1.10	14.94	-99	
09:15	NA	NA	13.5	NA	0.55	NA	NA	NA	-154.1	Final readings 6...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/17/2015</u>	Time:(HH:MM) <u>08:40</u>	Total Volume of Water Purged: <u>13.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.09	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.03	Methyl alkalinity (mg/L)	360
Turbidity (NTU)	6.09	Ferrous Iron (mg/L)	0
DO (mg/L)	0.0		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	19.97
ORP (mv)	-51

Comments:

3 x well volume = 12.4 gallons

Isotope samples collected

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-45</u>			
Samplers: <u>D douglass</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>14.39</u>		Depth to Well Bottom (ft): <u>31</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/15/2015</u>	Time: <u>16:25</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:25	14.39	NA	0	NA	0.41	NA	NA	NA	-64.2	PID = 30.2 ppm
16:34	NA	NA	1.5	6.28	0.0	66.5	2.42	17.29	-14	
16:37	NA	NA	3	6.28	0.0	164	3.30	15.91	-15	
16:41	NA	NA	4.5	6.31	6.53	415	3.36	15.11	-23	
16:48	NA	NA	6	6.34	0.0	485	3.17	15.41	-24	
16:53	NA	NA	7.5	6.40	0.0	201	2.98	15.11	-21	
17:00	NA	NA	8	6.42	0.35	383	2.87	15.03	-24	
09:30	NA	NA	8	NA	1.11	NA	NA	NA	-72.6	Final readings 6...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/16/2015</u>	Time:(HH:MM) <u>08:55</u>	Total Volume of Water Purged: <u>8</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.81	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	2.12	Methyl alkalinity (mg/L)	300
Turbidity (NTU)	14.4	Ferrous Iron (mg/L)	2.8
DO (mg/L)	6.52		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	17.27
ORP (mv)	10

Comments:

3x well volume = 8.1 gallons
Sampled for isotopes 6x HCl VOA

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-45</u>			
Samplers: C huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 14.59		Depth to Well Bottom (ft): 31	
Method: Disposable rope & bailer					
Date: 06/18/2015	Time: 10:40 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:40	14.59	NA	0	NA	0.37	NA	NA	NA	-70.6	pid= 3.9 ppm
10:45	NA	NA	1.3	6.56	0.0	189	2.22	14.27	3	
10:48	NA	NA	2.6	6.61	0.0	356	2.34	13.79	-1	
10:51	NA	NA	3.25	NA	NA	NA	NA	NA	NA	Well dry
16:20	NA	NA	3.25	NA	0.74	NA	NA	NA	9.7	Post

Sampling Data

Method: Disposable bailer & rope	Date: 06/18/2015	Time:(HH:MM) 16:20	Total Volume of Water Purged: 3.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.63	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	2.06	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	47.7	Ferrous Iron (mg/L)	2.0
DO (mg/L)	1.58		
Temp.(°C)	15.09		
ORP (mv)	1		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☐	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☐	2- 40 mL vials	N/A	EPA 300.0
Manganese	☐	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☐	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: Re sampled due to lost shipped samples		☐			
	Sulfide	☐	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☐	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-48			
Samplers: D douglass		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 6.24		Depth to Well Bottom (ft): 10	
Method: Disposable rope & bailer					
Date: 06/16/2015		Time: 10:05 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
10:05	6.24	NA	0	NA	0.55	NA	NA	NA	-105.9		PID = 0.0 ppm
10:10	NA	NA	0.5	6.74	6.38	99.5	0.694	18.22	-10		
10:15	NA	NA	1	6.62	7.02	148	0.737	18.29	-35		
10:20	NA	NA	1.5	6.62	0.34	181	0.835	17.79	-42		Well dry
09:20	NA	NA	1.5	NA	3.01	NA	NA	NA	-79.6		Final readings 6...

Sampling Data

Method: Disposable bailer & rope	Date: 06/17/2015	Time:(HH:MM) 08:15	Total Volume of Water Purged: 1.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.11	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.794	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	11.0	Ferrous Iron (mg/L)	0
DO (mg/L)	1.31		
Temp.(°C)	20.15		
ORP (mv)	67		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 1.8 gallons Isotope samples collected		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-55</u>			
Samplers: C Huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 15.98		Depth to Well Bottom (ft): 20	
Method: Disposable rope & bailer					
Date: 06/15/2015	Time: 16:30 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:30	15.98	NA	0	NA	7.73	NA	NA	NA	-40.5	PID = > 9999 ppm
17:00	NA	NA	0.33	6.45	2.49	113	1.25	15.22	-23	Well dry
10:00	Na	NA	0.33	NA	1.52	NA	NA	NA	-75.4	Final readings 6...

Sampling Data

Method: Disposable bailer & rope	Date: 06/16/2015	Time:(HH:MM) 09:05	Total Volume of Water Purged: 0.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.02	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.746	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	18.6	Ferrous Iron (mg/L)	1.2
DO (mg/L)	6.39		
Temp.(°C)	15.55		
ORP (mv)	32		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0

Comments:

3 x well volume = 1.93 gallons

Sampled for isotopes 6x HCl VOA

cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-55</u>			
Samplers: D douglass		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 16.03		Depth to Well Bottom (ft): 20	
Method: Disposable rope & bailer					
Date: 06/18/2015	Time: 10:30 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:30	16.03	NA	0	NA	0.43	NA	NA	NA	-41.3	PID = 5.4 ppm
10:45	NA	NA	0.3	6.71	0.0	40.3	0.653	14.04	1	
10:48	NA	NA	0.6	6.83	4.85	67.3	0.755	13.84	3	
10:52	NA	NA	0.75	NA	NA	NA	NA	NA	NA	Well dry
16:25	NA	NA	0.75	NA	1.05	NA	NA	NA	-0.6	Post

Sampling Data

Method: Disposable bailer & rope	Date: 06/18/2015	Time:(HH:MM) 16:15	Total Volume of Water Purged: 0.75 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.61	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.722	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	12.5	Ferrous Iron (mg/L)	2.2
DO (mg/L)	5.08		
Temp.(°C)	14.58		
ORP (mv)	-4		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☐	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☐	2- 40 mL vials	N/A	EPA 300.0
Manganese	☐	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☐	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: Re sampled due to lost shipped samples		☐			
	Sulfide	☐	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☐	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-56			
Samplers: C huey		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 22.77		Depth to Well Bottom (ft): 55	
Method: Submersible pump w/ dedicated tubing					
Date: 06/17/2015	Time: 15:10 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:10	22.77	NA	0	NA	0.38	NA	NA	NA	-123.8	PID = 0.1 ppm
08:04	NA	NA	2.5	6.63	1.38	324	0.701	14.89	-31	
08:10	NA	NA	5	6.83	0.92	108	0.692	14.40	-58	
08:16	NA	NA	7	7.02	0.97	1000	0.690	15.57	-57	Well dry
14:10	NA	NA	7	NA	3.61	NA	NA	NA	42.1	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 06/18/2015	Time:(HH:MM) 13:15	Total Volume of Water Purged: 7 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.88	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.681	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	37.2	Ferrous Iron (mg/L)	0
DO (mg/L)	0.0		
Temp.(°C)	16.70		
ORP (mv)	145		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: 3x well volume = 15.5 gallons		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-58</u>			
Samplers: <u>D douglass</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>13.17</u>		Depth to Well Bottom (ft): <u>30</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/17/2015</u>	Time: <u>15:20</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:20	13.17	NA	0	NA	3.19	NA	NA	NA	-87.3	PID = 0.0 ppm
15:30	NA	NA	1.5	6.91	9.37	62.7	0.832	18.72	212	
15:34	NA	NA	3	6.92	0.24	142	0.860	16.79	209	
15:38	NA	NA	4.5	6.99	0.18	464	0.926	15.04	210	
15:46	NA	NA	6	7.14	0.69	895	1.06	15.68	203	
15:51	NA	NA	7.5	7.16	9.82	736	0.953	15.02	206	
15:55	NA	NA	9	7.16	9.81	1000	0.955	14.49	209	
13:40	NA	NA	9	NA	1.99	NA	NA	NA	56.5	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/18/2015</u>	Time:(HH:MM) <u>12:50</u>	Total Volume of Water Purged: <u>9</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.16	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.698	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	70.3	Ferrous Iron (mg/L)	0
DO (mg/L)	2.31		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	17.92
ORP (mv)	202

Comments:

3 x well volume = 8.1 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-62			
Samplers: D douglass		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 9.19		Depth to Well Bottom (ft): 19	
Method: Disposable rope & bailer					
Date: 06/16/2015	Time: 14:30 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:30	9.19	NA	0	NA	0.53	NA	NA	NA	-87.4	PID = 0.0 ppm
14:45	NA	NA	1	6.80	5.51	105	0.544	21.04	40	
14:50	NA	NA	2	6.77	0.0	690	0.536	21.05	48	
15:00	NA	NA	3	6.75	0.0	607	0.539	20.70	57	
15:05	NA	NA	4	6.80	2.72	1000	0.577	20.14	71	
15:10	NA	NA	4.4	NA	NA	NA	NA	NA	NA	Well dry
16:30	NA	NA	4.4	NA	1.66	NA	NA	NA	-107.3	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 06/17/2015	Time:(HH:MM) 12:05	Total Volume of Water Purged: 4.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.10	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.543	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	69.8	Ferrous Iron (mg/L)	0
DO (mg/L)	8.78		
Temp.(°C)	18.41		
ORP (mv)	92		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 4.8 gallons	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-65</u>			
Samplers: <u>D douglass</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>9.06</u>		Depth to Well Bottom (ft): <u>16</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/16/2015</u>	Time: <u>11:35</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:35	9.06	NA	0	NA	4.45	NA	NA	NA	-07.1	PID = 0.6 ppm
11:45	NA	NA	0.5	6.95	1.97	141	1.10	15.90	-41	
11:48	NA	NA	1	6.90	0.0	377	1.10	16.09	-25	
11:52	NA	NA	1.5	6.87	2.86	491	1.12	15.85	-16	
11:56	NA	NA	2	6.86	6.66	703	1.08	15.74	-8	
12:00	NA	NA	2.5	6.84	1.26	1000	1.10	15.68	-1	
12:02	NA	NA	3.5	6.82	6.56	1000	1.11	15.86	6	
10:40	NA	NA	3.5	NA	1.87	NA	NA	NA	-129.3	Post readings 6...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/17/2015</u>	Time:(HH:MM) <u>10:10</u>	Total Volume of Water Purged: <u>3.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.16	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.945	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	73.5	Ferrous Iron (mg/L)	0
DO (mg/L)	4.83		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	16.12
ORP (mv)	218

Comments:

3 x well volume = 3.3 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-66</u>			
Samplers: A kowalczk		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data			Initial Depth to Water (ft): <u>21.09</u>		Depth to Well Bottom (ft): <u>62</u>
Method: Submersible pump w/ dedicated tubing					
Date: <u>06/17/2015</u>		Time: <u>15:20</u> (HH:MM)		1-inch=0.041	1.5-inch=0.092
				2-inch=0.16	3-inch=0.36
				4-inch=0.64	6-inch=1.4
				8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:20	21.09	NA	0	NA	7.10	NA	NA	NA	-62.6	PID= 0.0 ppm
15:40	NA	NA	3.5	6.97	0.57	338	1.75	17.05	214	
16:15	NA	NA	7	7.00	0.0	81.1	2.93	16.85	226	
16:19	NA	NA	10.5	7.22	0.0	86.3	1.81	16.31	214	
14:25	NA	NA	14	7.07	9.47	352	3.13	16.81	213	
14:27	NA	NA	15	NA	NA	NA	NA	NA	NA	Well dry
12:55	NA	NA	15	NA	3.65	NA	NA	NA	47.2	Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/18/2015</u>	Time:(HH:MM) <u>12:35</u>	Total Volume of Water Purged: <u>15</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.21	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	2.72	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	88.1	Ferrous Iron (mg/L)	0
DO (mg/L)	0.0		
Temp.(°C)	17.36		
ORP (mv)	184		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: 3x well volume= 19.6 gallons	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-67			
Samplers: C huey		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 16.06		Depth to Well Bottom (ft): 29.64	
Method: Disposable rope & bailer					
Date: 06/17/2015	Time: 15:20 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:20	16.06	NA	0	NA	4.40	NA	NA	NA	-63.4	PID = 0.0 ppm
08:53	NA	NA	1	7.15	7.43	50.2	0.776	13.72	165	
08:55	NA	NA	2	7.17	7.45	1000	0.763	12.54	171	
09:01	NA	NA	3	7.08	3.98	1000	0.768	12.52	165	
09:04	NA	NA	4	7.03	6.51	1000	0.782	12.15	171	
09:05	NA	NA	4.25	NA	NA	NA	NA	NA	NA	Well dry
14:25	NA	NA	4.25	NA	6.96	NA	NA	NA	50.9	Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 06/18/2015	Time:(HH:MM) 13:40	Total Volume of Water Purged: 4.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.06	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.766	Methyl alkalinity (mg/L)	400
Turbidity (NTU)	86.5	Ferrous Iron (mg/L)	0.4
DO (mg/L)	0.47		
Temp.(°C)	16.39		
ORP (mv)	154		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 6.5 gallons	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-68	
Samplers: D douglass		Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Submersible pump w/ dedicated tubing		Initial Depth to Water (ft): 23.81	
Date: 06/17/2015		Time: 15:25 (HH:MM)	
		1-inch=0.041 1.5-inch=0.092 2-inch=0.16 3-inch=0.36 4-inch=0.64 6-inch=1.4 8-inch=2.5 10-inch=4	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:25	23.81	NA	0	NA	0.53	NA	NA	NA	-116.1		PID = 0.3 ppm
08:56	NA	NA	2.5	7.18	6.49	235	0.722	13.40	158		
08:58	NA	NA	5	7.24	0.0	127	0.693	13.51	152		
09:01	NA	NA	7.5	7.15	2.32	573	0.703	13.51	162		
09:06	NA	NA	10	7.21	3.59	220	0.713	13.91	158		
09:11	NA	NA	12.5	7.26	0.0	1000	0.718	14.23	142		Well dry
14:35	NA	NA	12.5	NA	6.87	NA	NA	NA	47.1		Post sampling r...

Sampling Data

Method: Disposable bailer & rope	Date: 06/18/2015	Time:(HH:MM) 13:25	Total Volume of Water Purged: 12.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.33	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.709	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	34.2	Ferrous Iron (mg/L)	0
DO (mg/L)	0.91		
Temp.(°C)	16.97		
ORP (mv)	170		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 15 gallons	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-111			
Samplers: A kowalczk		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 21.56		Depth to Well Bottom (ft): 60.5	
Method: Submersible pump w/ dedicated tubing					
Date: 06/17/2015	Time: 14:10 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:10	21.56	NA	0	NA	3.53	NA	NA	NA	-86.7	PID = 0.0 ppm
14:34	NA	NA	3.25	7.33	2.75	621	0.888	17.17	175	
14:38	NA	NA	6.5	7.33	8.44	541	0.673	16.39	174	
14:41	NA	NA	9.75	7.29	0.43	489	0.612	16:30	176	
14:45	NA	NA	13	7.25	9.79	450	0.781	16.22	180	
14:49	NA	NA	16.25	7.28	6.52	406	0.839	16.65	176	
14:56	NA	NA	19.5	7.28	9.68	626	0.866	15.41	177	
13:00	NA	NA	19.5	NA	3.31	NA	NA	NA	48.2	Post purge read...

Sampling Data

Method: Disposable bailer & rope	Date: 06/18/2015	Time:(HH:MM) 12:25	Total Volume of Water Purged: 19. More (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.25	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.991	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	27.3	Ferrous Iron (mg/L)	0
DO (mg/L)	0.0		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	16.89
ORP (mv)	180

Comments:

3x well volume = 18.3 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-112			
Samplers: A kowalczk		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data			Initial Depth to Water (ft): 9.89		Depth to Well Bottom (ft): 64.4
Method: Submersible pump w/ dedicated tubing					
Date: 06/16/2015		Time: 13:50 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:50	9.89	NA	0	NA	0.76	NA	NA	NA	-87.6		PID = 0.6 ppm
14:45	NA	NA	4.5	6.91	0.0	239	1.13	18.40	28		
14:55	NA	NA	9	6.93	5.66	196	1.31	19.16	-28		
15:02	NA	NA	13.5	6.96	6.83	81.7	1.15	17.20	-31		
15:05	NA	NA	18	6.97	3.32	53.4	1.16	17.22	-23		
15:15	NA	NA	22.5	6.81	0.0	81.5	1.32	18.35	10		
15:25	NA	NA	27	6.91	6.13	102	1.33	17.62	-12		
12:20	NA	NA	27	NA	0.42	NA	NA	NA	-139.6		Post sampling r...

Sampling Data		Method: Disposable bailer & rope		Date: 06/17/2015		Time:(HH:MM) 11:40		Total Volume of Water Purged: 27 (gal)	
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.28	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.13	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	12.6	Ferrous Iron (mg/L)	0
DO (mg/L)	7.94		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	15.71
ORP (mv)	54

Comments:

3 x well volume = 26 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-113</u>			
Samplers: <u>D douglass</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>9.74</u>		Depth to Well Bottom (ft): <u>30.9</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/16/2015</u>	Time: <u>13:50</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:50	9.74	NA	0	NA	0.23	NA	NA	NA	-96.4		PID = 0.0 ppm
14:02	NA	NA	1.75	9.22	2.20	19.6	0.776	18.06	-88		
14:06	NA	NA	3.5	8.32	6.56	27.4	0.848	18.79	5		
14:10	NA	NA	5.25	7.72	0.31	69.6	0.886	16.60	40		
14:15	NA	NA	7	7.53	7.00	35.7	0.913	16.26	50		
14:20	NA	NA	8.75	7.12	0.0	104	0.924	17.24	-16		
14:25	NA	NA	10.5	7.08	0.0	76.6	0.936	17.13	3		
12:30	NA	NA	10.5	NA	0.47	NA	NA	NA	-133.4		Post sampling r...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/17/2015</u>	Time:(HH:MM) <u>11:10</u>	Total Volume of Water Purged: <u>10.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.35	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.874	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	16.6	Ferrous Iron (mg/L)	0
DO (mg/L)	0.0		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	17.13
ORP (mv)	111

Comments:

Ms-MSD collected.

3x well volume = 10.5 gallons

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-114			
Samplers: C huey		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 16.22		Depth to Well Bottom (ft): 40	
Method: Disposable rope & bailer					
Date: 06/15/2015		Time: 11:15 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:15	16.22	NA	0	NA	0.52	NA	NA	NA	-34.5		PID = 0.0 ppm
11:30	NA	NA	2	6.73	0.00	16.5	0.535	13.65	-20		
11:35	NA	NA	4	6.74	2.94	11.7	0.509	14.24	-22		
11:40	NA	NA	6	6.75	0.0	16.4	0.515	13.98	-15		
11:45	NA	NA	8	6.68	8.29	42.0	0.971	13.86	19		
11:50	NA	NA	10	6.72	0.0	26.4	0.560	14.10	12		
11:55	NA	NA	12	6.84	6.52	17.4	0.538	14.36	22		
14:30	NA	NA	12	NA	0.63	NA	NA	NA	-46.0		Final readings

Sampling Data

Method: Disposable bailer & rope	Date: 06/15/2015	Time:(HH:MM) 14:00	Total Volume of Water Purged: 12 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.73	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.552	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	15.5	Ferrous Iron (mg/L)	0
DO (mg/L)	8.32		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	15.32
ORP (mv)	-18

Comments:

3x well volume = 11.4 gallons
Collect ms/msd. Collected CSIA sample for chlorobenzene and dichlorobenzene (hold)

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-123			
Samplers: A kowalczk		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 17.95		Depth to Well Bottom (ft): 79.25	
Method: Submersible pump w/ dedicated tubing					
Date: 06/15/2015	Time: 17:00 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
17:00	17.95	NA	0	NA	7.85	NA	NA	NA	-34.3	PID = > 9999 ppm
09:20	NA	NA	5	6.21	2.60	19.7	0.729	16.32	34	6/16/15
09:27	NA	NA	10	6.27	3.17	14.4	0.723	15.61	48	6/16/15
09:34	NA	NA	15	6.30	2.77	56.4	0.734	15.18	63	6/16/15
09:40	NA	NA	19	6.34	0.49	85.7	0.740	15.56	75	6/16/15 Well dry
08:10	NA	NA	19	NA	4.36	NA	NA	NA	-62.3	Final readings 6...

Sampling Data

Method: Disposable bailer & rope	Date: 06/17/2015	Time:(HH:MM) 07:55	Total Volume of Water Purged: 19 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.61	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.698	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	41.1	Ferrous Iron (mg/L)	0
DO (mg/L)	6.70		
Temp.(°C)	15.46		
ORP (mv)	244		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: 3x well volume = 29.4 gallons Isotopes samples collected	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-125			
Samplers: D Douglass		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 13.48		Depth to Well Bottom (ft): 41.8	
Method: Disposable rope & bailer					
Date: 06/15/2015	Time: 11:00 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:00	13.48	NA	0	NA	3.06	NA	NA	NA	-53.3	Pid= 7.1 ppm
11:10	NA	NA	2.5	6.61	1.27	102	1.33	16.06	-122	
11:15	NA	NA	5	6.89	0.64	78.2	0.946	13.88	-95	
11:20	NA	NA	7.5	6.94	0.50	42.4	0.813	14.16	-3	
11:25	NA	NA	10	6.86	0	58.7	0.829	14.96	5	
11:32	NA	NA	12.5	6.82	0	54.8	0.867	13.20	5	
11:37	NA	NA	15	6.77	2.42	51.9	0.895	12.75	5	
14:10	NA	NA	15	NA	0.50	NA	NA	NA	-69.3	Final readings

Sampling Data

Method: Disposable bailer & rope	Date: 06/15/2015	Time:(HH:MM) 13:20	Total Volume of Water Purged: 15 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.34	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.931	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	15.4	Ferrous Iron (mg/L)	22
DO (mg/L)	1.13		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	18.57
ORP (mv)	-8

Comments:

3x well volume = 13.6 gallons
Duplicate collected SWMW-1125_20150615 @ 1345. Collected CSIA sample for chlorobenzene and Dichlorobenzene (hold). Duplicate CSIA sample collected.

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-126			
Samplers: A kowalczk		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data			Initial Depth to Water (ft): 9.88		Depth to Well Bottom (ft): 49.5
Method: Submersible pump w/ dedicated tubing					
Date: 06/16/2015		Time: 13:40 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:40	9.88	NA	0	NA	0.91	NA	NA	NA	-96.1		PID = 1.3 ppm
13:56	NA	NA	3.25	6.97	0.32	40.6	0.768	18.24	107		
14:04	NA	NA	6.5	6.92	0.0	32.6	0.817	17.43	-4		
14:07	NA	NA	9.75	6.93	6.75	48.3	0.819	16.78	-13		
14:15	NA	NA	13	7.31	1.43	51.9	0.817	18.03	-2		
14:25	NA	NA	16.25	7.14	5.30	51.9	0.846	16.87	-26		Well dry
12:10	NA	NA	18	NA	1.14	NA	NA	NA	-119.7		Post sampling r...

Sampling Data

Method: Disposable bailer & rope		Date: 06/17/2015	Time:(HH:MM) 11:20	Total Volume of Water Purged: 18 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.38	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.837	Methyl alkalinity (mg/L)	320
Turbidity (NTU)	27.8	Ferrous Iron (mg/L)	0
DO (mg/L)	0.0		
Temp.(°C)	16.77		
ORP (mv)	108		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: 3 x well volume = 19 gallons Duplicate SWMW-1126 collected @ 12:01	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>Unknown Well 1</u>			
Samplers: <u>C Huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>6.53</u>		Depth to Well Bottom (ft): <u>8.65</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/15/2015</u>		Time: <u>15:15</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				3-inch=0.36	
				8-inch=2.5	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:15	6.53	NA	0	NA	NA	NA	NA	NA	-65.0		DO probe does ...
15:44	NA	NA	0.25	6.33	8.26	56.8	0.518	15.22	-6		
15:45	NA	NA	0.5	6.32	8.38	56.6	0.468	14.88	-2		
15:46	NA	NA	0.75	6.31	0.66	54.8	0.459	14.66	0		
15:48	NA	NA	1	6.30	0.0	22.7	0.458	14.61	2		
15:49	NA	NA	1.25	6.29	0.0	36.7	0.458	14.85	-1		
15:50	NA	NA	1.5	6.28	2.30	33.1	0.461	15.16	0		
08:45	NA	NA	1.5	NA	NA	NA	NA	NA	-71.6		Final readings 6...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/16/2015</u>	Time:(HH:MM) <u>08:25</u>	Total Volume of Water Purged: <u>1.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.07	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.487	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	17.8	Ferrous Iron (mg/L)	2.8
DO (mg/L)	7.90		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	15.79
ORP (mv)	115

Comments:

3x well volume = 1.02 gallons
Purged 6/15/15
Sampled 6/16/15

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>Unknown Well 1</u> Manual Entry:		Well Diameter: <u>2</u> inches	
Samplers: C huey		WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 6.74		Depth to Well Bottom (ft): 8.65	
Date: 06/18/2015	Time: 10:15 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:15	6.74	NA	0	NA	NA	NA	NA	NA	-17.0	Pid= 0.0 ppm
10:18	NA	NA	0.2	6.85	0.0	519	0.352	14.49	-35	
10:19	NA	NA	0.4	6.73	0.0	222	0.331	13.96	-23	
10:20	NA	NA	0.6	6.67	5.92	235	0.331	14.00	-18	
10:21	NA	NA	0.8	6.59	1.34	311	0.330	13.68	-14	
10:22	NA	NA	1	6.56	0.0	455	0.332	13.77	-14	
10:25	NA	NA	1.2	6.54	3.32	326	0.334	13.66	-14	
16:05	NA	NA	1.2	NA	NA	NA	NA	NA	14.8	Post sampling

Sampling Data

Method: Disposable bailer & rope	Date: 06/18/2015	Time:(HH:MM) 15:35	Total Volume of Water Purged: 1.2 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.62	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.343	Methyl alkalinity (mg/L)	120
Turbidity (NTU)	209	Ferrous Iron (mg/L)	2.4
DO (mg/L)	0.0		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☐	250 mL poly	N/A	SM 2320 B-1997

	14.83
ORP (mv)	0

Comments:

Re sampled due lost shipped samples.

Nitrate	☐	2- 40 mL vials	N/A	EPA 300.0
Manganese	☐	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☐	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☐	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☐	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☐	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon				Well ID: Unknown Well 2		Manual Entry: 		Well Diameter: <u>2</u> inches				
Samplers: D douglass				WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot								
Purging Data Method: Disposable rope & bailer				Initial Depth to Water (ft): 6.7		Depth to Well Bottom (ft): 8						
Date: 06/15/2015		Time: 15:00 (HH:MM)		1-inch=0.041 4-inch=0.64		1.5-inch=0.092 6-inch=1.4		2-inch=0.16 8-inch=2.5		3-inch=0.36 10-inch=4		
Enter turbidity limit: 1 NTU										SC = Stabilization check Comments		
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)			
15:00	6.70	NA	0	NA	NA	NA	NA	NA	-59.4			DO probe does ...
15:20	NA	NA	0.25	6.79	0.0	88.6	0.885	17.26	7			
15:22	NA	NA	0.45	NA	NA	NA	NA	NA	NA			Well dry
08:40	NA	NA	0.45	NA	NA	NA	NA	NA	-70.4	Final readings 6...		

Sampling Data

Method: Disposable bailer & rope	Date: 06/16/2015	Time:(HH:MM) 08:35	Total Volume of Water Purged: 0.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.58	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.533	Methyl alkalinity (mg/L)	120
Turbidity (NTU)	68.5	Ferrous Iron (mg/L)	2.6
DO (mg/L)	2.37		
Temp.(°C)	14.23		
ORP (mv)	41		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: 3 x well volume = 0.63 gallons	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>Unknown Well 2</u>			
Samplers: 		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>6.9</u>		Depth to Well Bottom (ft): <u>8</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/18/2015</u>	Time: <u>10:20</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:20	6.90	NA	0	NA	NA	NA	NA	NA	-19.4	PID = 0.0 ppm
10:25	NA	NA	0.5	6.35	0.33	40.4	0.428	14.31	49	Well dry
16:00	NA	NA	0.5	NA	NA	NA	NA	NA	35.3	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/18/2015</u>	Time:(HH:MM) <u>15:40</u>	Total Volume of Water Purged: <u>0.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.42	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.443	Methyl alkalinity (mg/L)	80
Turbidity (NTU)	161	Ferrous Iron (mg/L)	0.6
DO (mg/L)	0.0		
Temp.(°C)	14.79		
ORP (mv)	48		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☐	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☐	2- 40 mL vials	N/A	EPA 300.0
Manganese	☐	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☐	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☐	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☐	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☐	2- 40 mL vials	N/A	EPA 300.0

Comments:

Re sampled due lost shipped samples

cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon						Well ID: Unknown Well 3 Manual Entry:		Well Diameter: <u>2</u> inches		
Samplers: D douglass						WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot				
Purging Data Method: <u>Disposable rope & bailer</u>						Initial Depth to Water (ft): 6.29		Depth to Well Bottom (ft): 7.35		
Date: 06/15/2015		Time: 15:20 (HH:MM)		1-inch=0.041 1.5-inch=0.092 2-inch=0.16 3-inch=0.36 4-inch=0.64 6-inch=1.4 8-inch=2.5 10-inch=4						
Enter turbidity limit: 1 NTU										
SC = Stabilization check										
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:20	6.29	NA	0	NA	NA	NA	NA	NA	-62.2	DO probe does ...
15:42	NA	NA	0.25	6.33	0.0	177	1.04	16.32	-4	
15:45	NA	NA	0.45	NA	NA	NA	NA	NA	NA	Well dry
08:42	NA	NA	0.45	NA	NA	NA	NA	NA	-57.2	Final readings 6...

Sampling Data Method: <u>Disposable bailer & rope</u>		Date: <u>06/16/2015</u>		Time: (HH:MM) <u>08:10</u>		Total Volume of Water Purged: <u>0.5</u> (gal)	
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STABILIZED PARAMETERS				HACH TEST KITS			
pH	5.55	Phenol alkalinity (mg/L)	0				
Spec. Cond. (mS/cm)	0.608	Methyl alkalinity (mg/L)	140				
Turbidity (NTU)	8.13	Ferrous Iron (mg/L)	1.6				
DO (mg/L)	1.55						
Temp.(°C)	15.20						
ORP (mv)	17						

SAMPLE SET				
Parameter	Bottle	Pres.	Method	
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: 3 x well volume = 0.51 gallons	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>Unknown Well 3</u>			
Samplers: 		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>6.49</u>		Depth to Well Bottom (ft): <u>7.35</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>06/18/2015</u>	Time: <u>10:20</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
10:20	6.49	NA	0	NA	NA	NA	NA	NA	-33.1	PID = 0.0 ppm
10:30	NA	NA	0.5	6.41	5.68	122	0.562	14.96	28	Well dry
16:02	NA	NA	0.5	NA	NA	NA	NA	NA	-24.6	Post sampling

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>06/18/2015</u>	Time:(HH:MM) <u>15:50</u>	Total Volume of Water Purged: <u>0.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.05	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.543	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	113	Ferrous Iron (mg/L)	1.6
DO (mg/L)	0.0		
Temp.(°C)	16.02		
ORP (mv)	-32		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☐	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☐	2- 40 mL vials	N/A	EPA 300.0
Manganese	☐	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☐	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☐	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☐	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☐	2- 40 mL vials	N/A	EPA 300.0

Comments:

Re sampled due to lost shipped samples.

cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>GT-2</u>			
Samplers: <u>Chris Watson</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>5</u>		Depth to Well Bottom (ft): <u>8.23</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>	Time: <u>14:45</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:45	5.00	NA	NA	NA	0.41	NA	NA	NA	-66.8	PID 0.0
15:00	NA		0.25	9.87	5.33	93.9	0.983	17.80	-96	
15:05	NA		0.5	9.80	8.13	377	0.980	17.68	-92	
15:08	NA		0.75	9.72	8.08	422	0.978	17.23	-76	
15:10	NA		1.0	9.73	7.85	561	0.975	17.53	-87	
15:12	NA		1.25	9.57	5.76	875	0.972	17.54	-84	
15:15	NA		1.5	9.62	5.50	1000	0.974	17.50	-87	
12:50	NA		NA	NA	0.78	NA	NA	NA	-84	Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>10:40</u>	Total Volume of Water Purged: <u>1.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	9.36	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.907	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	62.	Ferrous Iron (mg/L)	1.8
DO (mg/L)	3.69		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	21.60
ORP (mv)	-98

Comments:

DO incorrect while purging by horiba

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>ITMW-13</u>			
Samplers: Chris Watson		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>7</u>		Depth to Well Bottom (ft): <u>20</u>	
Method: Disposable rope & bailer					
Date: <u>09/14/2015</u>		Time: <u>11:50</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:50	7.00	NA	NA	NA	1.02	NA	NA	NA	98.3		PID 0.0
12:00	NA		1	6.64	2.94	108	5.93	14.01	84		
12:05	NA		2	6.88	6.69	1000	6.10	13.70	70		Dry at 2.5 gal
10:30	NA		NA	NA	0.92	NA	NA	NA	101.6		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>10:00</u>	Total Volume of Water Purged: <u>2.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.93	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	5.62	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	40.2	Ferrous Iron (mg/L)	0.5
DO (mg/L)	2.31		
Temp.(°C)	15.78		
ORP (mv)	88		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: DO incorrect while purging by horiba	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>ITMW-25</u>			
Samplers: Chris Watson		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 13.47		Depth to Well Bottom (ft): 24.8	
Method: Disposable rope & bailer					
Date: 09/09/2015		Time: 10:25 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
10:25	13.47	NA	NA	NA	1.59	NA	NA	NA	-83.6		PID 0.0
10:45	NA		1.0	7.83	3.22	Over	1.24	19.27	-105		
10:55	NA		2.0	7.44	3.75	Over	1.29	18.09	-86		Dry at 2.25 gal
08:50	NA		NA	NA	2.41	NA	NA	NA	65.2		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/10/2015	Time:(HH:MM) 08:15	Total Volume of Water Purged: 2.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.58	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.34	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	422	Ferrous Iron (mg/L)	0
DO (mg/L)	3.74		
Temp.(°C)	17.83		
ORP (mv)	148		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments:	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>ITMW-6</u>			
Samplers: <u>Chris Watson</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>23.32</u>		Depth to Well Bottom (ft): <u>48</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>	Time: <u>08:55</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
08:55	23.32	NA	NA	NA	0.71	NA	NA	NA	-31.6		PID 0.0
09:00	NA		2.0	7.16	4.13	9.55	0.870	15.07	-25		
09:05	NA		4.0	7.79	3.85	13.8	0.865	13.90	-40		
09:10	NA		6.0	7.85	3.42	34.8	0.882	13.26	-50		
09:15	NA		8.0	7.88	3.55	17.7	0.890	13.23	-53		
09:20	NA		10.0	8.61	3.14	19.7	0.915	13.42	-49		
09:25	NA		12.0	8.29	3.03	24.3	0.985	13.65	-55		
09:10	NA		NA	NA	0.88	NA	NA	NA	12.5		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>09:00</u>	Total Volume of Water Purged: <u>12.0</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.02	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.999	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	80.8	Ferrous Iron (mg/L)	0
DO (mg/L)	2.60		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	15.27
ORP (mv)	36

Comments:

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-10	
Samplers: Cheryl Huey		Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 6.56	
Date: 09/09/2015		Time: 10:00 (HH:MM)	

										Enter turbidity limit: 1 NTU		
										SC = Stabilization check		
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments	
10:00	6.56		NA	NA	0.73	NA	NA	NA	-63.5		PID 22.7	
10:10	NA		0.2	7.04	8.90	190	1.51	24.4	-63		Dry at 0.3	
09:30	NA		NA	NA	2.54	NA	NA	NA	-43.6			

Sampling Data

Method: Disposable bailer & rope	Date: 09/10/2015	Time:(HH:MM) 08:45	Total Volume of Water Purged: 0.3 (gal)
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STABILIZED PARAMETERS				HACH TEST KITS		SAMPLE SET				
pH	7.93	Phenol alkalinity (mg/L)	0	Methyl alkalinity (mg/L)	400	Parameter		Bottle	Pres.	Method
Spec. Cond. (mS/cm)	1.53	Ferrous Iron (mg/L)	0.6			Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Turbidity (NTU)	278					Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
DO (mg/L)	2.29					Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Temp.(°C)	21.82					Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
ORP (mv)	-60					Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
						Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
						Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
						Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
						Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
						Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
						Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
						Chloride	☒	2- 40 mL vials	N/A	EPA 300.0

Comments:

	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-111			
Samplers: Chris Watson		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 22.42		Depth to Well Bottom (ft): 60.5	
Method: Submersible pump w/ dedicated tubing					
Date: 09/10/2015	Time: 14:05 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:05	22.42	NA	NA	NA	0.67	NA	NA	NA	-61.9		PID 0.0
14:10	NA	3000	3	8.76	2.17	1000	0.787	17.07	31		
14:15	NA	3000	6	8.12	2.21	1000	1.15	17.84	43		
14:20	NA	3000	9	7.49	2.24	1000	1.25	16.45	54		
14:23	NA	3000	12	7.42	2.46	982	1.19	17.07	59		
14:25	NA	3000	15	7.46	3.05	646	1.29	16.18	73		
14:30	NA	3000	18	7.44	2.42	419	1.31	15.36	86		
08:55	NA		NA	NA	4.35	NA	NA	NA	167.2		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/11/2015	Time:(HH:MM) 08:30	Total Volume of Water Purged: 18.0 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.82	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.311	Methyl alkalinity (mg/L)	
Turbidity (NTU)	139	Ferrous Iron (mg/L)	0
DO (mg/L)	4.92		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	15.78
ORP (mv)	110

Comments:

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-112			
Samplers: CHris Watson		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 11.62		Depth to Well Bottom (ft): 64.4	
Method: Submersible pump w/ dedicated tubing					
Date: 09/09/2015	Time: 14:20 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:20	11.62	NA	NA	NA	0.46	NA	NA	NA	43.9		PID 0.0
14:25	NA	3000	4	7.46	2.24	69.3	1.49	19.14	-37		
14:30	NA	3000	8.5	7.18	2.04	33.7	1.51	20.98	-44		
14:35	NA	3000	12.5	7.23	2.23	45.8	1.52	19.22	-52		
14:40	NA	3000	17	7.12	2.16	52.4	1.51	18.43	-41		
14:45	NA	3000	21	7.17	2.14	59.8	1.53	17.44	-44		
14:55	NA	3000	25.5	7.04	2.03	43.6	1.53	17.56	-43		
10:45	NA		NA	NA	1.12	NA	NA	NA	61.3		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/10/2015	Time:(HH:MM) 10:25	Total Volume of Water Purged: 25.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.67	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.58	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	20.5	Ferrous Iron (mg/L)	0
DO (mg/L)	4.02		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	18.79
ORP (mv)	61

Comments:

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-113</u>			
Samplers: <u>CHris Watson</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>10.44</u>		Depth to Well Bottom (ft): <u>30.9</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/09/2015</u>	Time: <u>13:40</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:40	10.44	NA	NA	NA	0.73	NA	NA	NA	1.34		PID 0.0
13:45	NA		1.75	7.36	2.71	44.2	1.01	20.81	-44		
13:55	NA		3.5	7.24	3.23	41.8	1.12	18.52	-26		
13:58	NA		5.25	6.98	4.08	126	1.17	18.92	-4		
14:00	NA		7.0	6.94	3.34	223	1.18	17.53	11		
14:05	NA		8.75	6.96	3.52	433	1.18	17.60	28		
14:10	NA		10.5	6.90	3.85	436	1.21	17.03	37		
11:15	NA		NA	NA	0.72	NA	NA	NA	80.8		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/10/2015</u>	Time:(HH:MM) <u>10:40</u>	Total Volume of Water Purged: <u>10.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.64	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.30	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	12.9	Ferrous Iron (mg/L)	0
DO (mg/L)	2.06		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	17.96
ORP (mv)	74

Comments:

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-114</u>			
Samplers: <u>Cheryl Huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>15.95</u>		Depth to Well Bottom (ft): <u>40</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>	Time: <u>11:15</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:15	15.95	NA	NA	NA	2.93	NA	NA	NA	-27.3	PID 0.8
11:40	NA		2	8.87	2.60	9.50	0.545	12.86	-51	
11:45	NA		4	8.96	2.86	15.5	0.592	12.56	-47	
11:50	NA		6	8.96	8.82	8.65	0.577	11.96	-44	
11:53	NA		8	8.94	8.90	10.8	0.573	11.58	-33	
11:55	NA		10	8.82	8.81	13.7	0.579	11.55	-20	
11:57	NA		12	8.93	4.12	13.9	0.584	11.79	-6	
10:00	NA		NA	NA	0.89	NA	NA	NA	20.8	Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>09:50</u>	Total Volume of Water Purged: <u>12.0</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	9.93	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.592	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	15.8	Ferrous Iron (mg/L)	0
DO (mg/L)	2.80		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	14.76
ORP (mv)	-23

Comments:

DO incorrect while purging by horiba
MS/MSD collected

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-123			
Samplers: Chris Watson		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 18.26		Depth to Well Bottom (ft): 79.25	
Method: Submersible pump w/ dedicated tubing					
Date: 09/14/2015	Time: 09:50 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
09:50	18.26	NA	NA	NA	8.91	NA	NA	NA	111.1		PID 0.0
10:00	NA	1500	5	9.46	4.83	42.8	0.989	14.03	69		
10:10	NA	1500	10	8.75	4.73	43.8	1.00	14.57	79		Dry at 14 gal
09:20	NA		NA	NA	6.53	NA	NA	NA	122.6		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/15/2015	Time:(HH:MM) 09:15	Total Volume of Water Purged: 14.0 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.24	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.943	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	23.0	Ferrous Iron (mg/L)	0
DO (mg/L)	5.77		
Temp.(°C)	14.39		
ORP (mv)	107		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments:	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-125</u>			
Samplers: <u>Chris Watson</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>13.2</u>		Depth to Well Bottom (ft): <u>41.8</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>	Time: <u>11:10</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:10	13.20	NA	NA	NA	0.60	NA	NA	NA	-75.5		PID 0.3
11:15	NA		2.5	9.39	2.90	18.2	1.02	15.63	-121		
11:20	NA		5.0	8.99	8.87	7.62	0.779	14.55	-117		
11:25	NA		7.5	8.16	8.63	8.69	0.783	13.84	-102		
11:30	NA		10	8.16	8.43	12.7	0.805	13.84	-36		
11:35	NA		12.5	8.45	8.35	92.8	0.849	13.70	-36		
11:40	NA		15	8.51	2.95	61.8	0.871	12.94	-26		
09:50	NA		NA	NA	0.77	NA	NA	NA	3.5		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>09:45</u>	Total Volume of Water Purged: <u>15.0</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	9.68	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.874	Methyl alkalinity (mg/L)	180
Turbidity (NTU)	48.9	Ferrous Iron (mg/L)	1.5
DO (mg/L)	3.68		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	15.34
ORP (mv)	-22

Comments:

DO incorrect while purging by horiba
SWMW 1125 collected for duplicate at 12:01

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-126</u>			
Samplers: <u>CW</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data			Initial Depth to Water (ft): <u>10.17</u>		Depth to Well Bottom (ft): <u>49.5</u>
Method: <u>Submersible pump w/ dedicated tubing</u>					
Date: <u>09/09/2015</u>		Time: <u>13:30</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:30	10.17	NA	NA	NA	0.63	NA	NA	NA	-38.6		PID 0.0
13:40	NA	1500	3.0	7.62	8.57	60.8	1.10	25.49	-99		
13:55	NA	1500	6.0	7.17	2.44	12.3	1.10	18.87	-30		
14:05	NA	1500	9.0	6.91	2.95	21.8	1.12	17.76	-15		
14:15	NA	1500	12.0	7.14	3.55	15.0	1.10	17.86	-6		
14:20	NA	1500	16.0	7.05	2.88	12.9	1.10	17.85	-10		
14:30	NA	1500	19.5	7.21	2.79	8.4	1.12	17.78	-8		
10:30	NA		NA	NA	1.37	NA	NA	NA	73.1		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/10/2015</u>	Time:(HH:MM) <u>10:10</u>	Total Volume of Water Purged: <u>19.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.46	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.18	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	40.0	Ferrous Iron (mg/L)	0
DO (mg/L)	3.03		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	18.59
ORP (mv)	69

Comments:

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-15</u>			
Samplers: <u>Chris Watson</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>20.76</u>		Depth to Well Bottom (ft): <u>25</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/10/2015</u>	Time: <u>15:30</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:30	20.76	NA	NA	NA	0.61	NA	NA	NA	-64.2		PID 2.6
15:35	NA		0.3	9.28	2.79	Over	1.13	17.95	-70		Dry at 0.3 gal
09:00	NA		NA	NA	0.58	NA	NA	NA	-70.7		Post sample 9/1...

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/11/2015</u>	Time:(HH:MM) <u>09:15</u>	Total Volume of Water Purged: <u>0.3</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.62	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.625	Methyl alkalinity (mg/L)	
Turbidity (NTU)	82.2	Ferrous Iron (mg/L)	1
DO (mg/L)	1.87		
Temp.(°C)	15.90		
ORP (mv)	33		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0

Comments:

Post sample PID 42.7. Vented well and no readings until PID sustained under 1.0 ppm.

cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon						Well ID: SWMW-21				
Samplers: Cheryl Huey						Manual Entry: 		Well Diameter: <u>2</u> inches		
WATER VOLUME CALCULATION										
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot										
Purging Data						Initial Depth to Water (ft): 9.13		Depth to Well Bottom (ft): 12		
Method: Disposable rope & bailer										
Date: 09/15/2015			Time: 14:45 (HH:MM)			1-inch=0.041		1.5-inch=0.092		
						4-inch=0.64		6-inch=1.4		
						2-inch=0.16		3-inch=0.36		
						8-inch=2.5		10-inch=4		
Enter turbidity limit: 1 NTU SC = Stabilization check										
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments

Sampling Data

Method: Disposable bailer & rope	Date: 09/16/2015	Time:(HH:MM) 09:00	Total Volume of Water Purged: (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH		Phenol alkalinity (mg/L)	
Spec. Cond. (mS/cm)		Methyl alkalinity (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)			
Temp.(°C)			
ORP (mv)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

Comments:

DTP 8.98
PID 175.3
NAPL thickness = 0.15 feet
No hach kit/parameter readings due to NAPL

		Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
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PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-2</u>			
Samplers: <u>Ceryl Huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>6.08</u>		Depth to Well Bottom (ft): <u>23.6</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>		Time: <u>14:50</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:50	6.08	NA	NA	NA	0.56	NA	NA	NA	-16.9		PID 0.0
15:10	NA		1.5	8.32	7.49	516	2.09	16.67	-59		
15:15	NA		3.0	8.37	7.83	133	2.33	15.59	-54		Dry at 3.0 gal
12:55	NA		NA	NA	0.69	NA	NA	NA	-39.6		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>10:30</u>	Total Volume of Water Purged: <u>3.0</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.64	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.91	Methyl alkalinity (mg/L)	320
Turbidity (NTU)	22 t	Ferrous Iron (mg/L)	1.6
DO (mg/L)	1.93		
Temp.(°C)	20.42		
ORP (mv)	-64		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: DO incorrect while purging by horiba	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-28</u>			
Samplers: <u>Chris Watson</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>9.93</u>		Depth to Well Bottom (ft): <u>16.5</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>		Time: <u>15:50</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:50	9.93	NA	NA	NA	0.53	NA	NA	NA	-98.7		PID 0.0
16:05	NA		0.5	7.73	8.13	1000	1.37	17.25	-93		
16:10	NA		1.0	7.61	8.01	1000	1.36	17.52	-104		Dry at 1.3 gal
13:50	NA		NA	NA	0.32	NA	NA	NA	-101.7		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>11:00</u>	Total Volume of Water Purged: <u>0.3</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	10.09	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.31	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	534	Ferrous Iron (mg/L)	2.0
DO (mg/L)	4.85		
Temp.(°C)	20.13		
ORP (mv)	-111		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: DO incorrect while purging by horiba	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-30</u>			
Samplers: <u>Chris Watson</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>9.23</u>		Depth to Well Bottom (ft): <u>14.78</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/15/2015</u>	Time: <u>14:35</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:35	9.23	NA	NA	NA	0.36	NA	NA	NA	-63.4	PID 0.0
14:45	NA		0.5	7.67	3.35	622	1.36	19.02	-111	
14:50	NA		1.0	7.50	2.23	758	1.46	19.43	-109	
14:52	NA		1.5	7.48	2.34	636	1.31	18.95	-105	
14:55	NA		2.0	7.41	3.60	592	1.28	18.90	-100	
14:58	NA		2.5	7.39	2.35	595	1.27	18.76	-99	
15:00	NA		3.0	7.34	2.54	535	1.24	18.45	-98	
09:35	NA		NA	NA	0.65	NA	NA	NA	-88.6	Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/16/2015</u>	Time:(HH:MM) <u>09:30</u>	Total Volume of Water Purged: <u>3.0</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.64	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.42	Methyl alkalinity (mg/L)	360
Turbidity (NTU)	67.1	Ferrous Iron (mg/L)	2.0
DO (mg/L)	2.37		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	16.95
ORP (mv)	-90

Comments:

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-31</u>			
Samplers: <u>Chris Watson</u>		Manual Entry: <u></u>		Well Diameter: <u>4</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>7.54</u>		Depth to Well Bottom (ft): <u>11.2</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/15/2015</u>	Time: <u>14:30</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:30	7.54	NA	NA	NA	0.81	NA	NA	NA	-84.1	PID 0.0
14:35	NA		1.25	7.86	2.08	682	1.34	22.17	-130	
14:38	NA		2.5	7.67	2.35	738	1.37	20.51	-124	
14:40	NA		3.75	7.42	2.65	768	1.39	19.56	-121	
14:42	NA		5	8.03	2.12	389	1.40	19.21	-117	
14:45	NA		6.25	7.68	2.49	645	1.38	18.64	-118	
14:50	NA		7.5	7.34	2.86	688	1.39	18.42	-117	
09:50	NA		NA	NA	0.55	NA	NA	NA	-94.2	Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/16/2015</u>	Time:(HH:MM) <u>09:45</u>	Total Volume of Water Purged: <u>7.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.84	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.48	Methyl alkalinity (mg/L)	360
Turbidity (NTU)	323	Ferrous Iron (mg/L)	2.2
DO (mg/L)	3.48		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	17.55
ORP (mv)	-51

Comments:

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-41</u>			
Samplers: <u>CHeryl Huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>11.99</u>		Depth to Well Bottom (ft): <u>60.5</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/09/2015</u>	Time: <u>15:00</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:00	11.99	NA	NA	NA	0.75	NA	NA	NA	90.0		PID 0.0
15:05	NA		2.5	7.40	2.09	584	1.13	19.06	64		
15:15	NA		5.0	7.32	2.29	530	1.19	18.34	3		
15:25	NA		7.5	7.40	2.56	569	1.28	19.00	-34		
15:30	NA		10.0	7.35	2.84	416	1.25	17.33	-37		
15:40	NA		12.5	7.34	2.65	479	1.30	18.40	-44		
15:50	NA		15.0	7.17	2.79	178	1.26	18.84	-43		
13:15	NA		NA	NA	1.47	NA	NA	NA	13.0		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/10/2015</u>	Time:(HH:MM) <u>11:15</u>	Total Volume of Water Purged: <u>15.0</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.70	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.34	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	10.9	Ferrous Iron (mg/L)	0.2
DO (mg/L)	3.85		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	17.52
ORP (mv)	5

Comments:

MS/MSD collect

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-44	
Samplers: CHris Watson		Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 6.73	
Date: 09/09/2015		Time: 10:05 (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
10:05	6.73	NA	NA	NA	0.44	NA	NA	NA	-116.2		PID 0.0
10:15	NA		2.0	7.45	3.44	11.1	1.51	21.40	-97		
10:20	NA		4.0	7.54	3.35	9.61	1.57	20.15	-100		
10:25	NA		6.0	7.44	3.17	5.96	1.49	20.04	-99		
10:30	NA		8.0	7.62	3.12	8.19	1.47	20.97	-94		
10:32	NA		10.0	7.63	3.55	9.83	1.48	20.38	-96		
10:35	NA		12.0	7.38	3.10	9.80	1.50	19.74	-99		
09:00	NA		NA	NA	0.51	NA	NA	NA	-97.6		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/10/2015	Time:(HH:MM) 08:30	Total Volume of Water Purged: 12.0 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.45	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.52	Methyl alkalinity (mg/L)	400
Turbidity (NTU)	97.7	Ferrous Iron (mg/L)	0
DO (mg/L)	8.35		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	21.09
ORP (mv)	-56

Comments:

SWMW 144 dups collected at 12:01

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-45</u>			
Samplers: <u>Ceryl Huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>14.83</u>		Depth to Well Bottom (ft): <u>31</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>		Time: <u>10:20</u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
10:20	14.83	NA	NA	NA	0.55	NA	NA	NA	-56.8		PID 129.7
10:30	NA		1.5	8.56	2.86	229	2.43	16.51	-60		
10:35	NA		3.0	8.14	2.55	372	2.43	16.24	-79		Dry at 3 gal
09:45	NA		NA	NA	0.69	NA	NA	NA	-35.3		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>09:40</u>	Total Volume of Water Purged: <u>3.0</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.86	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	2.20	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	19.1	Ferrous Iron (mg/L)	2.0
DO (mg/L)	2.94		
Temp.(°C)	15.30		
ORP (mv)	-44		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments:	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-48			
Samplers: CHris Watson		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 7.63		Depth to Well Bottom (ft): 10	
Method: Disposable rope & bailer					
Date: 09/09/2015		Time: 11:00 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
11:00	7.63	NA	NA	NA	2.90	NA	NA	NA	-8.5		PID 0.0
11:15	NA		0.2	7.71	3.45	955	0.985	22.15	-63		
11:20	NA		0.4	7.35	3.34	1000	1.07	22.46	-65		Dry at 0.4 gal
09:30	NA		NA	NA	1.43	NA	NA	NA	-46.4		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/10/2015	Time:(HH:MM) 09:00	Total Volume of Water Purged: 0.4 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.69	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.12	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	236	Ferrous Iron (mg/L)	0
DO (mg/L)	6.07		
Temp.(°C)	21.27		
ORP (mv)	-33		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments:	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-55</u>			
Samplers: <u>Chris Watson</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>15.62</u>		Depth to Well Bottom (ft): <u>20</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>	Time: <u>10:10</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
10:10	15.62	NA	NA	NA	1.16	NA	NA	NA	-11.3		PID 0.2
10:45	NA		0.35	7.39	5.29	188	0.937	17.46	-26		Dry at 0.5 gal
09:35	NA		NA	NA	0.61	NA	NA	NA	-46.5		Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>09:30</u>	Total Volume of Water Purged: <u>0.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	10.09	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.845	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	68.2	Ferrous Iron (mg/L)	1.8
DO (mg/L)	2.88		
Temp.(°C)	16.56		
ORP (mv)	-23		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0

Comments:

	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-56	
Samplers: Chris Watson		Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Submersible pump w/ dedicated tubing		Initial Depth to Water (ft): 25.15	
Date: 09/10/2015		Time: 15:40 (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°c)	ORP (mV)		Comments
15:40	25.15	NA	NA	NA	0.73	NA	NA	NA	6.1		PID 0.4
15:45	NA		2.5	8.59	1.62	309	0.992	15.14	-15		
15:50	NA		5	8.74	1.74	904	0.997	15.76	-24		
15:53	NA		7.5	8.61	1.56	965	0.995	15.43	-27		Dry at 8 gal
10:00	NA		NA	NA	2.35	NA	NA	NA	127.2		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/11/2015	Time:(HH:MM) 09:30	Total Volume of Water Purged: 8.0 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.45	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.930	Methyl alkalinity (mg/L)	
Turbidity (NTU)	31.3	Ferrous Iron (mg/L)	0
DO (mg/L)	2.60		
Temp.(°C)	15.79		
ORP (mv)	59		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments:		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-58			
Samplers: Jayne Lynch		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 21.75		Depth to Well Bottom (ft): 62	
Method: Disposable rope & bailer					
Date: 09/10/2015	Time: 16:10 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:10	21.75	NA	NA	NA	1.98	NA	NA	NA	83.0	PID 1.3
16:12	NA		1.25	7.48	4.42	1000	1.22	17.20	58	
16:15	NA		2.5	7.45	4.53	1000	1.25	17.02	66	
16:20	NA		3.75	7.42	4.12	Over	1.24	16.87	71	
16:22	NA		5	7.47	3.85	Over	1.25	16.61	73	Dry at 5 gal
10:00	NA		NA	NA	2.39	NA	NA	NA	107.2	Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/11/2015	Time:(HH:MM) 09:50	Total Volume of Water Purged: 5.0 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.85	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.475	Methyl alkalinity (mg/L)	
Turbidity (NTU)	73.2	Ferrous Iron (mg/L)	0
DO (mg/L)	3.92		
Temp.(°C)	17.89		
ORP (mv)	149		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments:	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-62			
Samplers: CHris Watson		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 10.03		Depth to Well Bottom (ft): 19	
Method: Disposable rope & bailer					
Date: 09/09/2015		Time: 14:45 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:45	10.03	NA	NA	NA	0.68	NA	NA	NA	167.7		PID 0.0
14:55	NA		0.75	7.29	2.98	572	0.714	23.14	79		
14:57	NA		1.5	7.36	3.62	1000	0.769	21.23	85		Dry at 2 gal
13:10	NA		NA	NA	1.62	NA	NA	NA	64.6		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/10/2015	Time:(HH:MM) 10:55	Total Volume of Water Purged: 2.0 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.34	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.798	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	36.8	Ferrous Iron (mg/L)	0
DO (mg/L)	2.18		
Temp.(°C)	17.41		
ORP (mv)	46		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments:	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-65</u>			
Samplers: <u>Cheryl Huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>8.6</u>		Depth to Well Bottom (ft): <u>16</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/14/2015</u>	Time: <u>15:45</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:45	8.60	NA	NA	NA	0.76	NA	NA	NA	-46.9	PID 0.0
15:50	NA		0.75	8.43	6.25	1000	2.20	18.93	-17	
15:55	NA		1.5	8.70	8.12	1000	1.83	18.71	-16	
16:00	NA		2.25	8.64	5.15	1000	1.75	18.16	-14	
16:03	NA		3.0	8.26	8.05	1000	1.66	17.78	-13	
16:05	NA		3.75	8.12	7.86	1000	1.67	17.73	-2	
16:10	NA		4.5	7.93	8.02	1000	1.66	17.64	-8	
14:00	NA		NA	NA	2.81	NA	NA	NA	-52.9	Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/15/2015</u>	Time:(HH:MM) <u>10:50</u>	Total Volume of Water Purged: <u>4.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	9.05	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.44	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	31.9	Ferrous Iron (mg/L)	0
DO (mg/L)	2.83		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	21.28
ORP (mv)	18

Comments:

DO incorrect while purging by horiba

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-66</u>			
Samplers: Cheryl Huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data			Initial Depth to Water (ft): 21.75		Depth to Well Bottom (ft): 62
Method: Submersible pump w/ dedicated tubing					
Date: 09/11/2015		Time: 08:05 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
08:05	21.75	NA	NA	NA	1.98	NA	NA	NA	83.0		PID 0.1
08:10	NA		3	6.42	3.82	341	1.68	16.02	221		
08:15	NA		6.5	6.25	3.14	492	1.98	15.86	215		
08:20	NA		9.5	6.43	3.23	710	3.11	15.63	179		Dry at 10 gal
11:00	NA		NA	NA	2.80	NA	NA	NA	166.7		Post sample

Sampling Data

Method: Disposable bailer & rope		Date: 09/11/2015	Time:(HH:MM) 10:30	Total Volume of Water Purged: 10.0 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.05	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	3.80	Methyl alkalinity (mg/L)	
Turbidity (NTU)	68.2	Ferrous Iron (mg/L)	0
DO (mg/L)	3.45		
Temp.(°C)	18.19		
ORP (mv)	112		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments:		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-67</u>			
Samplers: <u>Cheryl Huey</u>		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>18.38</u>		Depth to Well Bottom (ft): <u>29.64</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>09/10/2015</u>	Time: <u>15:10</u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
15:10	18.38	NA	NA	NA	1.99	NA	NA	NA	119.5	PID 0.1
15:35	NA		1	8.89	3.39	1000	1.17	16.35	-10	
15:40	NA		2	8.54	3.77	Over	1.17	15.40	16	Dry at 2 gal
09:40	NA		NA	NA	5.13	NA	NA	NA	113.3	Post sample

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>09/11/2015</u>	Time:(HH:MM) <u>09:00</u>	Total Volume of Water Purged: <u>2.0</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.99	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.07	Methyl alkalinity (mg/L)	
Turbidity (NTU)	42.5	Ferrous Iron (mg/L)	0
DO (mg/L)	4.52		
Temp.(°C)	15.38		
ORP (mv)	150		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments:	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-68			
Samplers: Cheryl Huey		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 28.69		Depth to Well Bottom (ft): 53.62	
Method: Submersible pump w/ dedicated tubing					
Date: 09/10/2015	Time: 15:00 (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:00	28.69	NA	NA	NA	1.51	NA	NA	NA	102.1		PID 1.3
15:05	NA	3000	2	8.57	3.52	328	0.959	15.81	76		
15:08	NA	3000	4	8.52	3.45	308	0.964	16.41	78		
15:12	NA	3000	6	8.48	3.66	1000	0.960	16.46	89		Dry at 7 gal
09:35	NA		NA	NA	5.49	NA	NA	NA	100.1		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/11/2015	Time:(HH:MM) 08:50	Total Volume of Water Purged: 7.0 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.25	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.972	Methyl alkalinity (mg/L)	
Turbidity (NTU)	163	Ferrous Iron (mg/L)	0
DO (mg/L)	3.95		
Temp.(°C)	14.82		
ORP (mv)	145		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments:		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>Unknown Well 1</u>			
Samplers: Chris Watson		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 7.25		Depth to Well Bottom (ft): 8.65	
Method: Disposable rope & bailer					
Date: 09/14/2015		Time: 14:00 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:00	7.25	NA	NA	NA	0.49	NA	NA	NA	-20.3		PID 84.4
14:15	NA		0.10	8.43	4.65	505	1.10	16.74	-43		
14:20	NA		0.25	8.99	3.08	1000	0.863	16.53	-14		Dry at 0.25 gal
13:00	NA		NA	NA	0.93	NA	NA	NA	-13.9		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/15/2015	Time:(HH:MM) 10:15	Total Volume of Water Purged: 0.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	9.30	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.900	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	296	Ferrous Iron (mg/L)	1.8
DO (mg/L)	4.43		
Temp.(°C)	18.37		
ORP (mv)	-17		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments:	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>Unknown Well 3</u>			
Samplers: Ceryl Huey		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 6.19		Depth to Well Bottom (ft): 7.35	
Method: Disposable rope & bailer					
Date: 09/14/2015		Time: 14:15 (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:15	6.19	NA	NA	NA	0.65	NA	NA	NA	26.5		PID 0.0
14:20	NA		0.1	7.90	2.26	239	1.87	17.02	-5		
14:25	NA		0.25	8.06	3.25	169	1.89	17.02	-23		Dry at 0.25 gal
13:05	NA		NA	NA	1.63	NA	NA	NA	-16.9		Post sample

Sampling Data

Method: Disposable bailer & rope	Date: 09/15/2015	Time:(HH:MM) 10:25	Total Volume of Water Purged: 0.25 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.71	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.99	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	48.0	Ferrous Iron (mg/L)	1.6
DO (mg/L)	4.36		
Temp.(°C)	18.25		
ORP (mv)	-13		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments:	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: GT-2			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 5.68		Depth to Well Bottom (ft): 8.22	
Method: Disposable rope & bailer					
Date: 11/09/2015		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:05	NA	NA	0.5	6.05	0.93	87.8	0.969	13.75	-101.3	Initial well PID 0
15:15	NA	NA	1	6.3	1.95	110	0.966	14.13	-85	Sheen
15:25	NA	NA	1.5	6.2	6.45	77.9	0.9	14.1	-92	
15:30	NA	NA	2	6.17	3.45	389	0.9	14.07	-93	Dry at 2.5
00:00	Na	Na	Na	7.02	Na	139	0.993	13.5	Na	Sample
00:00	Na	Na	Na	Na	0.68	Na	Na	Na	-111.4	Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/10/2015	Time:(HH:MM) 10:20	Total Volume of Water Purged: 2.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.02	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.993	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	139	Ferrous Iron (mg/L)	2
DO (mg/L)	0.68		
Temp.(°C)	13.5		
ORP (mv)	-111.4		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: Initial bz PID 0	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>ITMW-13</u>		
Samplers: Ch/dd/bs		Manual Entry: 	Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION				
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot				
Purging Data		Initial Depth to Water (ft): <u>6.02</u>		Depth to Well Bottom (ft): <u>20</u>
Method: Disposable rope & bailer				
Date: <u>11/09/2015</u>	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16
		4-inch=0.64	6-inch=1.4	8-inch=2.5
				10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
13:35	NA	NA	1.5	5.06	0.57	281	5.83	13.04	19.1	Initial well PID 0...
00:00	Na	Na	Na	6.44	Na	12.8	5.56	12.87	Na	Sample
00:00	Na	Na	Na	Na	2.61	Na	Na	Na	67.8	Post

Sampling Data

Method: Disposable bailer & rope	Date: <u>11/10/2015</u>	Time:(HH:MM) <u>09:40</u>	Total Volume of Water Purged: <u>2.2</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.44	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	5.56	Methyl alkalinity (mg/L)	100
Turbidity (NTU)	12.8	Ferrous Iron (mg/L)	1.6
DO (mg/L)	2.61		
Temp.(°C)	12.87		
ORP (mv)	67.8		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0

Comments:

Initial bz PID 0

cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>ITMW-25</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>12.11</u>		Depth to Well Bottom (ft): <u>24.8</u>	
Method: Disposable rope & bailer					
Date: <u>11/10/2015</u>		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:45	Na	Na	1	7.29	0.65	603	1.25	13.38	-73.7	Initial well PID 0
14:50	Na	Na	2	7.3	4.09	1000	1.26	13.84	-72	Dry 2.5 gal
00:00	Na	Na	Na	6.54	Na	34.5	1.13	14.31	Na	Sample
00:00	Na	Na	Na	Na	1.66	Na	Na	Na	-3.9	Post

Sampling Data

Method: Disposable bailer & rope	Date: <u>11/11/2015</u>	Time:(HH:MM) <u>09:05</u>	Total Volume of Water Purged: <u>2.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.54	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.13	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	34.5	Ferrous Iron (mg/L)	0
DO (mg/L)	1.66		
Temp.(°C)	14.31		
ORP (mv)	-3.9		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: Initial bz PID 0	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>ITMW-6</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>21.63</u>		Depth to Well Bottom (ft): <u>48</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/12/2015</u>	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
00:00	Na	Na	Na	Na	0.81	Na	Na	Na	-36.4	Initial well PID 0
10:15	Na	Na	2.3	7.7	2.97	131	1.18	13.3	29	
10:20	Na	Na	4.6	7.77	2.69	102	1.08	13.1	-9	
10:25	Na	Na	6.9	7.96	3.2	117	1.16	13.07	-27	
10:30	Na	Na	9.2	7.82	2.55	110	0.994	13.01	-48	
10:35	Na	Na	12.5	7.69	2.53	86.9	1.07	12.94	-53	Dry
00:00	Na	Na	Na	7.48	Na	42.1	1.06	14.62	Na	Sample
00:00	Na	Na	Na	Na	0.88	Na	Na	Na	-48.3	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/12/2015</u>	Time:(HH:MM) <u>11:55</u>	Total Volume of Water Purged: <u>12.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.48	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.06	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	42.1	Ferrous Iron (mg/L)	1
DO (mg/L)	0.88		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	14.62
ORP (mv)	-48.3

Comments:

Initial bz PID 0

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-10	
Samplers: Ch/dd/bs		Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 4.85	
Date: 11/10/2015		Time: (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:30	Na	Na	.3	7.33	0.6	504	1.45	16.88	-30.3		Initial well PID 0...
00:00	Na	Na	Na	6.8	Na	29.4	1.34	15.66	Na		Sample
00:00	Na	Na	Na	Na	1.15	Na	Na	Na	0.2		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/11/2015	Time:(HH:MM) 09:15	Total Volume of Water Purged: 0.5 (gal)
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STABILIZED PARAMETERS				HACH TEST KITS		SAMPLE SET				
pH	6.8	Phenol alkalinity (mg/L)	0	Methyl alkalinity (mg/L)	360	Parameter		Bottle	Pres.	Method
Spec. Cond. (mS/cm)	1.34	Ferrous Iron (mg/L)	0.6			Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Turbidity (NTU)	29.4					Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
DO (mg/L)	1.15					Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Temp.(°C)	15.66					Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
ORP (mv)	0.2					Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
						Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
						Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
						Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
						Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
						Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
						Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
						Chloride	☒	2- 40 mL vials	N/A	EPA 300.0

Comments:

Initial bz PID 0

cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-111			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 21.57		Depth to Well Bottom (ft): 60.5	
Method: Submersible pump w/ dedicated tubing					
Date: 11/12/2015	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	0.93	Na	Na	Na	-5.2		Initial well PID 0
10:40	Na	Na	3.2	7.49	3.29	1000	1.31	12.68	70		
10:45	Na	Na	6.4	7.62	2.02	742	1.05	12.87	78		
10:50	Na	Na	9.6	7.47	2.7	324	1.17	12.98	83		
10:55	Na	Na	12.8	7.42	4.16	240	1.24	13.16	87		
11:00	Na	Na	16	7.57	1.68	125	1.32	13.1	106		
11:05	Na	Na	19.2	7.61	4.1	82.1	1.34	13.07	112		
00:00	Na	Na	Na	7.95	Na	13.7	0.718	13.64	Na		Sample
00:00	Na	Na	Na	Na	1.12	Na	Na	Na	0.5		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/13/2015	Time:(HH:MM) 11:30	Total Volume of Water Purged: 19.2 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.95	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.718	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	13.7	Ferrous Iron (mg/L)	0

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	1.12
Temp.(°C)	13.64
ORP (mv)	0.5

Comments:

Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon Samplers: Ch/dd/bs		Well ID: SWMW-112 Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Submersible pump w/ dedicated tubing		Initial Depth to Water (ft): 10.58	
Date: 11/13/2015		Time: (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	0.96	Na	Na	Na	-43.9		Initial well pid 1.6
09:50	Na	Na	4.3	7.44	3.64	161	1.57	12.75	36		
09:55	Na	Na	8.6	7.54	3.49	139	1.61	12.86	-22		
10:00	Na	Na	12.9	7.61	8.64	80.2	1.62	12.85	-35		
10:05	Na	Na	17.2	7.71	8.48	44.3	1.61	12.82	-32		
10:10	Na	Na	21.7	7.8	8.31	35.9	1.59	12.89	-29		
10:15	Na	Na	26	7.79	8.07	31.1	1.59	13.04	-32		
00:00	Na	Na	Na	7.71	Na	16.1	1.37	13.7	Na		Sample
00:00	Na	Na	Na	Na	2.11	Na	Na	Na	50		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/13/2015	Time:(HH:MM) 11:40	Total Volume of Water Purged: 26 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.71	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.37	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	16.1	Ferrous Iron (mg/L)	0

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	2.11
Temp.(°C)	13.7
ORP (mv)	50

Comments:

Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-113</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>10.12</u>		Depth to Well Bottom (ft): <u>30.9</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/11/2015</u>		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				10-inch=4	

											Enter turbidity limit: <u>1</u> NTU
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
14:25	Na	Na	1.6	7.26	4.87	8.56	1.01	13.03	-33.3		Initial well PID 0
14:28	Na	Na	3.2	7.3	37.8	37.7	1.14	12.86	128		
14:31	Na	Na	4.8	7.32	29.33	142	1.22	12.81	1.22		
14:34	Na	Na	6.4	7.34	24.8	217	1.25	12.8	116		
14:37	Na	Na	8	7.36	22.9	254	1.25	12.76	114		
14:40	Na	Na	9.6	7.37	20.25	257	1.25	12.7	111		
00:00	Na	Na	Na	7.78	Na	169	1.17	13.29	Na		Sample
00:00	Na	Na	Na	Na	0.92	Na	Na	Na	1.1		Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/12/2015</u>	Time:(HH:MM) <u>11:00</u>	Total Volume of Water Purged: <u>9.6</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.78	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.17	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	169	Ferrous Iron (mg/L)	0
DO (mg/L)	0.92		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	13.29
ORP (mv)	1.1

Comments:

Initial bz PID 0

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-114</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>17.85</u>		Depth to Well Bottom (ft): <u>40</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/09/2015</u>		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
13:30	Na	Na	2	6.76	2.42	4.65	0.615	13.37	-14.8	Initial well PID 0
14:40	NA	NA	4	6.64	3.21	14.7	0.608	12.65	-13	
14:45	NA	NA	6	6.53	3.63	10.3	0.616	12.53	-16	
14:48	NA	NA	8	6.58	6.16	46.7	0.611	12.08	4	
14:52	NA	NA	10	6.57	4.38	12.3	0.621	12.26	-26	
14:55	NA	NA	12	6.62	3.83	42.9	0.601	11.96	-9	
00:00	Na	Na	Na	5.51	Na	6.66	0.951	13.31	Na	Sample
00:00	Na	Na	Na	Na	0.62	Na	Na	Na	-8.2	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/10/2015</u>	Time:(HH:MM) <u>09:15</u>	Total Volume of Water Purged: <u>12</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.51	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.951	Methyl alkalinity (mg/L)	160
Turbidity (NTU)	6.66	Ferrous Iron (mg/L)	0
DO (mg/L)	0.62		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	13.31
ORP (mv)	-8.2

Comments:

Duplicate labeled swmw1114
Initial bz PID 0

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-123</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>18.72</u>		Depth to Well Bottom (ft): <u>79.25</u>	
Method: Submersible pump w/ dedicated tubing					
Date: <u>11/13/2015</u>	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
00:00	Na	Na	Na	Na	2.43	Na	Na	Na	53.5	Initial well PID 0
08:25	Na	Na	5	6.27	9.45	47.7	1.18	12.94	211	
08:30	Na	Na	10	7.16	5.48	16.2	1.13	13.03	200	
08:35	Na	Na	15	7.32	9.05	13.9	1.14	13.42	198	
08:40	Na	Na	20	7.46	7.62	37.1	1.17	13.45	194	
08:45	Na	Na	25	7.58	8.23	36.7	1.15	13.06	187	Dry
00:00	Na	Na	Na	7.85	Na	55	1.15	12.55	Na	Sample
00:00	Na	Na	Na	Na	5.14	Na	Na	Na	76	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/13/2015</u>	Time:(HH:MM) <u>11:50</u>	Total Volume of Water Purged: <u>25</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.85	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.15	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	55	Ferrous Iron (mg/L)	0
DO (mg/L)	5.14		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	12.55
ORP (mv)	76

Comments:

Initial bz PID 0

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-125</u>			
Samplers: Ch/dg/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>15.72</u>		Depth to Well Bottom (ft): <u>41.8</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/09/2015</u>		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
13:25	NA	NA	2	6.35	0.84	14.7	0.927	14.84	-95.8	Initial well PID 1...
14:35	NA	NA	4	6.41	11.04	19.5	0.648	13.69	-9	Sheen
14:38	NA	NA	6	6.23	3.4	14.5	0.70	13.23	-8	
14:40	NA	NA	8	6.12	4.63	18.6	0.766	13.4	-11	
14:43	NA	NA	10	6.12	3.52	52.2	0.819	12.83	-10	
14:45	NA	NA	12	6.11	3	44.7	0.839	13.08	-11	
00:00	Na	Na	Na	6.62	Na	6.2	0.904	13.36	Na	Sample
00:00	Na	Na	Na	Na	0.59	Na	Na	Na	-29.7	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/09/2015</u>	Time:(HH:MM) <u>13:25</u>	Total Volume of Water Purged: <u>2</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.35	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.927	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	14.7	Ferrous Iron (mg/L)	1.6
DO (mg/L)	err		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	14.84
ORP (mv)	-95.8

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-126			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 10.31		Depth to Well Bottom (ft): 49.5	
Method: Disposable rope & bailer					
Date: 11/11/2015		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	1.42	Na	Na	Na	-10.5		Initial well PID 0.9
14:45	Na	Na	3.2	7.48	19.73	32.8	1.17	13.3	36		
14:50	Na	Na	6.4	7.49	18.92	167	1.16	12.78	16		
14:55	Na	Na	9.6	7.51	22.27	133	1.16	12.58	12		
15:00	Na	Na	12.8	7.52	14.21	120	1.14	12.5	8		
15:05	Na	Na	16	7.56	11.29	276	1.14	12.43	6		
15:10	Na	Na	19.2	7.58	10.66	46.3	1.15	12.44	16		
00:00	Na	Na	Na	7.8	Na	68.3	1.18	14.37	Na		Sample
00:00	Na	Na	Na	Na	2.72	Na	Na	Na	-17		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/12/2015	Time:(HH:MM) 11:00	Total Volume of Water Purged: 19.2 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.8	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.18	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	68.3	Ferrous Iron (mg/L)	0

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	2.72
Temp.(°C)	14.37
ORP (mv)	-17

Comments:

Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-14			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 24.51		Depth to Well Bottom (ft): 40	
Method: Disposable rope & bailer					
Date: 11/10/2015	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:15	Na	Na	1.25	8.17	0.95	120	0.298	13.61	-43.9	Initial well PID 0
16:20	Na	Na	2.5	8.02	2.78	134	0.555	13.57	-34	
16:25	Na	Na	3.75	7.68	2.75	157	0.711	12.67	-30	
16:30	Na	Na	5	7.62	3.37	518	0.836	12.67	-21	
16:35	Na	Na	6.25	7.58	4.22	518	0.976	12.65	-9	Dry
00:00	Na	Na	Na	8.01	Na	15.3	0.184	13.77	Na	Sample
00:00	Na	Na	Na	Na	4.19	Na	Na	Na	180.1	Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/11/2015	Time:(HH:MM) 10:05	Total Volume of Water Purged: 7 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.01	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.184	Methyl alkalinity (mg/L)	60
Turbidity (NTU)	15.3	Ferrous Iron (mg/L)	0.2
DO (mg/L)	4.19		
Temp.(°C)	13.77		
ORP (mv)	180.1		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: Initial bz PID 0	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-15</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>7.75</u>		Depth to Well Bottom (ft): <u>25</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/12/2015</u>		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
00:00	Na	Na	Na	Na	0.5	Na	Na	Na	-68.7	Initial well PID 5...
11:20	Na	Na	1.4	7.45	1.66	1000	1.02	13.42	-54	Dry
00:00	Na	Na	Na	7.27	Na	69.6	0.843	15.44	Na	Sample
00:00	Na	Na	Na	Na	0.53	Na	Na	Na	-80.7	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/12/2015</u>	Time:(HH:MM) <u>12:05</u>	Total Volume of Water Purged: <u>2.8</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.27	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.843	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	69.6	Ferrous Iron (mg/L)	1.2
DO (mg/L)	0.53		
Temp.(°C)	15.44		
ORP (mv)	-80.7		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: Initial bz PID 0 Continuous bz monitoring during event, never exceeded 0	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon				Well ID: <u>SWMW-21</u>						
Samplers: Ch/dd/bs				Manual Entry: 		Well Diameter: <u>2</u> inches				
WATER VOLUME CALCULATION										
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot										
Purging Data				Initial Depth to Water (ft): <u>8.33</u>		Depth to Well Bottom (ft): <u>12</u>				
Method: Disposable rope & bailer										
Date: <u>11/12/2015</u>		Time: (HH:MM)		1-inch=0.041		1.5-inch=0.092				
				4-inch=0.64		6-inch=1.4				
				2-inch=0.16		8-inch=2.5				
				3-inch=0.36		10-inch=4				
Enter turbidity limit: <u>1</u> NTU										
SC = Stabilization check										
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
11:30	Na	Na	Na	Na	Na	Na	Na	Na	Na	LNAPL film
11:30	Na	Na	Na	Na	Na	Na	Na	Na	Na	Initial well PID 2...

Sampling Data

Method: Disposable bailer & rope	Date: <u>11/12/2015</u>	Time:(HH:MM) <u>12:45</u>	Total Volume of Water Purged: <u>3</u> (gal)
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<table border="1"> <tr> <th colspan="2">STABILIZED PARAMETERS</th> <th colspan="2">HACH TEST KITS</th> </tr> <tr> <td>pH</td> <td></td> <td>Phenol alkalinity (mg/L)</td> <td></td> </tr> <tr> <td>Spec. Cond. (mS/cm)</td> <td></td> <td>Methyl alkalinity (mg/L)</td> <td></td> </tr> <tr> <td>Turbidity (NTU)</td> <td></td> <td>Ferrous Iron (mg/L)</td> <td></td> </tr> <tr> <td>DO (mg/L)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Temp.(°C)</td> <td></td> <td></td> <td></td> </tr> <tr> <td>ORP (mv)</td> <td></td> <td></td> <td></td> </tr> </table>				STABILIZED PARAMETERS		HACH TEST KITS		pH		Phenol alkalinity (mg/L)		Spec. Cond. (mS/cm)		Methyl alkalinity (mg/L)		Turbidity (NTU)		Ferrous Iron (mg/L)		DO (mg/L)				Temp.(°C)				ORP (mv)				<table border="1"> <tr> <th colspan="5">SAMPLE SET</th> </tr> <tr> <th>Parameter</th> <th></th> <th>Bottle</th> <th>Pres.</th> <th>Method</th> </tr> <tr> <td>Benzene</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> <tr> <td>Chlorobenzene</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> <tr> <td>Trichloroethene</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> <tr> <td>Vinyl chloride</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> <tr> <td>Alkalinity</td> <td>☒</td> <td>250 mL poly</td> <td>N/A</td> <td>SM 2320 B-1997</td> </tr> <tr> <td>Nitrate</td> <td>☒</td> <td>2- 40 mL vials</td> <td>N/A</td> <td>EPA 300.0</td> </tr> <tr> <td>Manganese</td> <td>☒</td> <td>250 mL</td> <td>HNO3</td> <td>SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8</td> </tr> <tr> <td>Iron (II)</td> <td>☒</td> <td>250 mL amber glass</td> <td>HCl</td> <td>SM 3500-Fe</td> </tr> <tr> <td>Sulfate</td> <td>☒</td> <td>2- 40 mL vials</td> <td>N/A</td> <td>EPA 300.0</td> </tr> <tr> <td>Sulfide</td> <td>☒</td> <td>250 mL poly</td> <td>NaOH/Zinc Acetate</td> <td>SM 4500-S2 D-2000</td> </tr> <tr> <td>Carbon dioxide</td> <td>☒</td> <td>250 mL poly or 2 40 mL vials</td> <td>N/A</td> <td></td> </tr> <tr> <td>Chloride</td> <td>☒</td> <td>2- 40 mL vials</td> <td>N/A</td> <td>EPA 300.0</td> </tr> <tr> <td>cDCE</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> </table>				SAMPLE SET					Parameter		Bottle	Pres.	Method	Benzene	☒	3- 40 mL vials	N/A	SW-846 8260	Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260	Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260	Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260	Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997	Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A		Chloride	☒	2- 40 mL vials	N/A	EPA 300.0	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
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Comments:																																																																																																														

Continuous bz monitoring
PID 0.7 for 5 sec, then back to 0 for the remainder of event
No measurements collected due to presence of LNAPL

Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-2	
Samplers: Ch/dd/bs		Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 6.97	
Date: 11/09/2015		Time: (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:55	NA	NA	1.4	5.6	1.14	88.9	1.76	14.08	29.7		Initial well PID 0
15:15	NA	NA	2.8	6.04	3.74	1000	1.88	13.92	-57		Dry
00:00	Na	Na	Na	6.74	Na	43.6	2.05	13.59	Na		Sample
00:00	Na	Na	Na	Na	0.79	Na	Na	Na	-24.8		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/10/2015	Time:(HH:MM) 10:10	Total Volume of Water Purged: 2.8 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.74	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	2.05	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	43.6	Ferrous Iron (mg/L)	1
DO (mg/L)	0.79		
Temp.(°C)	13.59		
ORP (mv)	-24.8		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: Initial bz PID 0	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-28			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 10.01		Depth to Well Bottom (ft): 16.5	
Method: Disposable rope & bailer					
Date: 11/11/2015		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				3-inch=0.36	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
Na	Na	Na	Na	Na	0.63	Na	Na	Na	-171.5		Initial well PID 0
15:48	Na	Na	.5	7.29	13.3	239	1.81	14.65	87		
15:51	Na	Na	1	7.3	10.16	561	1.82	15.05	87		
15:54	Na	Na	1.5	7.31	9.97	1000	1.72	15.41	87		
15:57	Na	Na	2	7.26	7.56	1000	1.69	15.39	89		
16:00	Na	Na	2.5	7.21	9.59	1000	1.61	15.35	91		
16:03	Na	N	3	7.19	10.33	1000	1.65	15.37	93		
00:00	Na	Na	Na	7.48	Na	17	1.28	15.06	Na		Sample
00:00	Na	Na	Na	Na	0.93	Na	Na	Na	-136.3		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/12/2015	Time:(HH:MM) 11:35	Total Volume of Water Purged: (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.48	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.28	Methyl alkalinity (mg/L)	140
Turbidity (NTU)	17	Ferrous Iron (mg/L)	1.4

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	0.93
Temp.(°C)	15.06
ORP (mv)	-136.3

Comments:

Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon Samplers: Ch/dd/bs		Well ID: SWMW-30 Manual Entry: 	
		Well Diameter: 2 inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 8.81	
Date: 11/12/2015		Time: (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	0.88	Na	Na	Na	-76.8		Initial well PID 0
14:00	Na	Na	.5	7.34	2.98	1000	1.63	14.14	-104		
14:03	Na	Na	1	7.4	4.01	868	1.42	13.97	-92		
14:06	Na	Na	1.5	7.36	2.53	520	1.34	13.79	-83		
14:09	Na	Na	2	7.31	3.99	1000	1.33	13.78	-81		
14:12	Na	Na	2.5	7.29	3.98	441	1.31	13.77	-79		
14:15	Na	Na	3	7.27	3.97	818	1.3	13.92	-80		
00:00	Na	Na	Na	7.17	Na	761	1.36	13.82	Na		Sample
00:00	Na	Na	Na	Na	0.74	Na	Na	Na	-79.3		Post

Sampling Data

Method: Disposable bailer & rope		Date: 11/12/2015		Time:(HH:MM) 12:55		Total Volume of Water Purged: 3 (gal)	
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STABILIZED PARAMETERS				HACH TEST KITS	
pH	7.17	Phenol alkalinity (mg/L)	0		
Spec. Cond. (mS/cm)	1.36	Methyl alkalinity (mg/L)	340		
Turbidity (NTU)	761	Ferrous Iron (mg/L)	1.4		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	0.74
Temp.(°C)	13.82
ORP (mv)	-79.3

Comments:

Duplicate taken labeled swmw130 ar 13:30
Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-31</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>4</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 7.14		Depth to Well Bottom (ft): 11.2	
Method: Disposable rope & bailer					
Date: 11/12/2015	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	0.57	Na	Na	Na	-86.3		Initial well PID 0
14:03	Na	Na	1.4	7.38	4.26	1000	1.57	14.03	-96		
14:06	Na	Na	2.8	7.33	1.85	1000	1.61	14.14	-98		
14:09	Na	Na	4.2	7.35	4.08	1000	1.62	14.09	-103		
14:12	Na	Na	5.4	7.35	4.03	1000	1.63	14.16	-104		
14:15	Na	Na	6.8	7.34	3.95	1000	1.63	14.14	-103		
14:18	Na	Na	8.2	7.35	3.99	1000	1.64	14.27	-106		
00:00	Na	Na	Na	7.27	Na	651	1.59	13.86	Na		Sample
00:00	Na	Na	Na	Na	0.74	Na	Na	Na	-79.3		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/12/2015	Time:(HH:MM) 13:05	Total Volume of Water Purged: 8.2 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.27	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.59	Methyl alkalinity (mg/L)	320
Turbidity (NTU)	651	Ferrous Iron (mg/L)	1.4

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	0.74
Temp.(°C)	13.86
ORP (mv)	-79.3

Comments:

MS/ MSD taken
Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-41</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>9.97</u>		Depth to Well Bottom (ft): <u>45</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/10/2015</u>	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:10	Na	Na	3	7.61	0.84	244	1.19	13.14	-6.8	Initial well PID 0.5
16:15	Na	Na	6	7.62	3.55	381	1.25	12.74	8	
16:20	Na	Na	9	7.5	4.67	810	1.18	12.88	-2	
16:25	Na	Na	12	8.23	3.57	33.6	0.208	13.42	-33	
16:30	Na	Na	12.2	7.35	4.42	971	1.2	12.65	-26	Dry at 12.2
00:00	Na	Na	Na	7.35	Na	23.5	1.24	12.45	Na	Sample
00:00	Na	Na	Na	Na	0.98	Na	Na	Na	61.3	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/11/2015</u>	Time:(HH:MM) <u>09:55</u>	Total Volume of Water Purged: <u>12.2</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.35	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.24	Methyl alkalinity (mg/L)	260
Turbidity (NTU)	23.5	Ferrous Iron (mg/L)	0.4
DO (mg/L)	0.98		
Temp.(°C)	12.45		
ORP (mv)	61.3		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: Initial bz PID 0	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-44</u>			
Samplers: <u>Ch/dd/bs</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>4.89</u>		Depth to Well Bottom (ft): <u>30</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/10/2015</u>		Time: <u></u> (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				3-inch=0.36	
				8-inch=2.5	
				10-inch=4	

											Enter turbidity limit: <u>1</u> NTU
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
15:10	Na	Na	2	7.22	2.8	58.2	1.48	16.03	12		Initial well PID 0
15:15	Na	Na	4	7.25	5.77	13.4	1.55	16.28	-82		
15:20	Na	Na	6	7.31	3.66	15.6	1.53	16.07	-88		
15:25	Na	Na	8	7.31	3.67	7.29	1.55	16:44	-93		
15:30	Na	Na	10	7.32	3.16	15.8	1.54	16.62	-96		
15:35	Na	Na	12	7.33	3.01	5.84	1.53	16.77	-102		
00:00	Na	Na	Na	6.96	Na	28	1.5	16.41	Na		Sample
00:00	Na	Na	Na	Na	0.85	Na	Na	Na	-59		Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/11/2015</u>	Time:(HH:MM) <u>09:25</u>	Total Volume of Water Purged: <u>12</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.96	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.5	Methyl alkalinity (mg/L)	340
Turbidity (NTU)	28	Ferrous Iron (mg/L)	0.6
DO (mg/L)	0.85		
Temp.(°C)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997

	16.41
ORP (mv)	-59

Comments:

Initial bz PID 0

Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-45</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>15.56</u>		Depth to Well Bottom (ft): <u>31</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/10/2015</u>		Time: (HH:MM)			
		1-inch=0.041		1.5-inch=0.092	
		4-inch=0.64		6-inch=1.4	
				2-inch=0.16	
				8-inch=2.5	
				10-inch=4	

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:15	Na	Na	1.3	6.81	0.78	376	2.36	14.58	-23.1	Initial well PID 4.4
14:20	Na	Na	2.5	6.84	3.76	324	2.41	14.12	-36	Dry
00:00	Na	Na	Na	6.22	Na	24.4	0.522	15.49	Na	Sample
00:00	Na	Na	Na	Na	0.78	Na	Na	Na	Na	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/11/2015</u>	Time:(HH:MM) <u>08:30</u>	Total Volume of Water Purged: <u>2.5</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.22	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.522	Methyl alkalinity (mg/L)	60
Turbidity (NTU)	24.4	Ferrous Iron (mg/L)	0.8
DO (mg/L)	0.78		
Temp.(°C)	15.49		
ORP (mv)	-23.1		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: Initial bz PID 0	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-48			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: 2 inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 6.51		Depth to Well Bottom (ft): 10	
Method: Disposable rope & bailer					
Date: 11/10/2015	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:45	Na	Na	.3	7.25	1.42	80.6	1.02	14.67	-67	Initial well PID 0
14:50	Na	Na	.6	7.24	3.83	499	0.993	15.2	-60	
14:55	Na	Na	.9	7.22	2.96	334	1.06	14.61	-68	Dry
00:00	Na	Na	Na	7.64	Na	409	0.18	12.81	Na	Sample
00:00	Na	Na	Na	Na	5.44	Na	Na	Na	10	Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/11/2015	Time:(HH:MM) 08:55	Total Volume of Water Purged: 1 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.64	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.180	Methyl alkalinity (mg/L)	60
Turbidity (NTU)	409	Ferrous Iron (mg/L)	0
DO (mg/L)	5.44		
Temp.(°C)	12.81		
ORP (mv)	10		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: Initial bz PID 0		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-55</u>		
Samplers: Ch/dd/bs		Manual Entry: 	Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION				
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot				
Purging Data		Initial Depth to Water (ft): 17.03		Depth to Well Bottom (ft): 20
Method: Disposable rope & bailer				
Date: 11/10/2015	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16
		4-inch=0.64	6-inch=1.4	8-inch=2.5
				10-inch=4

										Enter turbidity limit: 1 NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
14:15	Na	Na	.3	7.18	5.9	35.8	1.04	14.09	63.5	PID 0
14:20	Na	Na	.6	7.19	4.33	42.4	1.11	13.44	-22	
14:25	Na	Na	.9	7.11	4.43	18.3	0.923	14.16	-15	Dry
00:00	Na	Na	Na	6.51	Na	35.2	0.178	15.37	Na	Sample
00:00	Na	Na	Na	Na	1.03	Na	Na	Na	26.6	Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/11/2015	Time:(HH:MM) 08:40	Total Volume of Water Purged: 1 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.51	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.178	Methyl alkalinity (mg/L)	60
Turbidity (NTU)	35.2	Ferrous Iron (mg/L)	0
DO (mg/L)	1.03		
Temp.(°C)	15.37		
ORP (mv)	26.6		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: Initial bz PID 0		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-56</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data			Initial Depth to Water (ft): 23.3		Depth to Well Bottom (ft): 55
Method: Submersible pump w/ dedicated tubing					
Date: 11/13/2015		Time: (HH:MM)		1-inch=0.041	
				1.5-inch=0.092	
				2-inch=0.16	
				3-inch=0.36	
				4-inch=0.64	
				6-inch=1.4	
				8-inch=2.5	
				10-inch=4	

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	0.54	Na	Na	Na	-21.1		Initial well PID 0
09:20	Na	Na	2.3	7.94	9.89	298	1	12.81	157		
09:23	Na	Na	4.6	7.87	8.81	777	1	13.45	103		
09:26	Na	Na	6.9	7.86	7.23	1000	0.994	13.69	61		
09:29	Na	Na	9.2	7.86	8.64	1000	0.999	13.76	48		Dry
00:00	Na	Na	Na	7.83	Na	48.7	0.952	14.94	Na		Sample
00:00	Na	Na	Na	Na	2.19	Na	Na	Na	84.2		Post

Sampling Data

Method: <u>Disposable bailer & rope</u>		Date: 11/13/2015	Time:(HH:MM) 11:00	Total Volume of Water Purged: 9.2 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.83	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.952	Methyl alkalinity (mg/L)	240
Turbidity (NTU)	48.7	Ferrous Iron (mg/L)	0
DO (mg/L)	2.19		
Temp.(°C)	14.94		
ORP (mv)	84.2		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0

Comments: Initial bz PID 0	Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon Samplers: Ch/dd/bs		Well ID: SWMW-58 Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Disposable rope & bailer		Initial Depth to Water (ft): 13.79	
Date: 11/12/2015		Time: (HH:MM)	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	1.6	Na	Na	Na	57.6		Initial well PID 0.4
10:00	Na	Na	1.5	7.1	5.45	175	1.48	15.03	216		
10:05	Na	Na	3	7.09	5.26	211	1.4	15.04	215		Dry at 4.5 gal
10:10	Na	Na	4.5	7.11	4.75	894	1.42	15.01	215		
00:00	Na	Na	Na	7.4	Na	26.7	1.28	14.9	Na		Sample
00:00	Na	Na	Na	Na	2.68	Na	Na	Na	91.2		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/12/2015	Time:(HH:MM) 12:10	Total Volume of Water Purged: 4.5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.4	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.28	Methyl alkalinity (mg/L)	280
Turbidity (NTU)	26.7	Ferrous Iron (mg/L)	0
DO (mg/L)	2.68		
Temp.(°C)	14.9		
ORP (mv)	91.2		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8

Comments: Initial bz PID 0	Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
	Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: <u>Chevron TRC Beacon</u>		Well ID: <u>SWMW-62</u>			
Samplers: <u>Ch/dd/bs</u>		Manual Entry: <u></u>		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>9.79</u>		Depth to Well Bottom (ft): <u>19</u>	
Method: <u>Disposable rope & bailer</u>					
Date: <u>11/10/2015</u>	Time: <u></u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU
										SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments
16:00	Na	Na	.8	8.01	1.68	1000	0.798	14.08	44.4	Initial well PID 0
16:05	Na	Na	1.6	7.8	5.89	1000	0.777	13.98	51	Dry at 2 gal
00:00	Na	Na	Na	7.47	Na	140	0.791	11.76	Na	Sample
00:00	Na	Na	Na	Na	1.7	Na	Na	Na	79	Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/11/2015</u>	Time:(HH:MM) <u>09:50</u>	Total Volume of Water Purged: <u>2</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.48	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	0.791	Methyl alkalinity (mg/L)	300
Turbidity (NTU)	140	Ferrous Iron (mg/L)	0
DO (mg/L)	1.73		
Temp.(°C)	11.76		
ORP (mv)	79.0		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000

Comments: Initial bz PID 0	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175



WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-65</u>			
Samplers:		Manual Entry:		Well Diameter: <u>2</u> inches	
Ch/dd/bs		WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>8.15</u>		Depth to Well Bottom (ft): <u>16.5</u>	
Method: Disposable rope & bailer					
Date: <u>11/11/2015</u>	Time: <u> </u> (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
Na	Na	Na	Na	Na	0.65	Na	Na	Na	-18.2		Initial well PID 0
16:03	Na	Na	.7	7.31	19.05	1000	1.27	14.87	-77		
16:06	Na	Na	1.4	7.28	10.63	1000	1.27	14.64	-100		
16:09	Na	Na	2.1	7.28	10.5	1000	1.28	14.57	-106		
16:12	Na	Na	2.8	7.28	10.75	1000	1.3	14.64	-110		
16:15	Na	Na	3.5	7.29	10.72	1000	1.31	14.6	-116		
16:18	Na	Na	4.2	7.29	10.88	1000	1.33	14.58	-116		
00:00	Na	Na	Na	7.64	Na	41.6	0.739	15.35	Na		Sample
00:00	Na	Na	Na	Na	2.49	Na	Na	Na	-34.2		Post

Sampling Data		Date: <u>11/12/2015</u>		Time:(HH:MM) <u>11:25</u>		Total Volume of Water Purged: <u>4.2</u> (gal)																																										
Method: Disposable bailer & rope																																																
<table border="1"> <thead> <tr> <th colspan="2">STABILIZED PARAMETERS</th> <th colspan="2">HACH TEST KITS</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>7.64</td> <td>Phenol alkalinity (mg/L)</td> <td>0</td> </tr> <tr> <td>Spec. Cond. (mS/cm)</td> <td>0.739</td> <td>Methyl alkalinity (mg/L)</td> <td>120</td> </tr> <tr> <td>Turbidity (NTU)</td> <td>41.6</td> <td>Ferrous Iron (mg/L)</td> <td>0</td> </tr> </tbody> </table>				STABILIZED PARAMETERS		HACH TEST KITS		pH	7.64	Phenol alkalinity (mg/L)	0	Spec. Cond. (mS/cm)	0.739	Methyl alkalinity (mg/L)	120	Turbidity (NTU)	41.6	Ferrous Iron (mg/L)	0	<table border="1"> <thead> <tr> <th colspan="5">SAMPLE SET</th> </tr> <tr> <th>Parameter</th> <th></th> <th>Bottle</th> <th>Pres.</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>Benzene</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> <tr> <td>Chlorobenzene</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> <tr> <td>Trichloroethene</td> <td>☒</td> <td>3- 40 mL vials</td> <td>N/A</td> <td>SW-846 8260</td> </tr> </tbody> </table>				SAMPLE SET					Parameter		Bottle	Pres.	Method	Benzene	☒	3- 40 mL vials	N/A	SW-846 8260	Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260	Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
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Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260																																												

DO (mg/L)	2.49
Temp.(°C)	15.35
ORP (mv)	-34.2

Comments:

Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon Samplers: Ch/dd/bs		Well ID: SWMW-66 Manual Entry: 	
		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION			
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Submersible pump w/ dedicated tubing		Initial Depth to Water (ft): 21.58	
Date: 11/12/2015		Time: (HH:MM)	
		1-inch=0.041 1.5-inch=0.092 2-inch=0.16 3-inch=0.36 4-inch=0.64 6-inch=1.4 8-inch=2.5 10-inch=4	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	2.69	Na	Na	Na	26.1		Initial well PID 0
09:50	Na	Na	3.2	6.3	3.56	614	3.7	13.95	240		
09:55	Na	Na	6.4	7.11	5.93	232	1.63	13.68	212		
10:00	Na	Na	9.6	6.84	5.34	202	2.47	14.24	223		
10:05	Na	Na	12.8	6.82	3.32	551	3.41	13.92	225		
10:10	Na	Na	16	6.72	3.35	206	4.1	13.62	40		
10:15	Na	Na	19.2	6.8	2.5	254	4.26	13.48	13		
00:00	Na	Na	Na	7.1	Na	36	3.85	15.02	Na		Sample
00:00	Na	Na	Na	Na	3.15	Na	Na	Na	42.9		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/13/2015	Time:(HH:MM) 11:10	Total Volume of Water Purged: 19.2 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.1	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	3.85	Methyl alkalinity (mg/L)	220
Turbidity (NTU)	36	Ferrous Iron (mg/L)	0

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	3.15
Temp.(°C)	15.02
ORP (mv)	42.9

Comments:

Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: SWMW-67	
Samplers: 		Manual Entry: 	
Ch/dd/bs 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot			
Purging Data Method: Submersible pump w/ dedicated tubing		Initial Depth to Water (ft): 12.06	
Date: 11/12/2015		Time: (HH:MM)	
		1-inch=0.041 1.5-inch=0.092 2-inch=0.16 3-inch=0.36	
		4-inch=0.64 6-inch=1.4 8-inch=2.5 10-inch=4	

										Enter turbidity limit: 1 NTU	
										SC = Stabilization check	
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	5.05	Na	Na	Na	214		Initial well PID 0
11:30	Na	Na	2.2	7.64	4.21	422	0.996	12.95	-80		
11:35	Na	Na	4.4	7.63	2.41	859	0.959	12.43	-15		
11:40	Na	Na	6.6	7.68	3.63	431	1.01	12.86	-10		
11:45	Na	Na	8.8	7.76	3.07	1000	1	12.99	8		
11:50	Na	Na	11	8.13	3.69	532	0.989	13.08	126		
11:55	Na	Na	13.2	8.07	4.04	127	0.997	13.07	131		
00:00	Na	Na	Na	7.93	Na	96.7	0.758	13.95	Na		Sample
00:00	Na	Na	Na	Na	4.58	Na	Na	Na	211.2		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/12/2015	Time:(HH:MM) 12:20	Total Volume of Water Purged: 13.2 (gal)
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STABILIZED PARAMETERS				HACH TEST KITS	
pH	7.93	Phenol alkalinity (mg/L)	0		
Spec. Cond. (mS/cm)	0.758	Methyl alkalinity (mg/L)	260		
Turbidity (NTU)	96.7	Ferrous Iron (mg/L)	0		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260

DO (mg/L)	4.58
Temp.(°C)	13.95
ORP (mv)	211.2

Comments:

Initial bz PID 0

Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>SWMW-68</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): <u>26.83</u>		Depth to Well Bottom (ft): <u>53.62</u>	
Method: Submersible pump w/ dedicated tubing					
Date: <u>11/12/2015</u>	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: <u>1</u> NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
00:00	Na	Na	Na	Na	0.69	Na	Na	Na	26.4		Initial well PID 0.3
11:15	Na	Na	2.6	7.75	4.04	1000	0.697	13.12	-42		
11:20	Na	Na	5.2	7.65	3.82	728	0.656	13.01	-13		Dry
00:00	Na	Na	Na	8.34	Na	28.3	1.25	13.21	Na		Sample
00:00	Na	Na	Na	Na	0.93	Na	Na	Na	15.1		Post

Sampling Data

Method: <u>Disposable bailer & rope</u>	Date: <u>11/13/2015</u>	Time:(HH:MM) <u>11:20</u>	Total Volume of Water Purged: <u>5.2</u> (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.34	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.25	Methyl alkalinity (mg/L)	200
Turbidity (NTU)	28.3	Ferrous Iron (mg/L)	0.2
DO (mg/L)	0.93		
Temp.(°C)	13.21		
ORP (mv)	15.1		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate		2- 40 mL vials	N/A	EPA 300.0

Comments: Initial bz PID 0		☒			
	Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
	Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
	Chloride	☒	2- 40 mL vials	N/A	EPA 300.0
	cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
	Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
	Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon		Well ID: <u>Unknown Well 1</u>			
Samplers: Ch/dd/bs		Manual Entry: 		Well Diameter: <u>2</u> inches	
WATER VOLUME CALCULATION					
= (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data		Initial Depth to Water (ft): 7.28		Depth to Well Bottom (ft): 8.65	
Method: Disposable rope & bailer					
Date: 11/09/2015	Time: (HH:MM)	1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
		4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

										Enter turbidity limit: 1 NTU	
											SC = Stabilization check
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)		Comments
13:50	NA	NA	0.3	5.82	0.69	360	0.946	13.93	22.3		Initial well PID 0...
00:00	Na	Na	Na	6.69	Na	115	1.13	13.1	Na		Sample
00:00	Na	Na	Na	Na	0.84	Na	Na	Na	-11		Post

Sampling Data

Method: Disposable bailer & rope	Date: 11/10/2015	Time:(HH:MM) 10:00	Total Volume of Water Purged: .5 (gal)
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STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.69	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.13	Methyl alkalinity (mg/L)	120
Turbidity (NTU)	115	Ferrous Iron (mg/L)	1.4
DO (mg/L)	0.84		
Temp.(°C)	13.1		
ORP (mv)	-11		

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☒	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☒	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☒	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☒	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☒	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☒	2- 40 mL vials	N/A	EPA 300.0
Manganese	☒	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☒	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☒	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☒	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☒	250 mL poly or 2 40 mL vials	N/A	
Chloride	☒	2- 40 mL vials	N/A	EPA 300.0

Comments:

Initial bz PID 0

cDCE	☒	3- 40 mL vials	N/A	SW-846 8260
Ethene	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Methane	☒	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

PARSONS

WELL SAMPLING RECORD																																							
Site Name: Chevron TRC Beacon							Well ID: Unknown Well 2		Well Diameter: 2 inches																														
							Manual Entry: 																																
Samplers: Ch/dd/bs							WATER VOLUME CALCULATION																																
							= (Total Depth of Well - Depth To Water) x Casing Volume per Foot																																
Purging Data							Initial Depth to Water (ft): 7.43		Depth to Well Bottom (ft): 8																														
Method: Disposable rope & bailer																																							
Date: 11/09/2015			Time: (HH:MM)				1-inch=0.041		1.5-inch=0.092		2-inch=0.16																												
							4-inch=0.64		6-inch=1.4		8-inch=2.5																												
									10-inch=4																														
										Enter turbidity limit: 1 NTU																													
										SC = Stabilization check																													
Time HH:MM (24hrs)		DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments																												
13:45		NA	NA	.2	5.69	2.02	62	1.59	13.45	48.3	Initial well PID 0...																												
Sampling Data																																							
Method: Disposable bailer & rope					Date: 11/10/2015			Time:(HH:MM)		Total Volume of Water Purged: .2 (gal)																													
<table><tr><th colspan="2">STABILIZED PARAMETERS</th><th colspan="2">HACH TEST KITS</th></tr><tr><td>pH</td><td></td><td>Phenol alkalinity (mg/L)</td><td></td></tr><tr><td>Spec. Cond. (mS/cm)</td><td></td><td>Methyl alkalinity (mg/L)</td><td></td></tr><tr><td>Turbidity (NTU)</td><td></td><td>Ferrous Iron (mg/L)</td><td></td></tr><tr><td>DO (mg/L)</td><td></td><td></td><td></td></tr><tr><td>Temp.(°C)</td><td></td><td></td><td></td></tr><tr><td>ORP (mv)</td><td></td><td></td><td></td></tr></table>							STABILIZED PARAMETERS		HACH TEST KITS		pH		Phenol alkalinity (mg/L)		Spec. Cond. (mS/cm)		Methyl alkalinity (mg/L)		Turbidity (NTU)		Ferrous Iron (mg/L)		DO (mg/L)				Temp.(°C)				ORP (mv)				SAMPLE SET				
							STABILIZED PARAMETERS		HACH TEST KITS																														
							pH		Phenol alkalinity (mg/L)																														
							Spec. Cond. (mS/cm)		Methyl alkalinity (mg/L)																														
							Turbidity (NTU)		Ferrous Iron (mg/L)																														
							DO (mg/L)																																
							Temp.(°C)																																
							ORP (mv)																																
Parameter			Bottle	Pres.	Method																																		
Benzene			3- 40 mL vials	N/A	SW-846 8260																																		
Chlorobenzene			3- 40 mL vials	N/A	SW-846 8260																																		
Trichloroethene			3- 40 mL vials	N/A	SW-846 8260																																		
Vinyl chloride			3- 40 mL vials	N/A	SW-846 8260																																		
Alkalinity			250 mL poly	N/A	SM 2320 B-1997																																		
Nitrate			2- 40 mL vials	N/A	EPA 300.0																																		
Manganese			250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8																																		
Iron (II)			250 mL amber glass	HCl	SM 3500-Fe																																		
Sulfate			2- 40 mL vials	N/A	EPA 300.0																																		
Sulfide			250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000																																		
Carbon dioxide			250 mL poly or 2 40 mL vials	N/A																																			
Chloride			2- 40 mL vials	N/A	EPA 300.0																																		
cDCE			3- 40 mL vials	N/A	SW-846 8260																																		
Ethene			2- 40 ml vials	N/A	SW-846 8115B/RSK 175																																		
Ethane			2- 40 ml vials	N/A	SW-846 8115B/RSK 175																																		
Comments: Initial bz PID 0 Could only extract 2 40ml vials from well Not sampled																																							

		Methane	☐	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
--	--	---------	--------------------------	----------------	-----	-------------------------

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon						Well ID: Unknown Well 3 Manual Entry:		Well Diameter: <u>2</u> inches			
Samplers: Ch/dd/bs						WATER VOLUME CALCULATION = (Total Depth of Well - Depth To Water) x Casing Volume per Foot					
Purging Data Method: Disposable rope & bailer						Initial Depth to Water (ft): 0		Depth to Well Bottom (ft): 7.35			
Date: 11/09/2015		Time: (HH:MM)		1-inch=0.041 4-inch=0.64		1.5-inch=0.092 6-inch=1.4		2-inch=0.16 8-inch=2.5		3-inch=0.36 10-inch=4	
Enter turbidity limit: 1 NTU											
SC = Stabilization check											
Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	ORP (mV)	Comments	
NA	Na	Na	Na	Na	Na	Na	Na	Na	Na	Initial well PID 0...	

Sampling Data

Method: Select...	Date: 	Time:(HH:MM) 	Total Volume of Water Purged: (gal)
--	---	--	--

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Phenol alkalinity (mg/L)	
Spec. Cond. (mS/cm)		Methyl alkalinity (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)			
Temp.(°C)			
ORP (mv)			

SAMPLE SET				
Parameter		Bottle	Pres.	Method
Benzene	☐	3- 40 mL vials	N/A	SW-846 8260
Chlorobenzene	☐	3- 40 mL vials	N/A	SW-846 8260
Trichloroethene	☐	3- 40 mL vials	N/A	SW-846 8260
Vinyl chloride	☐	3- 40 mL vials	N/A	SW-846 8260
Alkalinity	☐	250 mL poly	N/A	SM 2320 B-1997
Nitrate	☐	2- 40 mL vials	N/A	EPA 300.0
Manganese	☐	250 mL	HNO3	SW-846 6010/SW-846 6020/EPA 200.7/EPA 200.8
Iron (II)	☐	250 mL amber glass	HCl	SM 3500-Fe
Sulfate	☐	2- 40 mL vials	N/A	EPA 300.0
Sulfide	☐	250 mL poly	NaOH/Zinc Acetate	SM 4500-S2 D-2000
Carbon dioxide	☐	250 mL poly or 2 40 mL vials	N/A	
Chloride	☐	2- 40 mL vials	N/A	EPA 300.0
cDCE	☐	3- 40 mL vials	N/A	SW-846 8260
Ethene	☐	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
Ethane	☐	2- 40 ml vials	N/A	SW-846 8115B/RSK 175

Comments:

Initial bz PID 0
No sample collected. Well dry

		Methane	☐	2- 40 ml vials	N/A	SW-846 8115B/RSK 175
--	--	---------	--------------------------	----------------	-----	-------------------------

PARSONS

APPENDIX C

ANALYTICAL DATA PACKAGES

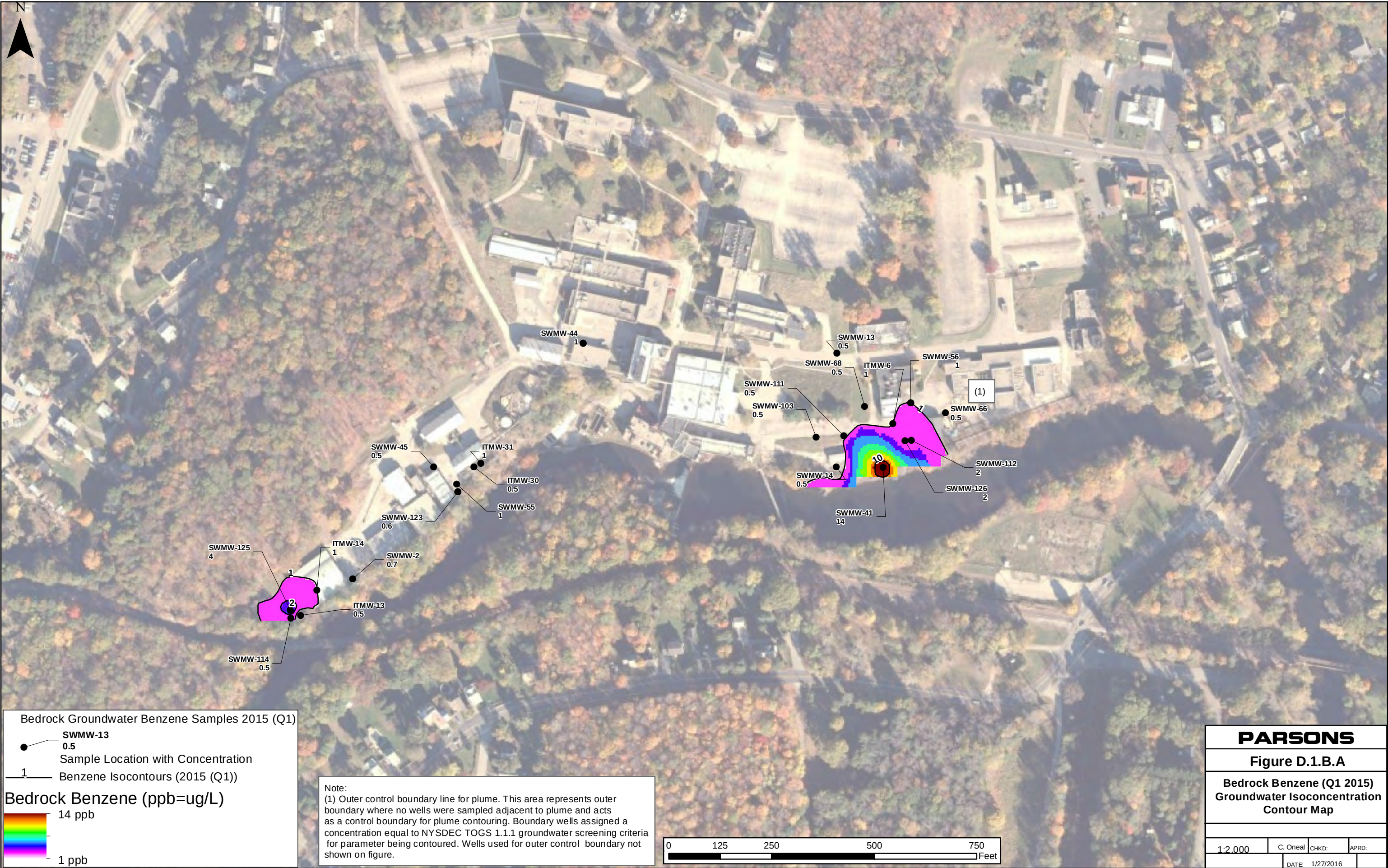
(Data Provided on Disk)

APPENDIX D

GIS ISO-CONCENTRATION FIGURES

(MARCH, JUNE, SEPTEMBER, AND NOVEMBER 2015)

2015 QUARTERLY SAMPLING EVENTS



Bedrock Groundwater Benzene Samples 2015 (Q1)

●

SWMW-13

0.5

Sample Location with Concentration

1

Benzen Isocontours (2015 (Q1))

Bedrock Benzene (ppb=ug/L)

14 ppb

1 ppb

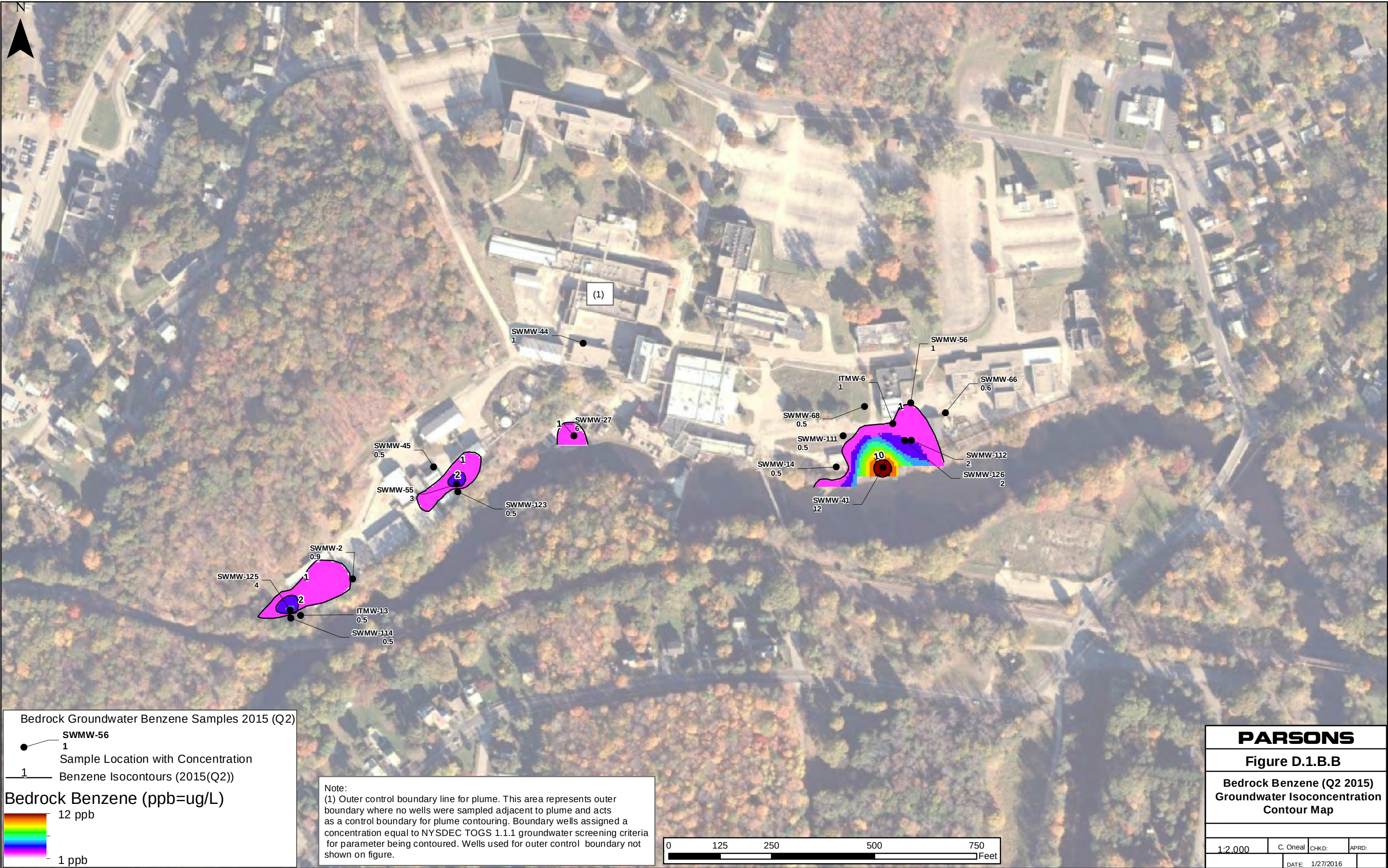
Note:
(1) Outer control boundary line for plume. This area represents outer boundary where no wells were sampled adjacent to plume and acts as a control boundary for plume contouring. Boundary wells assigned a concentration equal to NYSDEC TOGS 1.1.1 groundwater screening criteria for parameter being contoured. Wells used for outer control boundary not shown on figure.

PARSONS

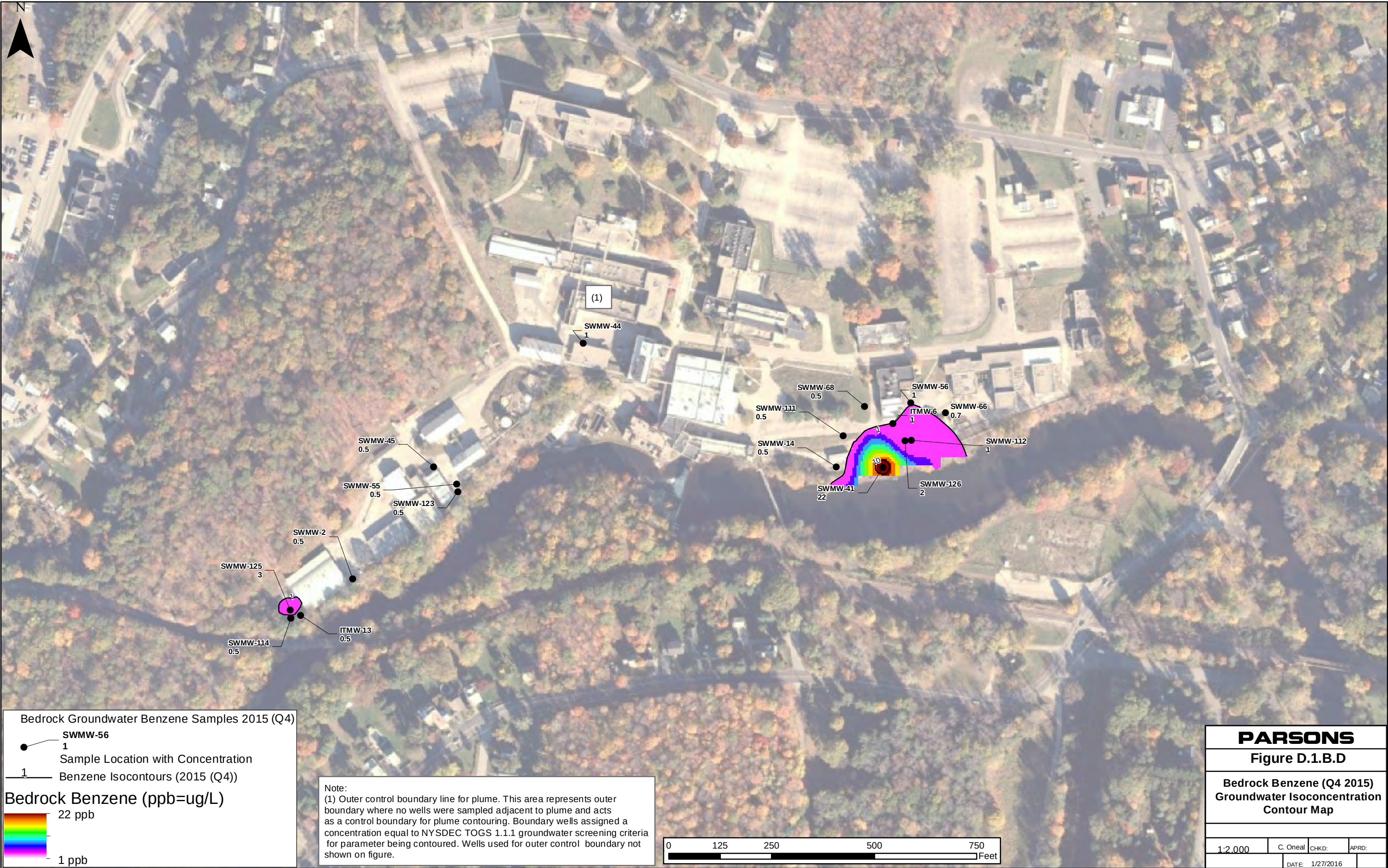
Figure D.1.B.A

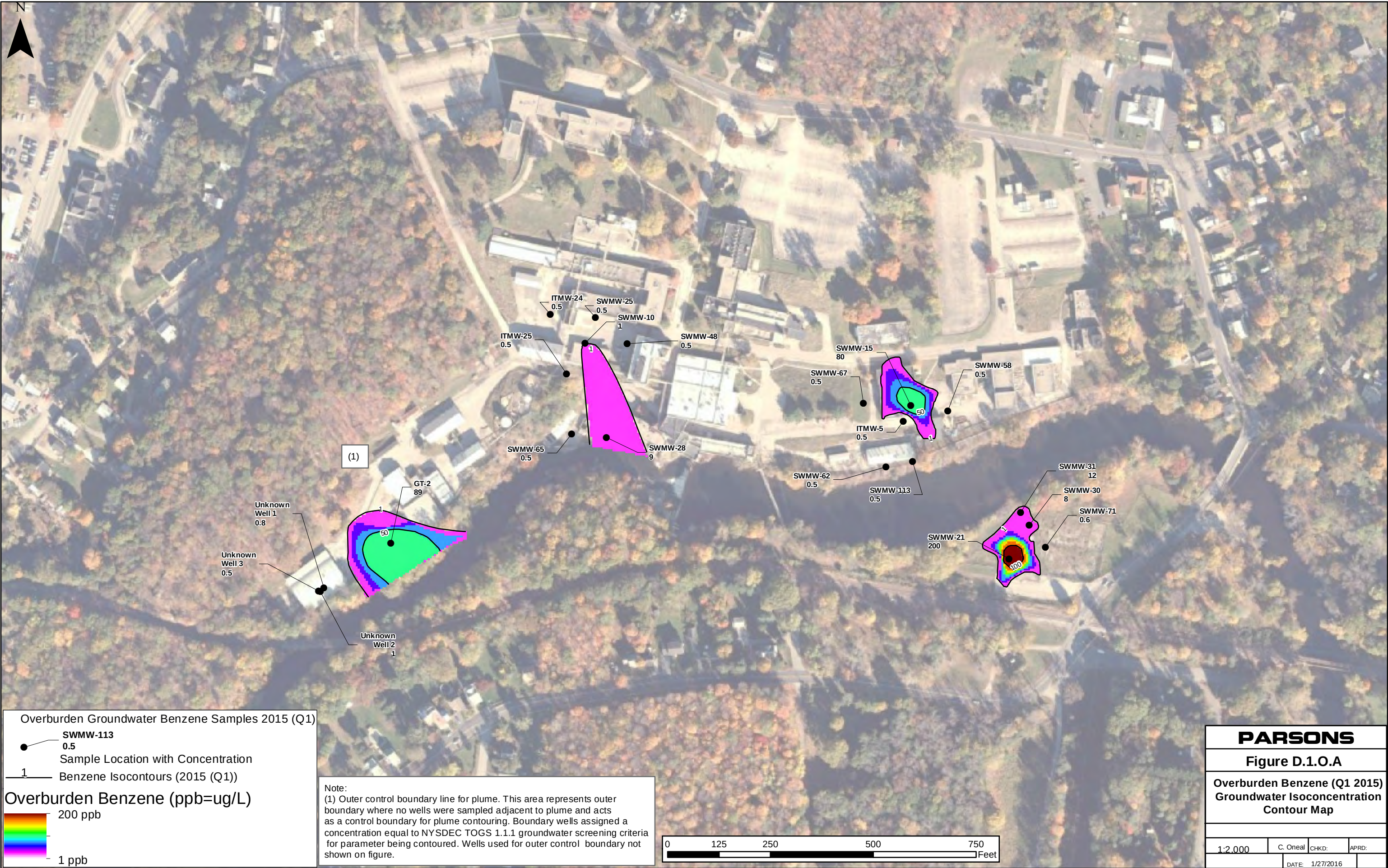
Bedrock Benzene (Q1 2015)
Groundwater Isoconcentration
Contour Map

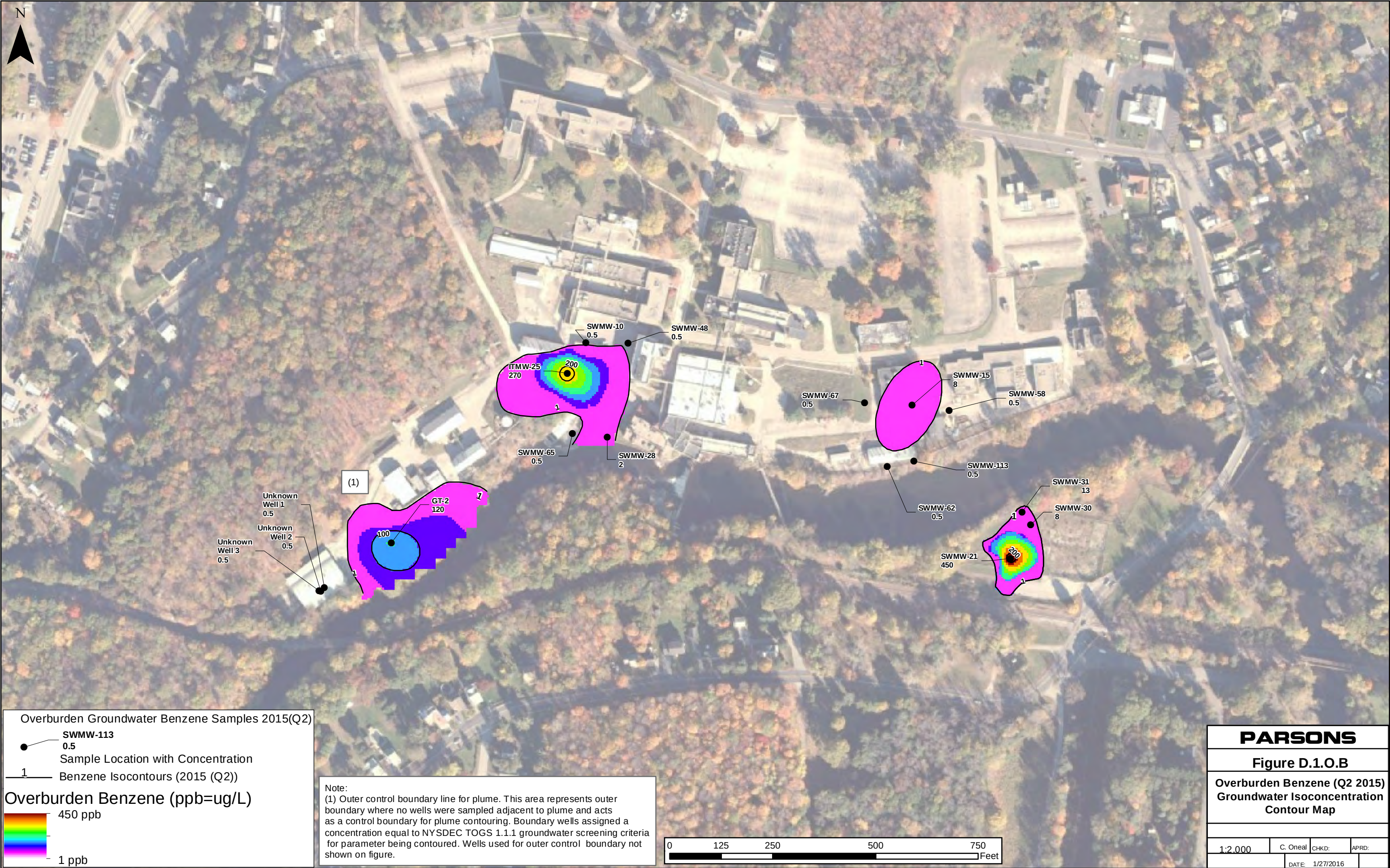
1:2,000	C. Oneal	CHKD:	APRD:
DATE: 1/27/2016			

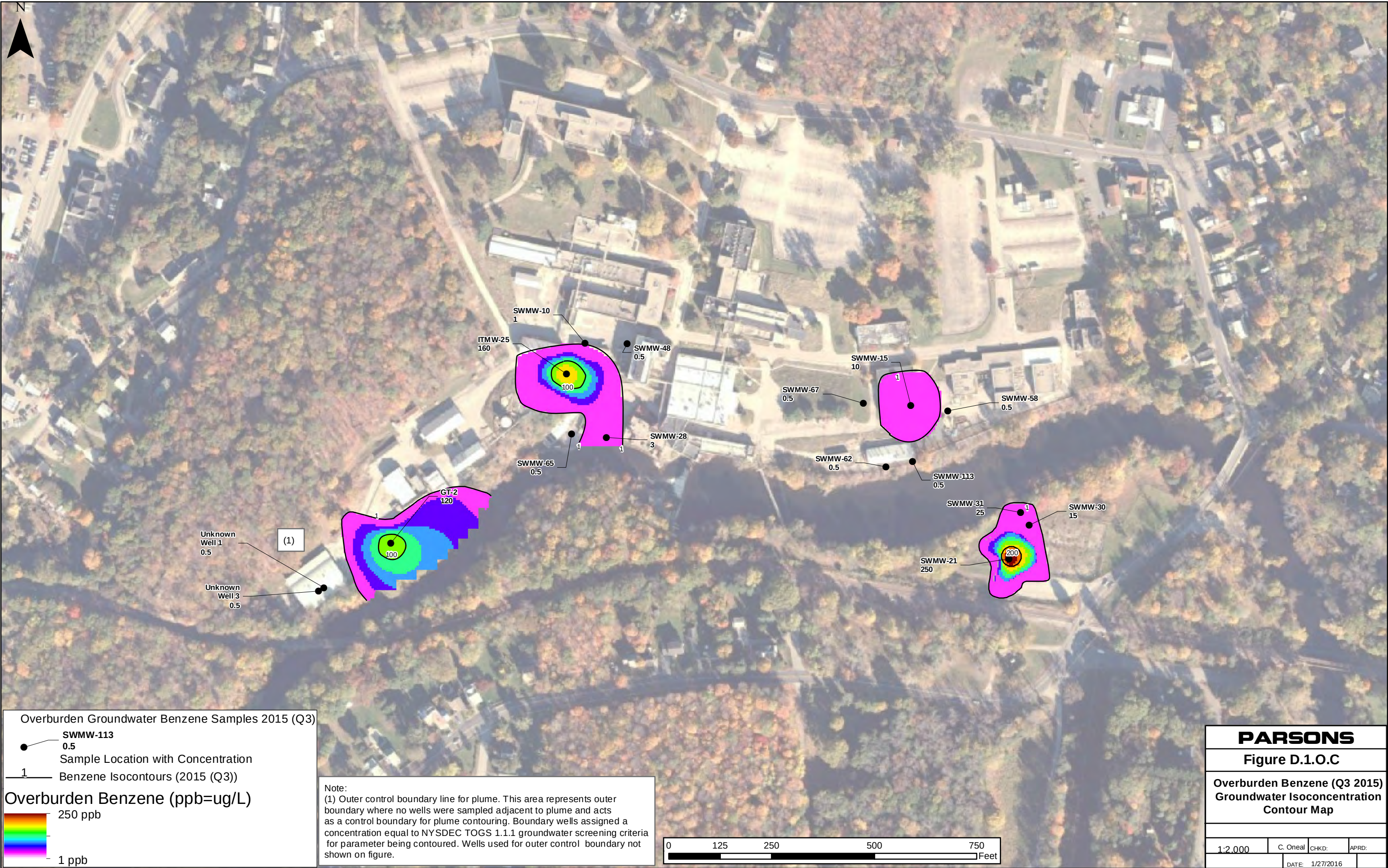


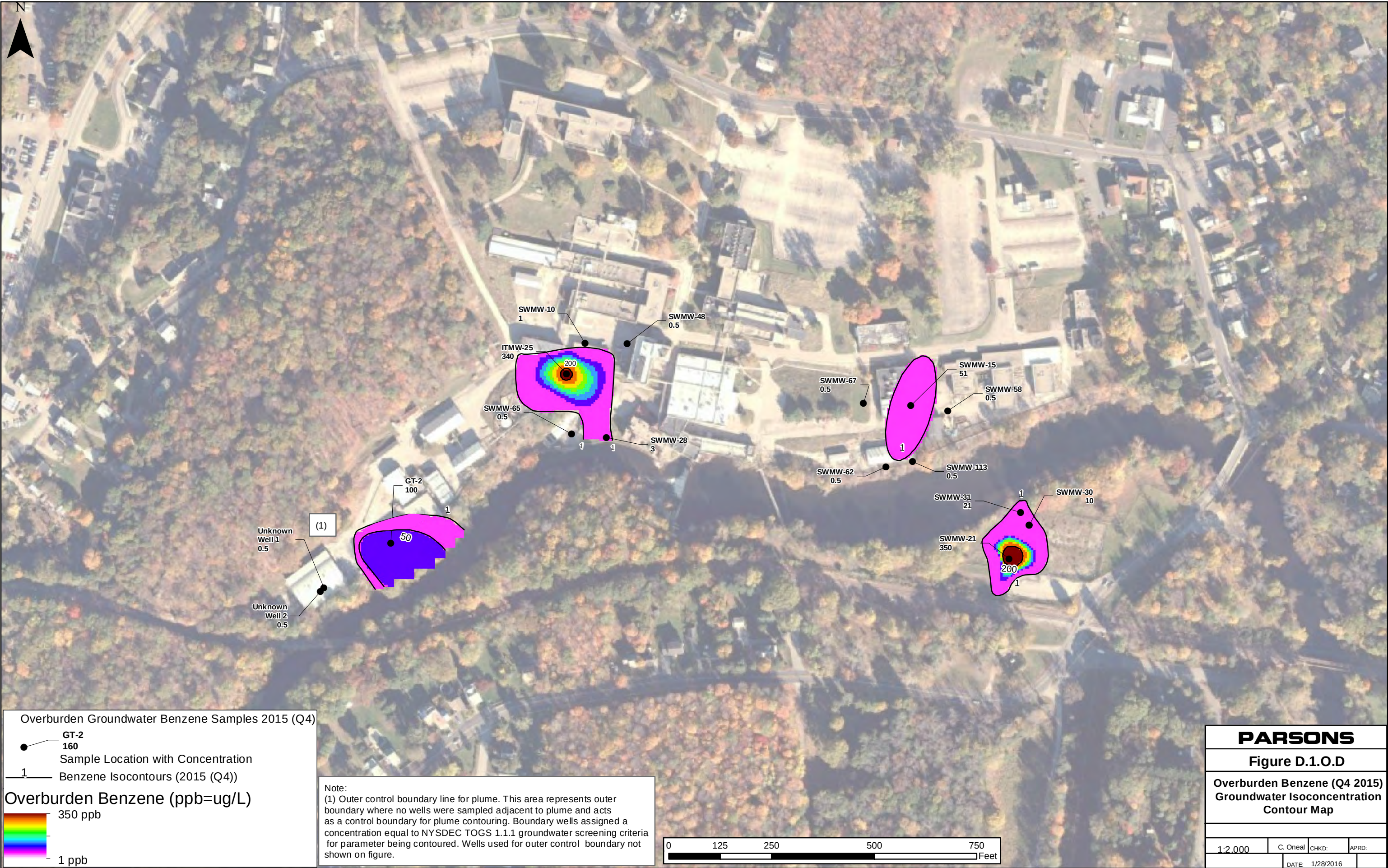


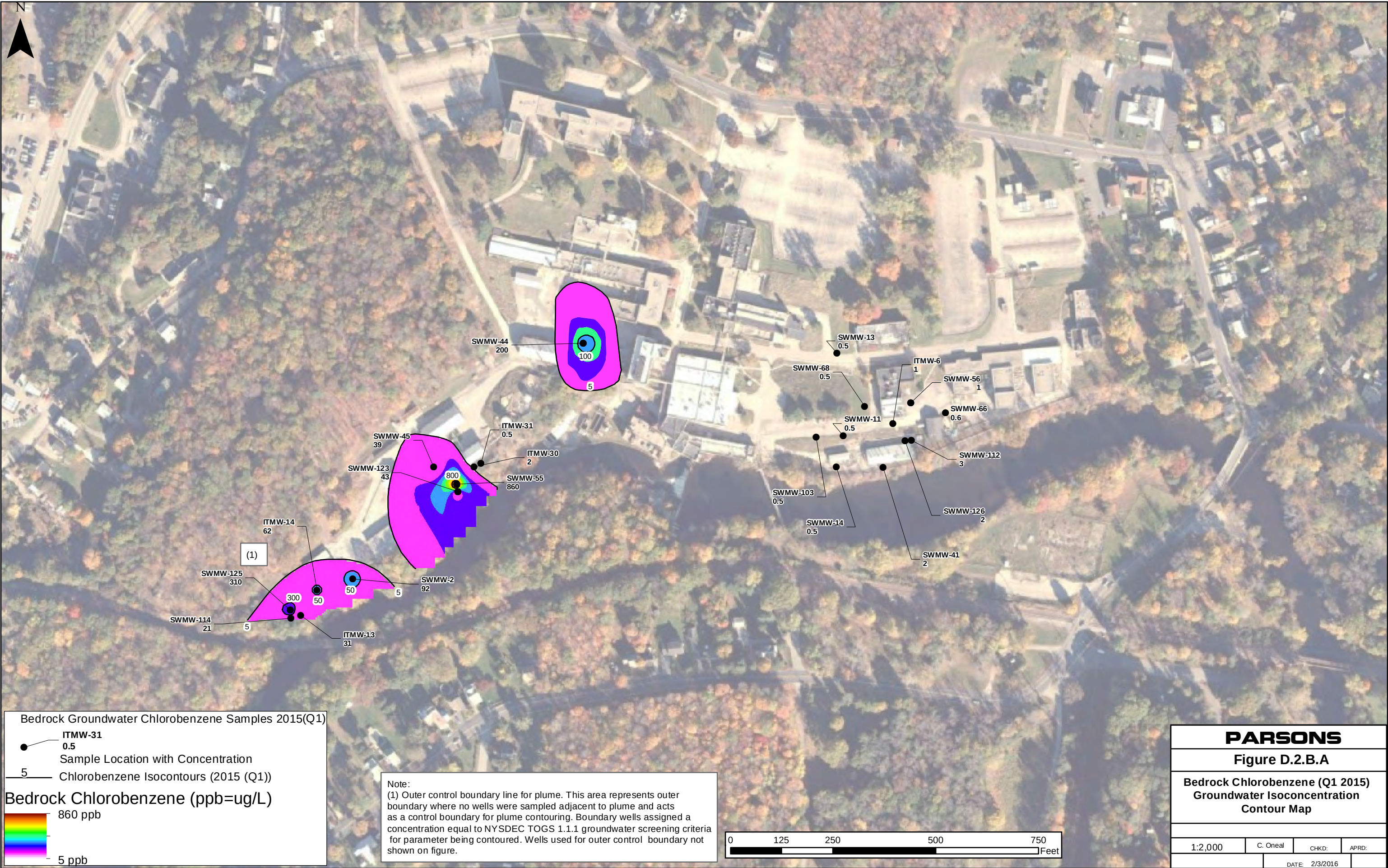


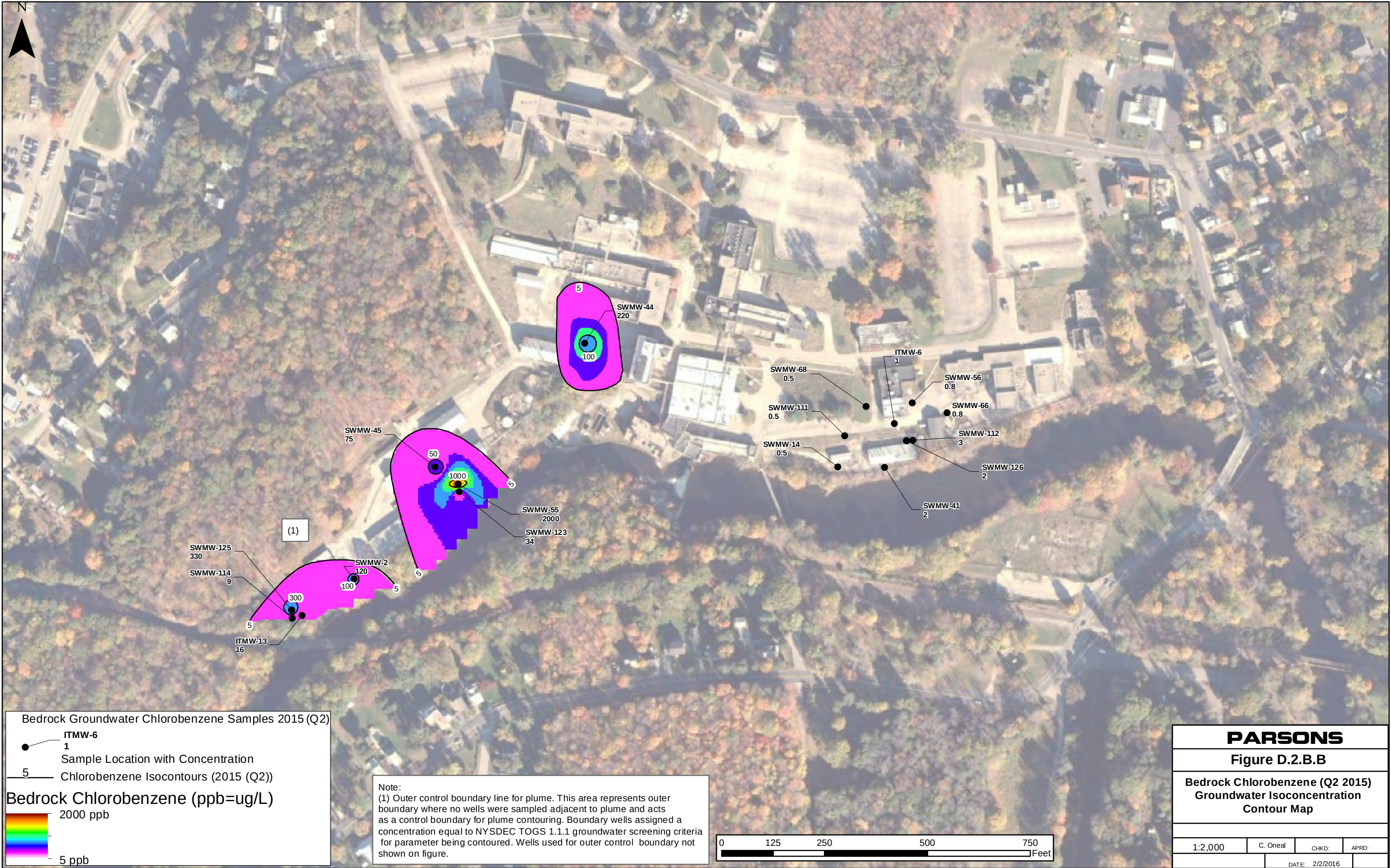


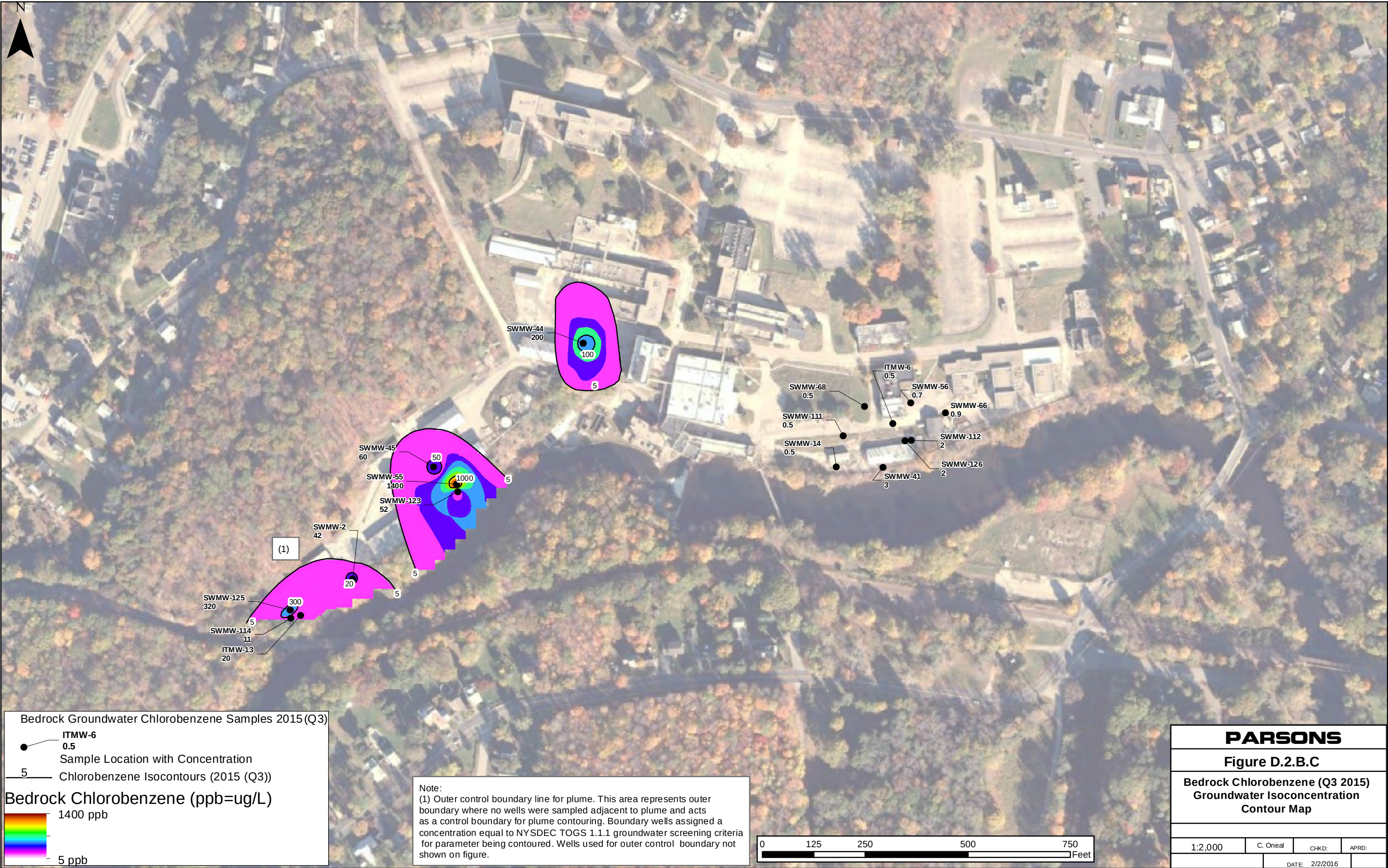


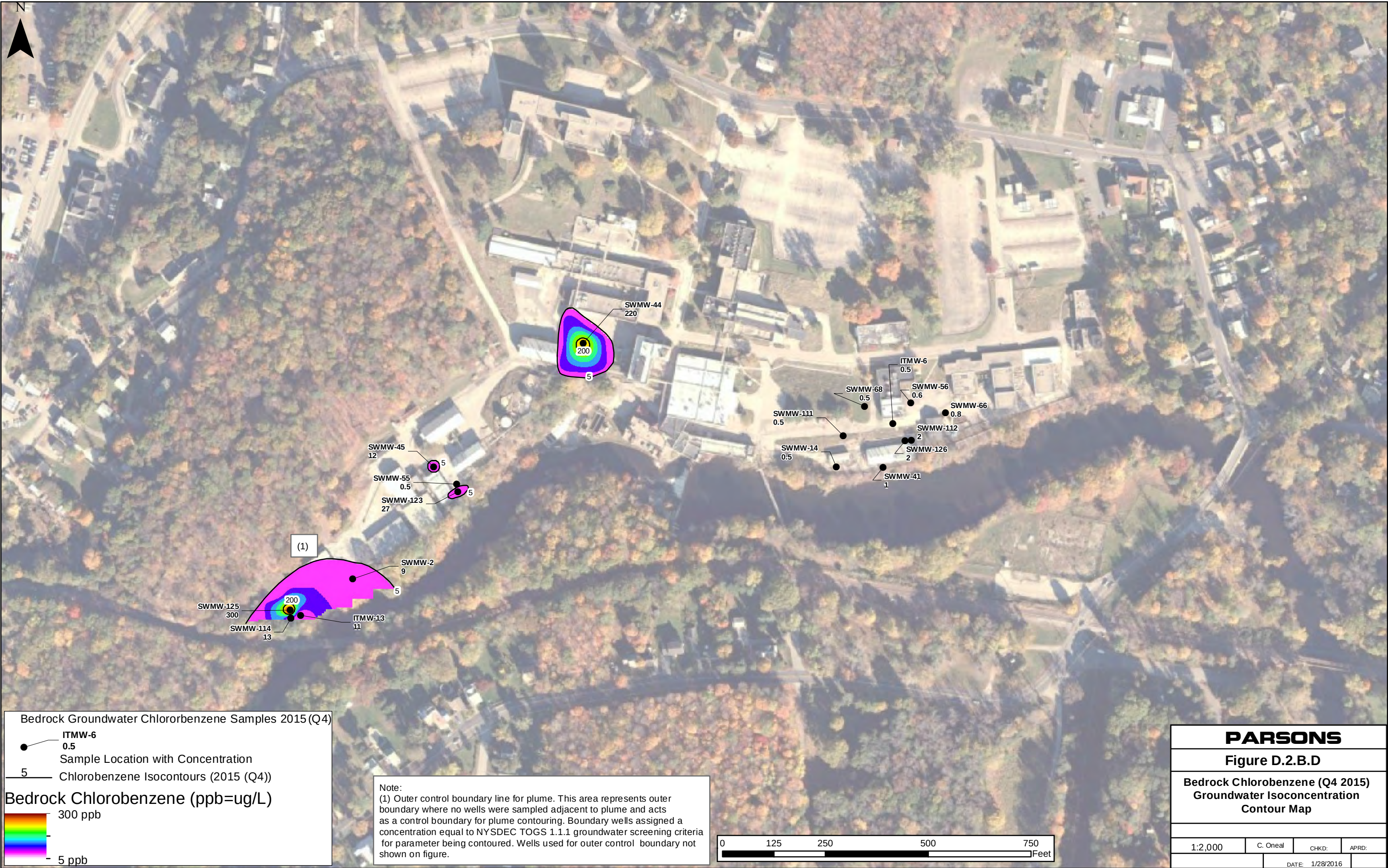


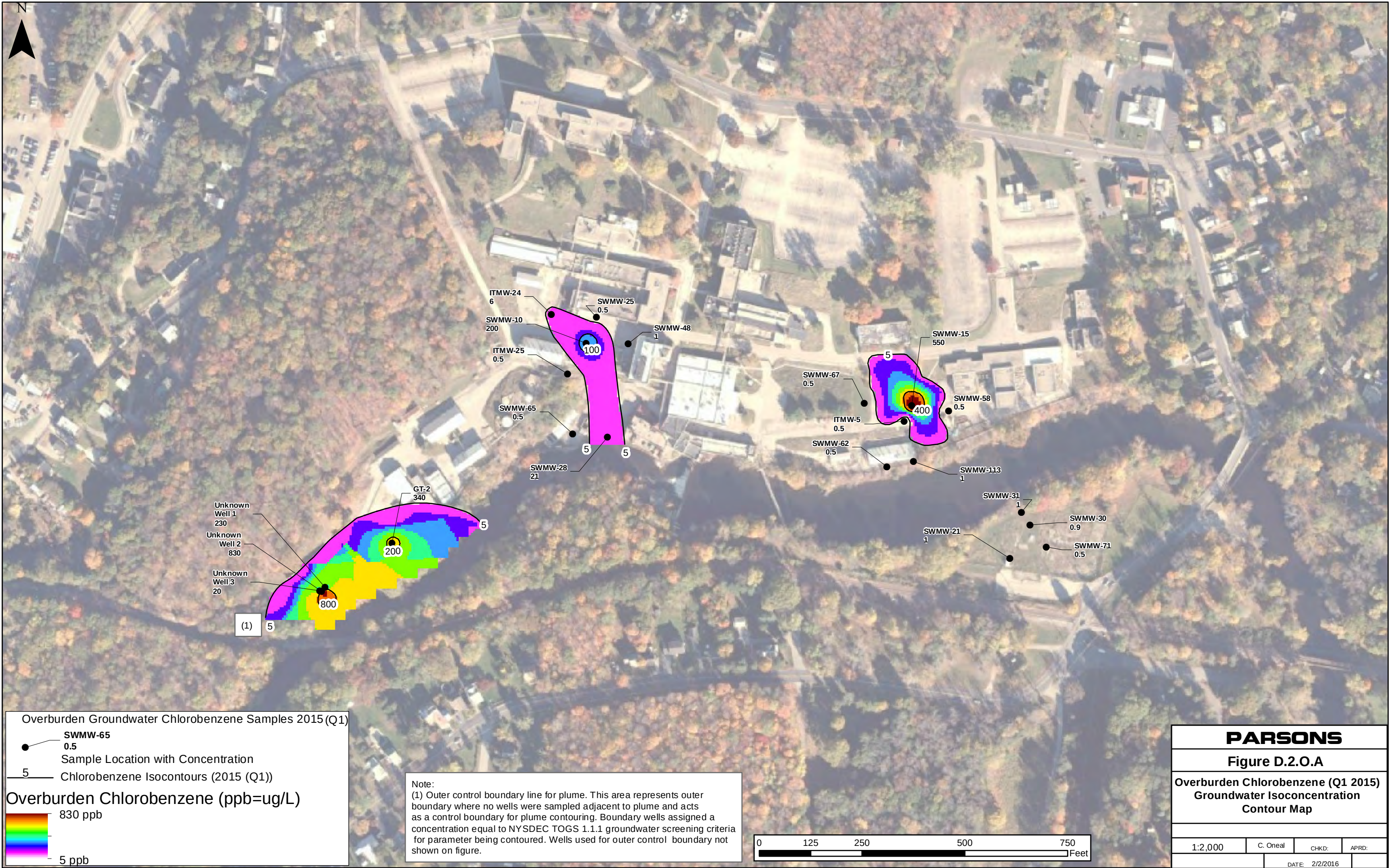


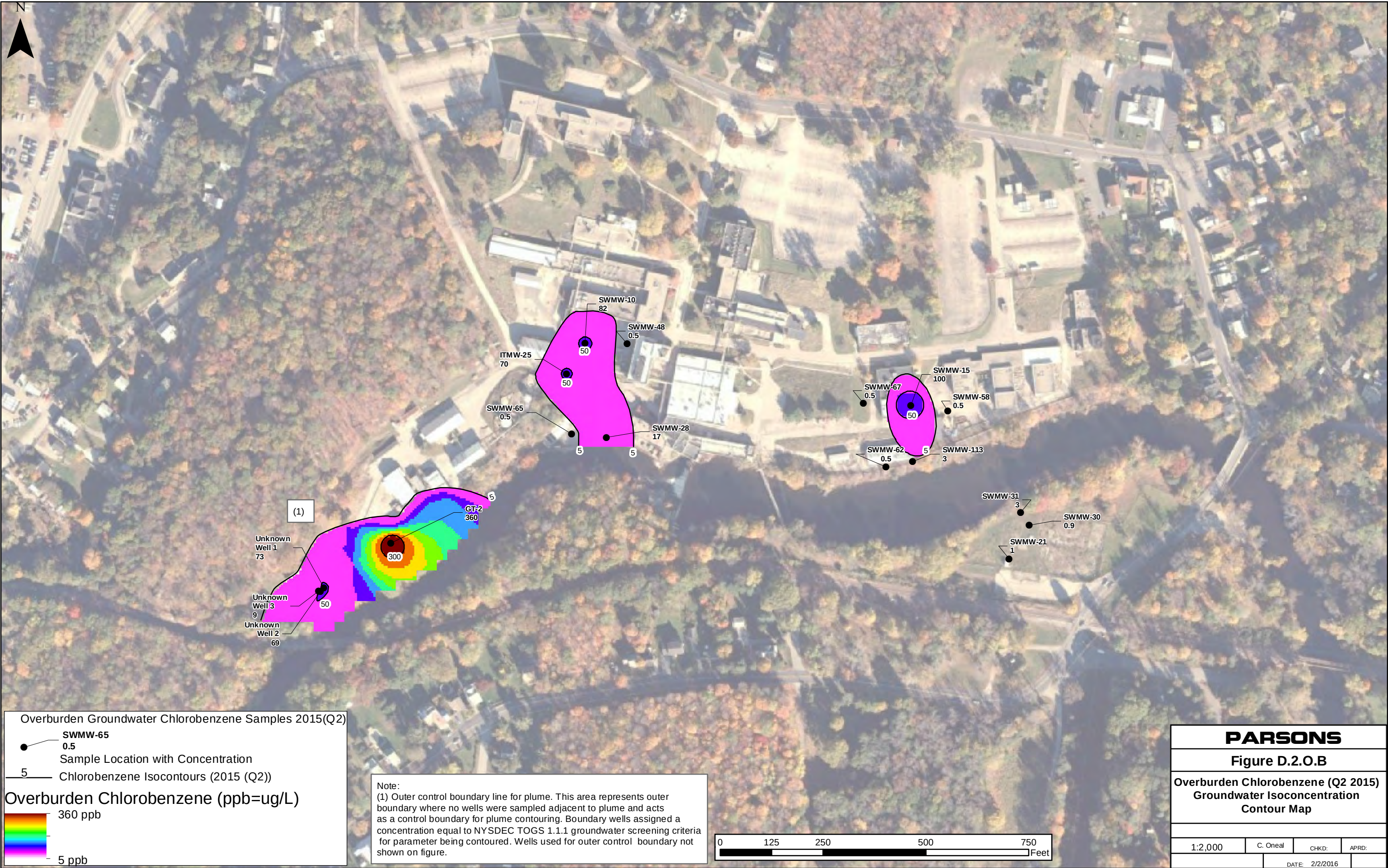


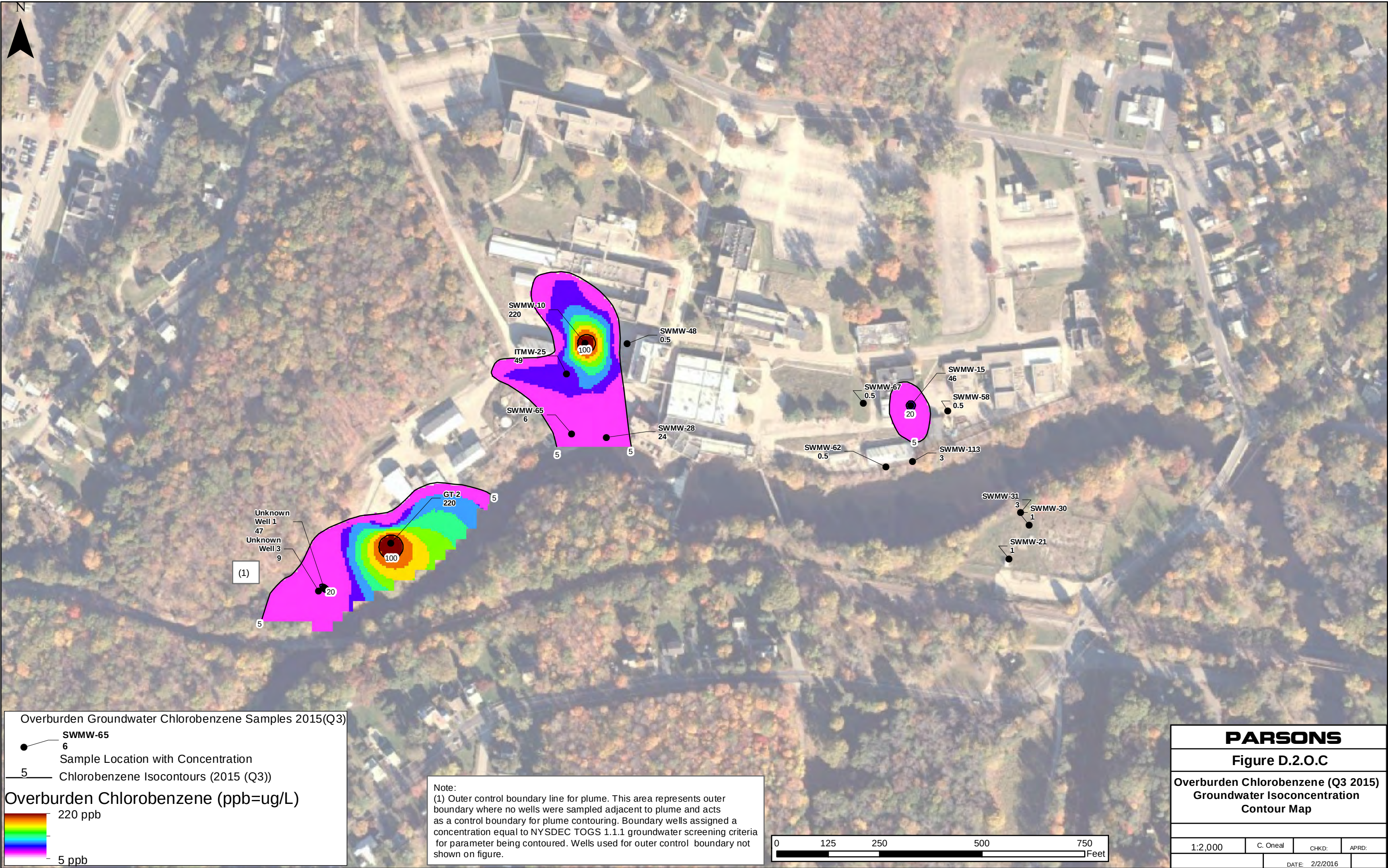


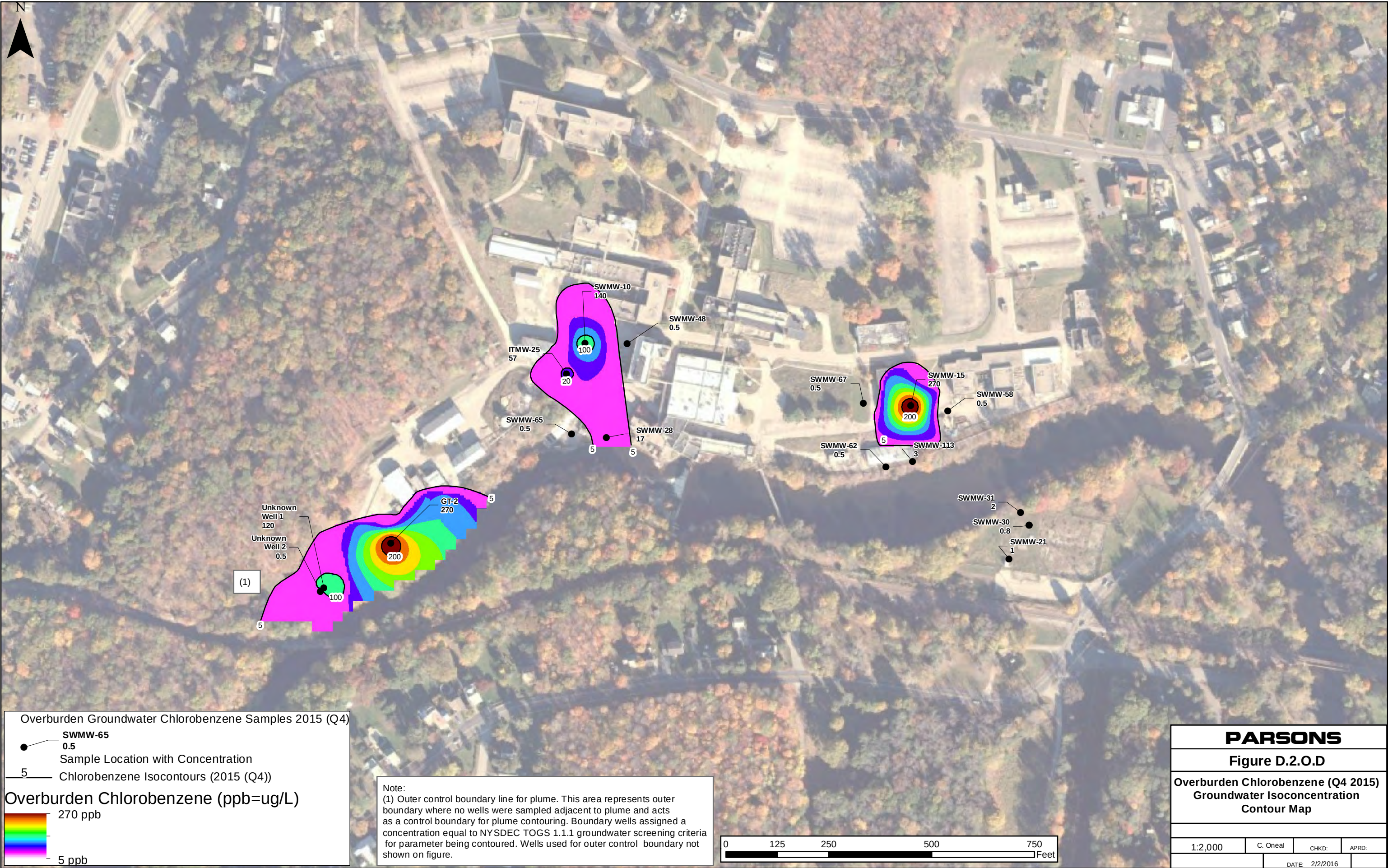


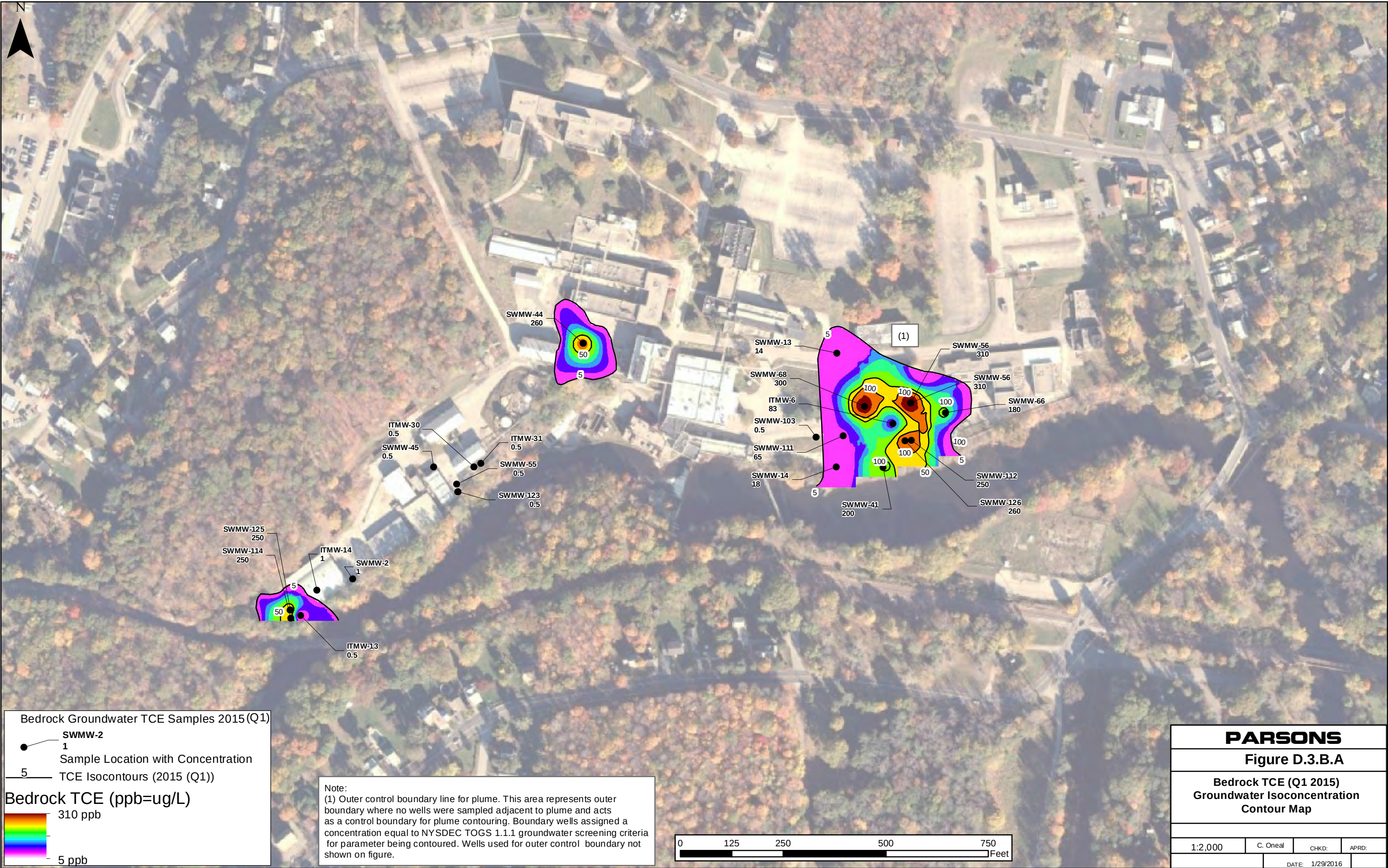












Bedrock Groundwater TCE Samples 2015 (Q1)

●

1

Sample Location with Concentration

5

TCE Isocontours (2015 (Q1))

Bedrock TCE (ppb=ug/L)

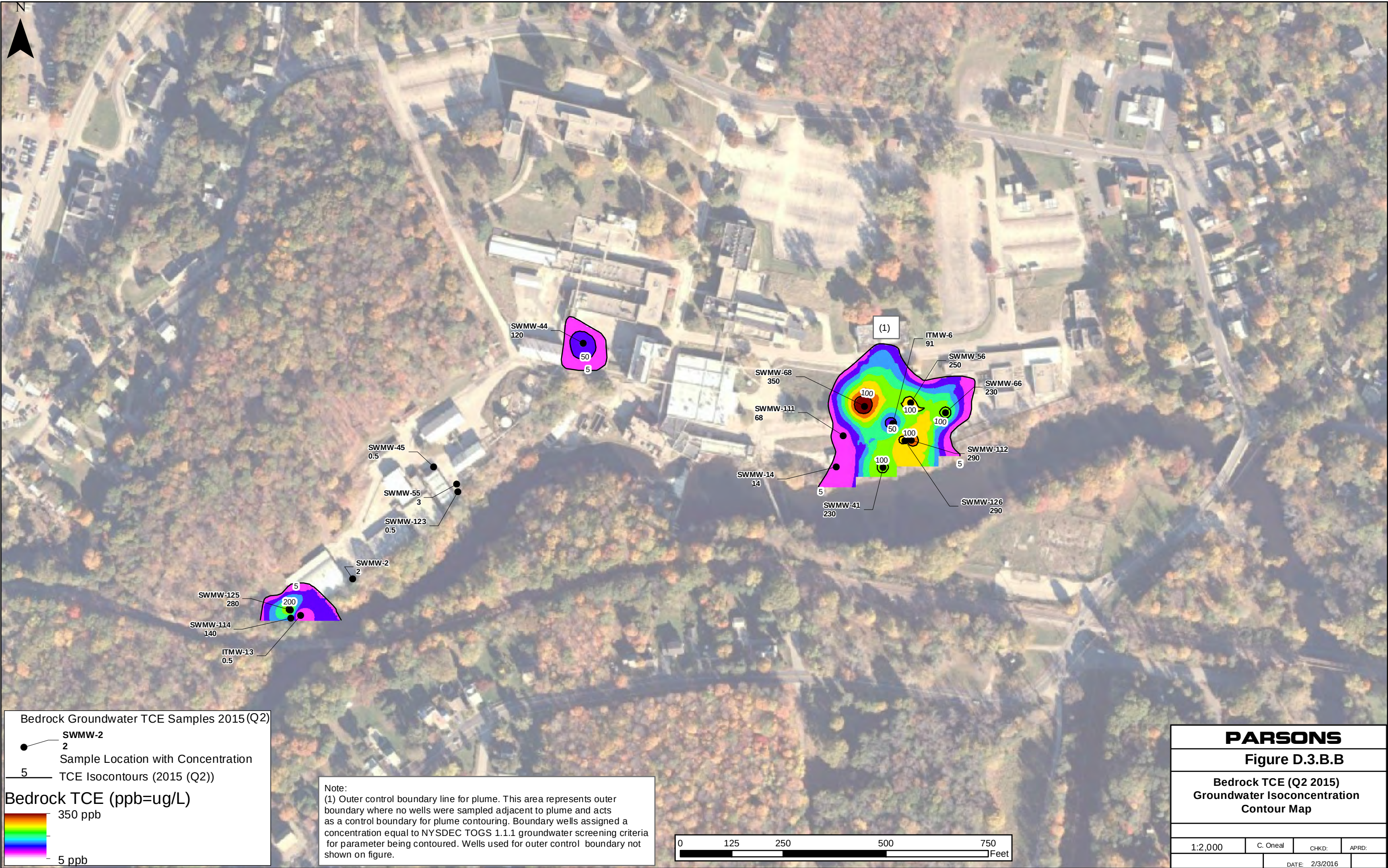
310 ppb

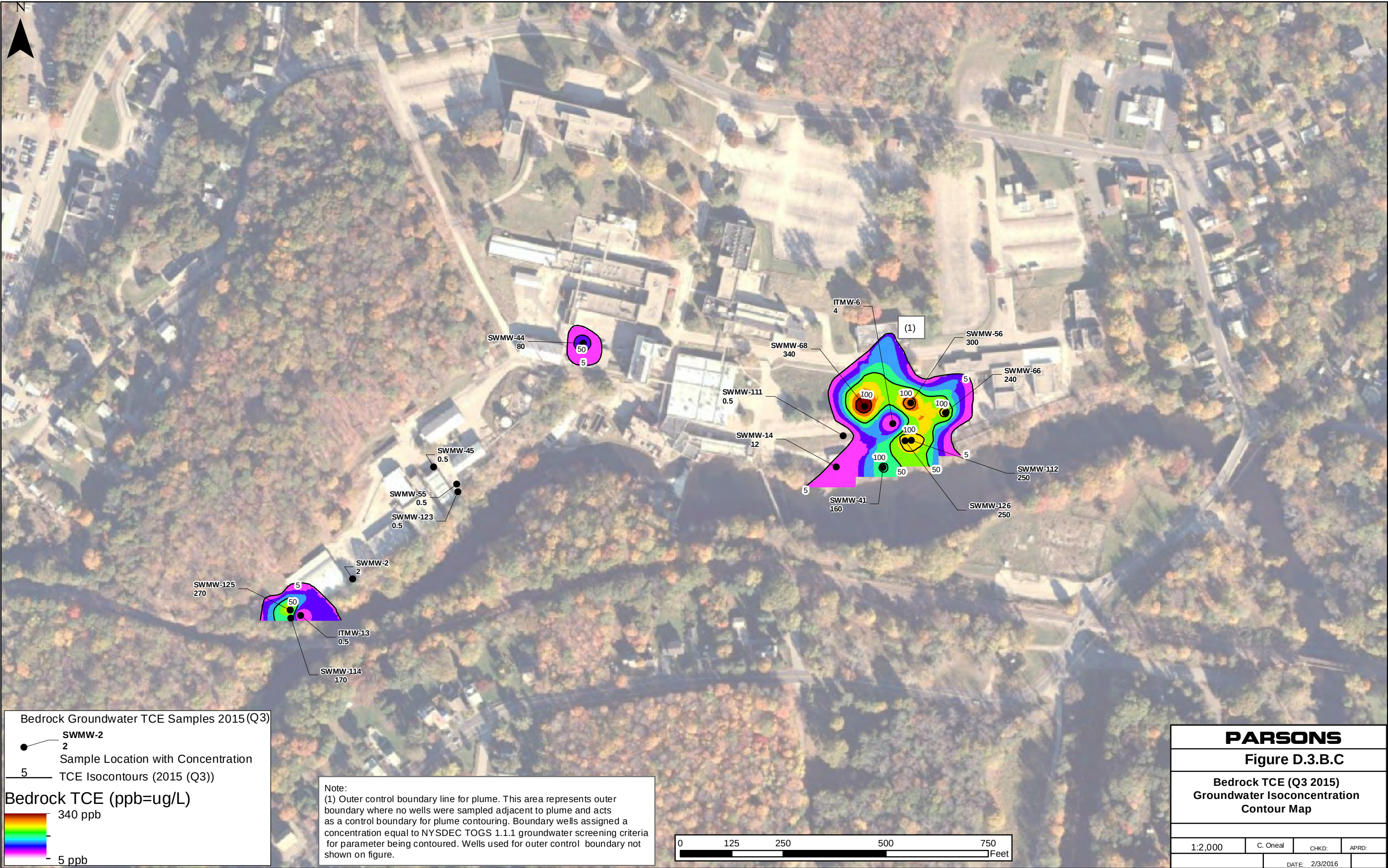
5 ppb

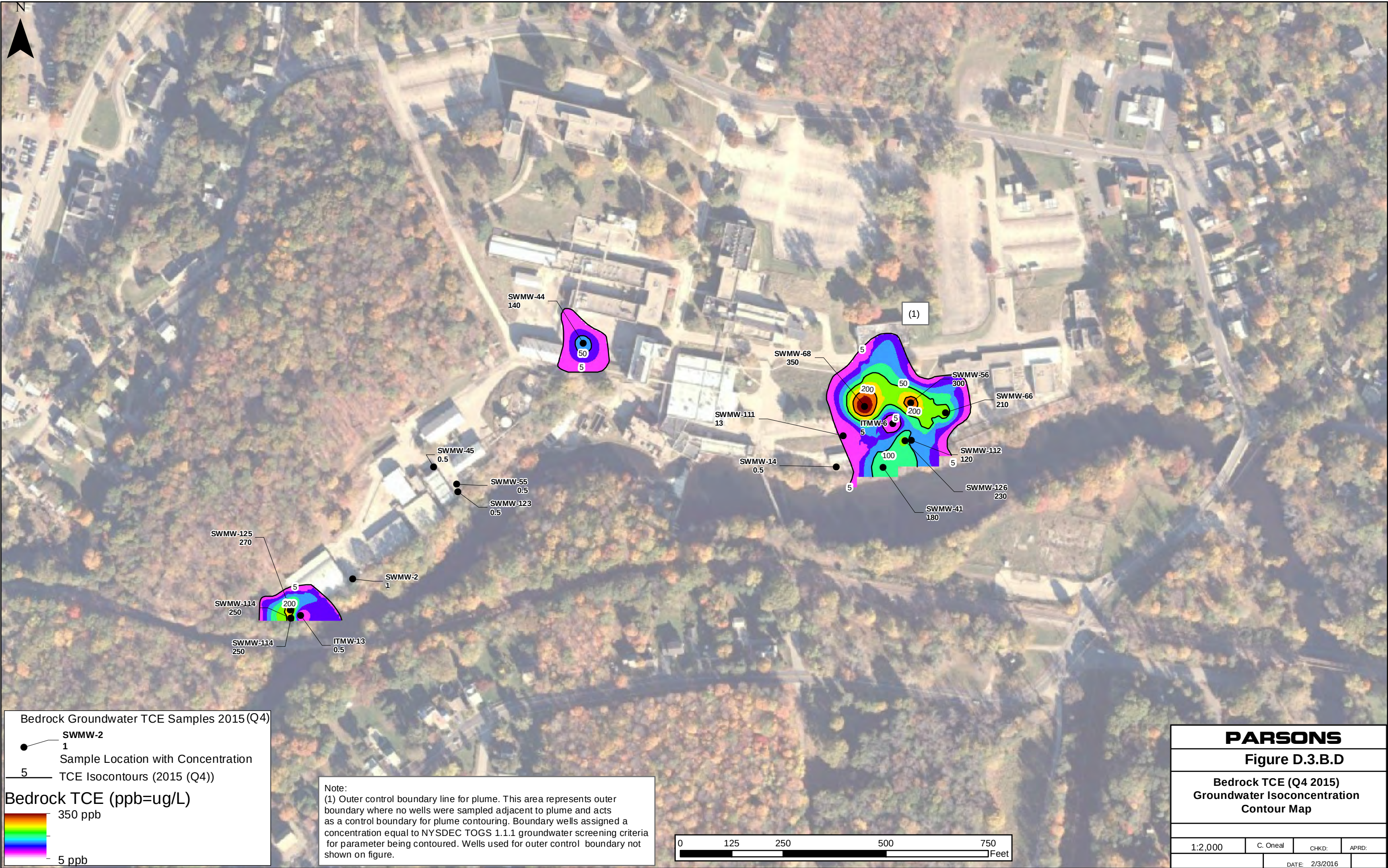
Note:
(1) Outer control boundary line for plume. This area represents outer boundary where no wells were sampled adjacent to plume and acts as a control boundary for plume contouring. Boundary wells assigned a concentration equal to NYSDEC TOGS 1.1.1 groundwater screening criteria for parameter being contoured. Wells used for outer control boundary not shown on figure.

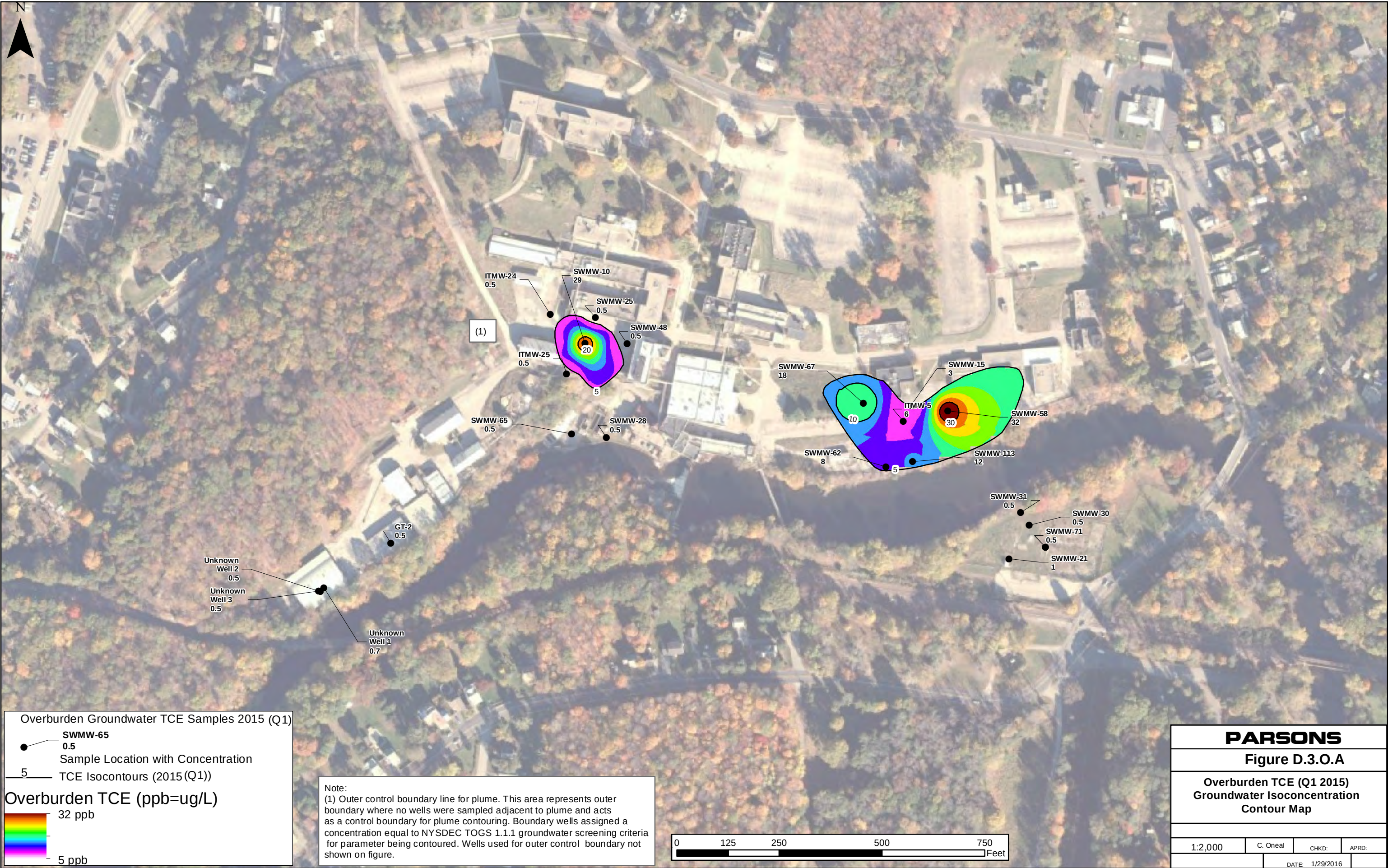


PARSONS			
Figure D.3.B.A			
Bedrock TCE (Q1 2015) Groundwater Isoconcentration Contour Map			
1:2,000	C. Oneal	CHKD:	APRD:
		DATE: 1/29/2016	

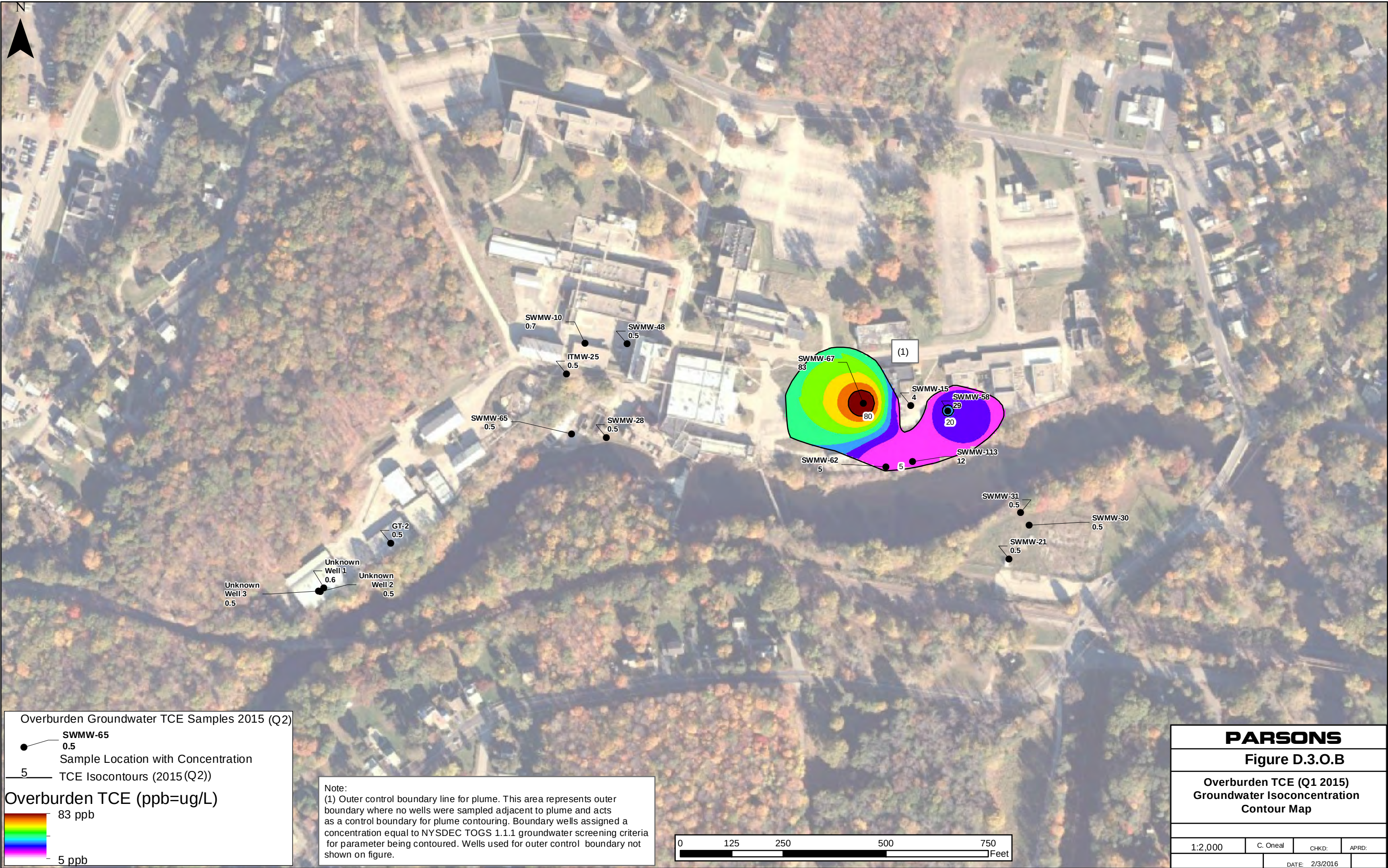


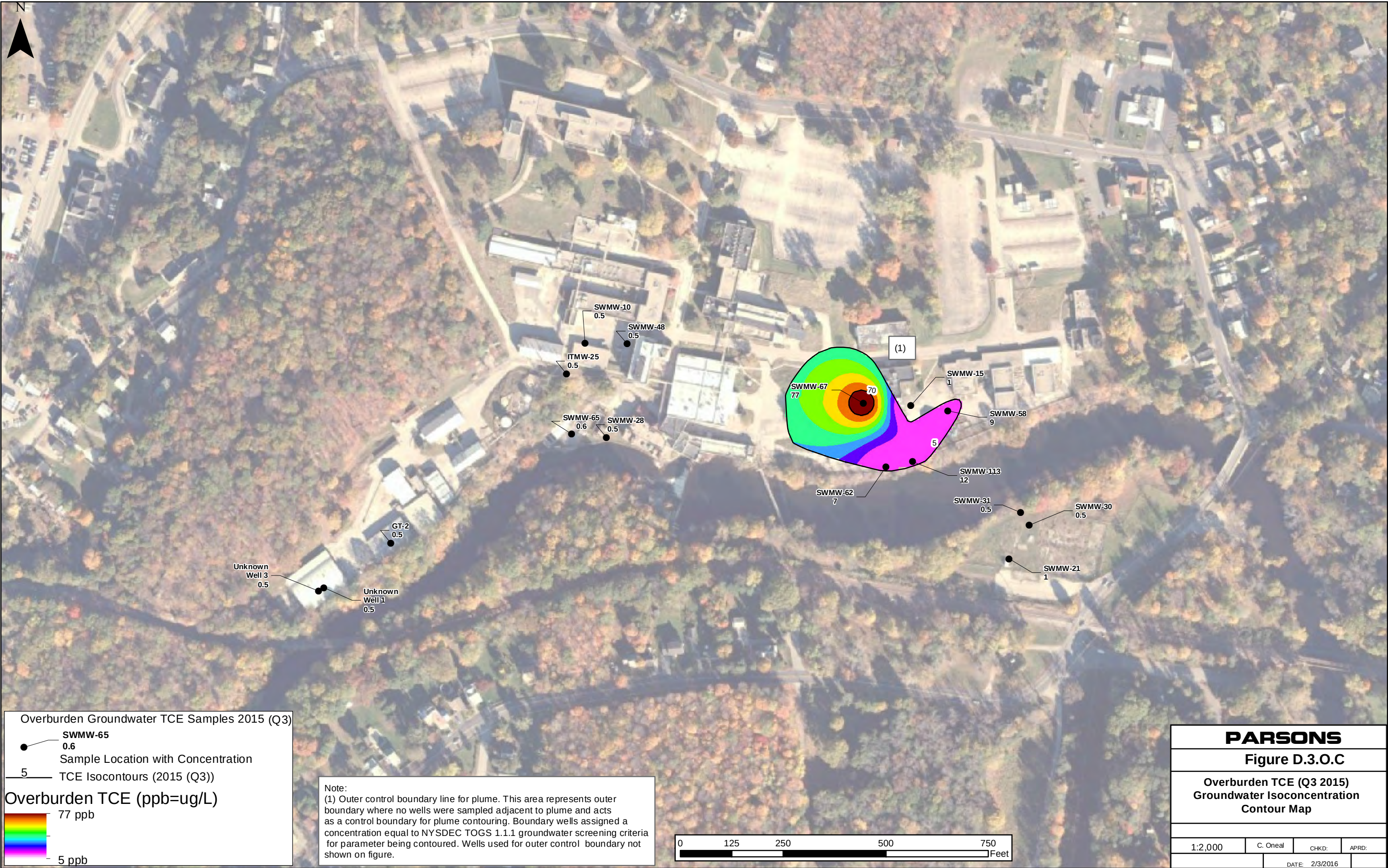


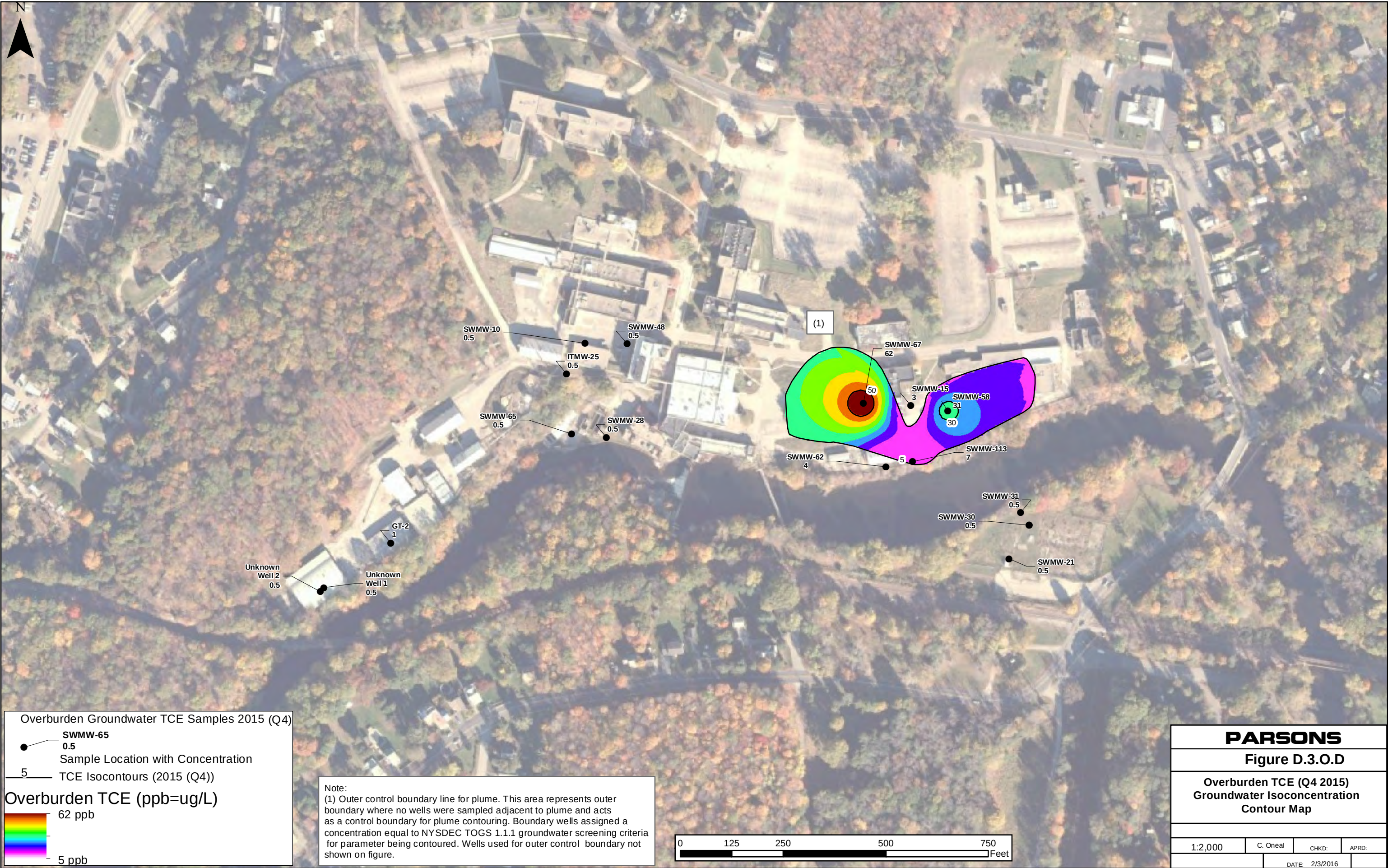


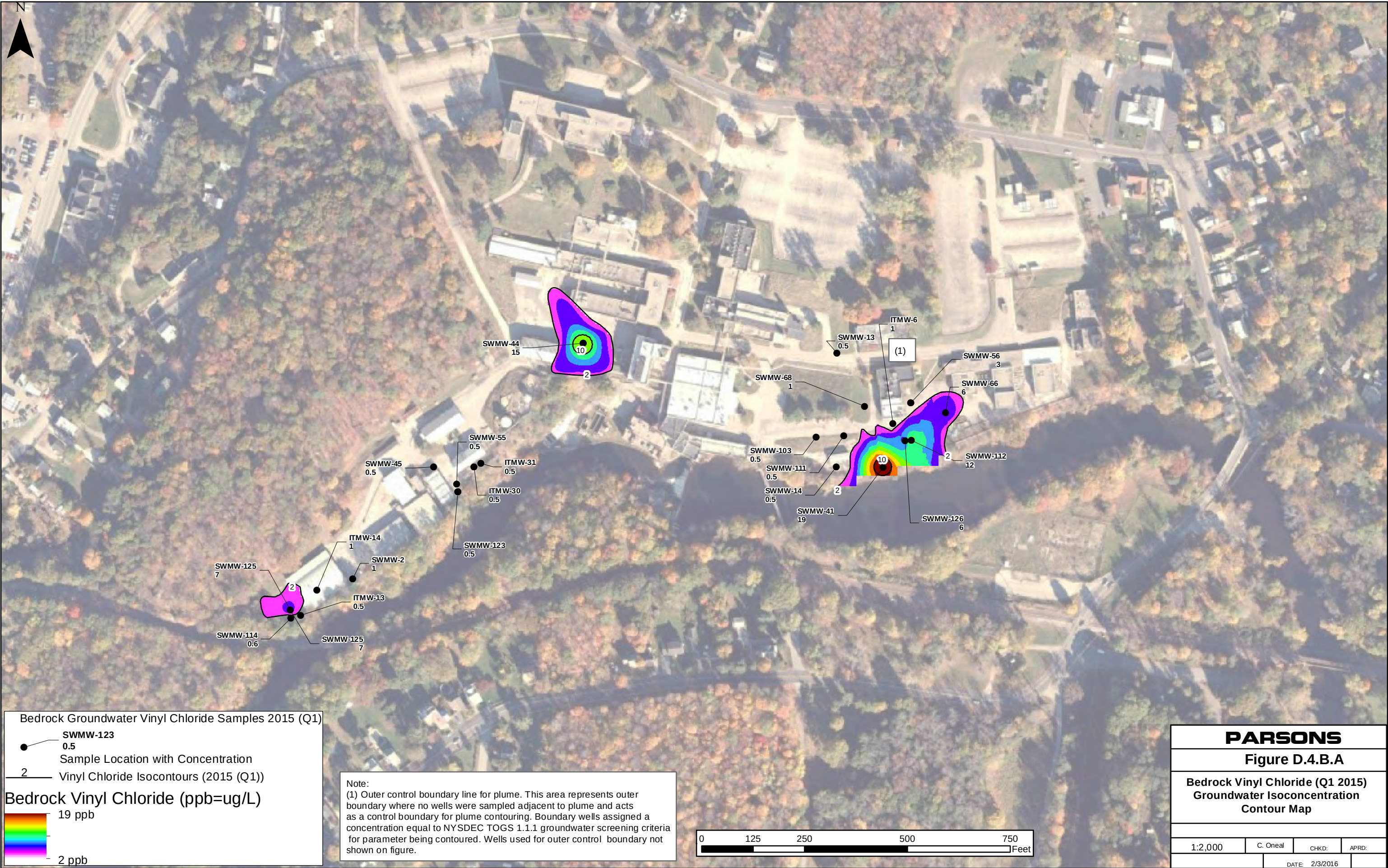


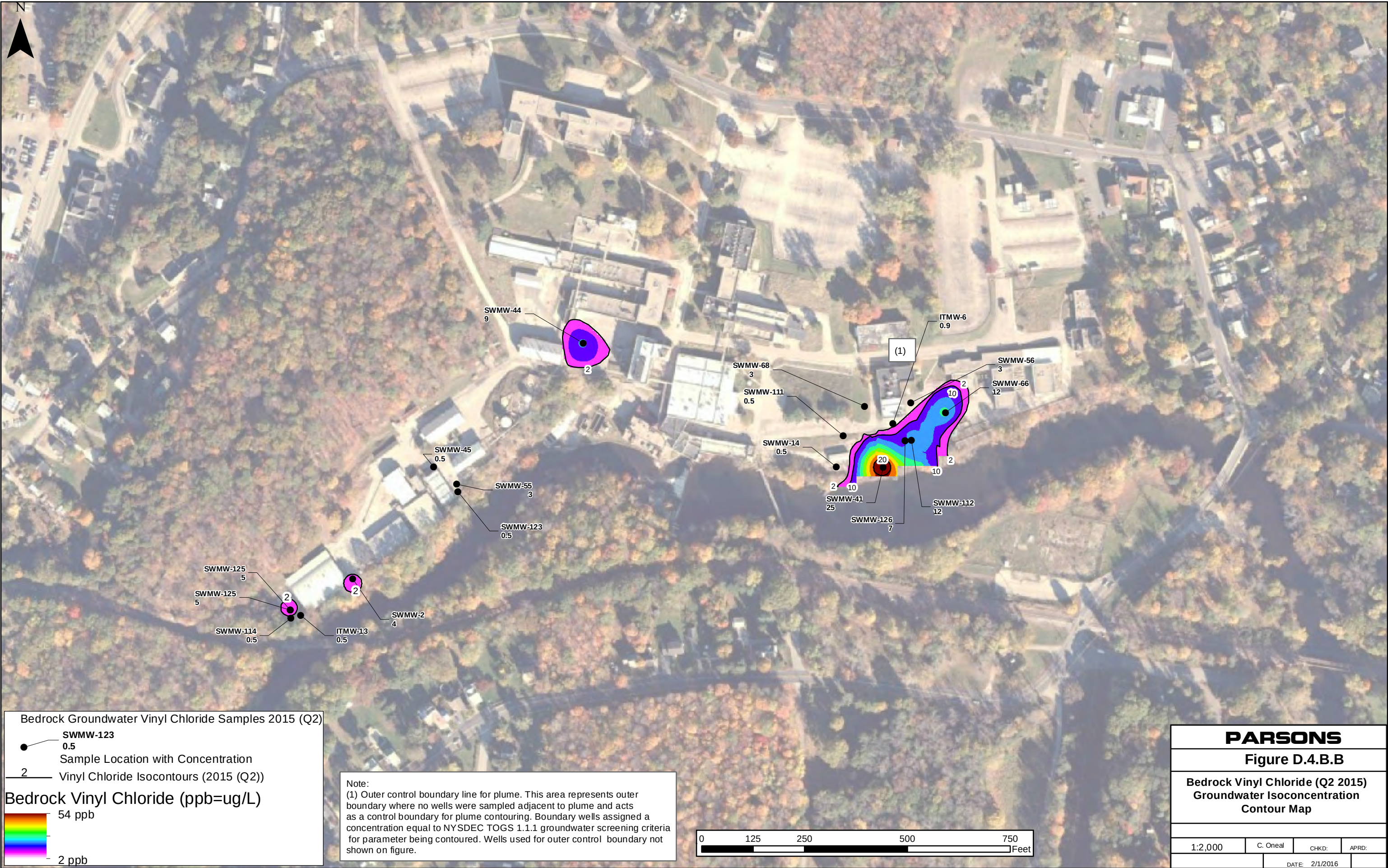
PARSONS			
Figure D.3.O.A			
Overburden TCE (Q1 2015) Groundwater Isoconcentration Contour Map			
1:2,000	C. Oneal	CHKD:	APRD:
		DATE: 1/29/2016	

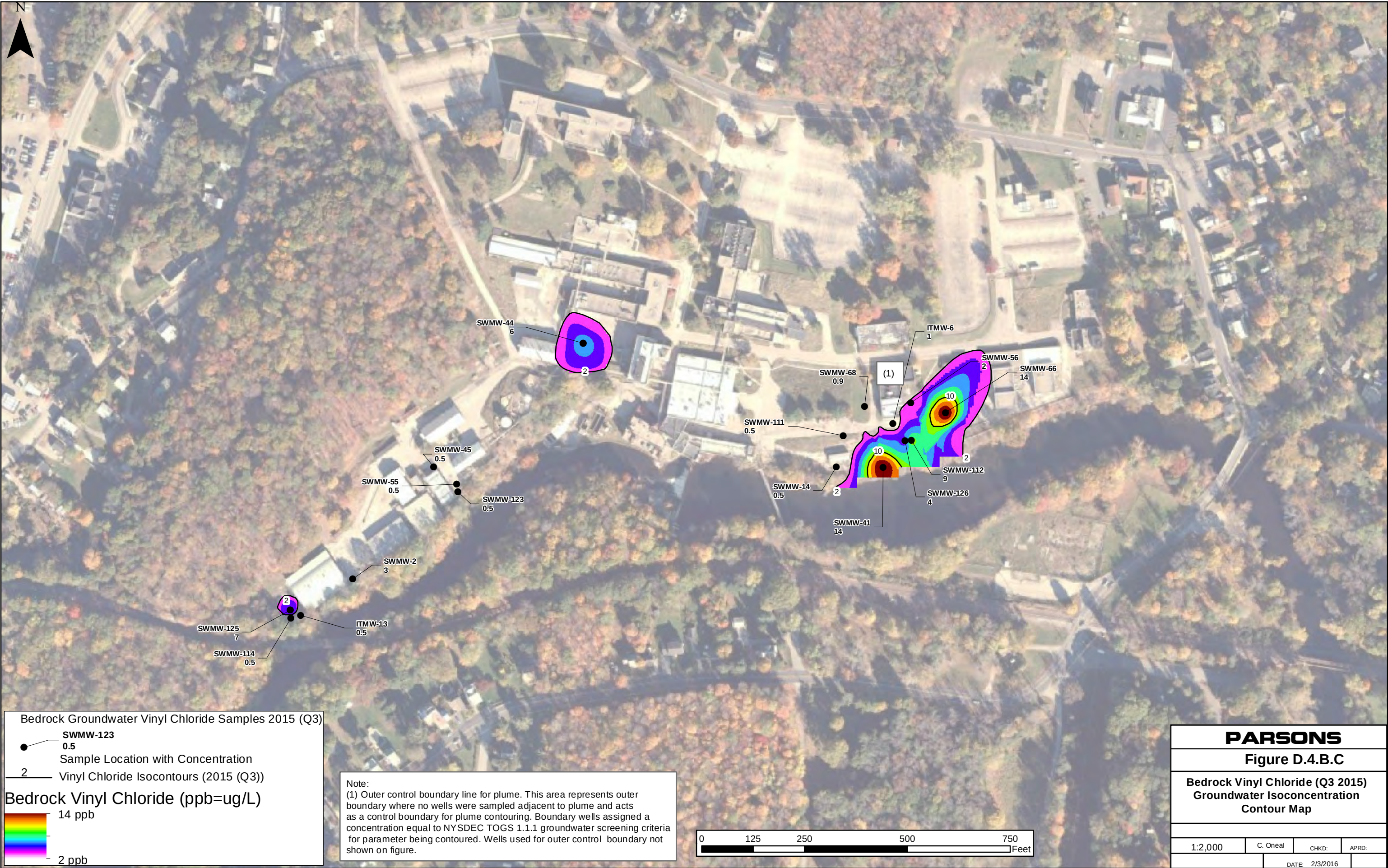


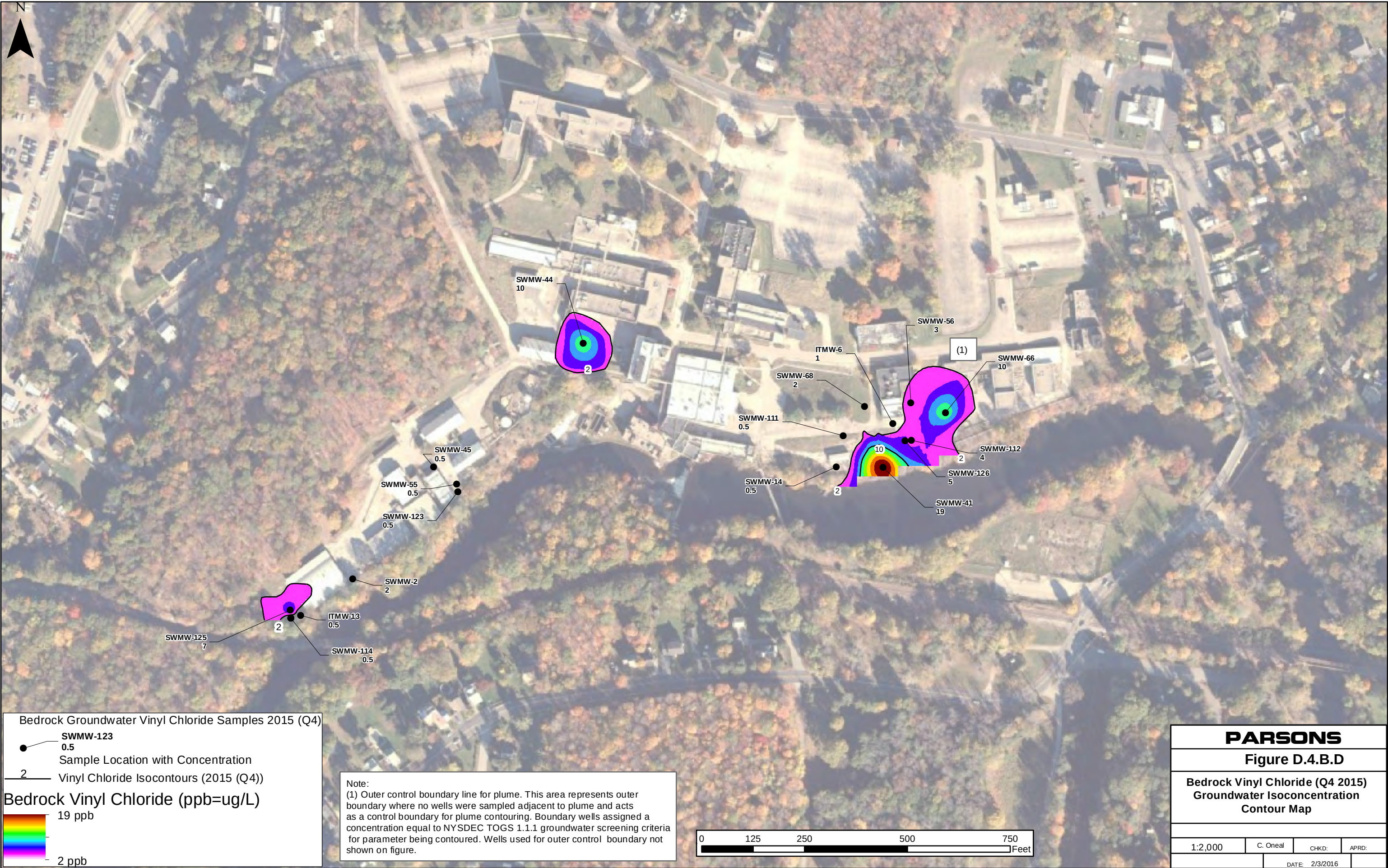




















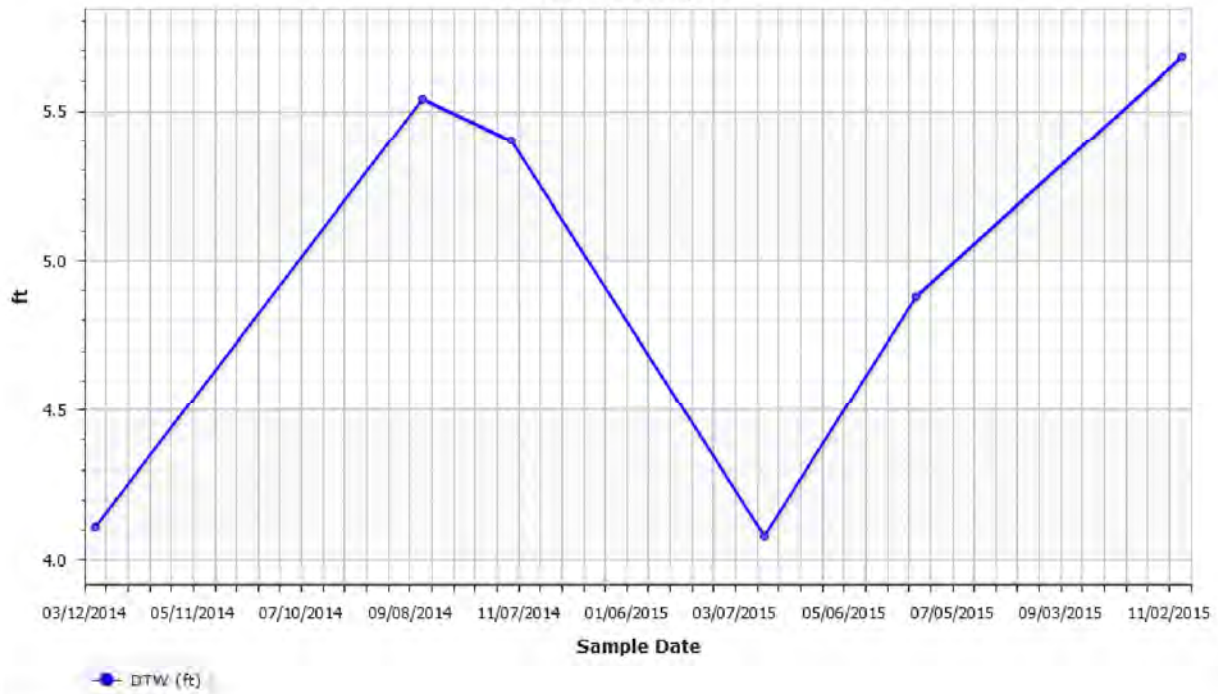
APPENDIX E

2014 THROUGH 2015 GRAPHS (DEPTH TO WATER, PRE/POST SAMPLING DISSOLVED AND REDOX POTENTIAL, VOC CONCENTRATIONS, AND NATURAL ATTENUATION PARAMETERS)

2014 THROUGH 2015 DTW OVERBURDEN WELLS SUMMARY GRAPHS

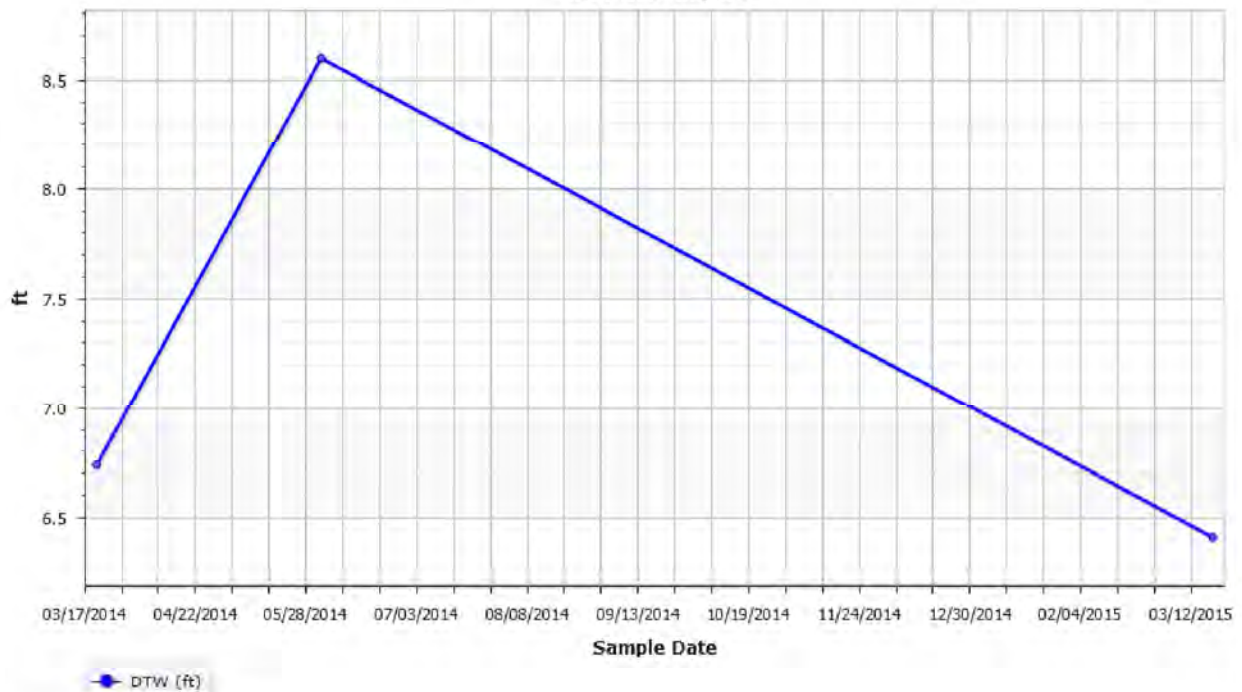
GT-2 (Overburden)

Site: Beacon, NY



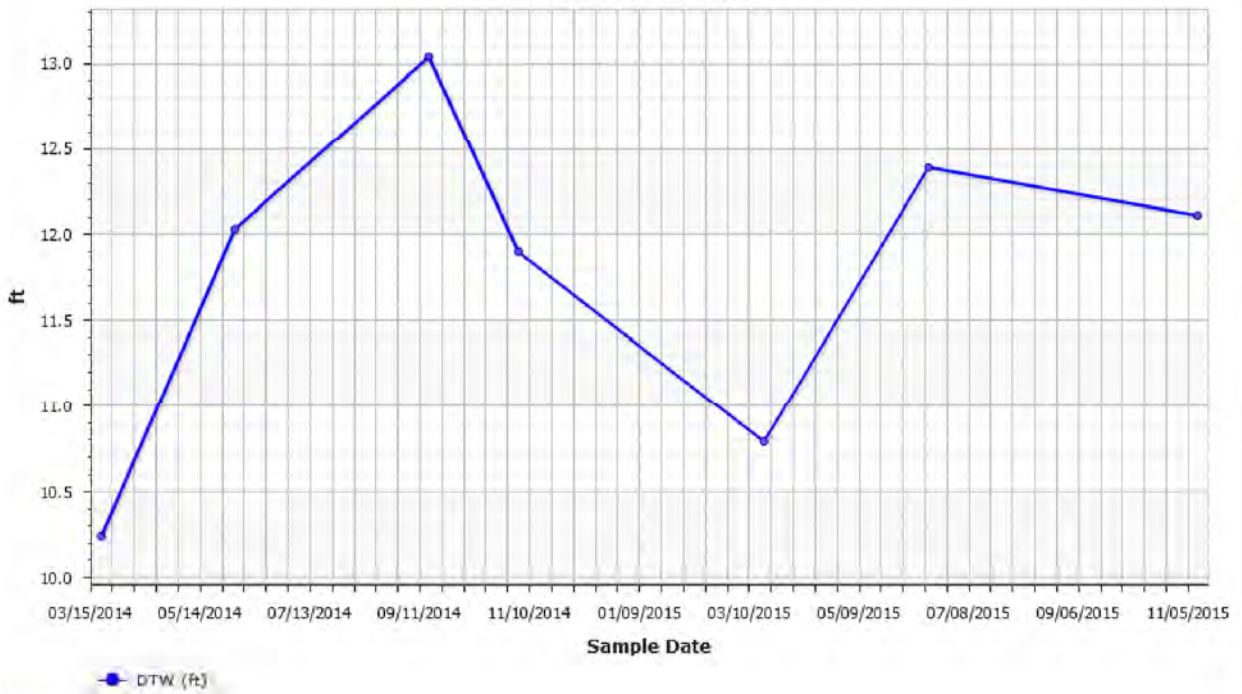
ITMW-24 (Overburden)

Site: Beacon, NY



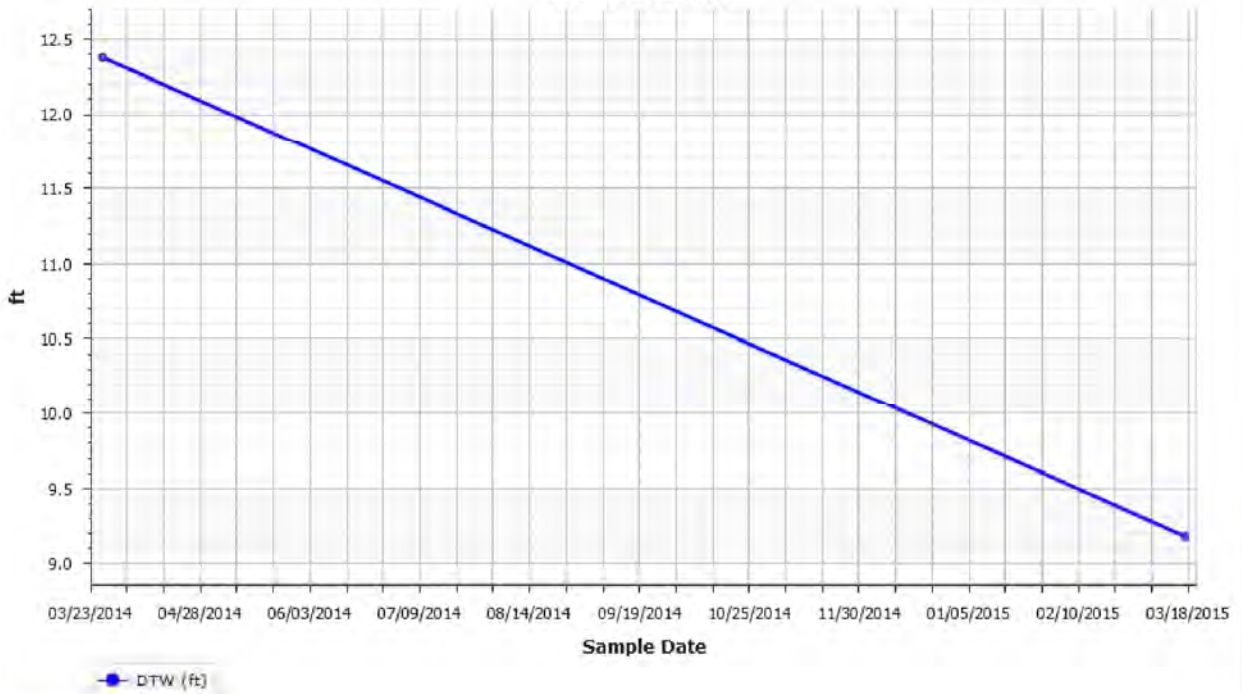
ITMW-25 (Overburden)

Site: Beacon, NY



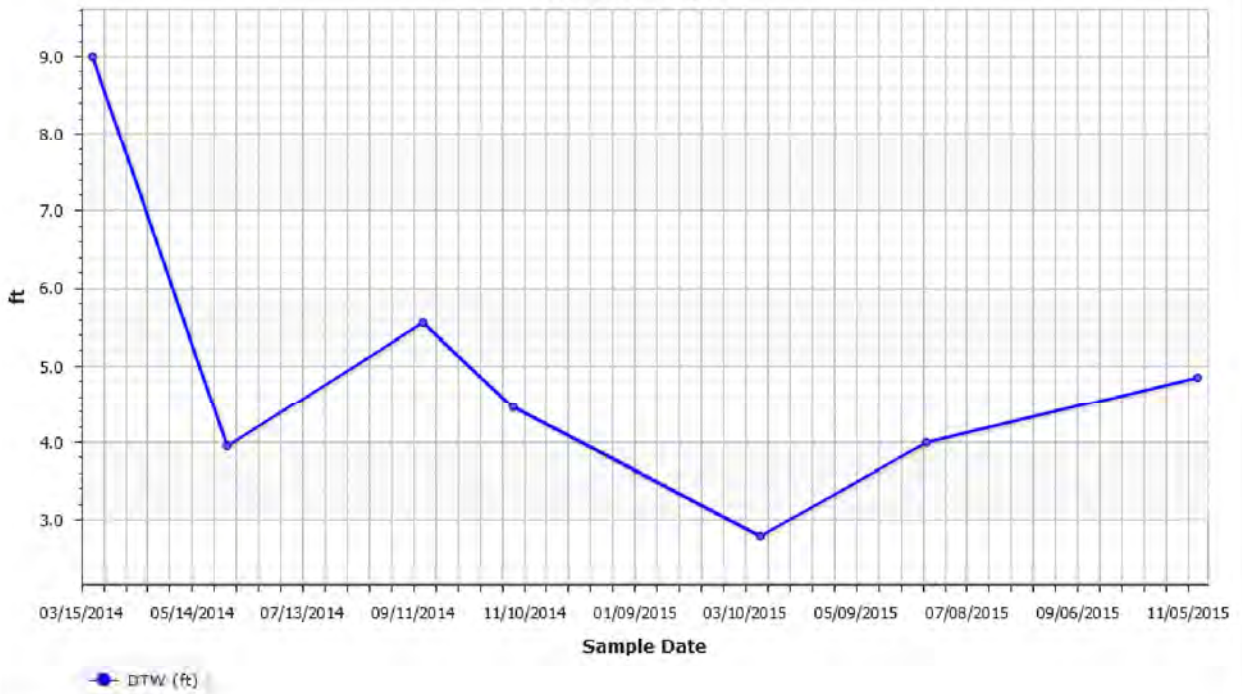
ITMW-5 (Overburden)

Site: Beacon, NY



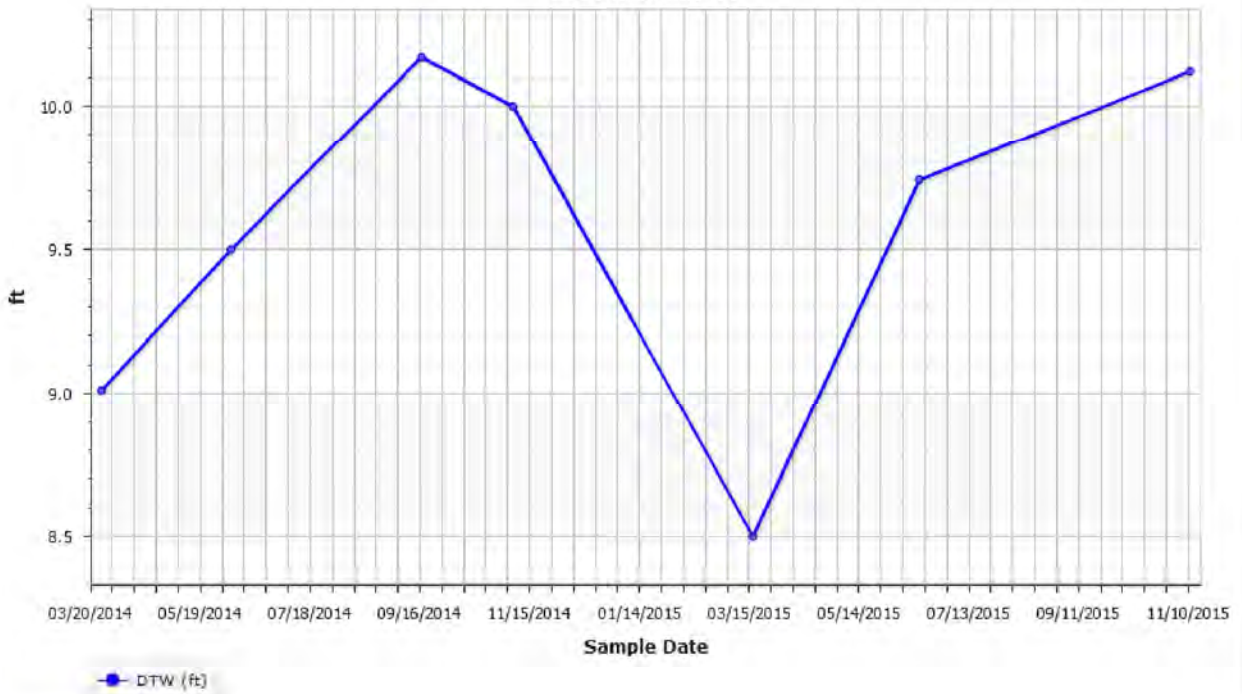
SWMW-10 (Overburden)

Site: Beacon, NY



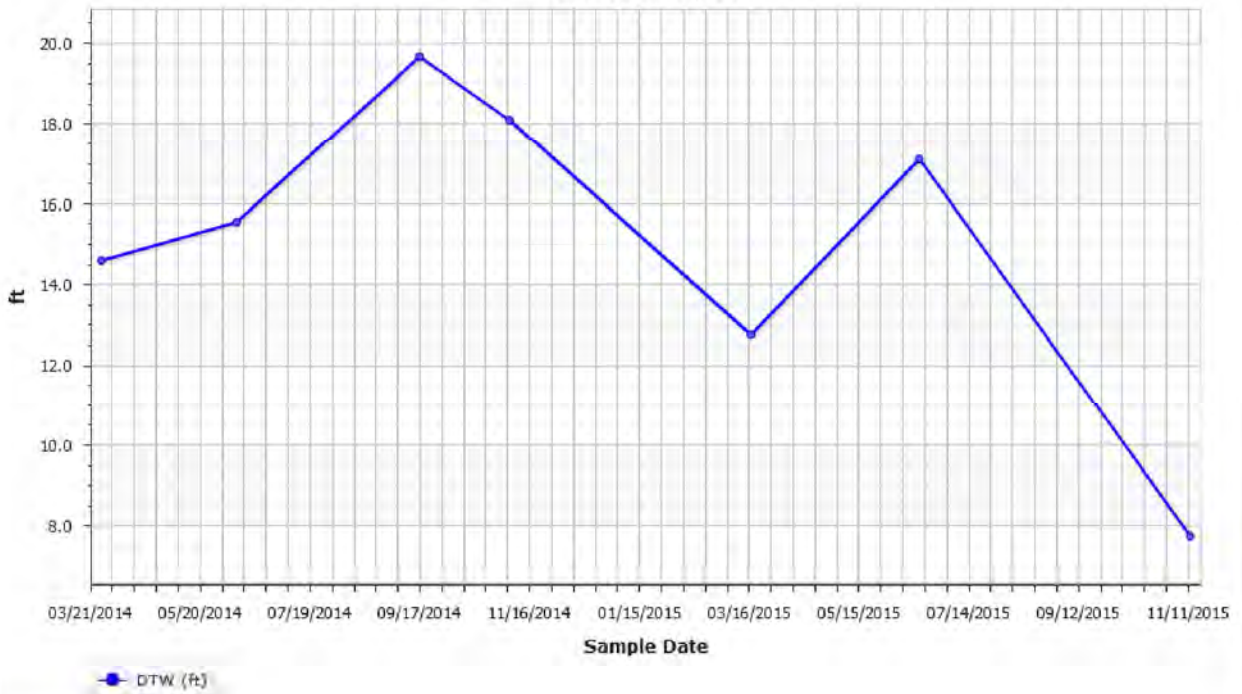
SWMW-113 (Overburden)

Site: Beacon, NY



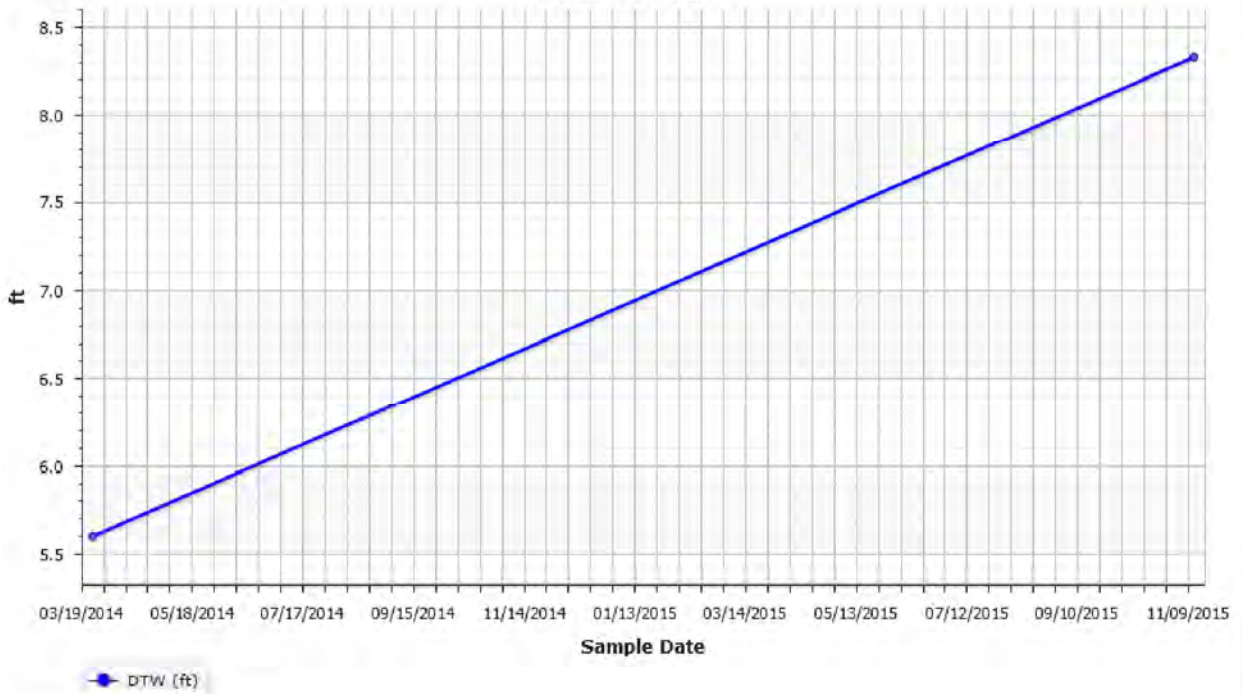
SWMW-15 (Overburden)

Site: Beacon, NY



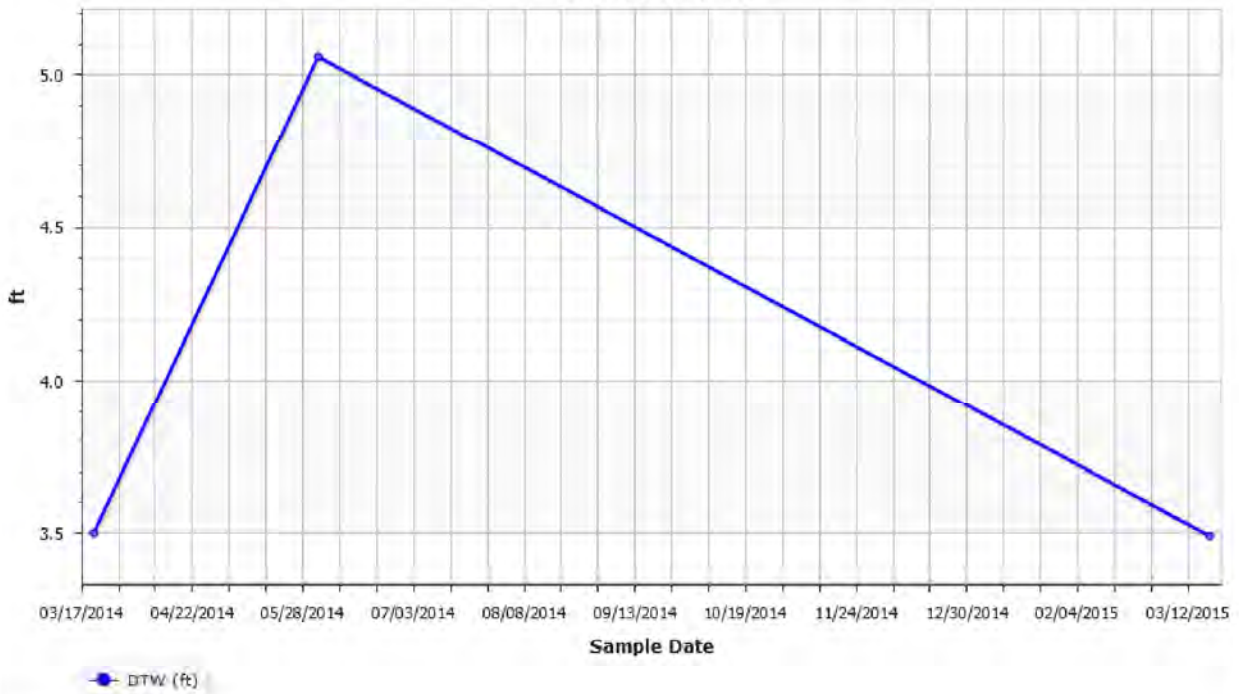
SWMW-21 (Overburden)

Site: Beacon, NY



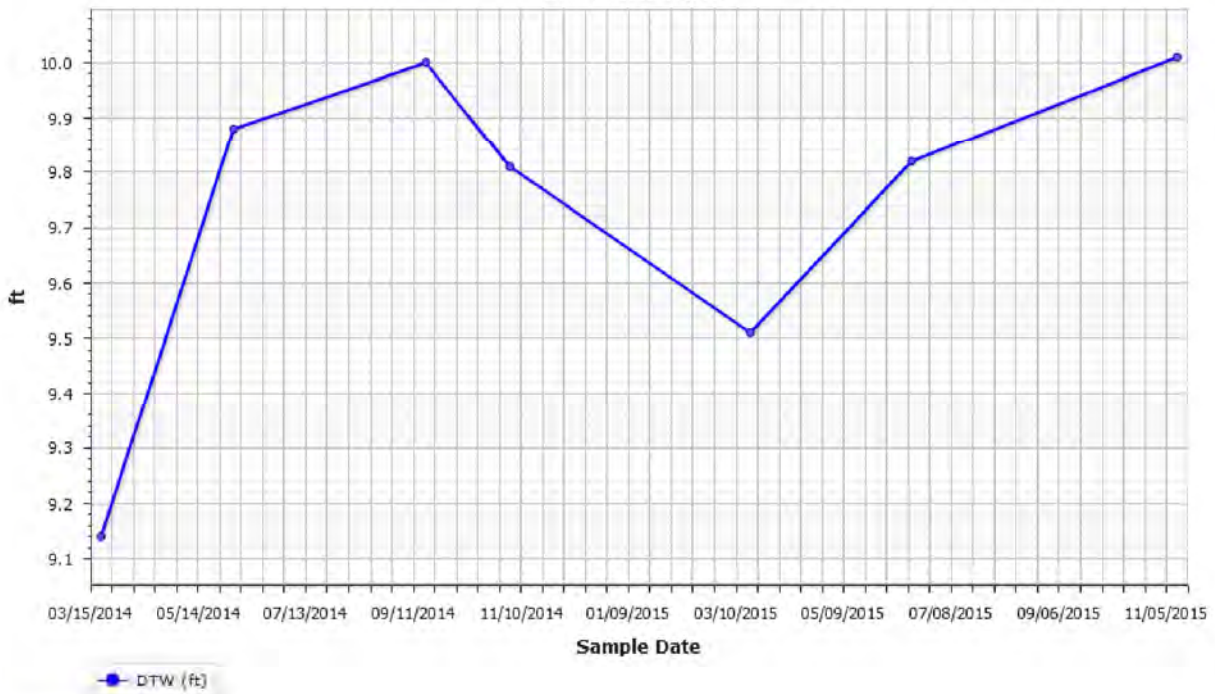
SWMW-25 (Overburden)

Site: Beacon, NY



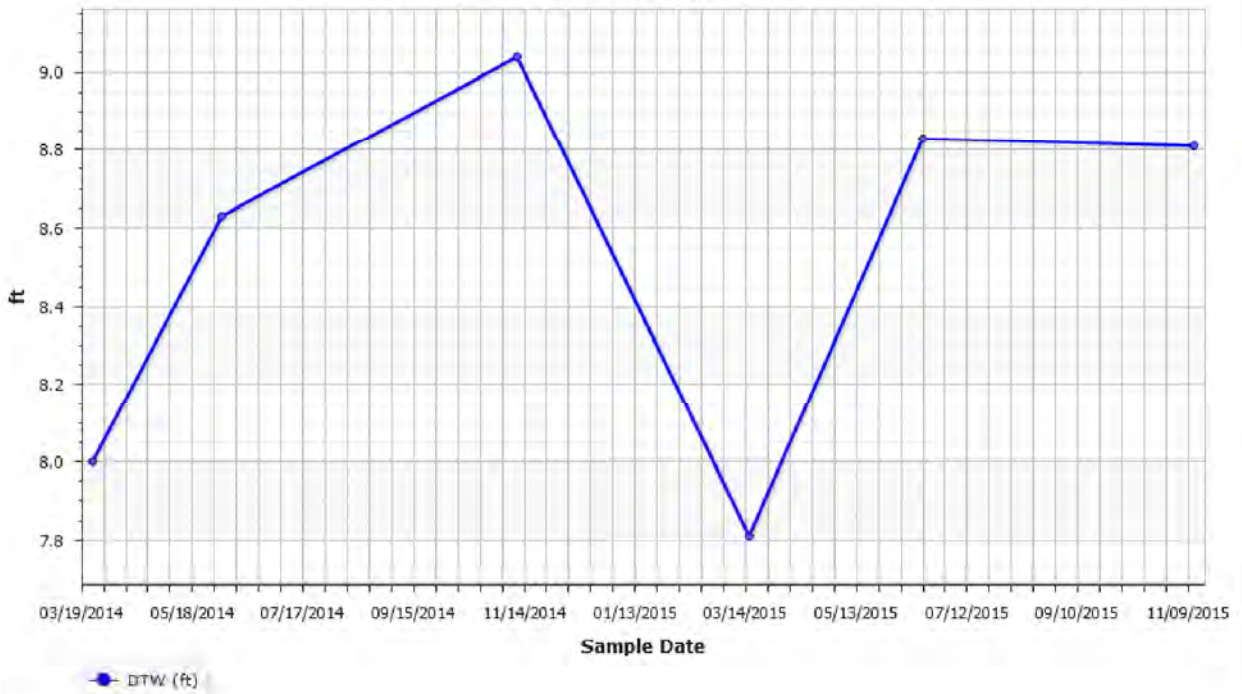
SWMW-28 (Overburden)

Site: Beacon, NY



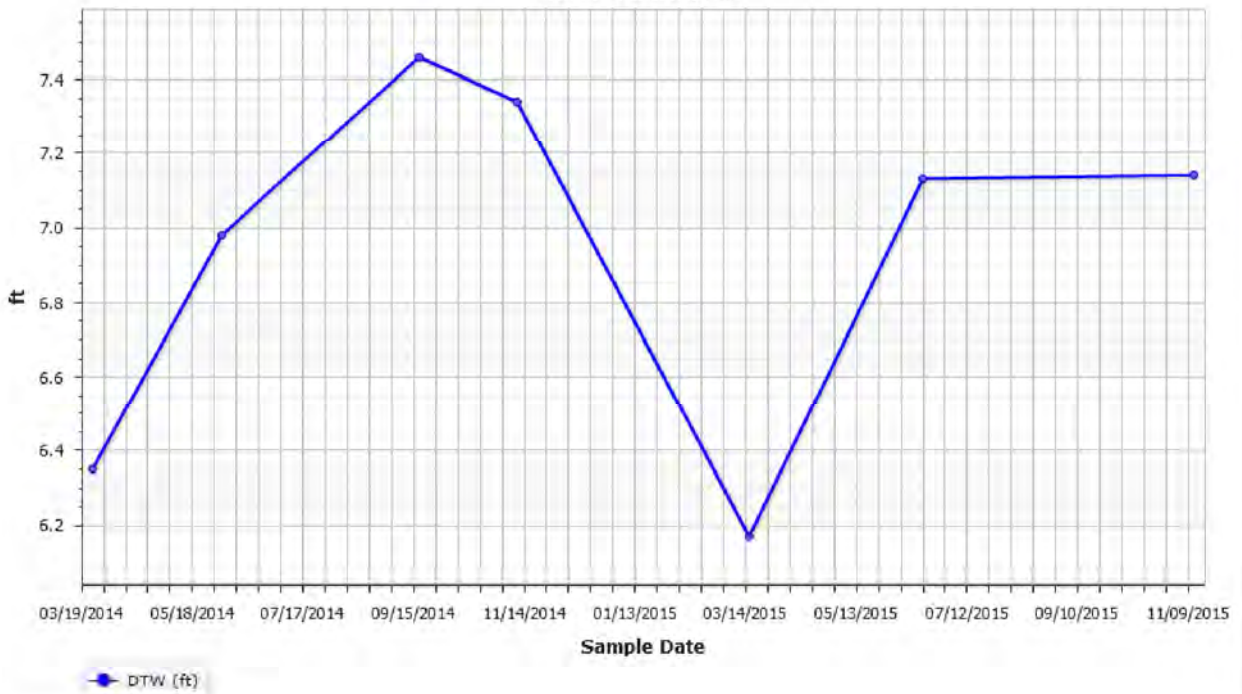
SWMW-30 (Overburden)

Site: Beacon, NY



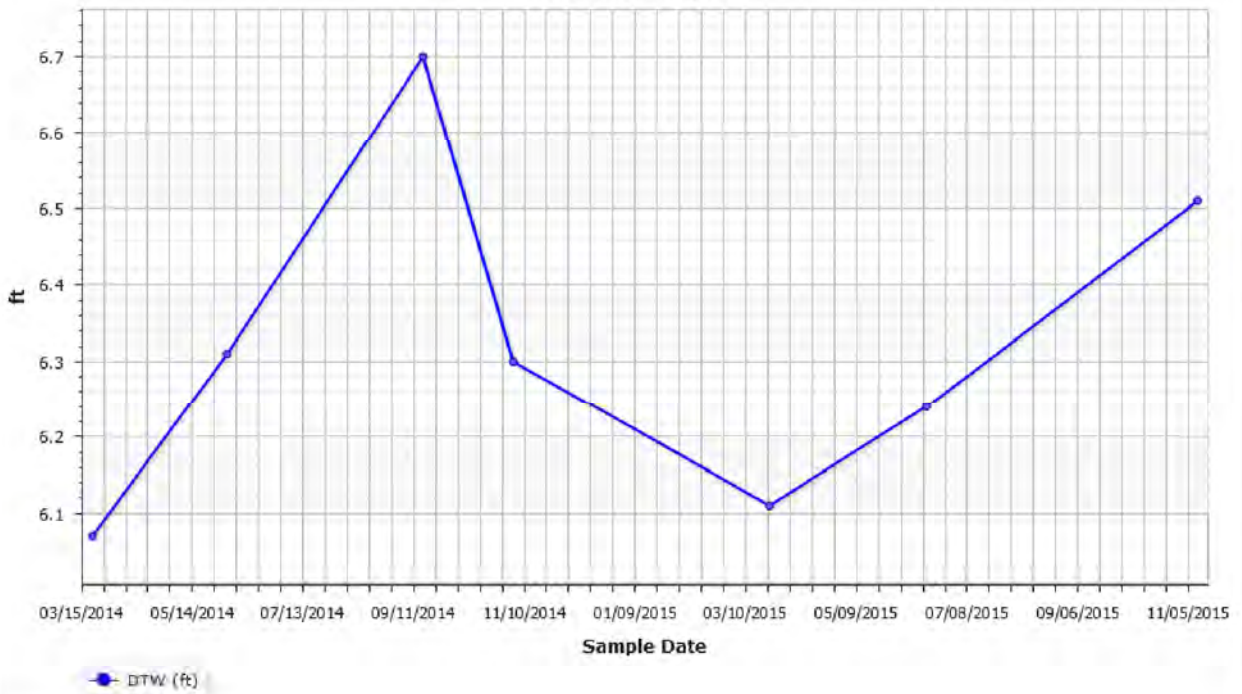
SWMW-31 (Overburden)

Site: Beacon, NY



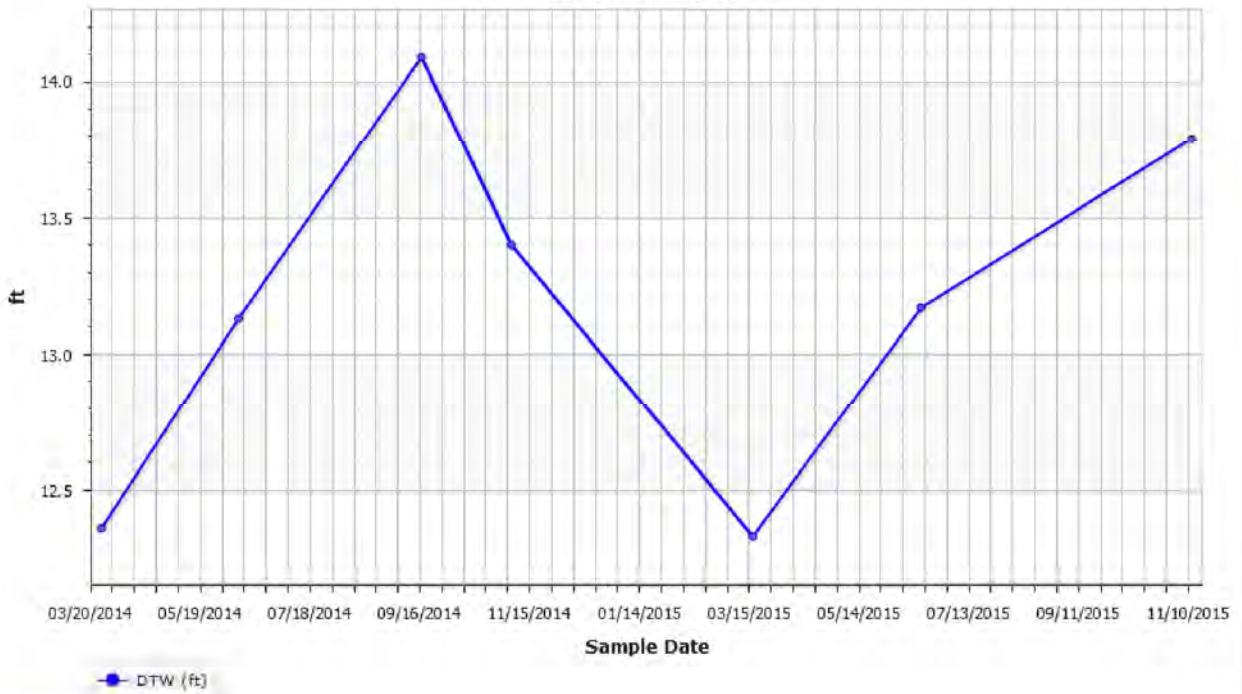
SWMW-48 (Overburden)

Site: Beacon, NY



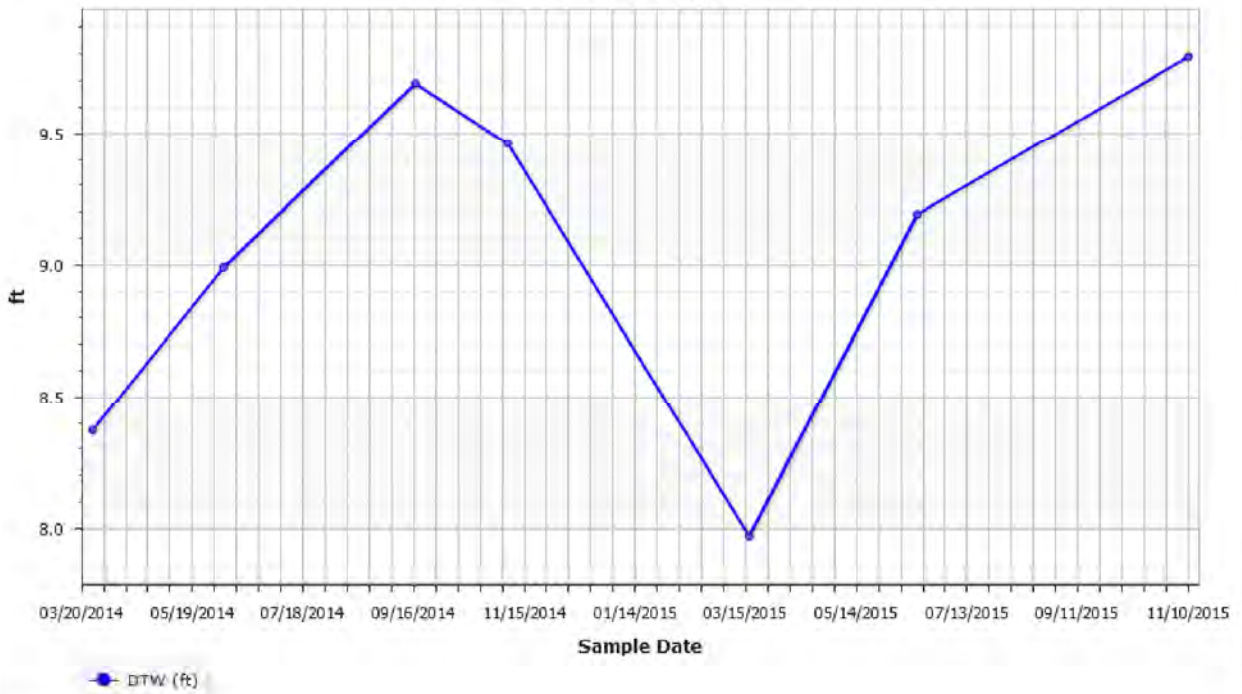
SWMW-58 (Overburden)

Site: Beacon, NY



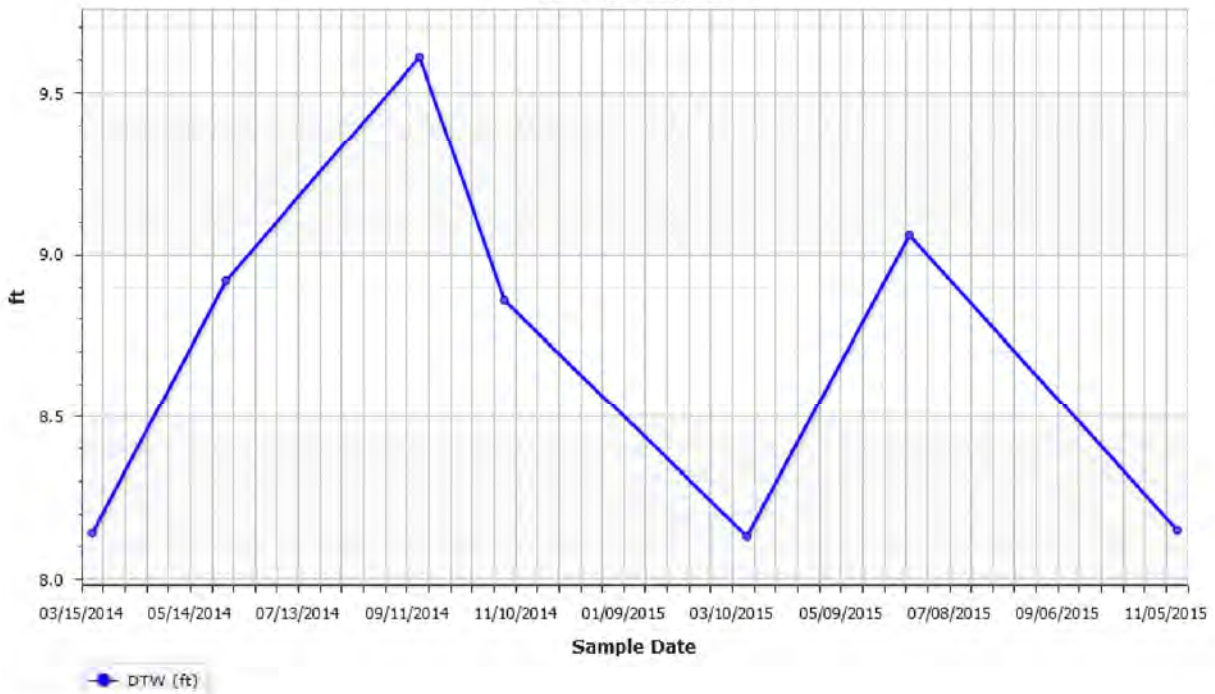
SWMW-62 (Overburden)

Site: Beacon, NY



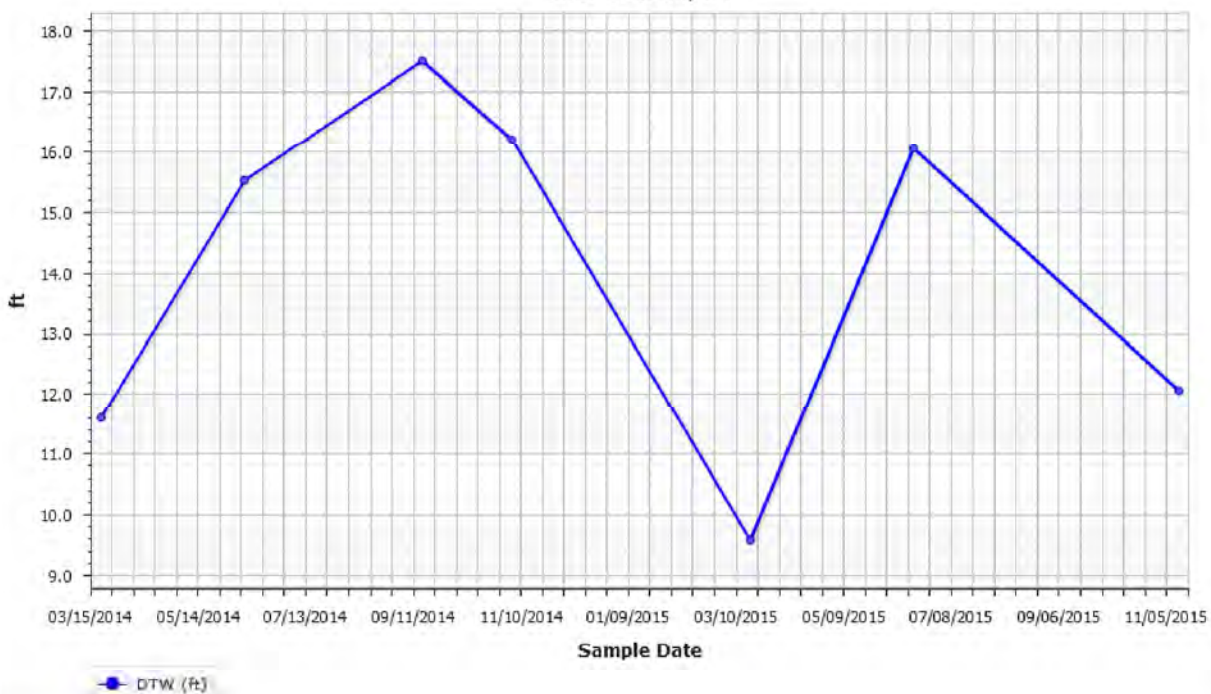
SWMW-65 (Overburden)

Site: Beacon, NY



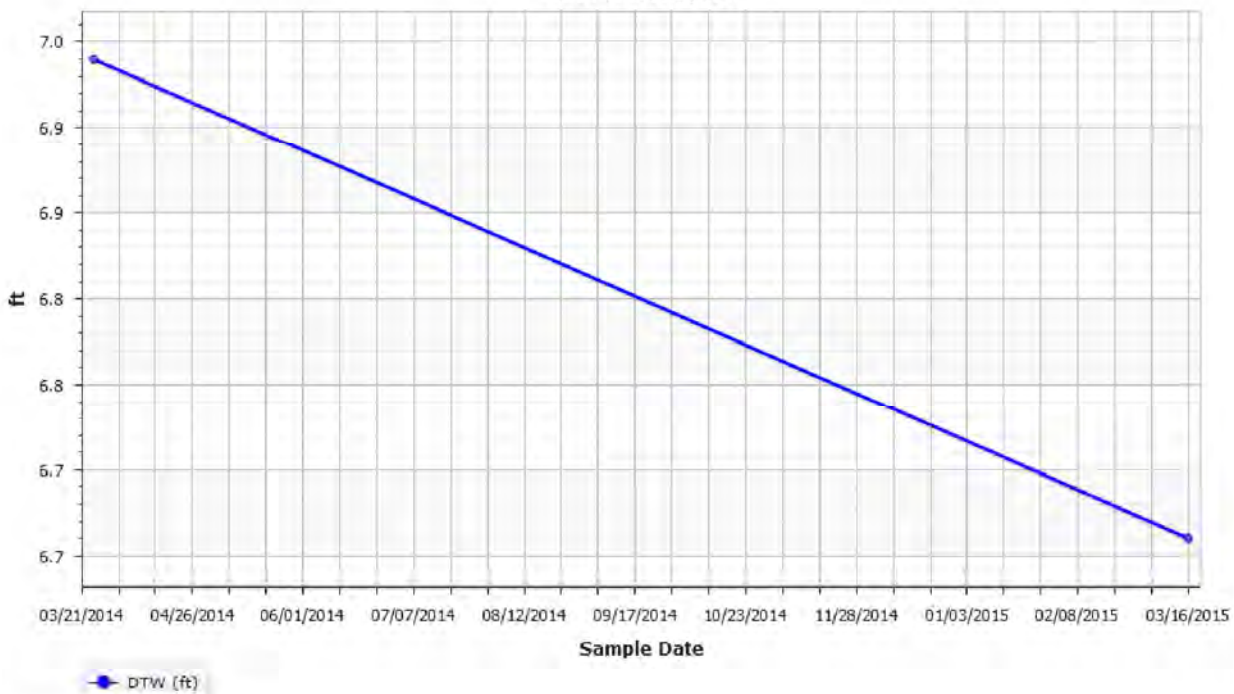
SWMW-67 (Overburden)

Site: Beacon, NY



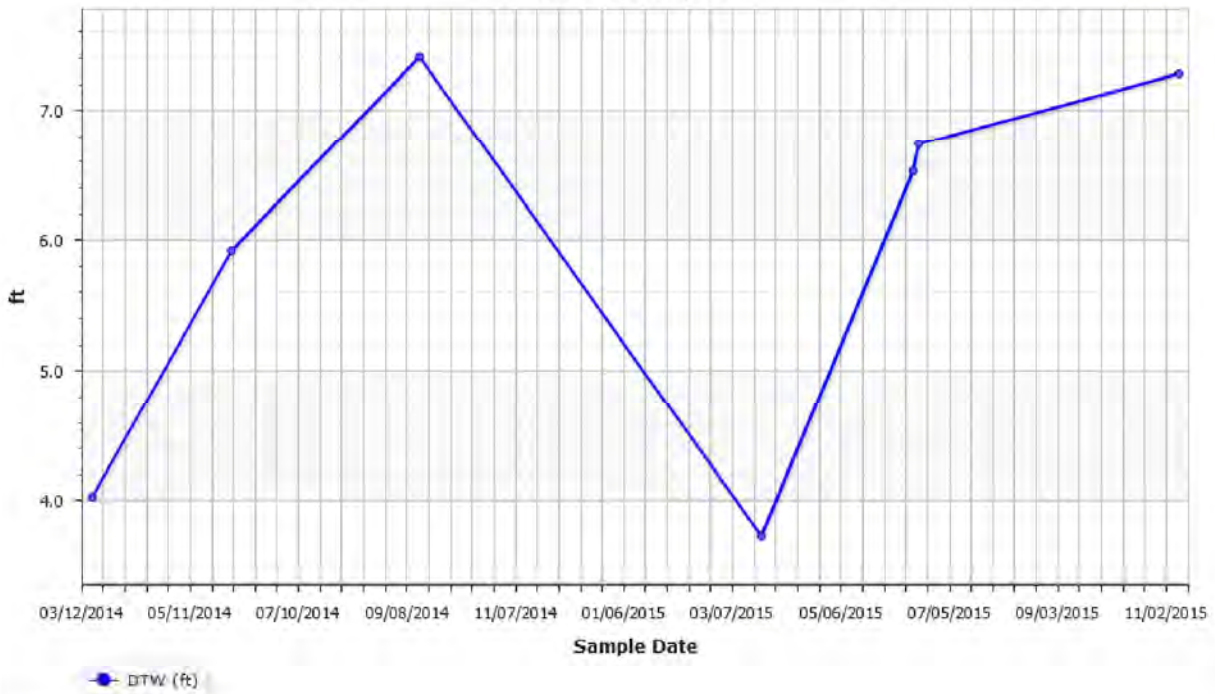
SWMW-71 (Overburden)

Site: Beacon, NY



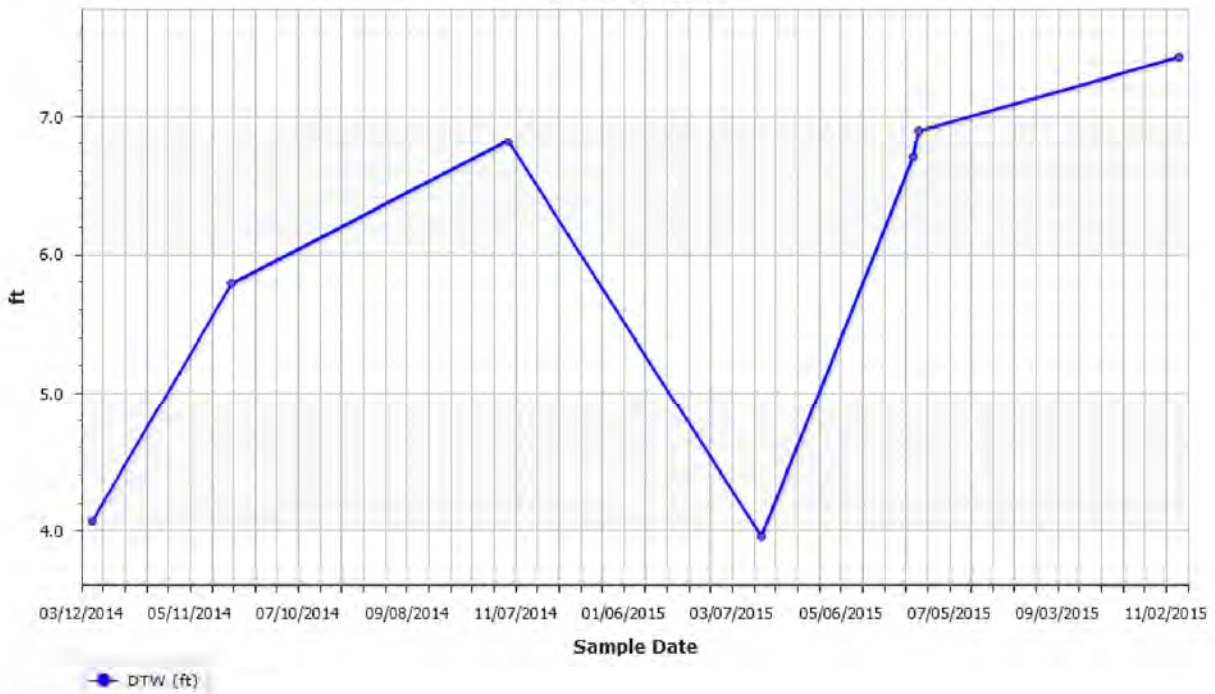
Unknown Well 1 (Overburden)

Site: Beacon, NY



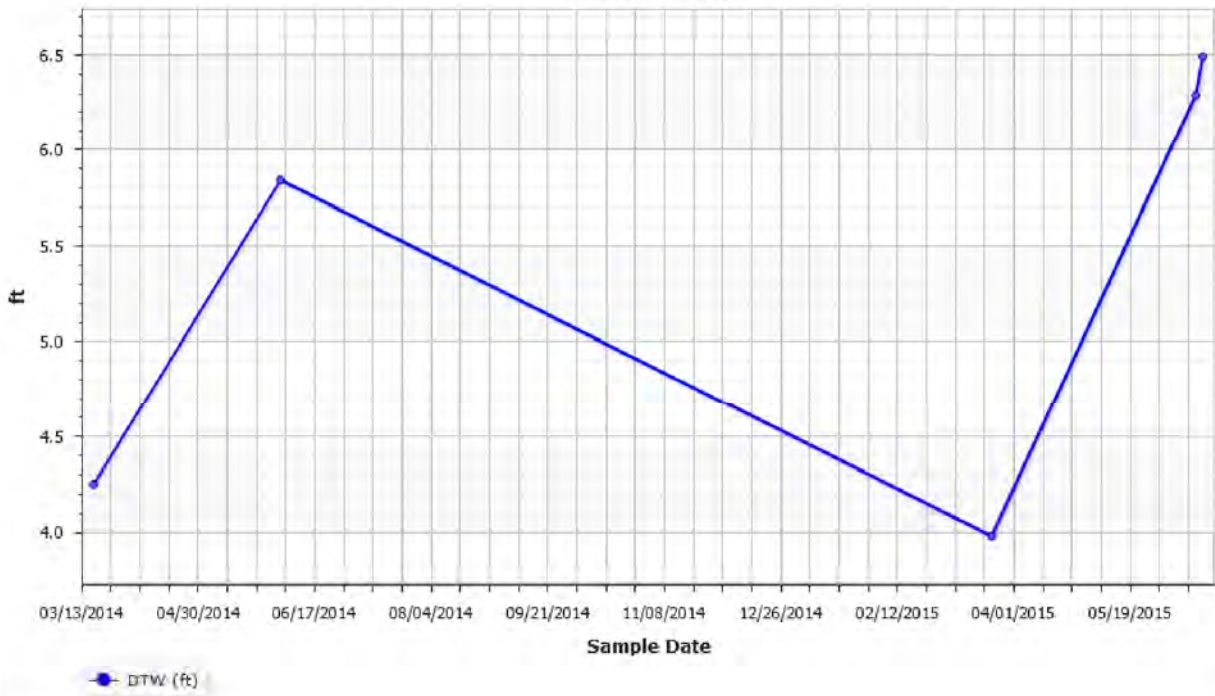
Unknown Well 2 (Overburden)

Site: Beacon, NY



Unknown Well 3 (Overburden)

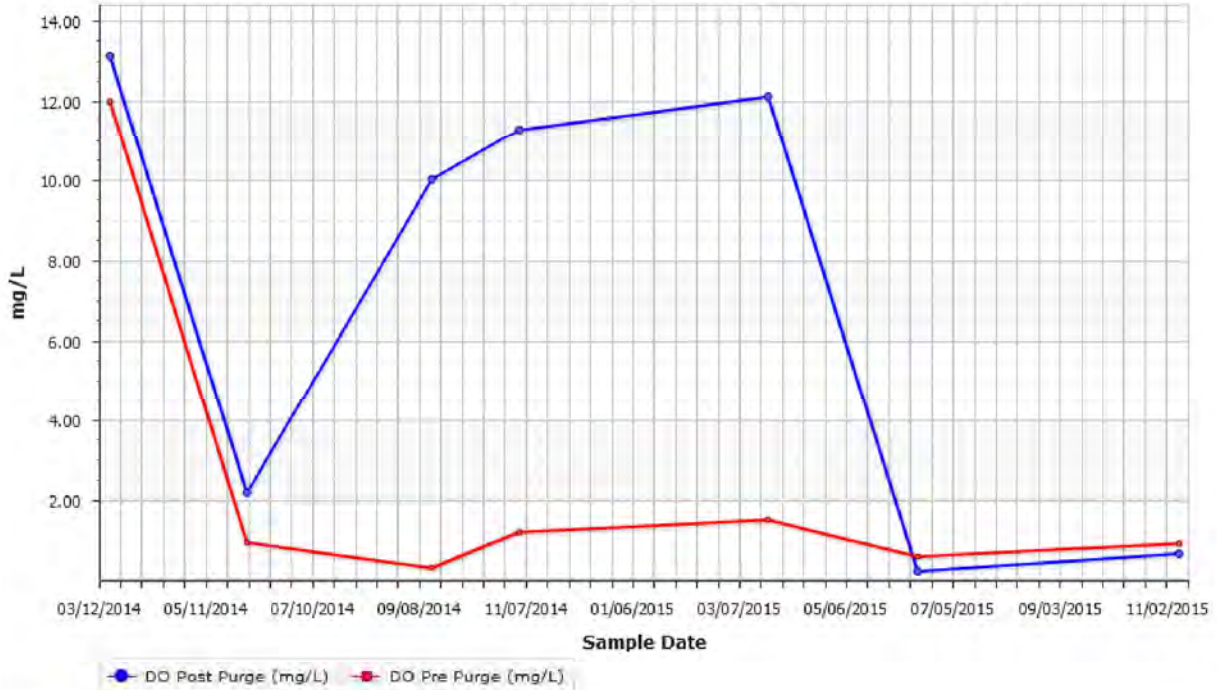
Site: Beacon, NY



2014 THROUGH 2015 DO OVERBURDEN WELLS SUMMARY GRAPHS

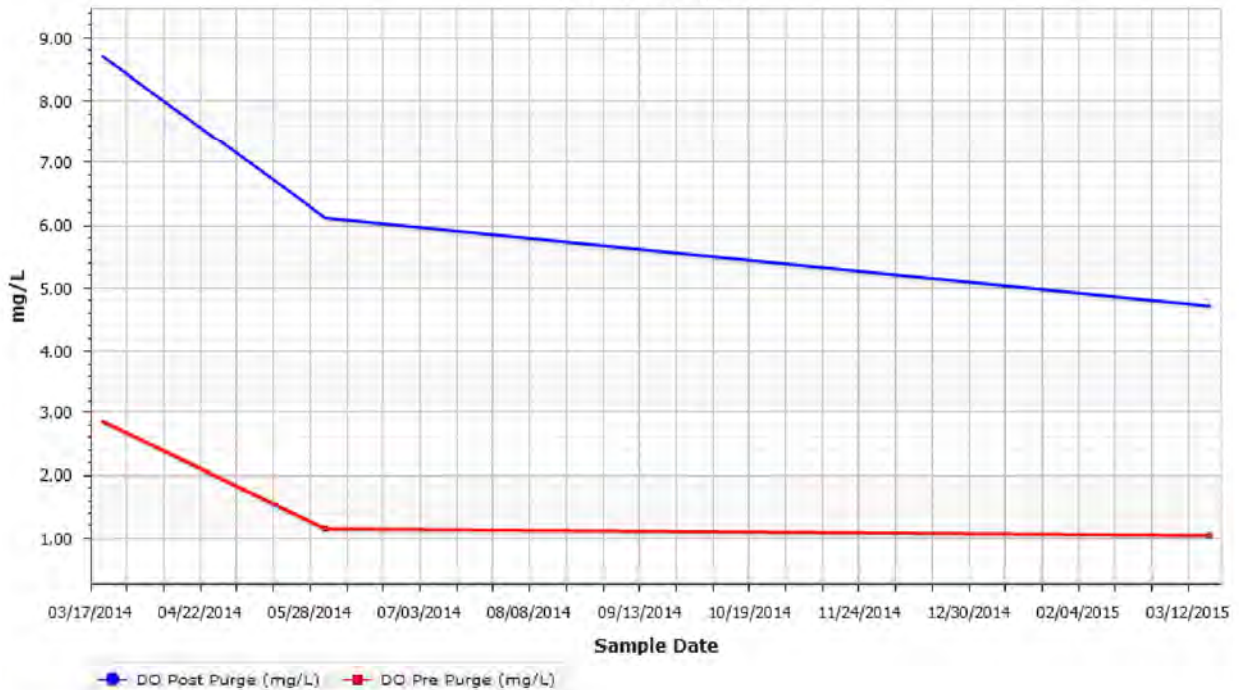
GT-2 (Overburden)

Site: Beacon, NY



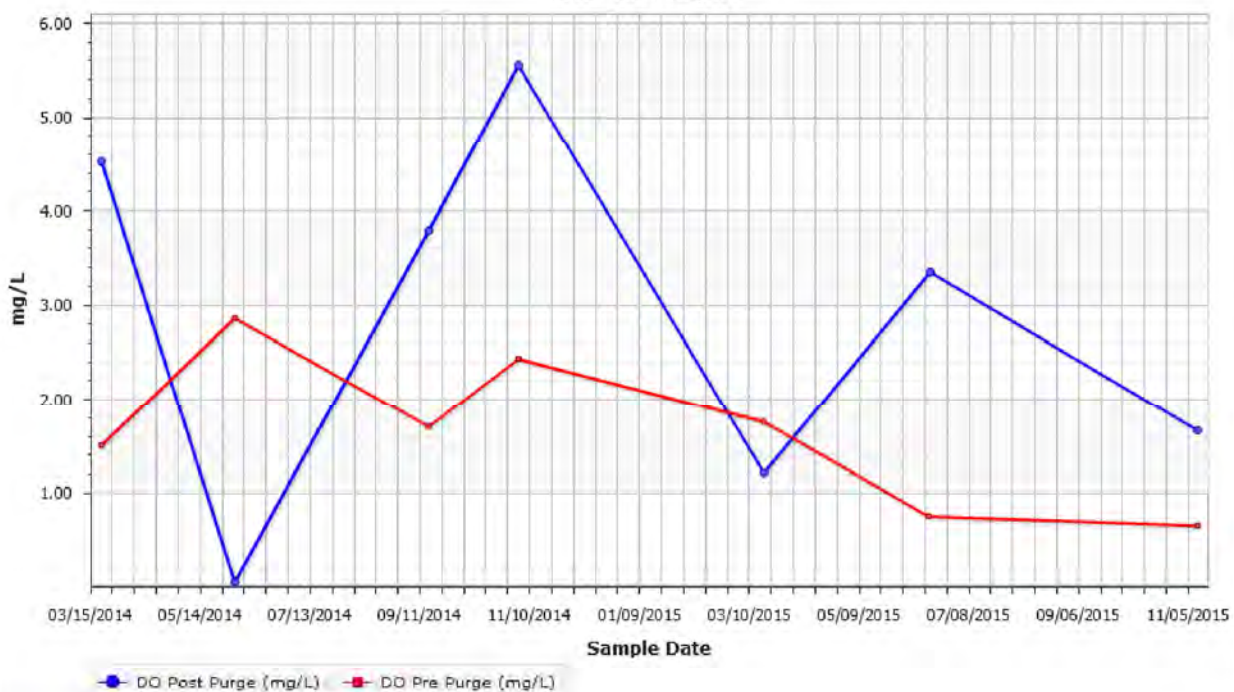
ITMW-24 (Overburden)

Site: Beacon, NY



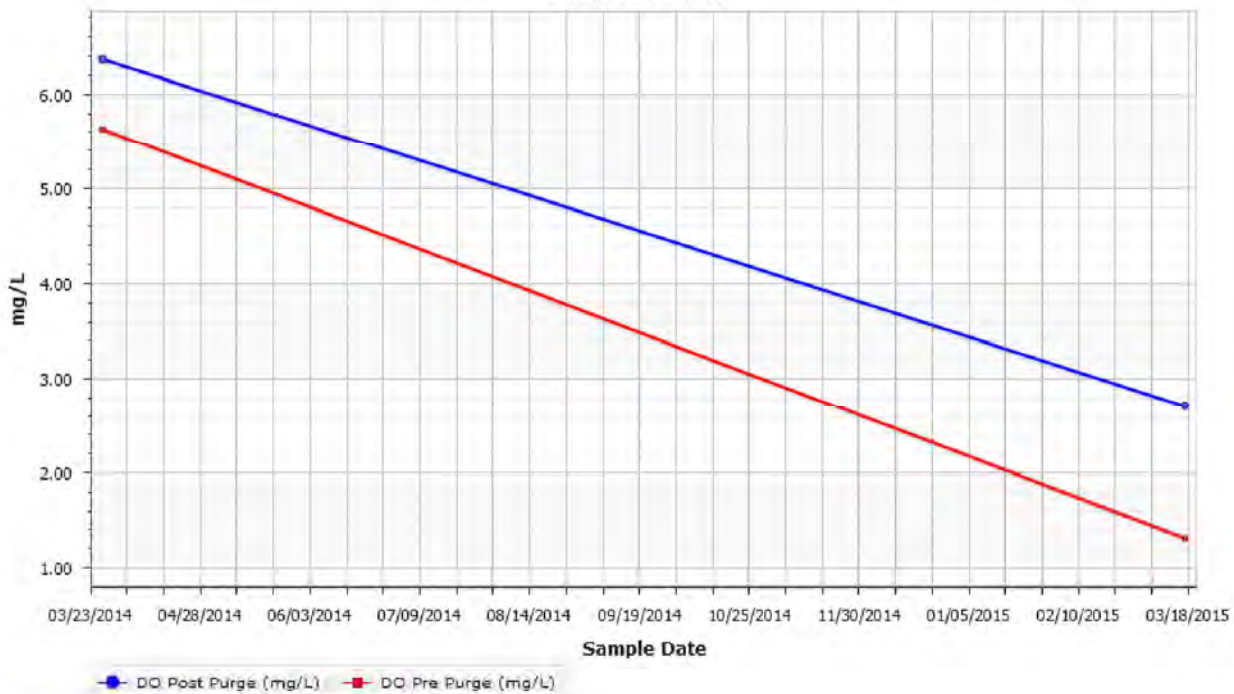
ITMW-25 (Overburden)

Site: Beacon, NY



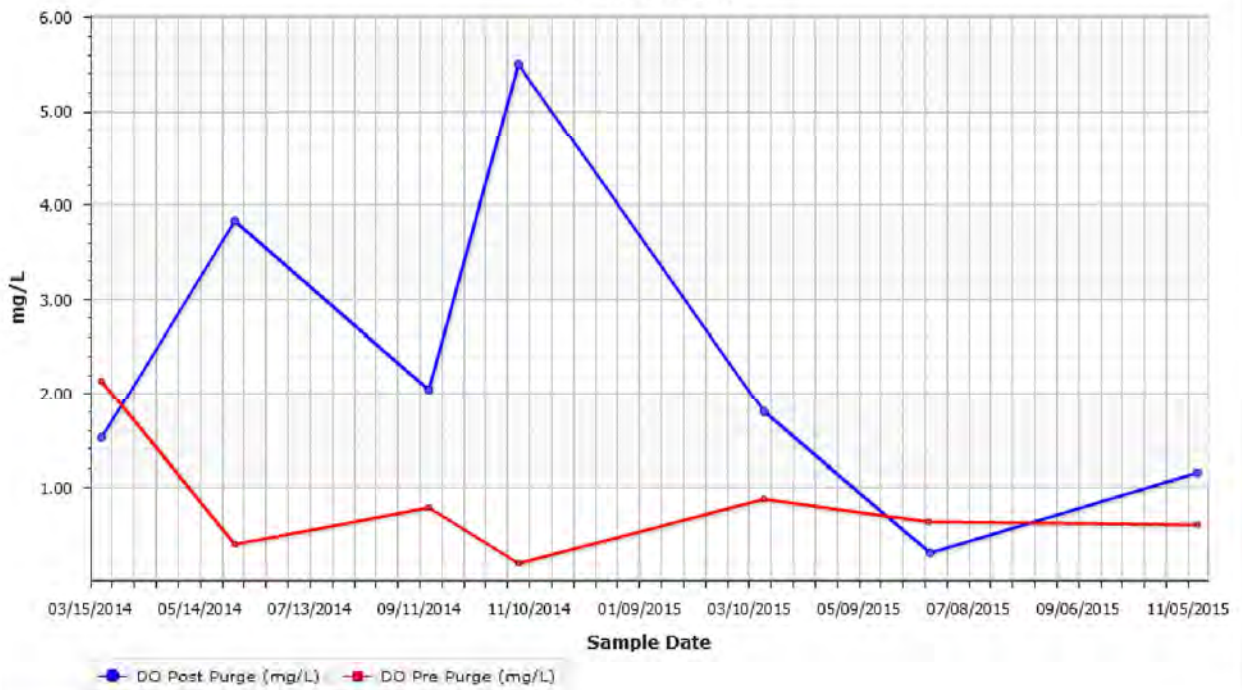
ITMW-5 (Overburden)

Site: Beacon, NY



SWMW-10 (Overburden)

Site: Beacon, NY



SWMW-113 (Overburden)

Site: Beacon, NY



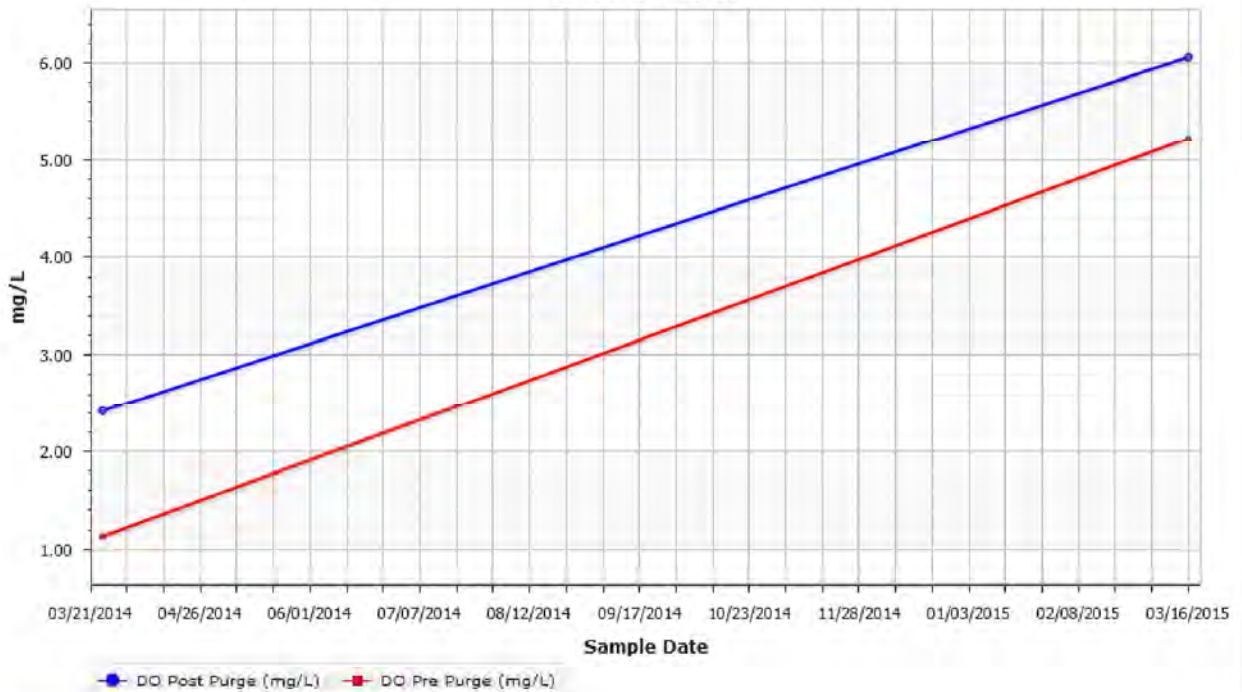
SWMW-15 (Overburden)

Site: Beacon, NY



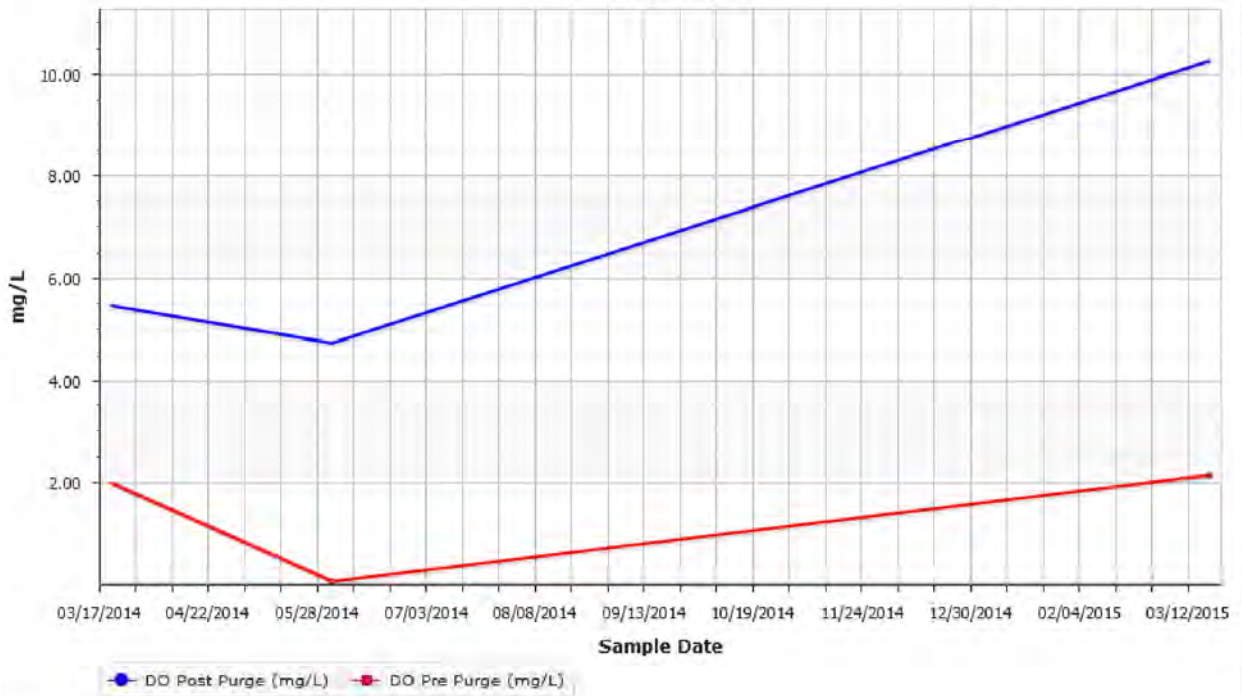
SWMW-21 (Overburden)

Site: Beacon, NY



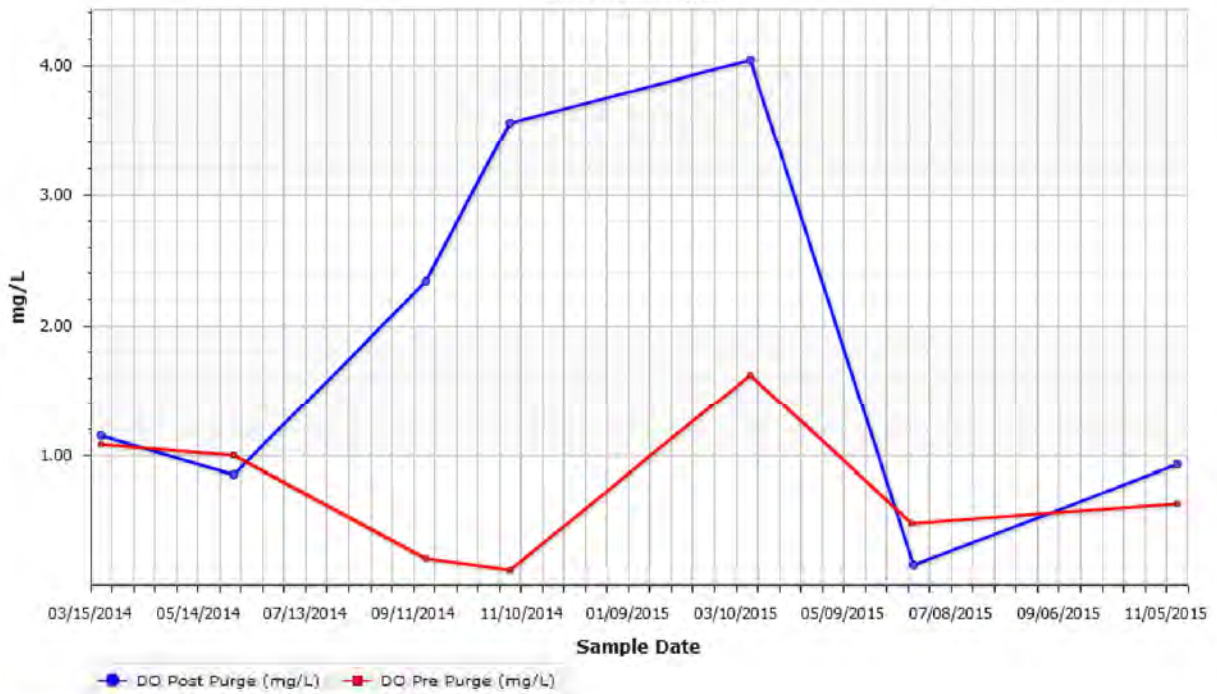
SWMW-25 (Overburden)

Site: Beacon, NY



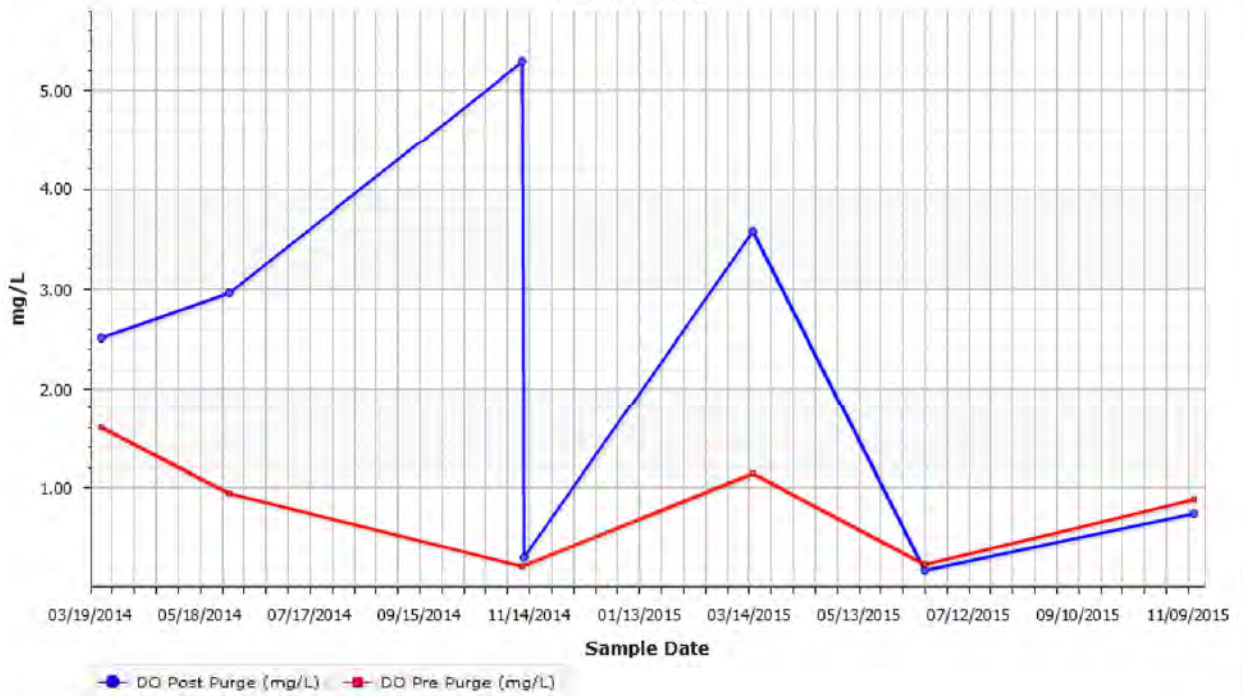
SWMW-28 (Overburden)

Site: Beacon, NY



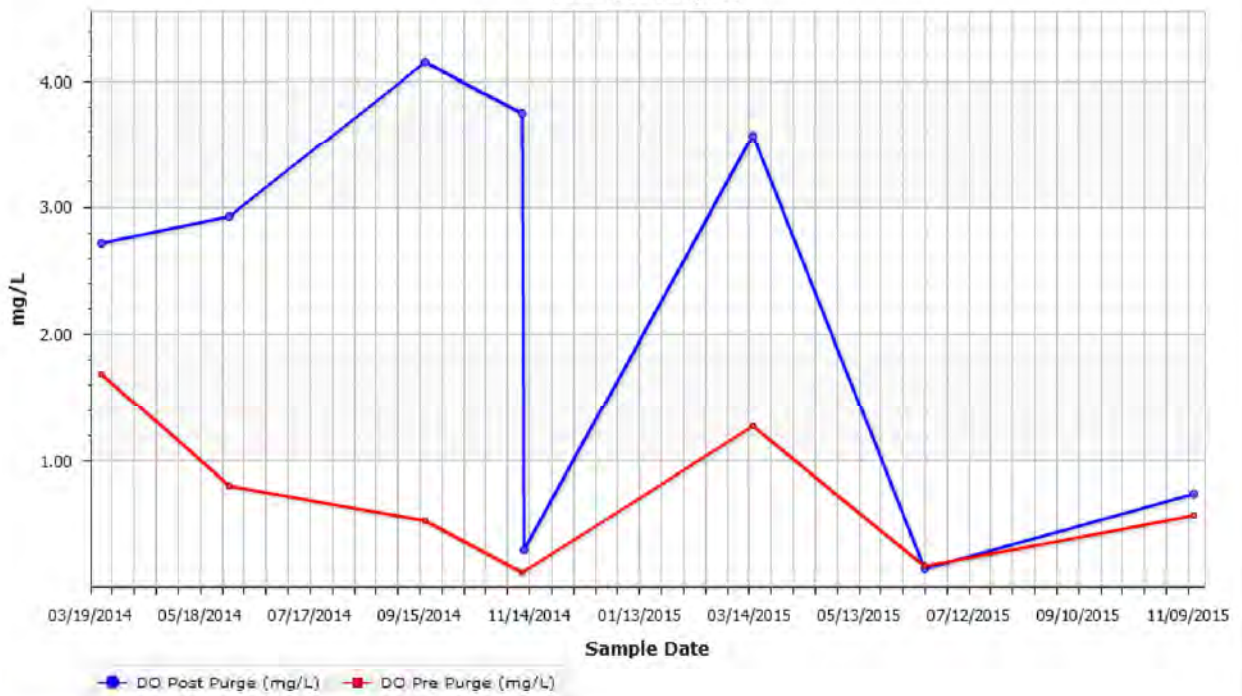
SWMW-30 (Overburden)

Site: Beacon, NY



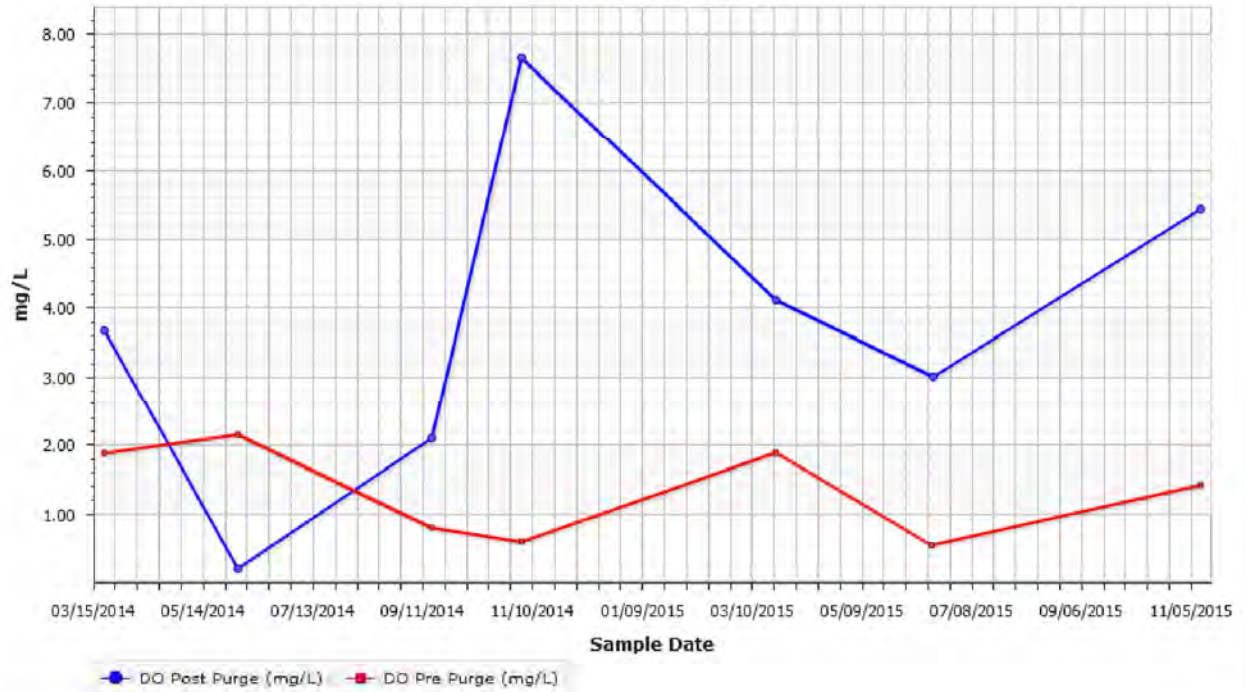
SWMW-31 (Overburden)

Site: Beacon, NY



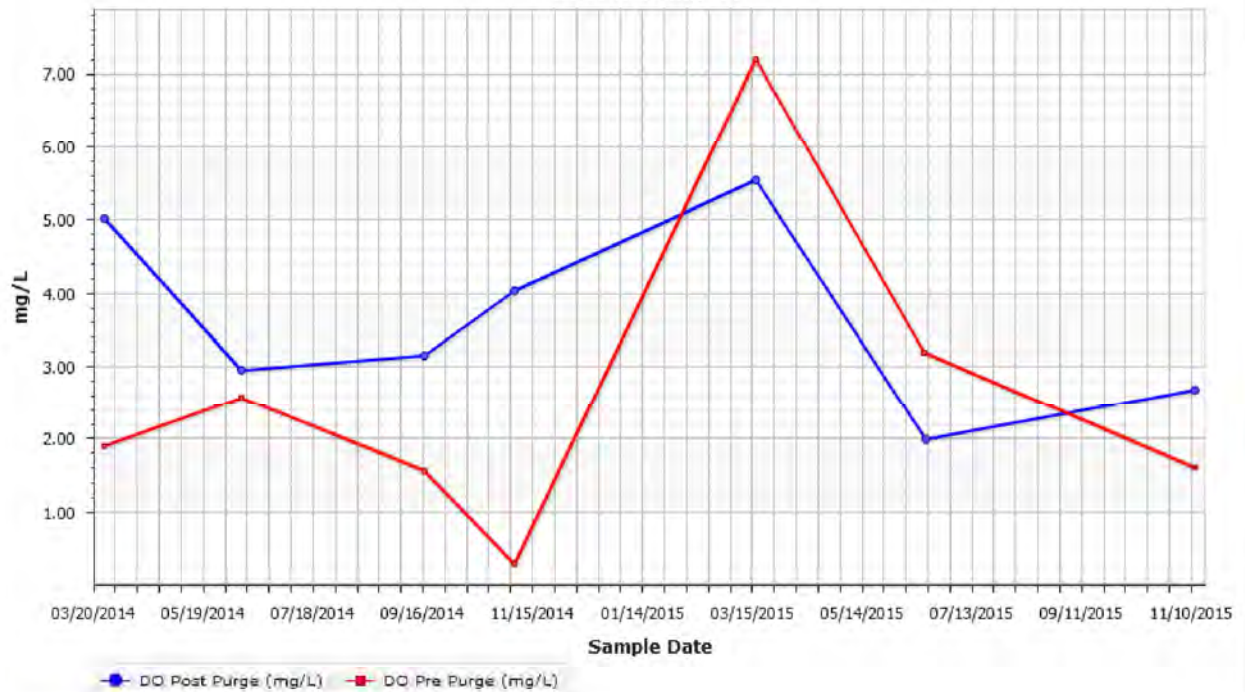
SWMW-48 (Overburden)

Site: Beacon, NY



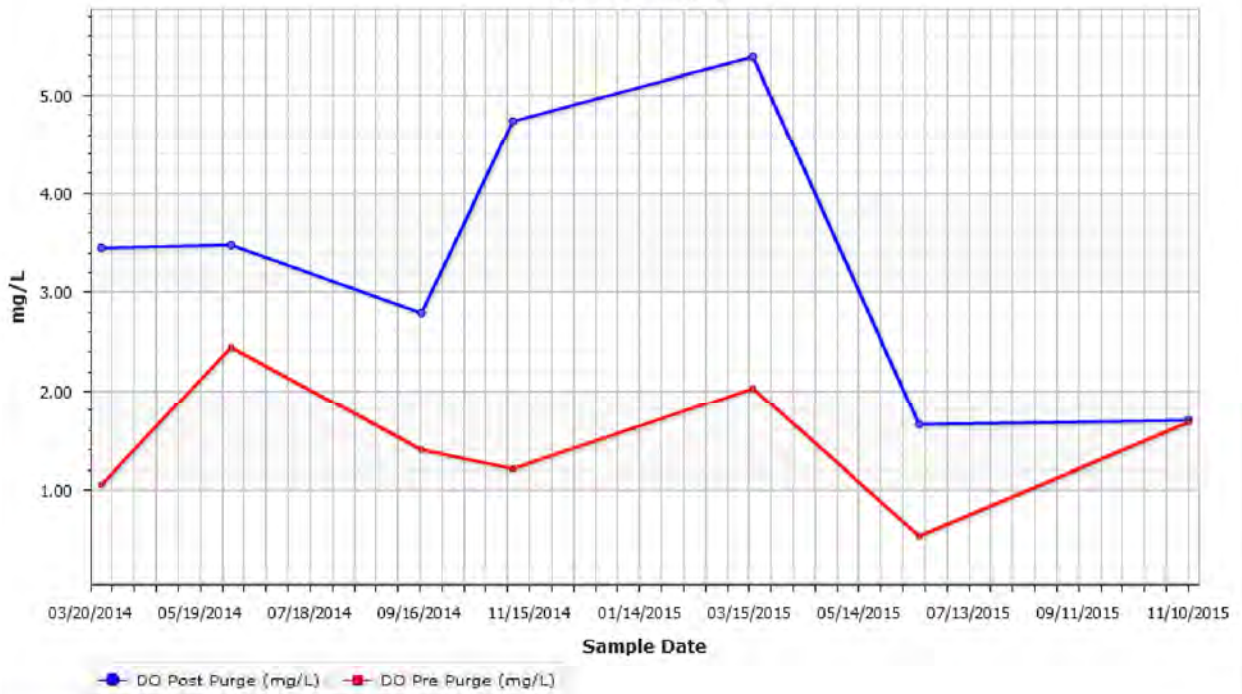
SWMW-58 (Overburden)

Site: Beacon, NY



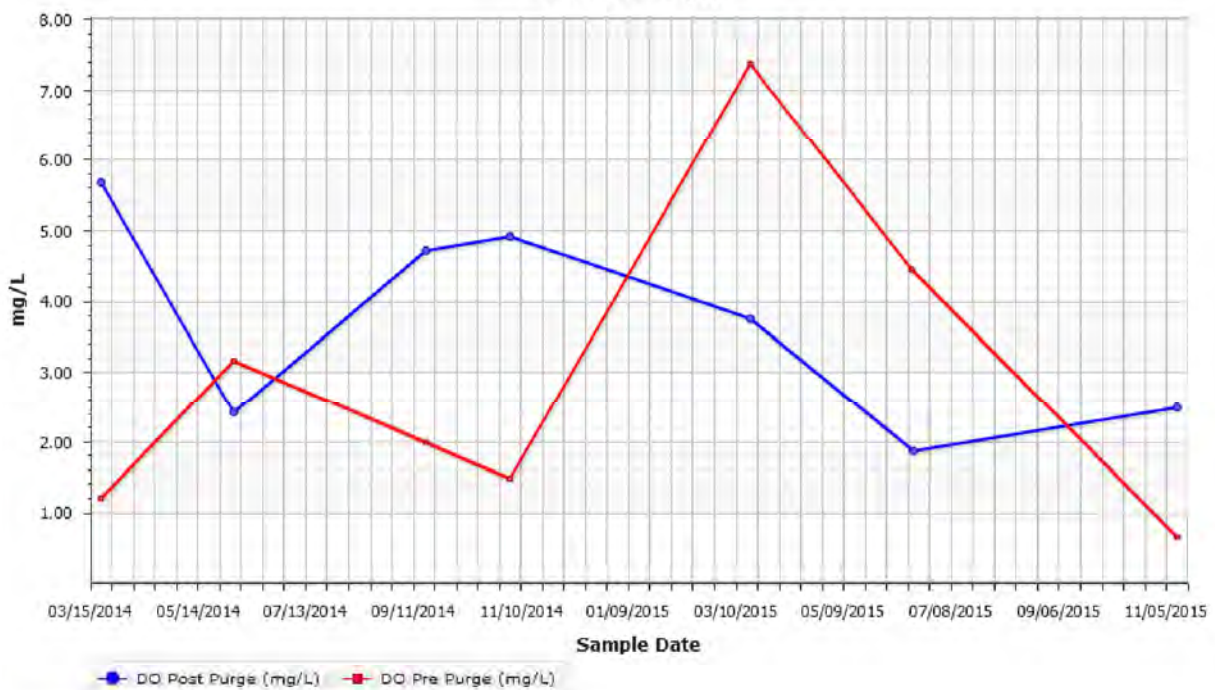
SWMW-62 (Overburden)

Site: Beacon, NY



SWMW-65 (Overburden)

Site: Beacon, NY



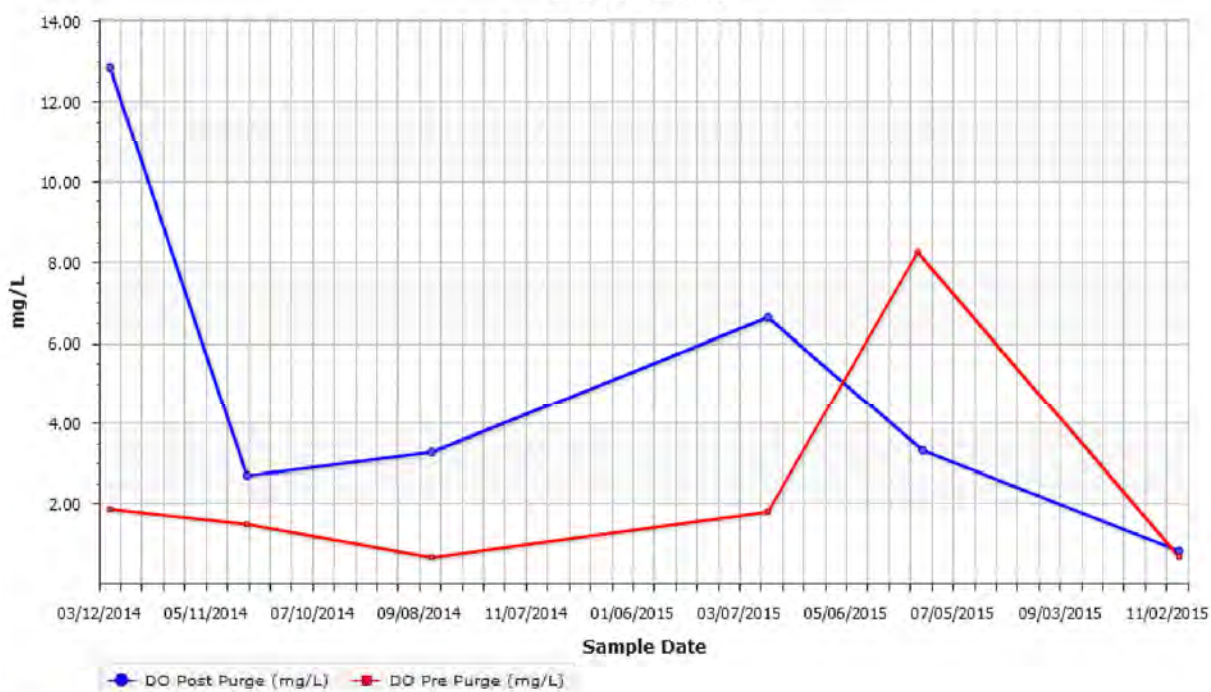
SWMW-67 (Overburden)

Site: Beacon, NY



Unknown Well 1 (Overburden)

Site: Beacon, NY



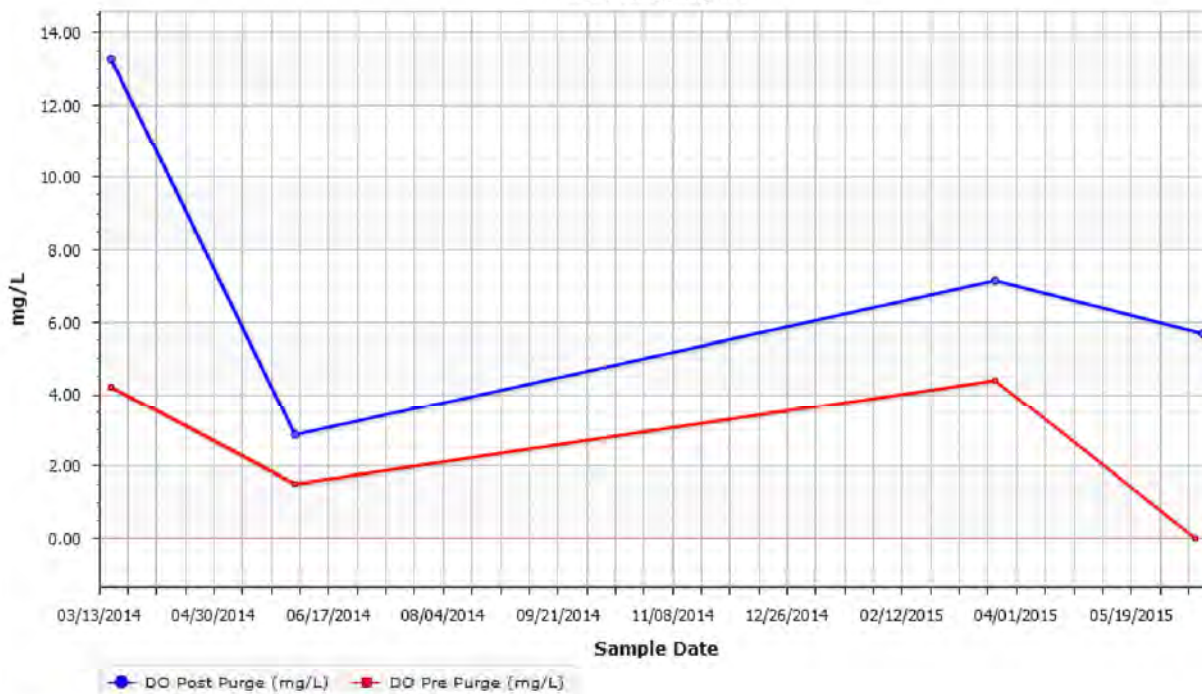
Unknown Well 2 (Overburden)

Site: Beacon, NY



Unknown Well 3 (Overburden)

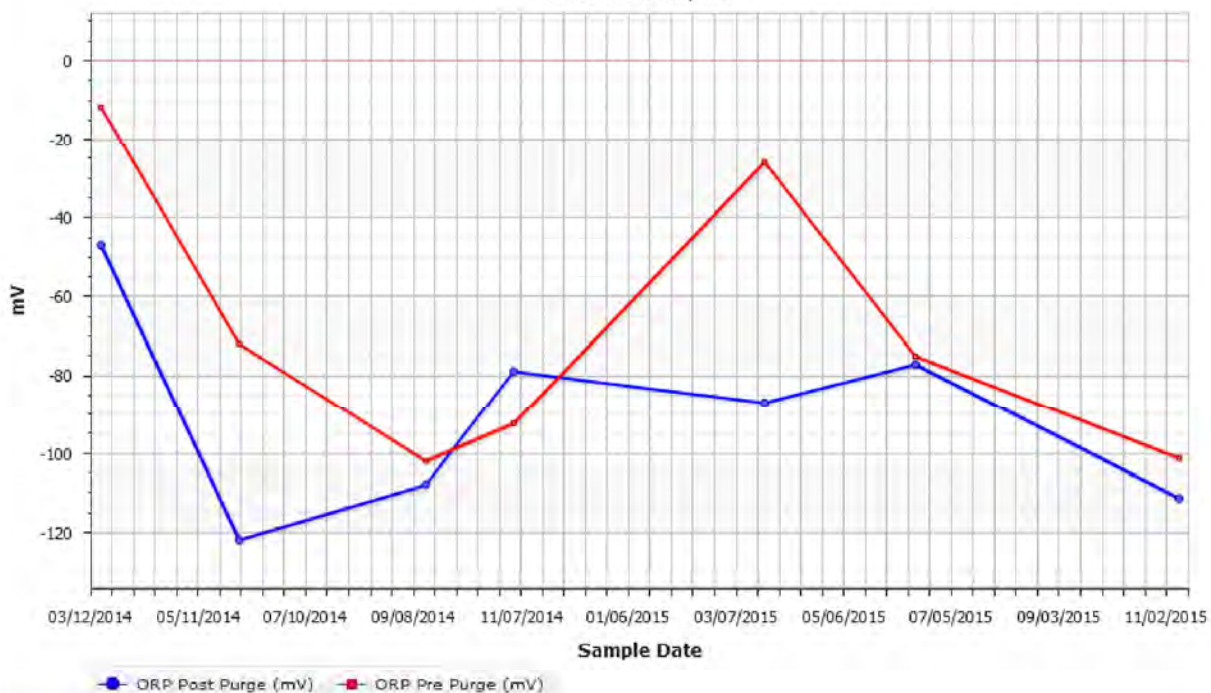
Site: Beacon, NY



2014 THROUGH 2015 ORP OVERBURDEN WELLS SUMMARY GRAPHS

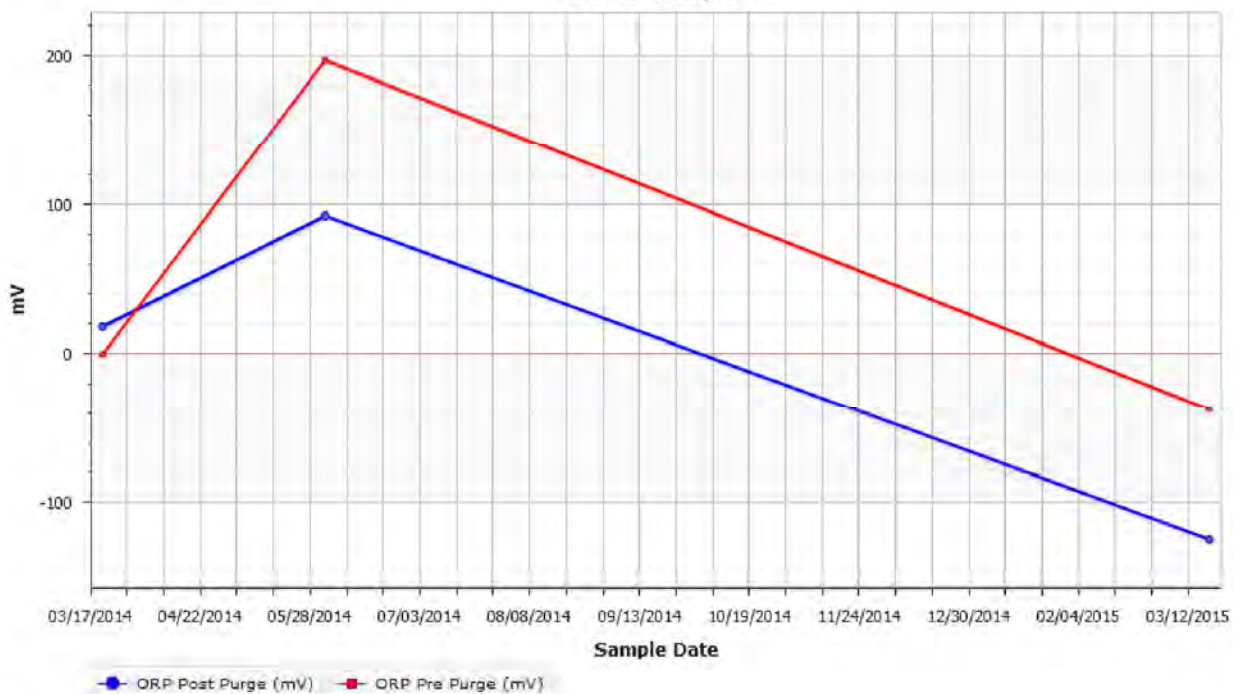
GT-2 (Overburden)

Site: Beacon, NY



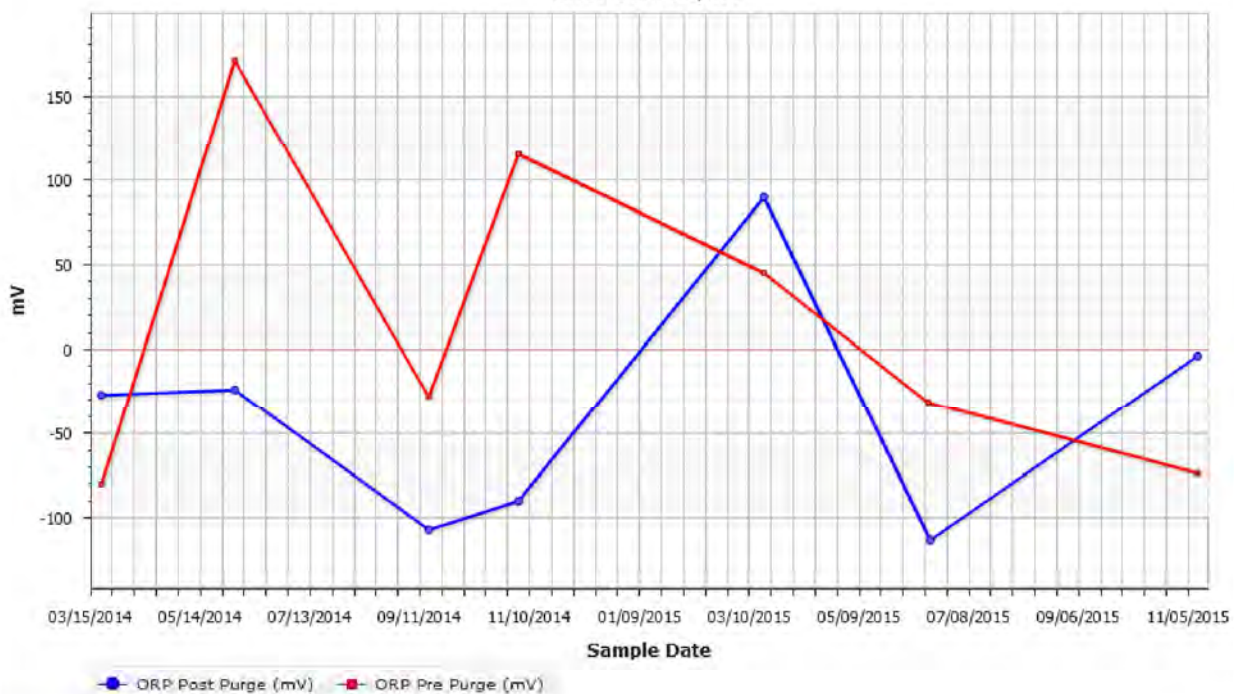
ITMW-24 (Overburden)

Site: Beacon, NY



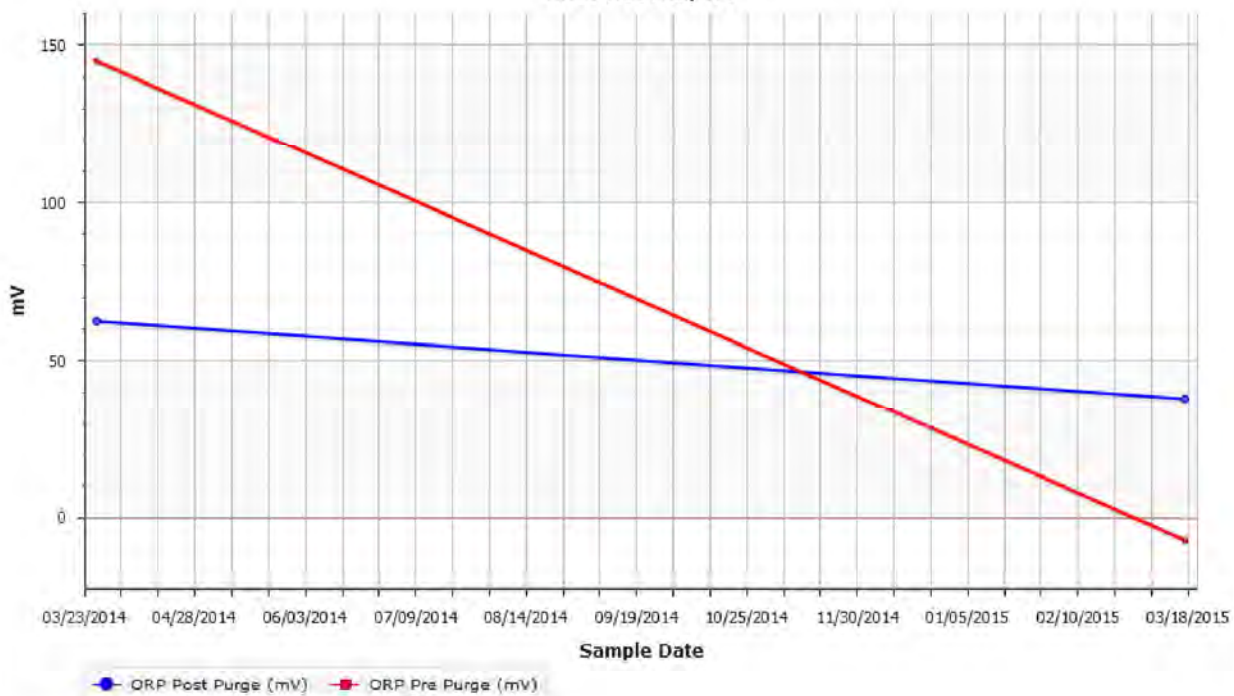
ITMW-25 (Overburden)

Site: Beacon, NY



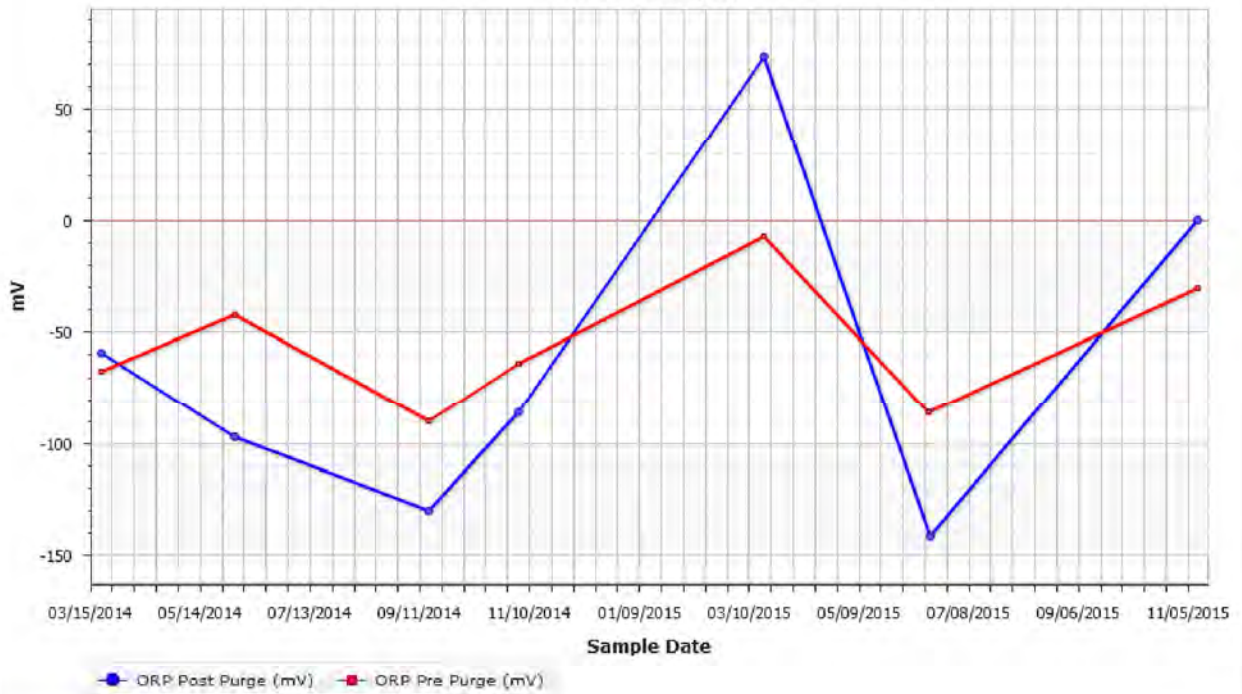
ITMW-5 (Overburden)

Site: Beacon, NY



SWMW-10 (Overburden)

Site: Beacon, NY



SWMW-113 (Overburden)

Site: Beacon, NY



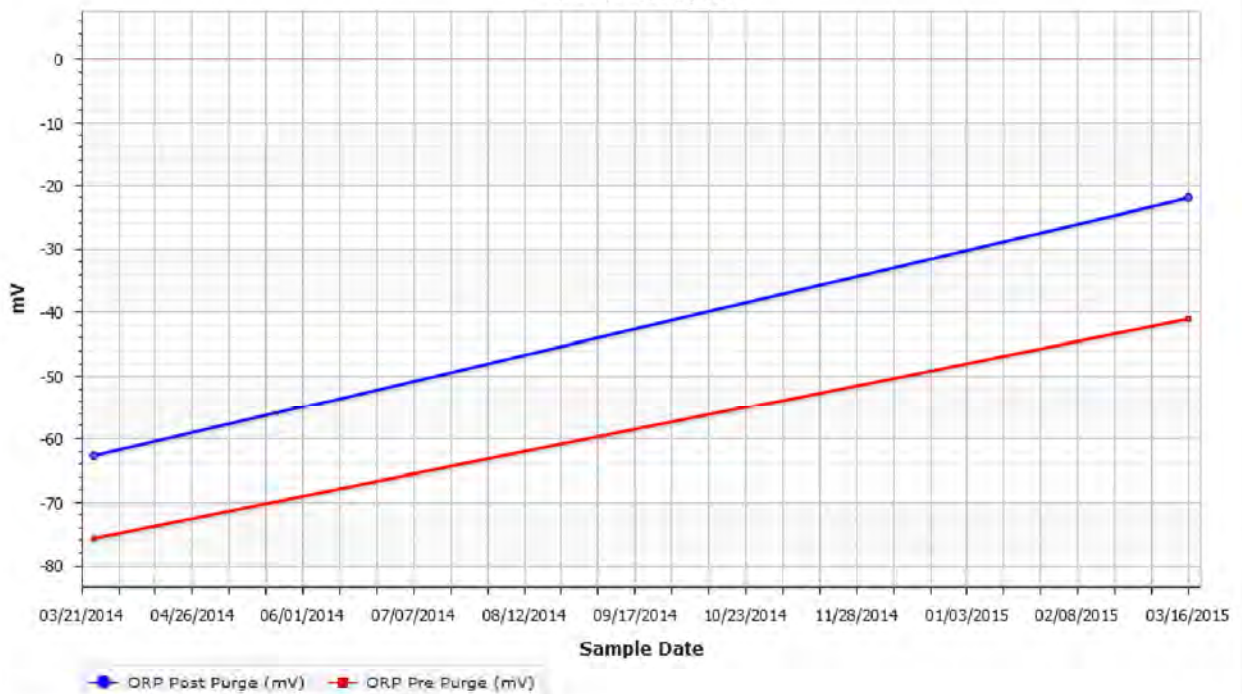
SWMW-15 (Overburden)

Site: Beacon, NY



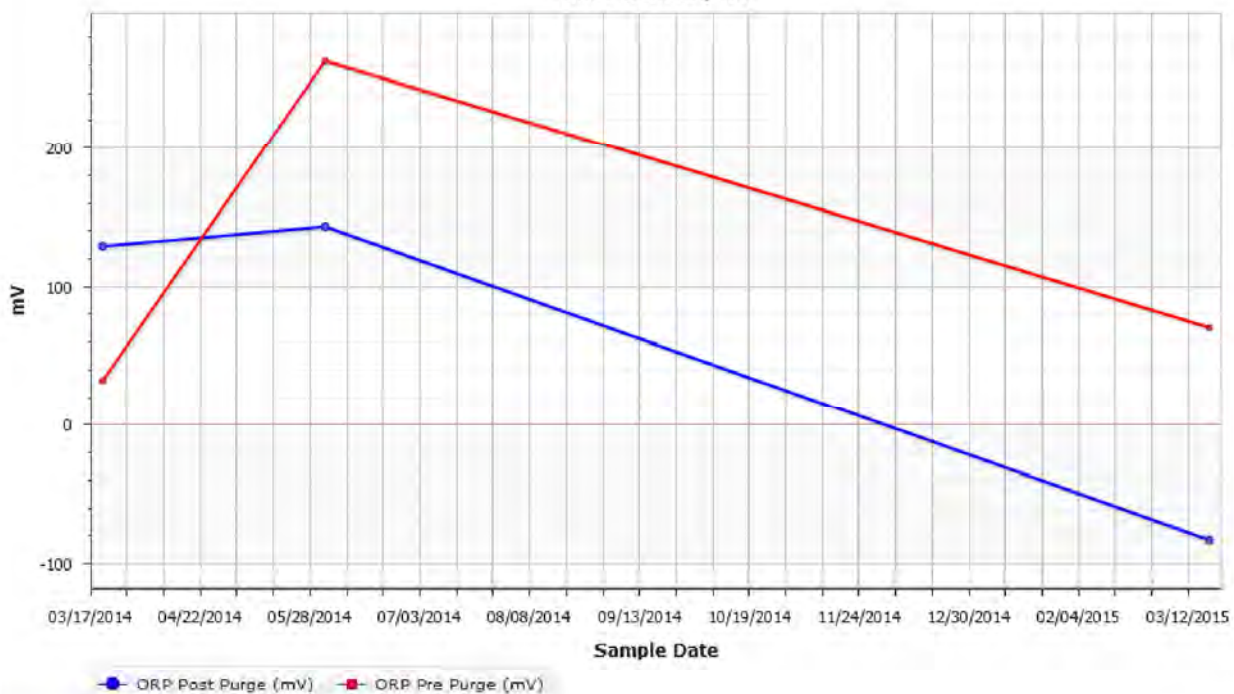
SWMW-21 (Overburden)

Site: Beacon, NY



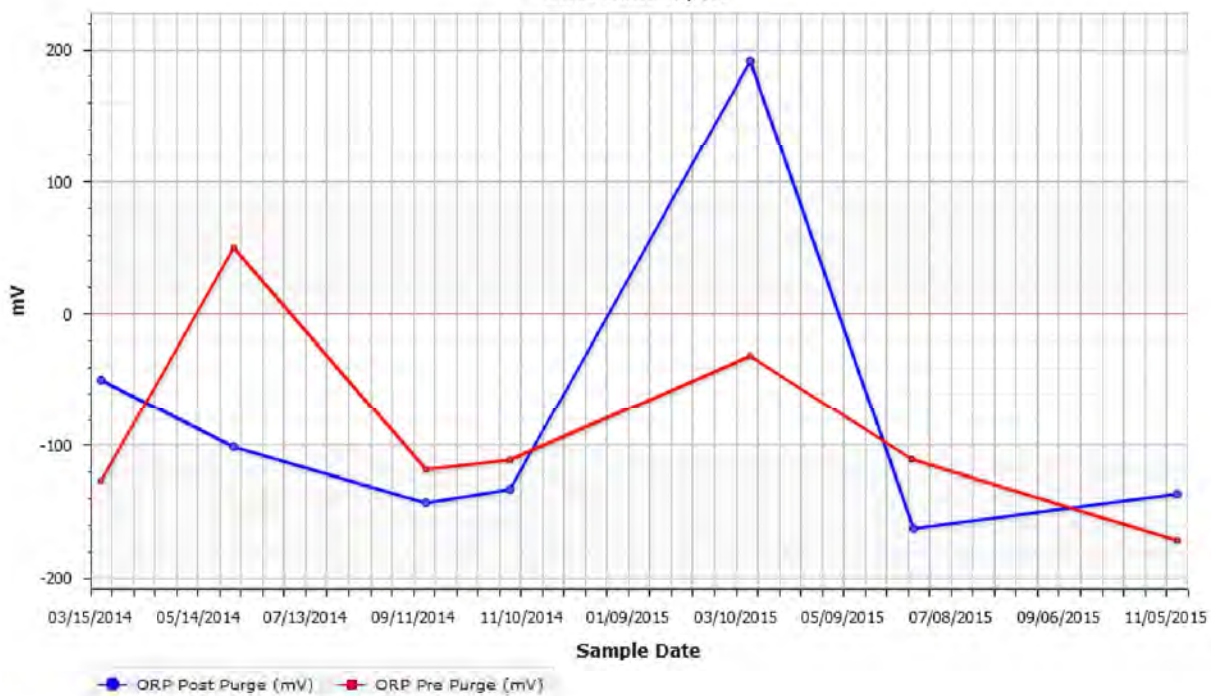
SWMW-25 (Overburden)

Site: Beacon, NY



SWMW-28 (Overburden)

Site: Beacon, NY



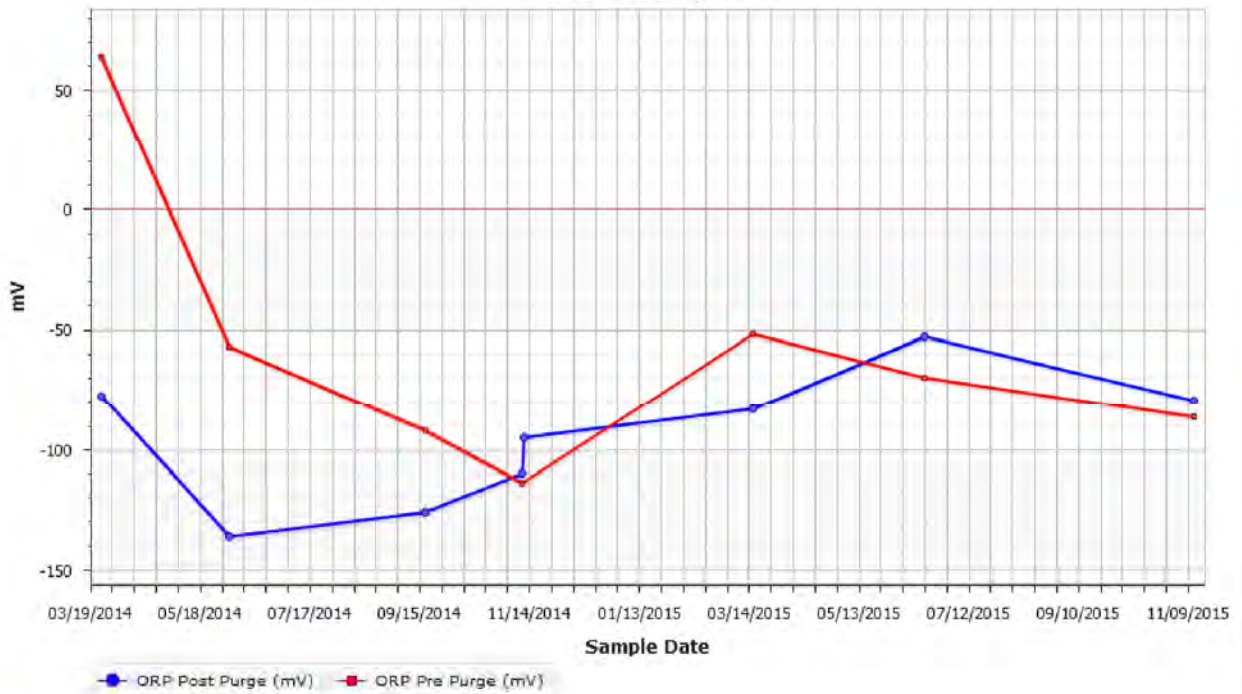
SWMW-30 (Overburden)

Site: Beacon, NY



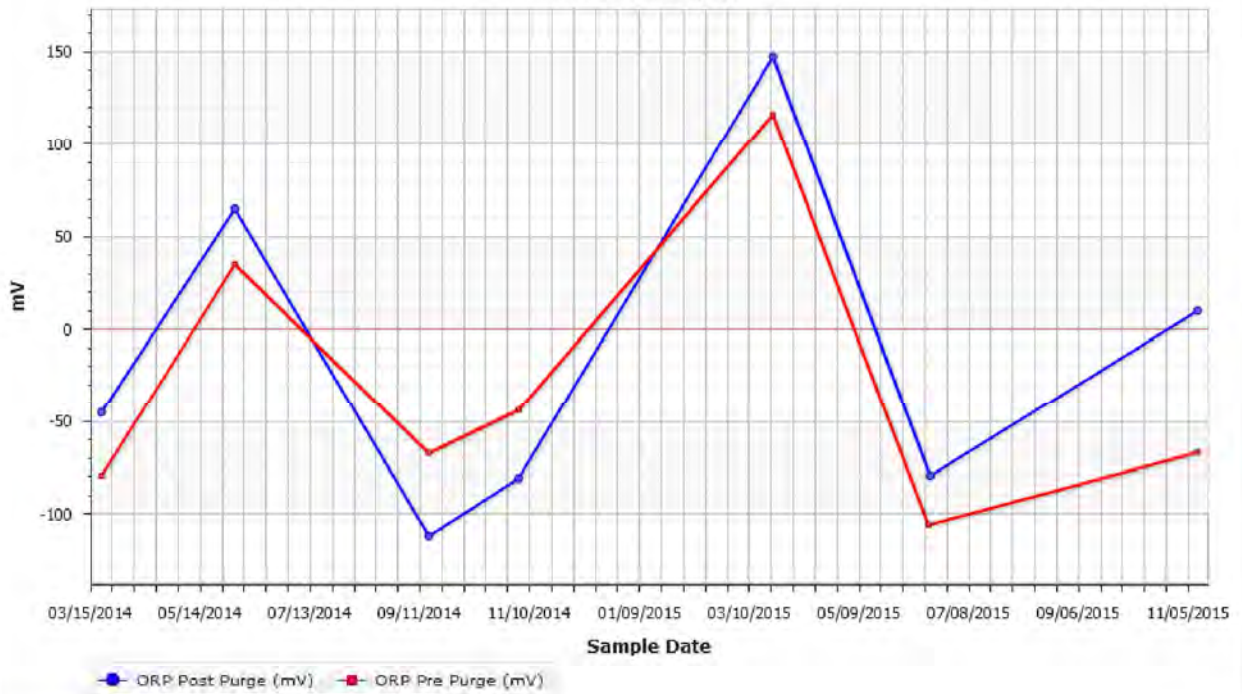
SWMW-31 (Overburden)

Site: Beacon, NY



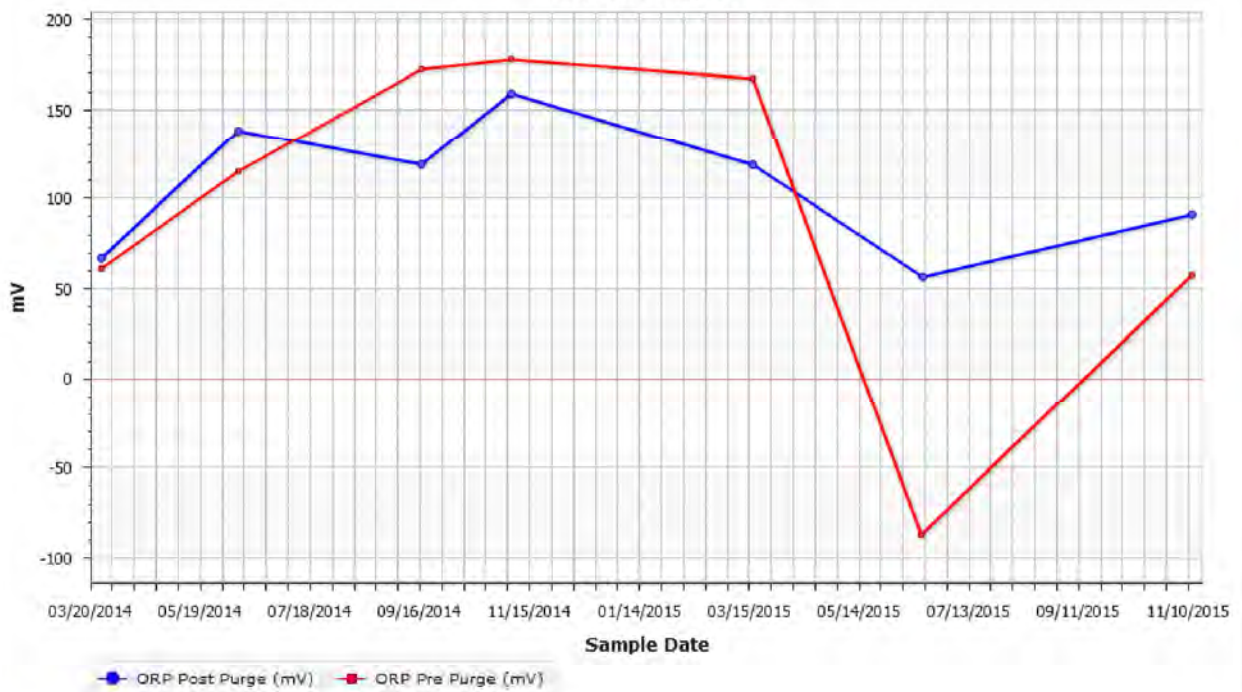
SWMW-48 (Overburden)

Site: Beacon, NY



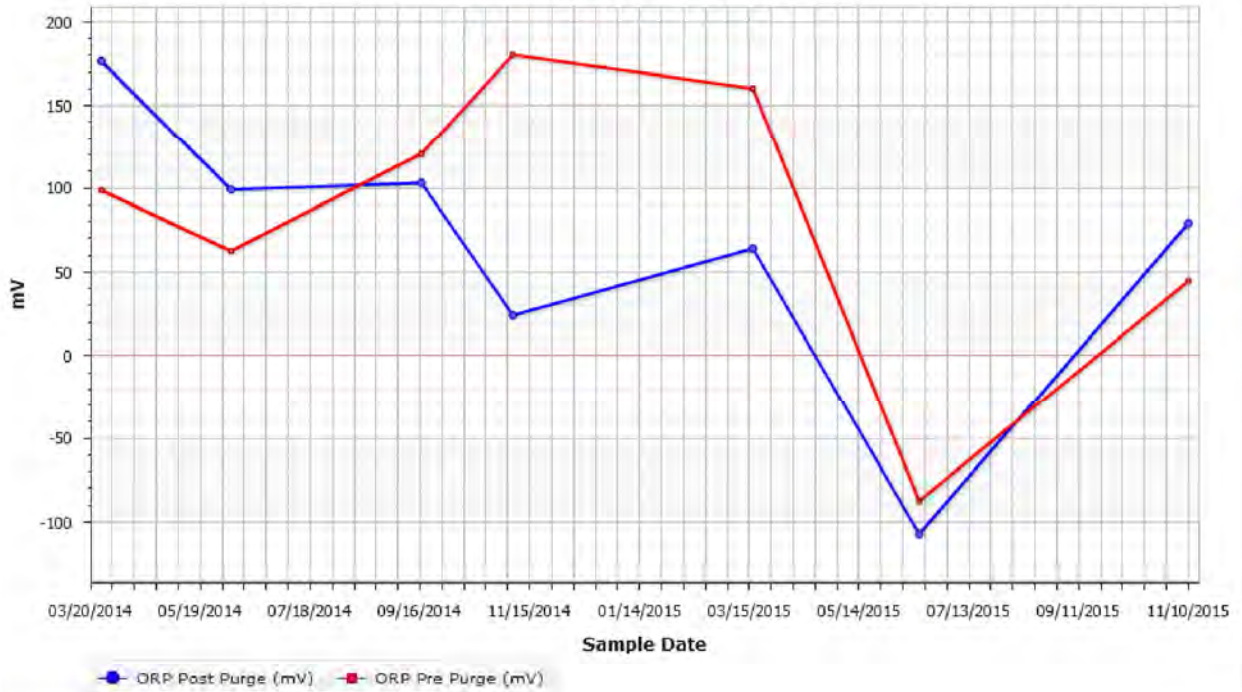
SWMW-58 (Overburden)

Site: Beacon, NY



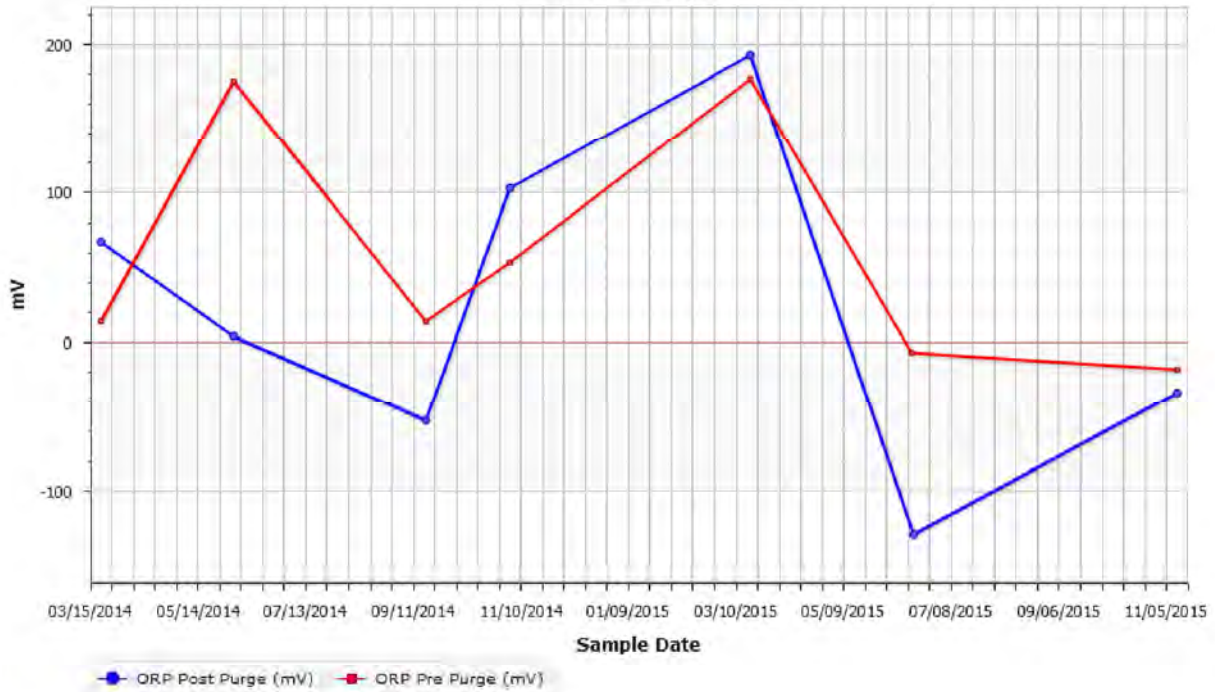
SWMW-62 (Overburden)

Site: Beacon, NY



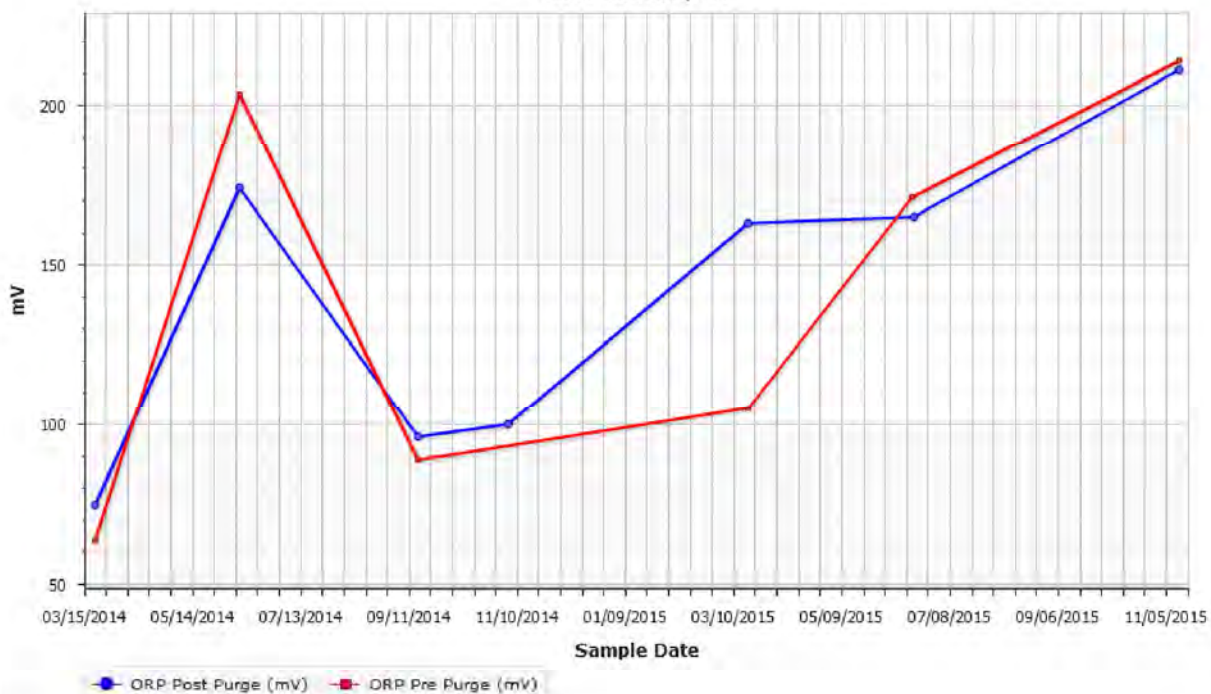
SWMW-65 (Overburden)

Site: Beacon, NY



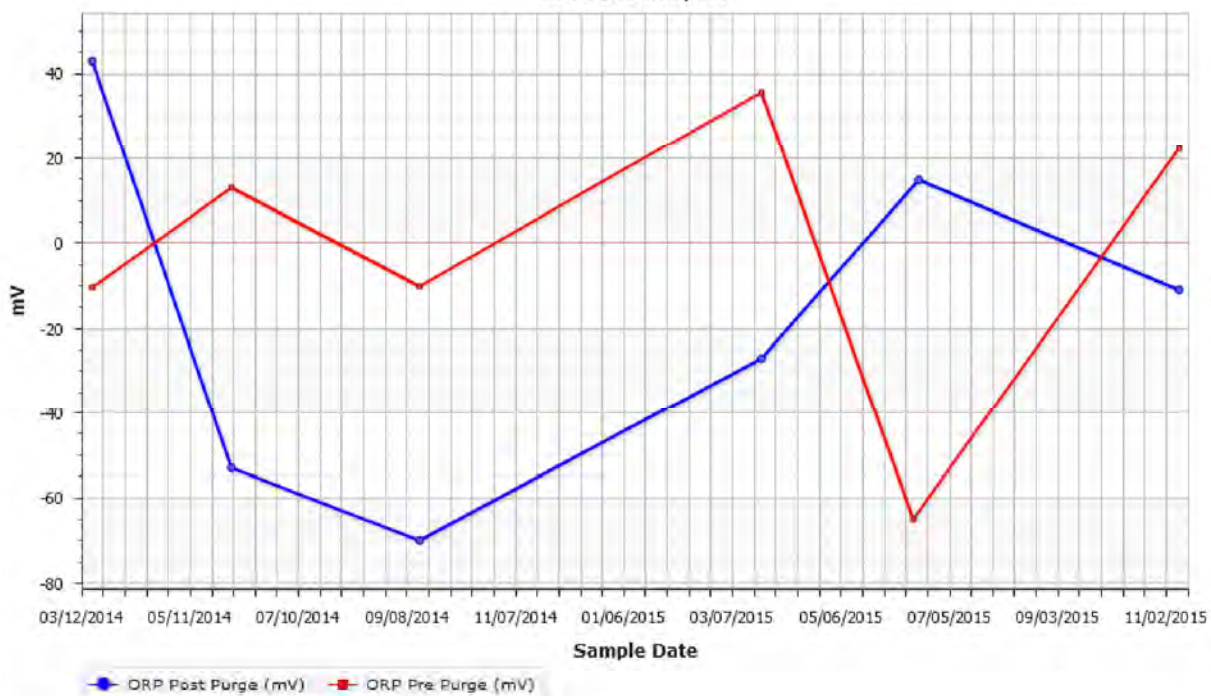
SWMW-67 (Overburden)

Site: Beacon, NY



Unknown Well 1 (Overburden)

Site: Beacon, NY



Unknown Well 2 (Overburden)

Site: Beacon, NY



Unknown Well 3 (Overburden)

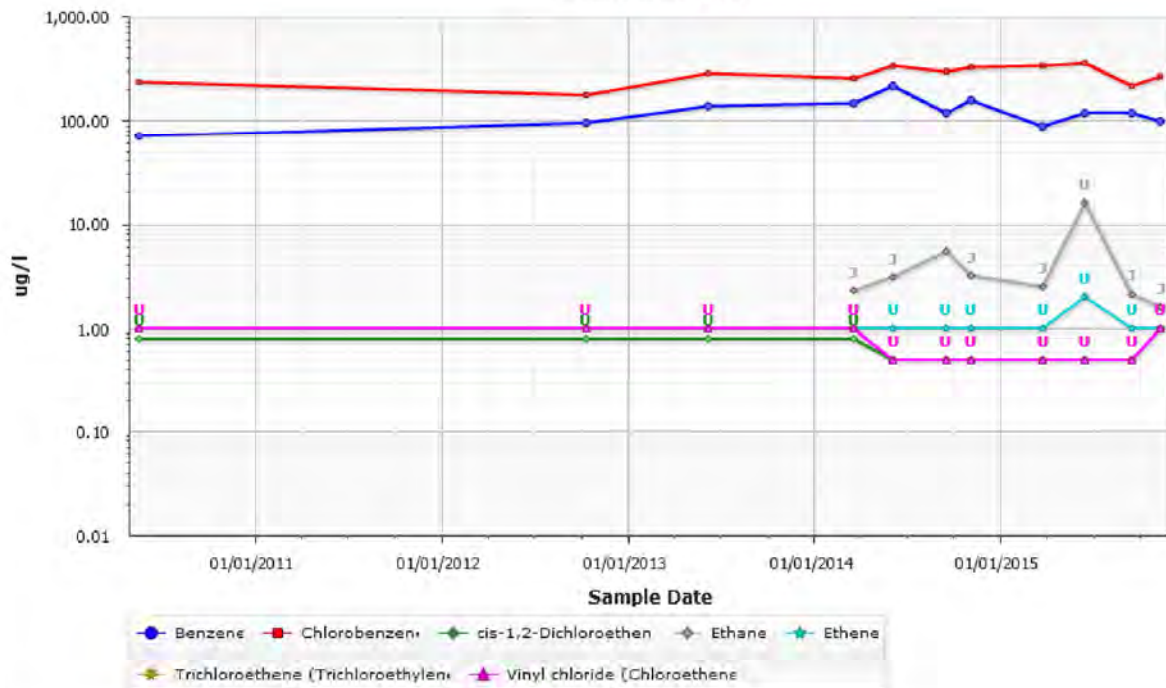
Site: Beacon, NY



2014 THROUGH 2015 VOC OVERBURDEN WELLS SUMMARY GRAPHS

GT-2 (Overburden)

Site: Beacon, NY



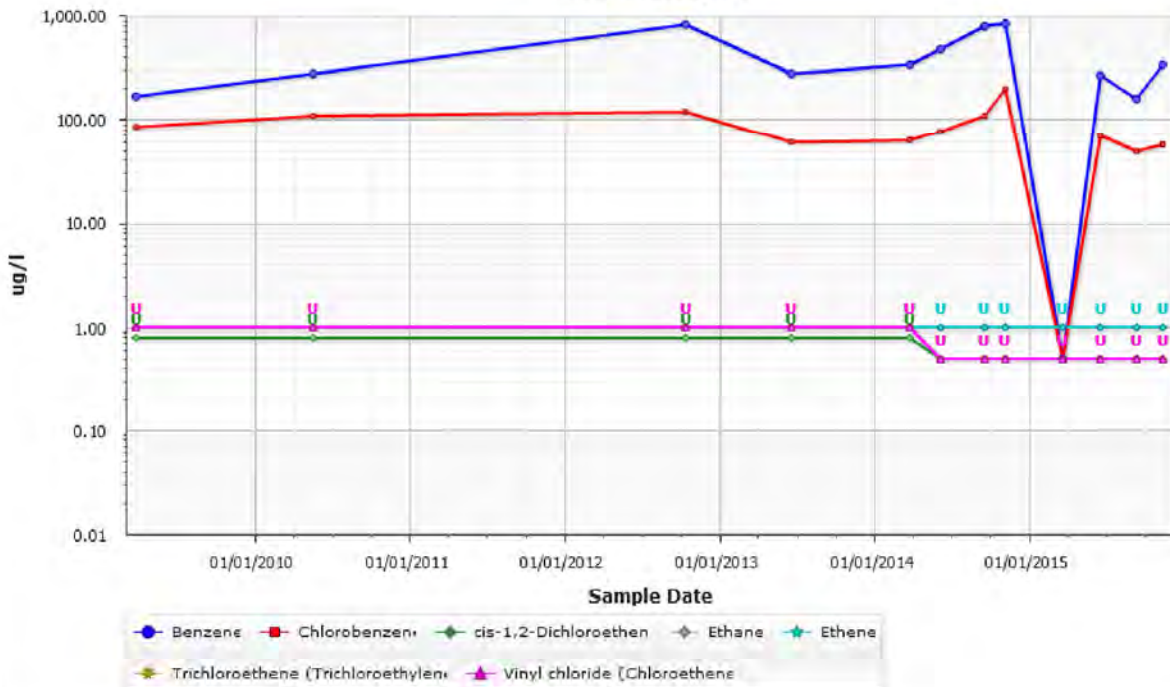
ITMW-24 (Overburden)

Site: Beacon, NY



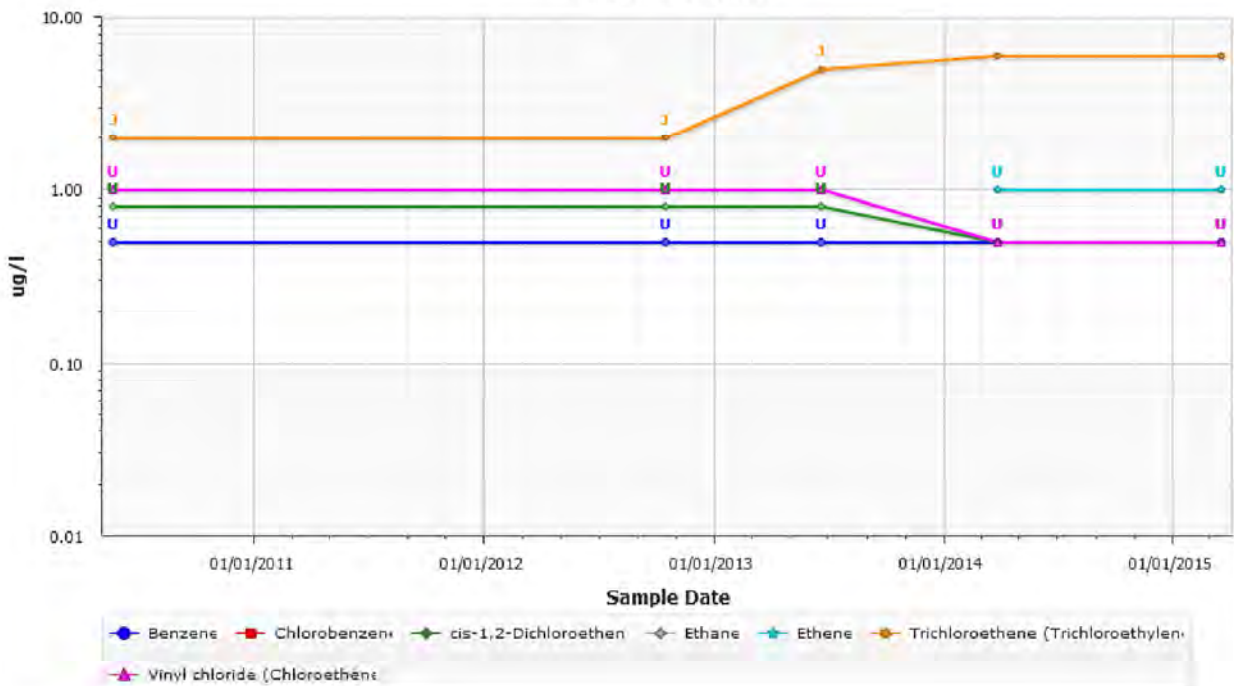
ITMW-25 (Overburden)

Site: Beacon, NY



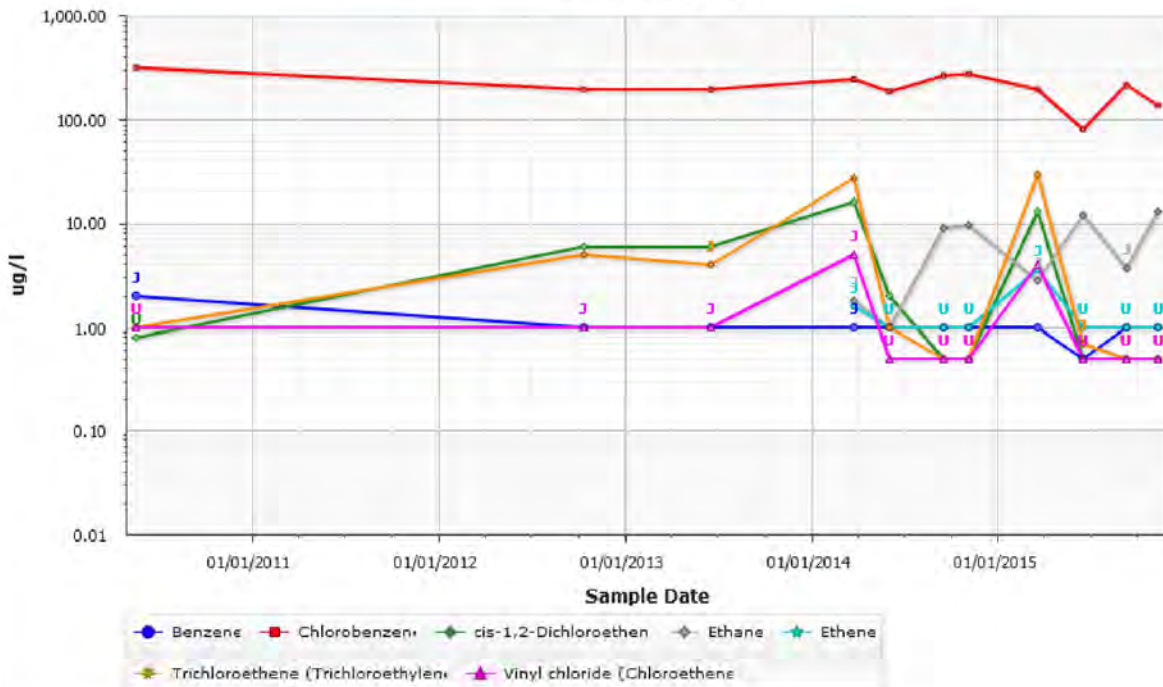
ITMW-5 (Overburden)

Site: Beacon, NY



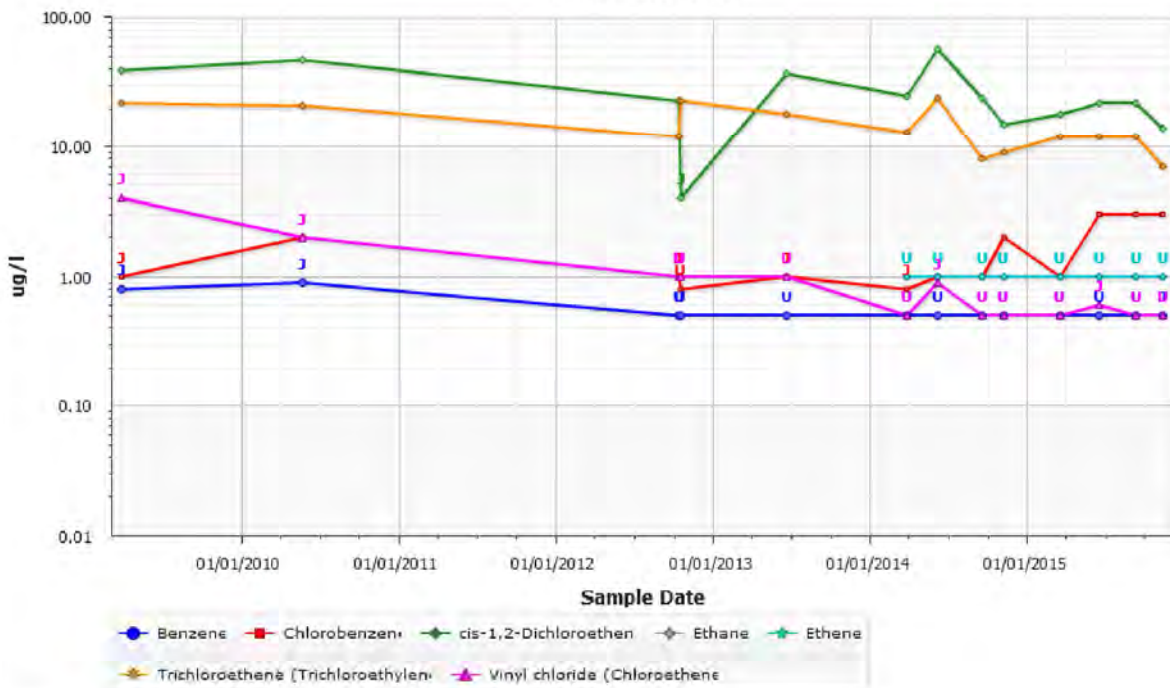
SWMW-10 (Overburden)

Site: Beacon, NY



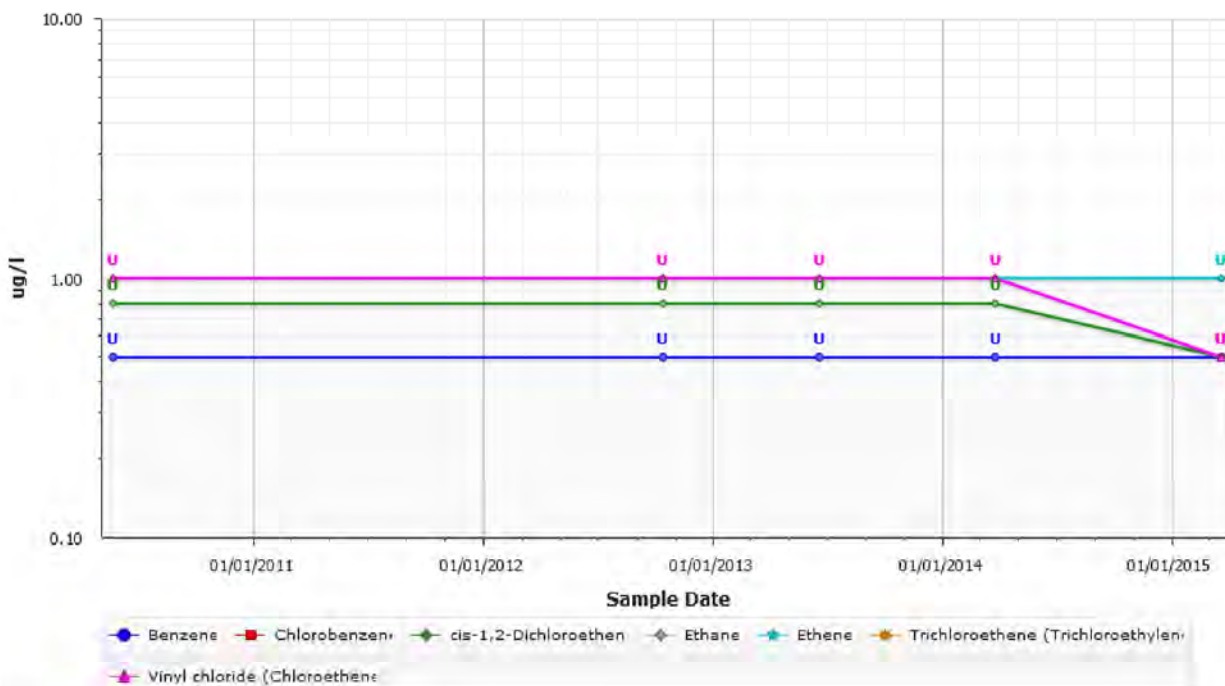
SWMW-113 (Overburden)

Site: Beacon, NY



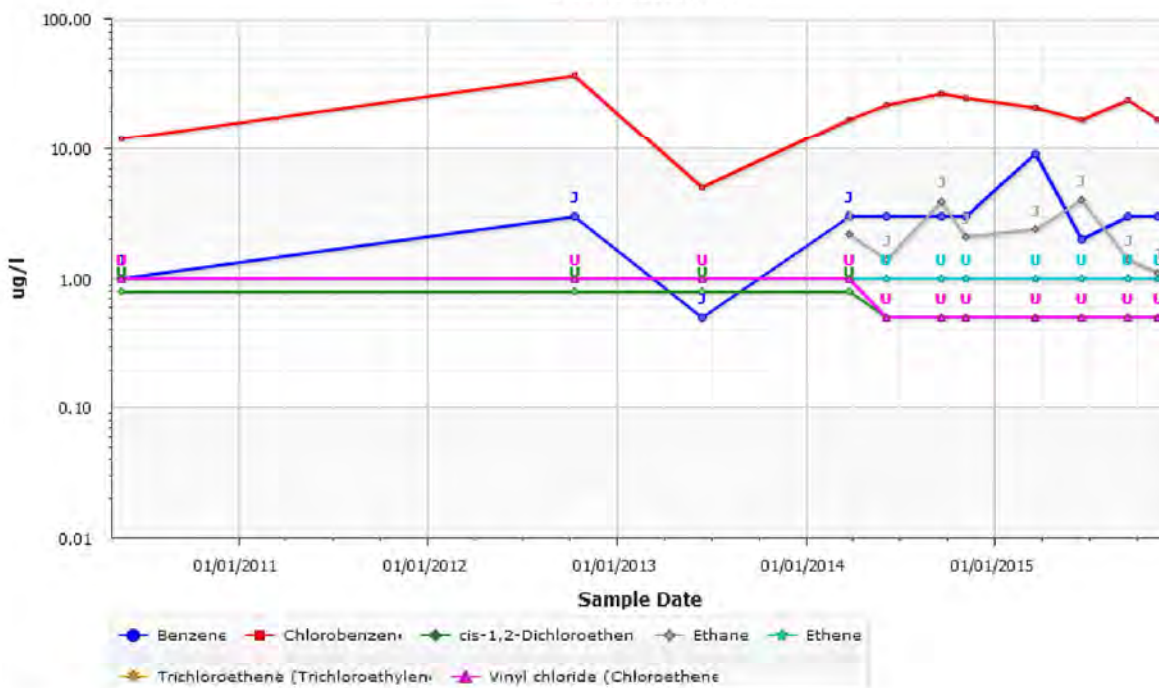
SWMW-25 (Overburden)

Site: Beacon, NY



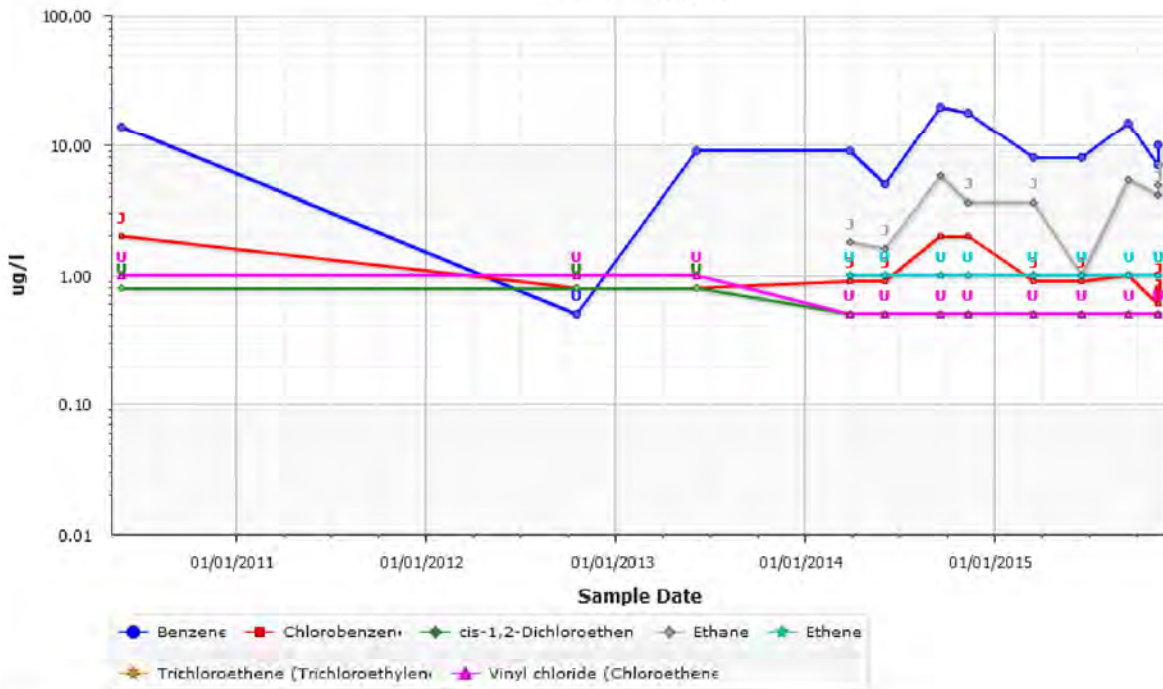
SWMW-28 (Overburden)

Site: Beacon, NY



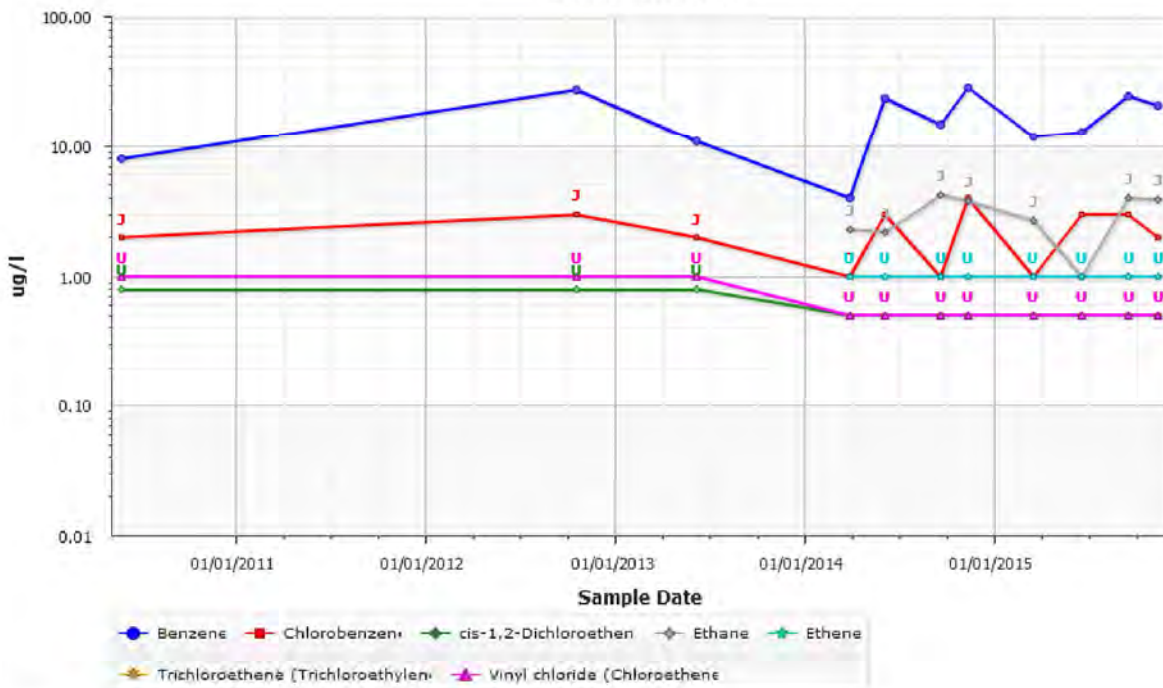
SWMW-30 (Overburden)

Site: Beacon, NY



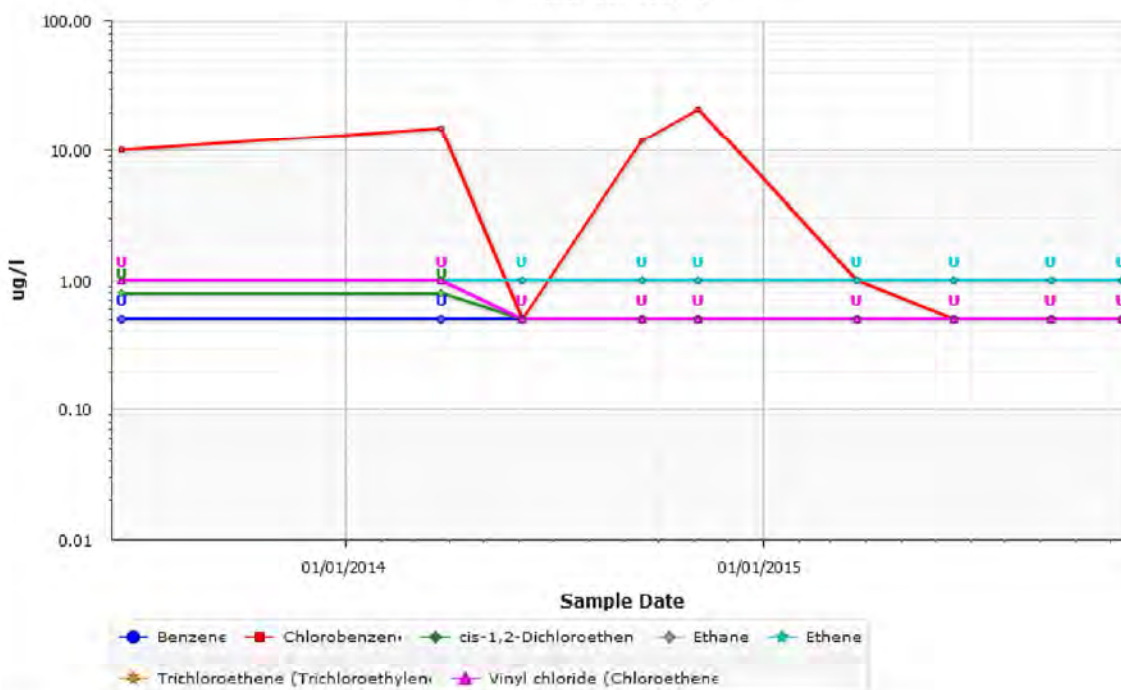
SWMW-31 (Overburden)

Site: Beacon, NY



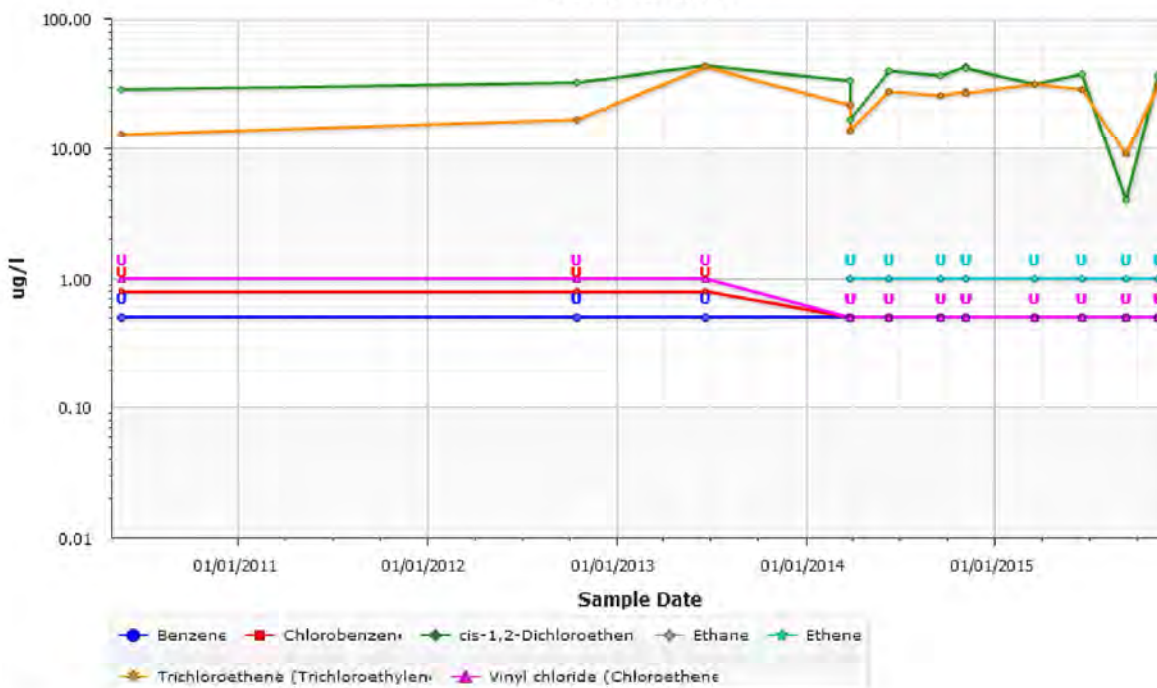
SWMW-48 (Overburden)

Site: Beacon, NY



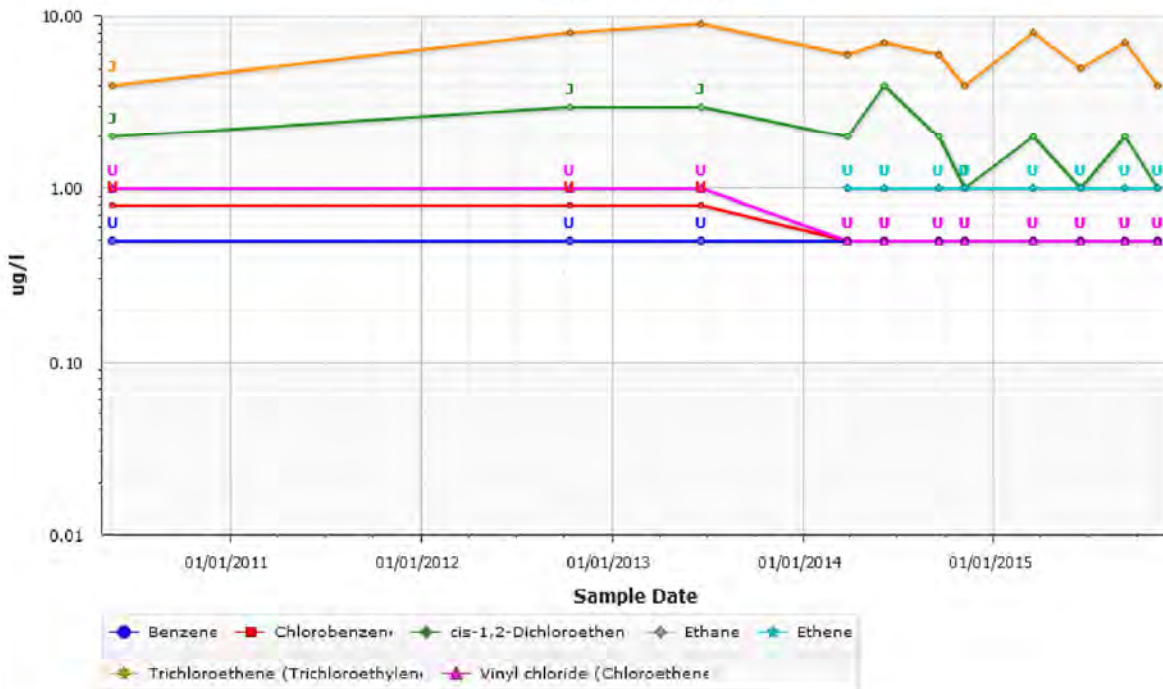
SWMW-58 (Overburden)

Site: Beacon, NY



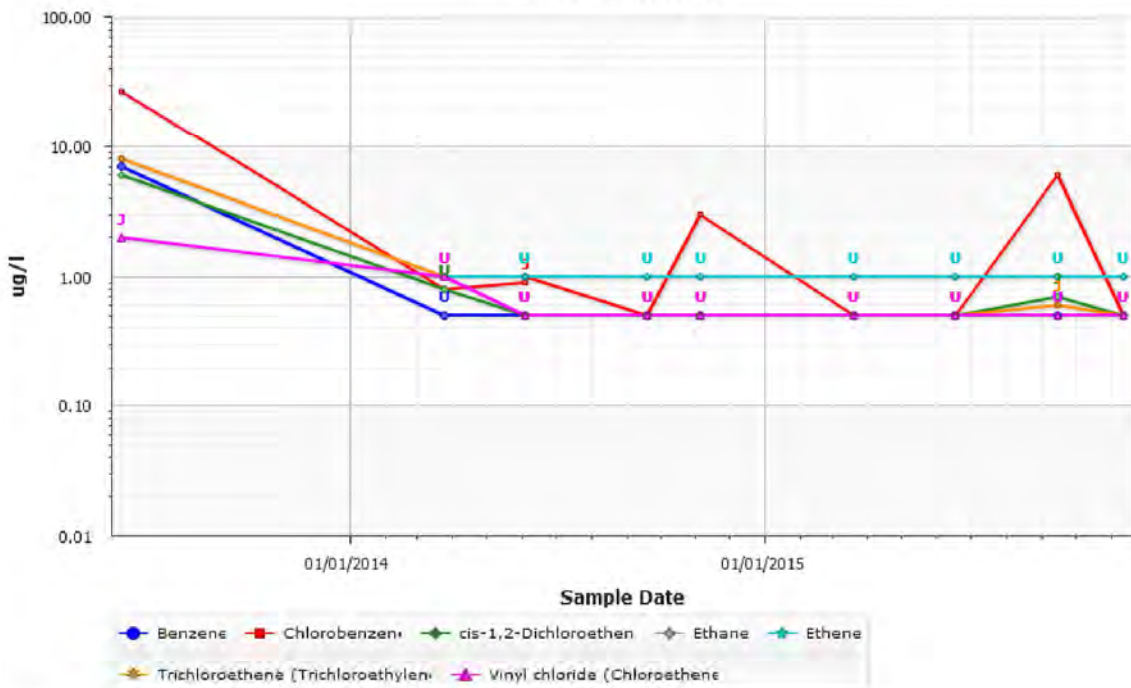
SWMW-62 (Overburden)

Site: Beacon, NY



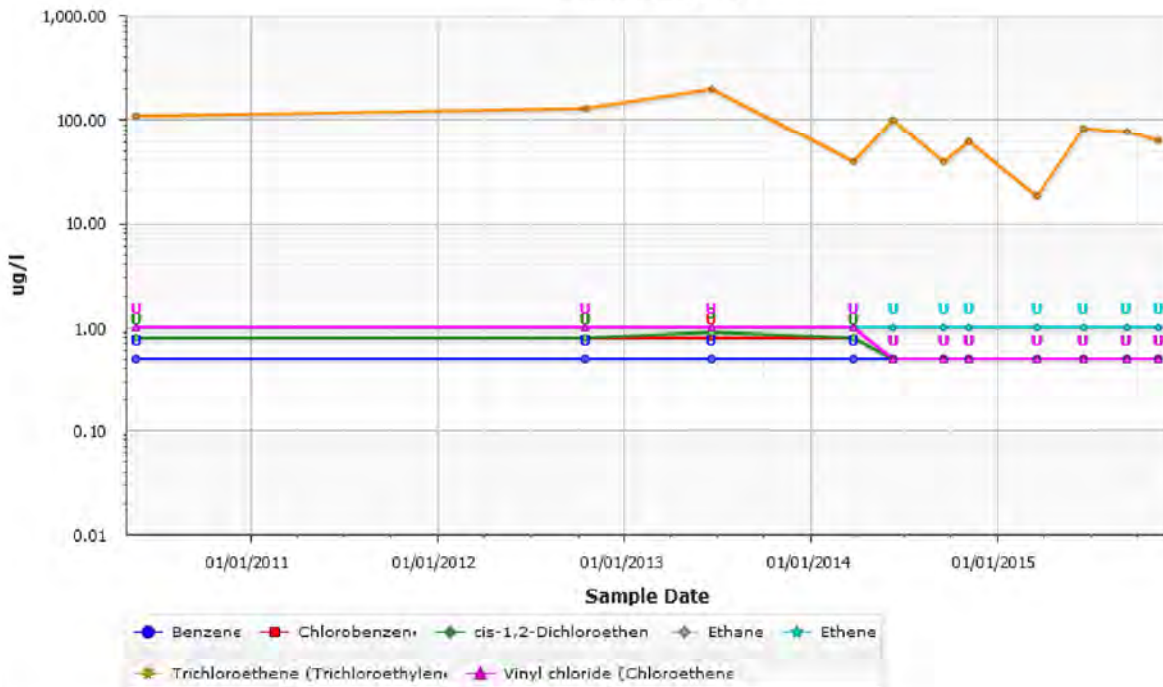
SWMW-65 (Overburden)

Site: Beacon, NY



SWMW-67 (Overburden)

Site: Beacon, NY



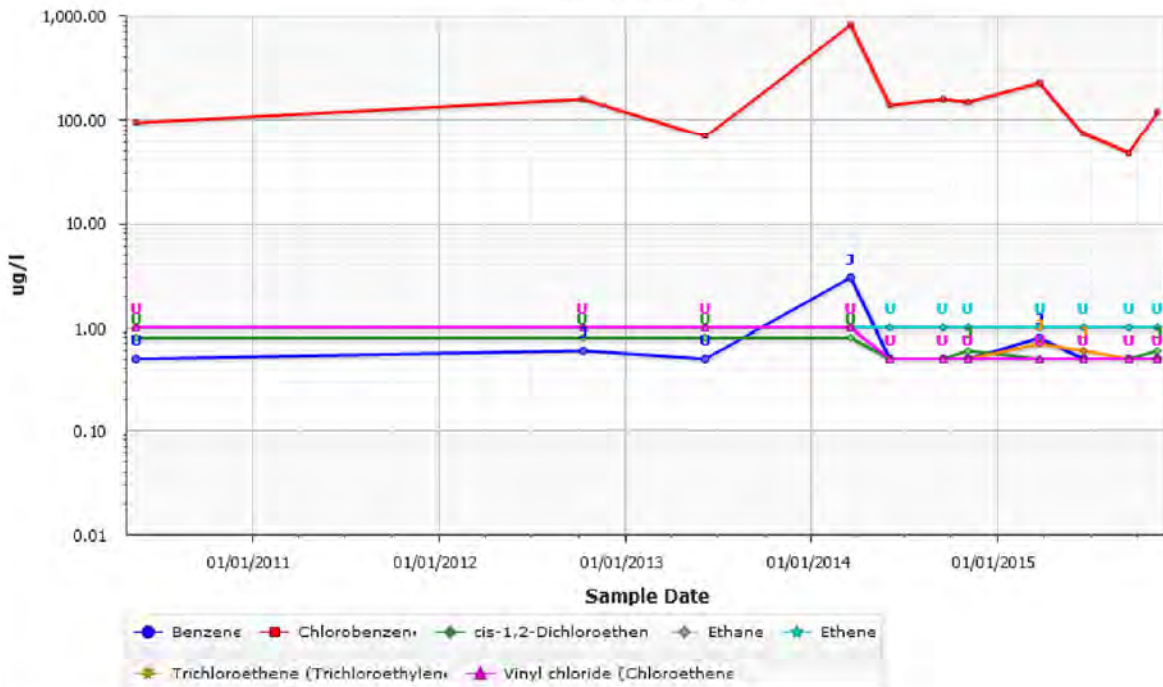
SWMW-71 (Overburden)

Site: Beacon, NY



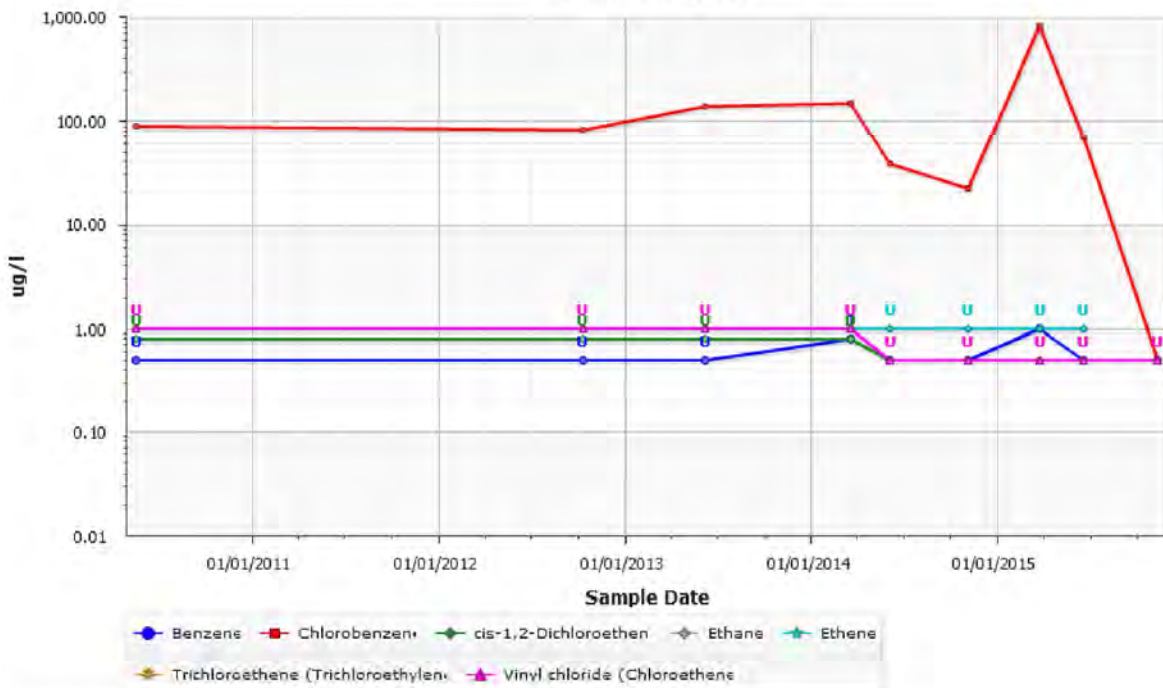
Unknown Well 1 (Overburden)

Site: Beacon, NY



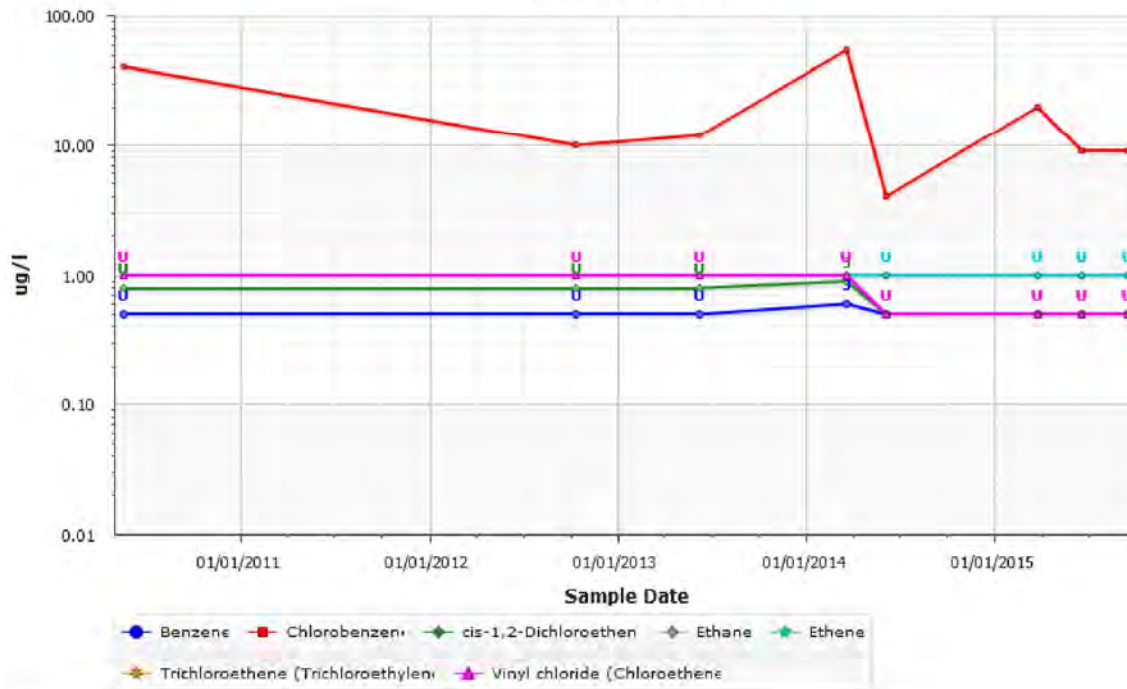
Unknown Well 2 (Overburden)

Site: Beacon, NY



Unknown Well 3 (Overburden)

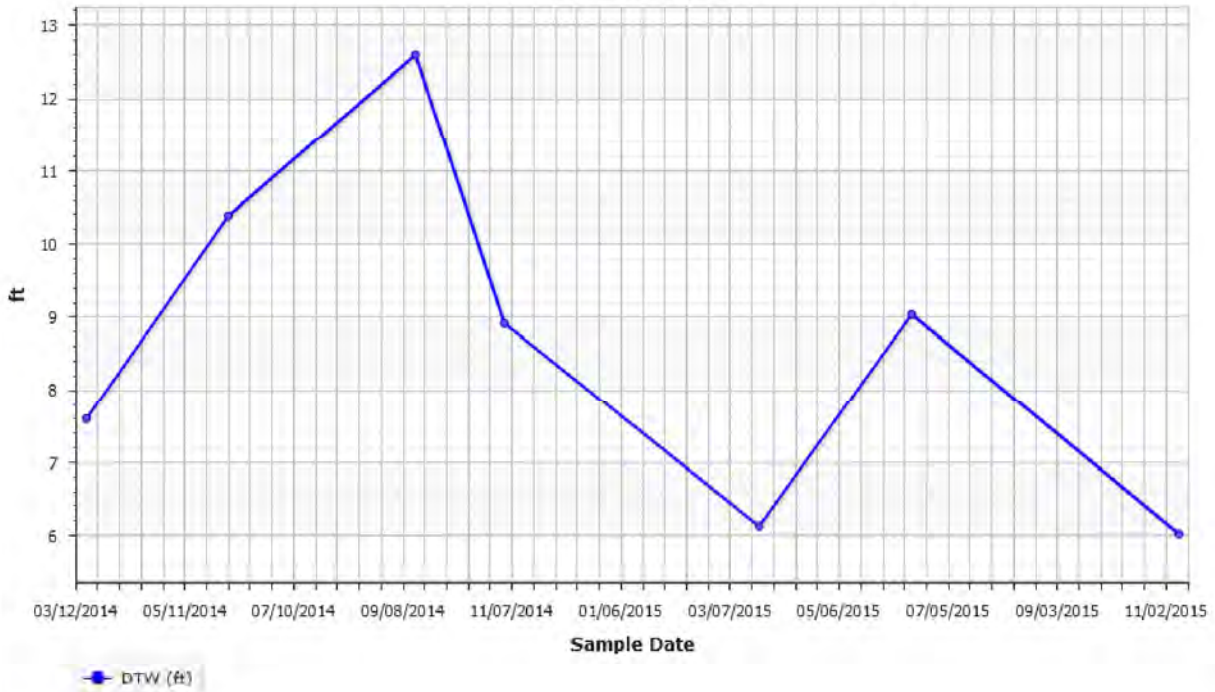
Site: Beacon, NY



2014 THROUGH 2015 DTW BEDROCK WELLS SUMMARY GRAPHS

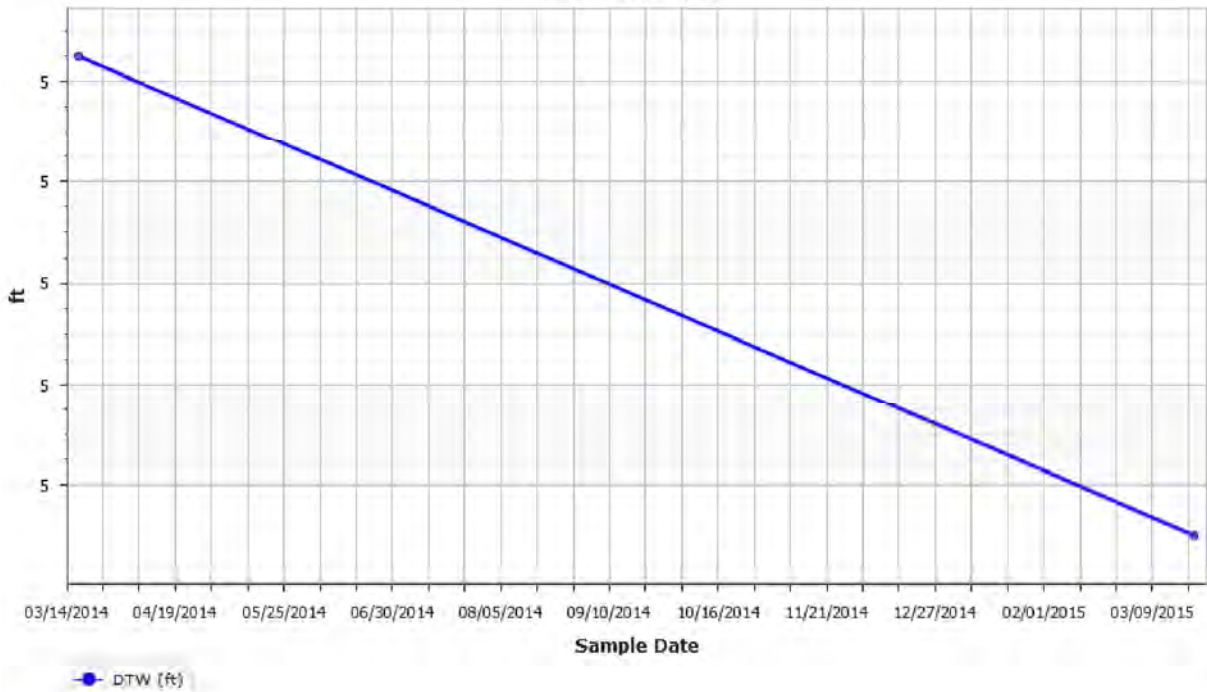
ITMW-13 (Bedrock)

Site: Beacon, NY



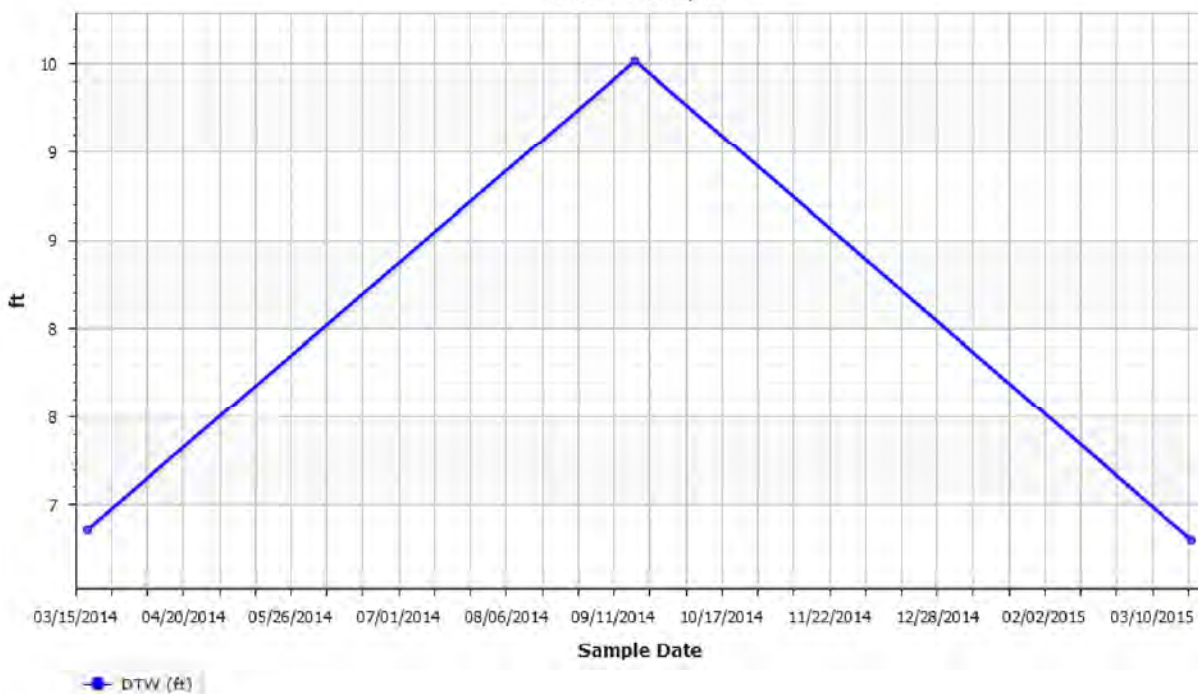
ITMW-14 (Bedrock)

Site: Beacon, NY



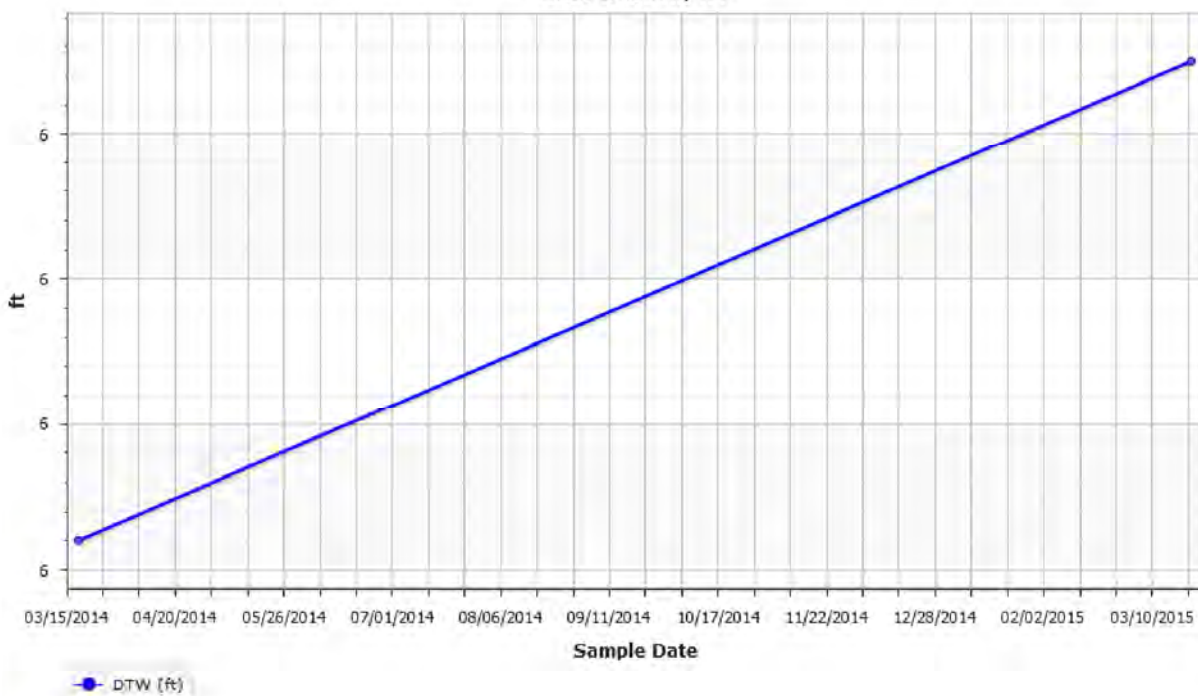
ITMW-30 (Bedrock)

Site: Beacon, NY



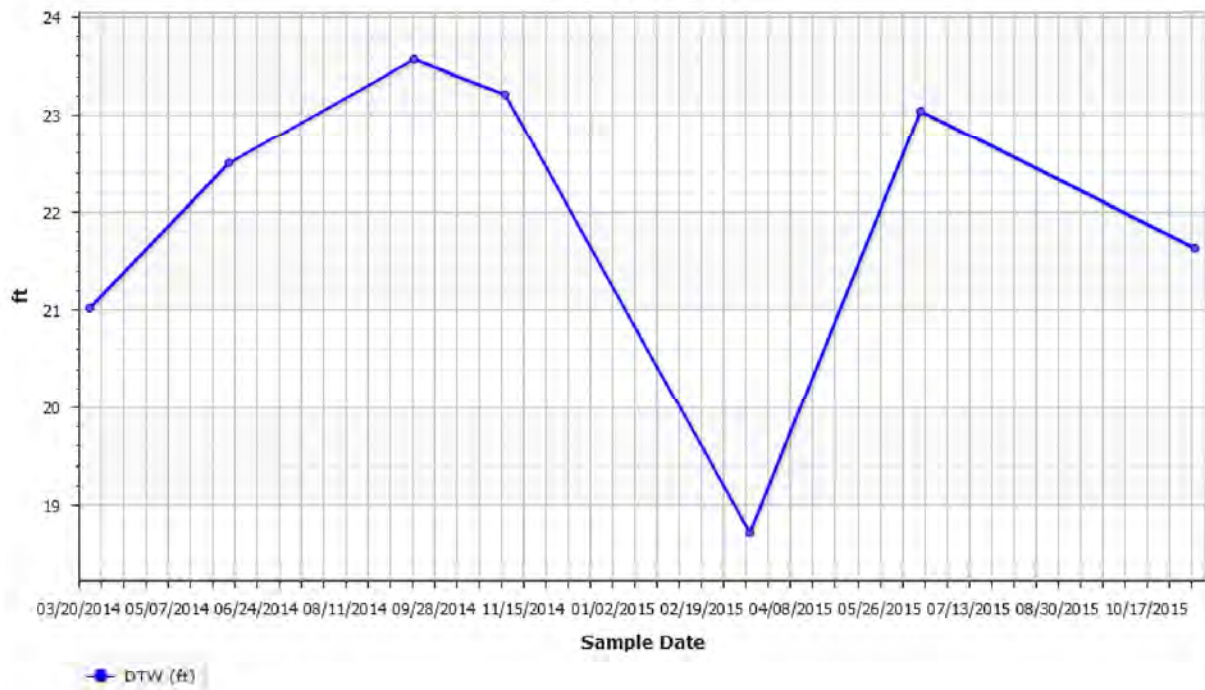
ITMW-31 (Bedrock)

Site: Beacon, NY



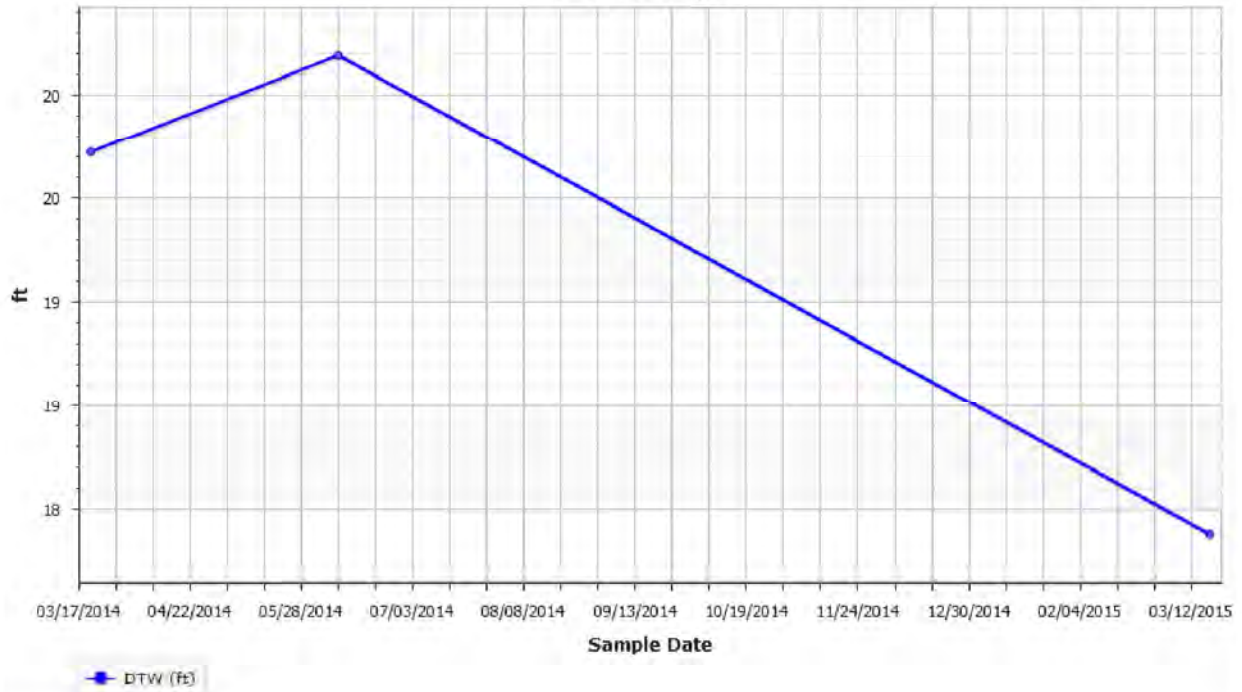
ITMW-6 (Bedrock)

Site: Beacon, NY



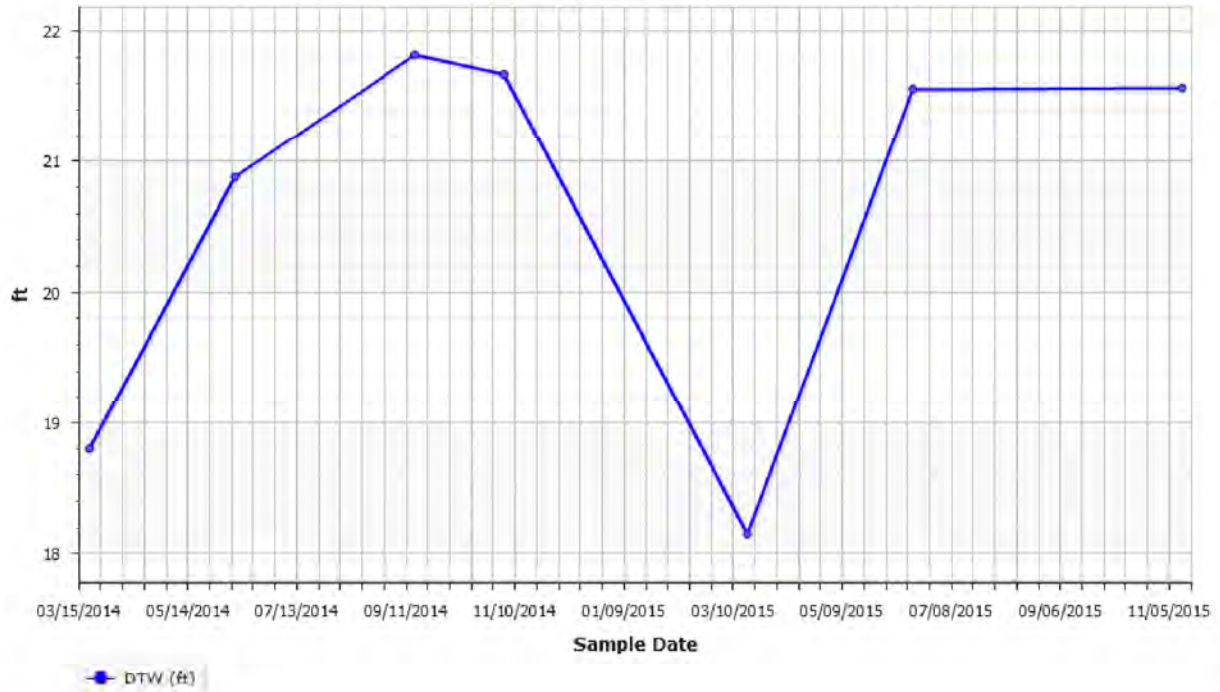
SWMW-103 (Bedrock)

Site: Beacon, NY



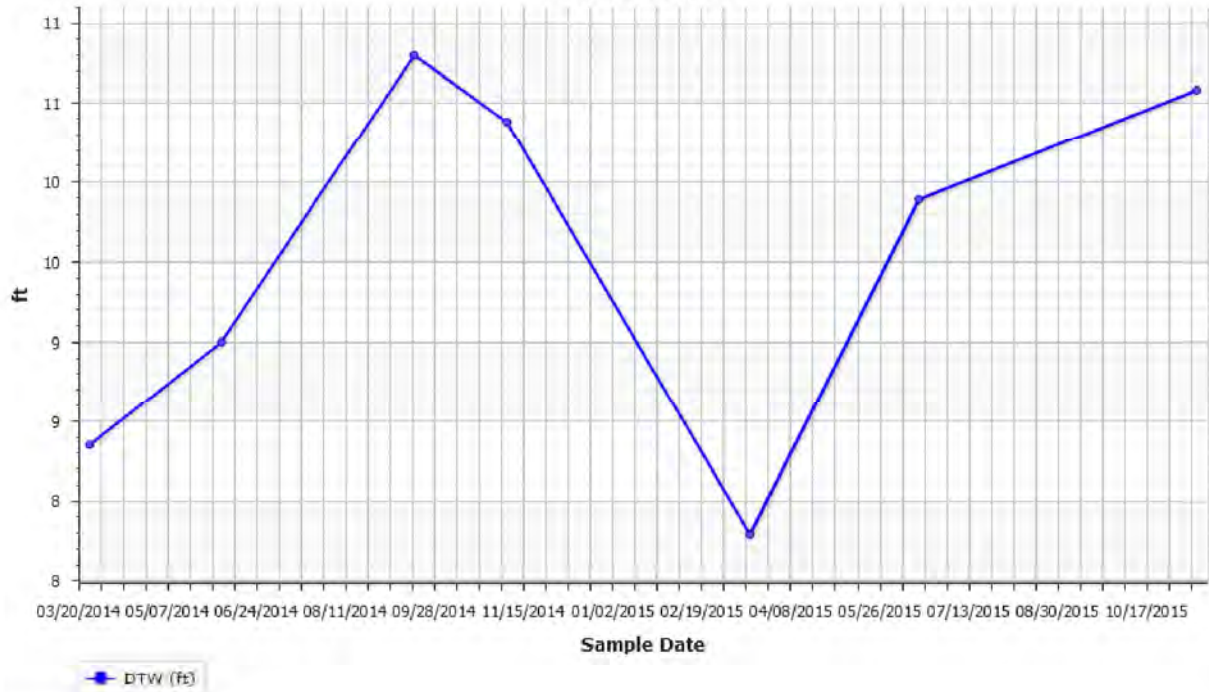
SWMW-111 (Bedrock)

Site: Beacon, NY



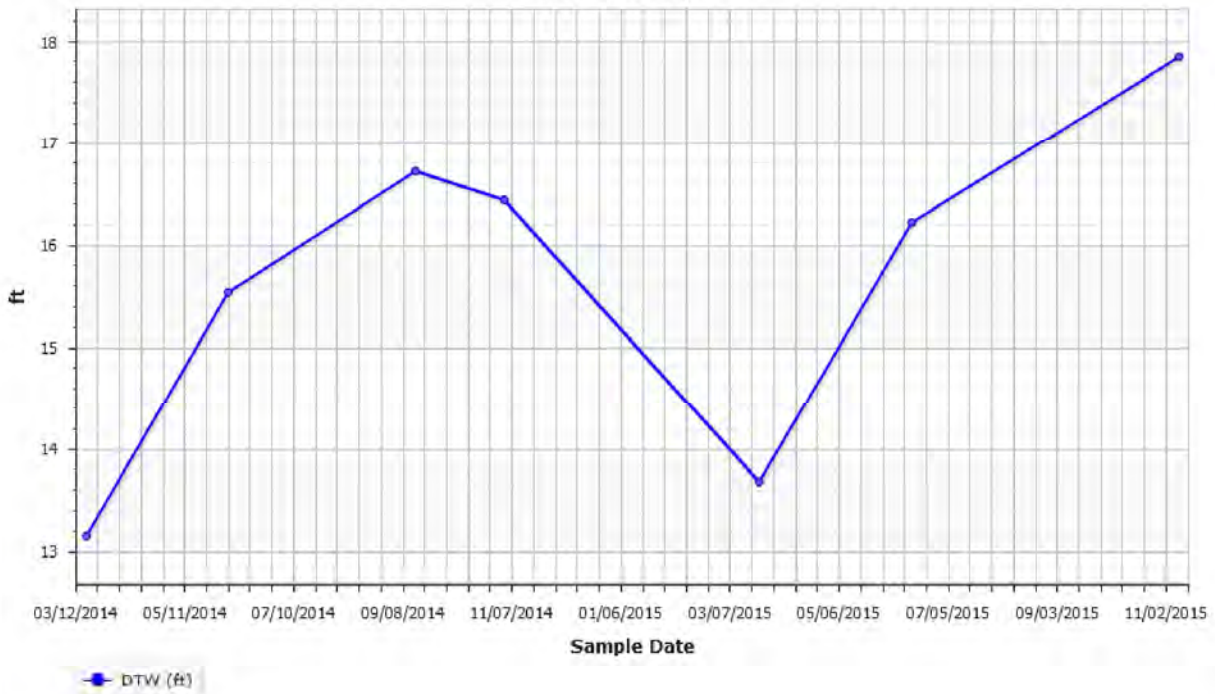
SWMW-112 (Bedrock)

Site: Beacon, NY



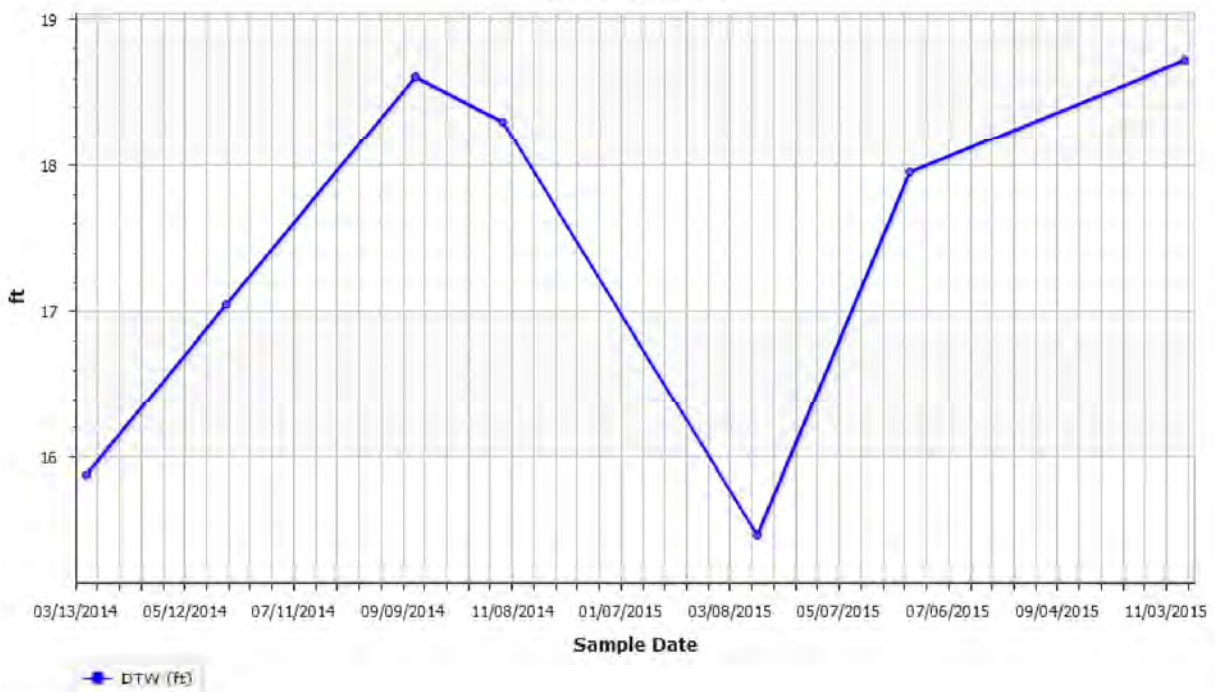
SWMW-114 (Bedrock)

Site: Beacon, NY



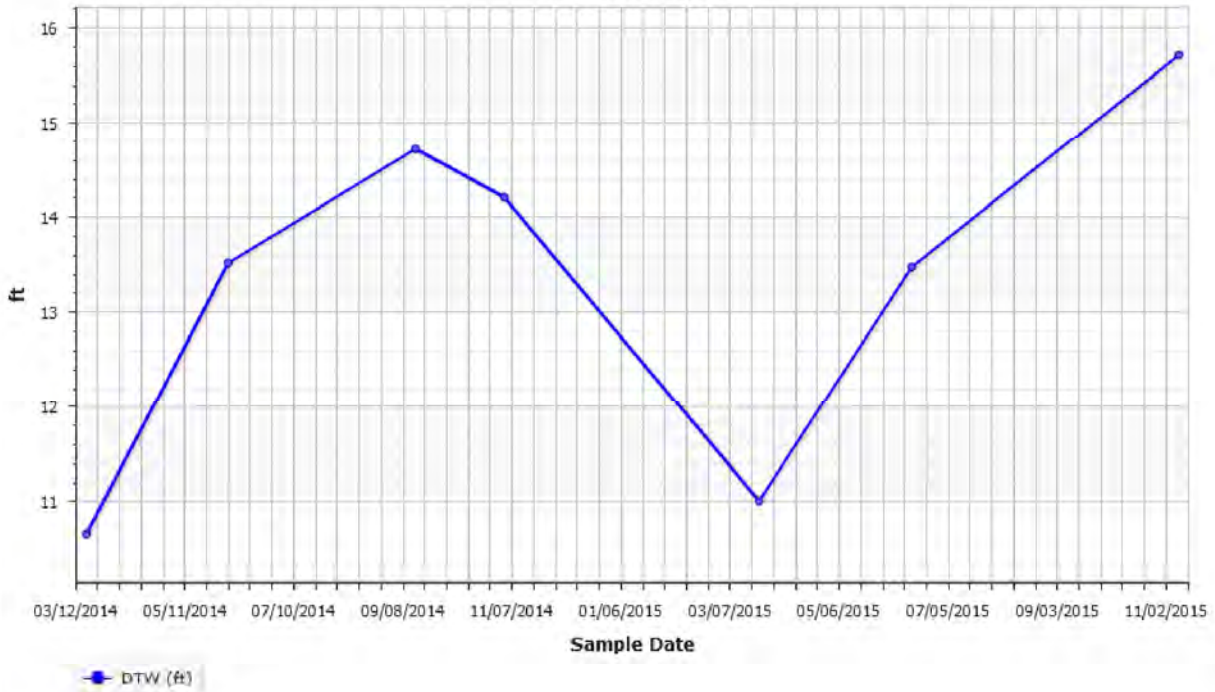
SWMW-123 (Bedrock)

Site: Beacon, NY



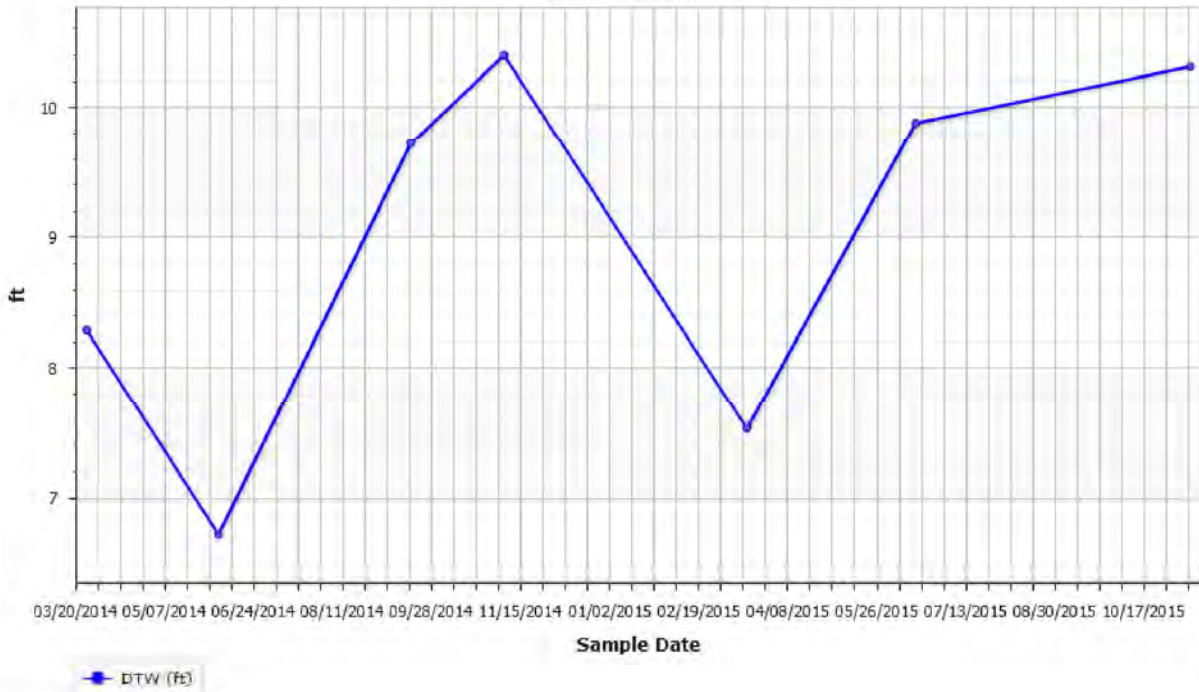
SWMW-125 (Bedrock)

Site: Beacon, NY



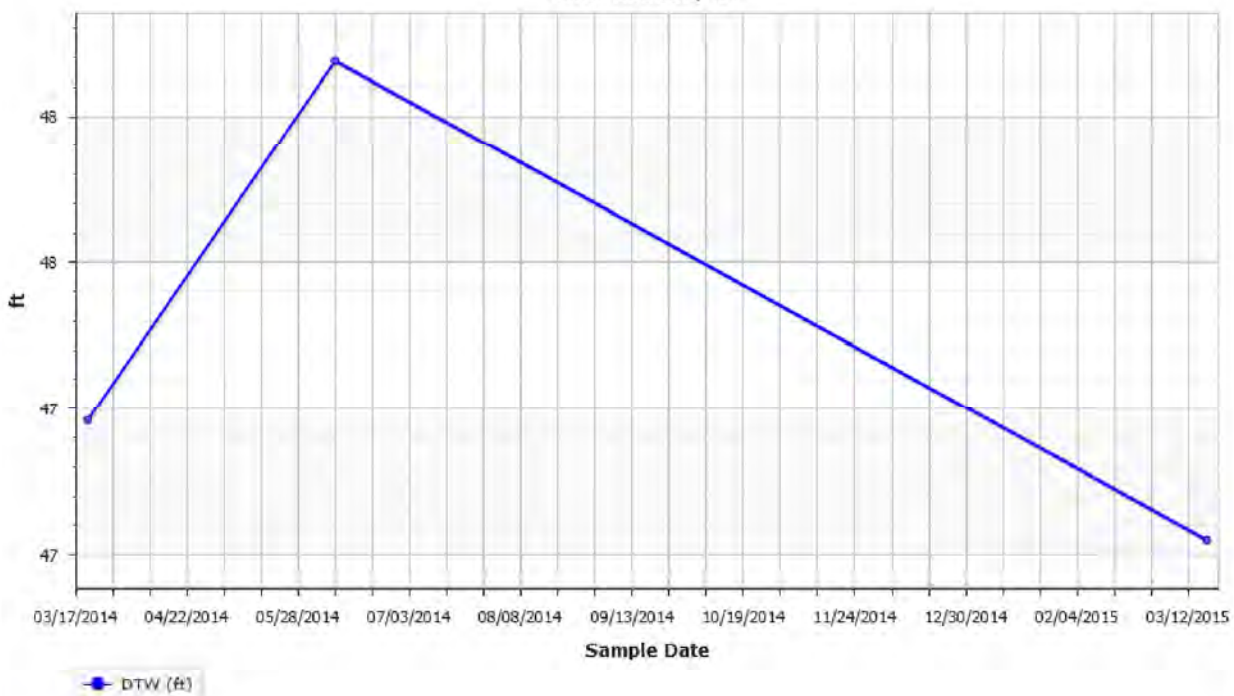
SWMW-126 (Bedrock)

Site: Beacon, NY



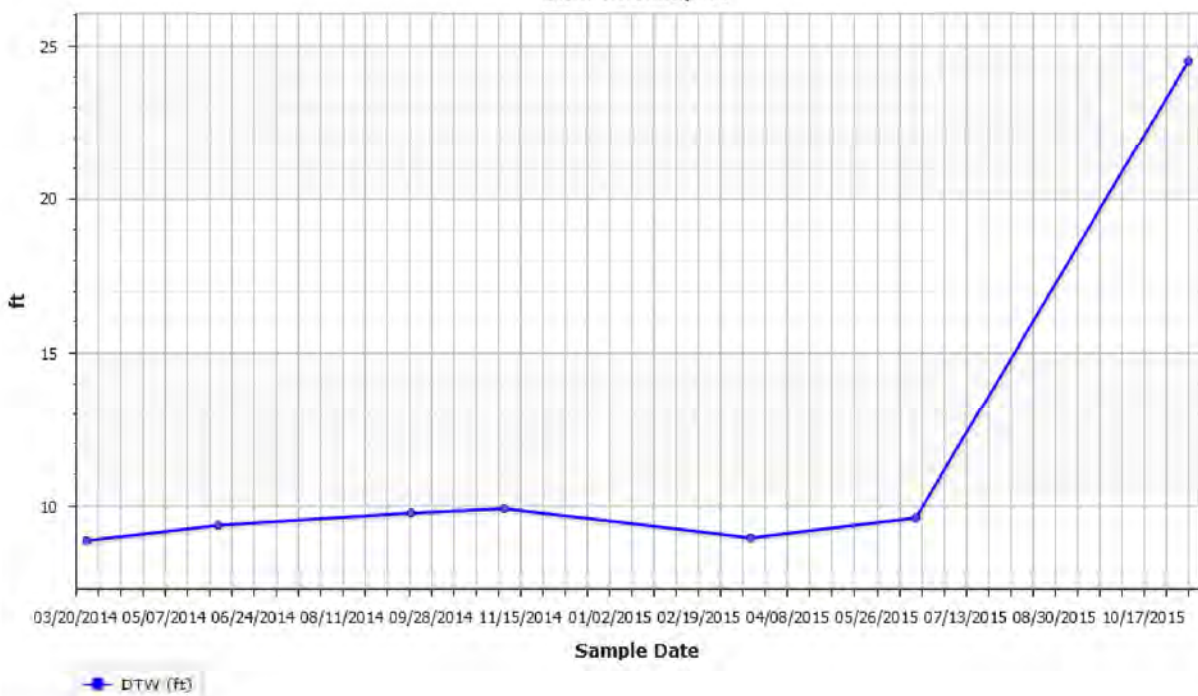
SWMW-13 (Bedrock)

Site: Beacon, NY



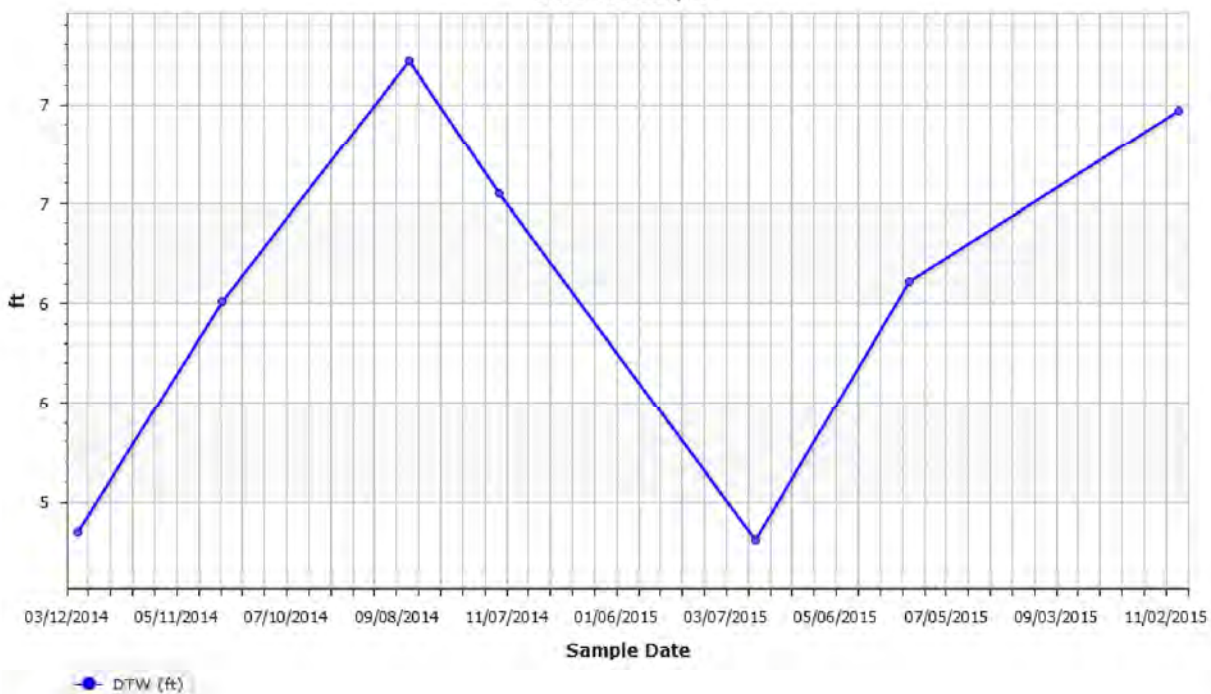
SWMW-14 (Bedrock)

Site: Beacon, NY



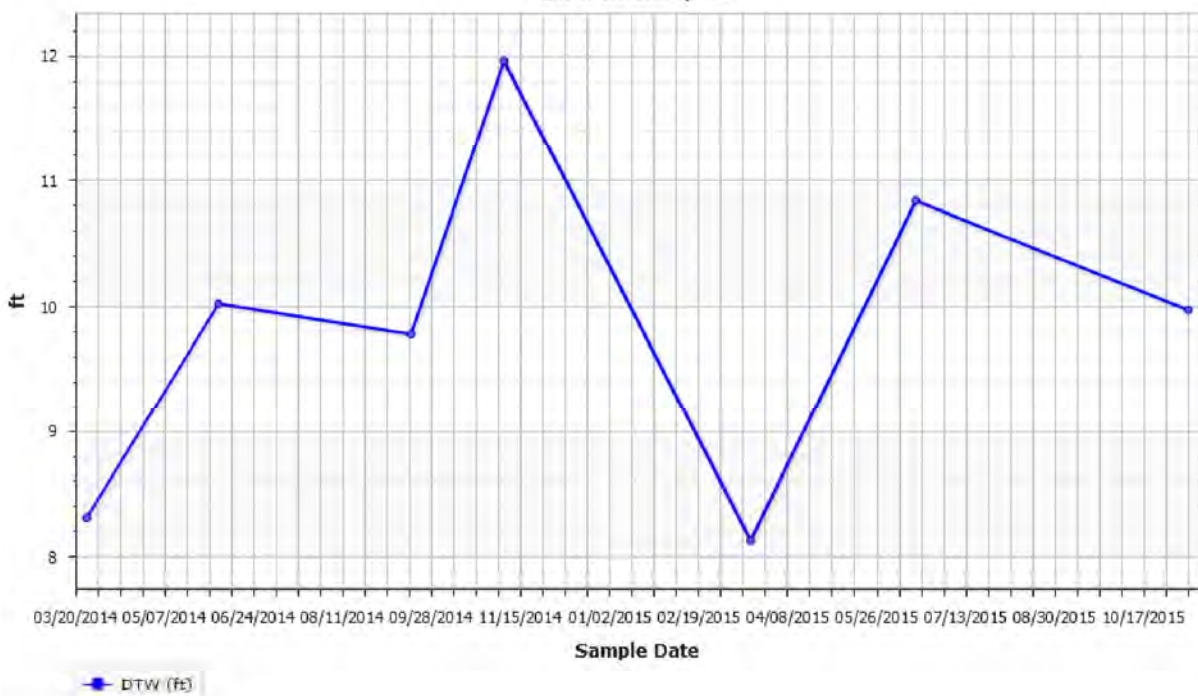
SWMW-2 (Bedrock)

Site: Beacon, NY



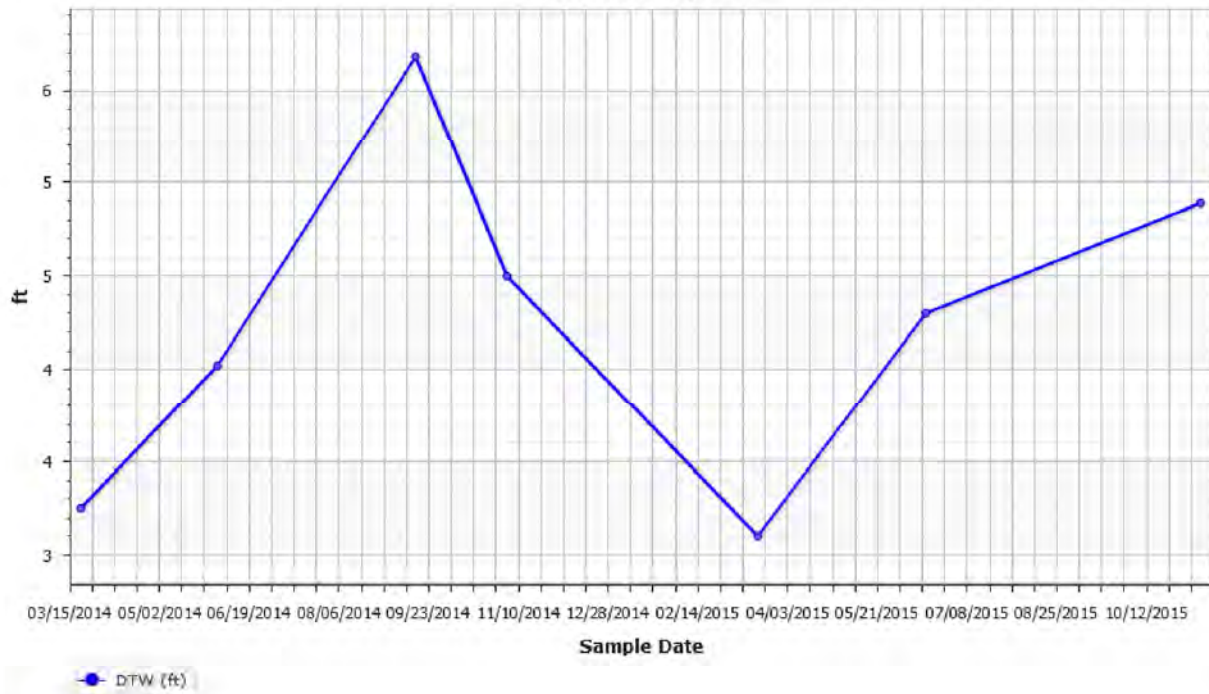
SWMW-41 (Bedrock)

Site: Beacon, NY



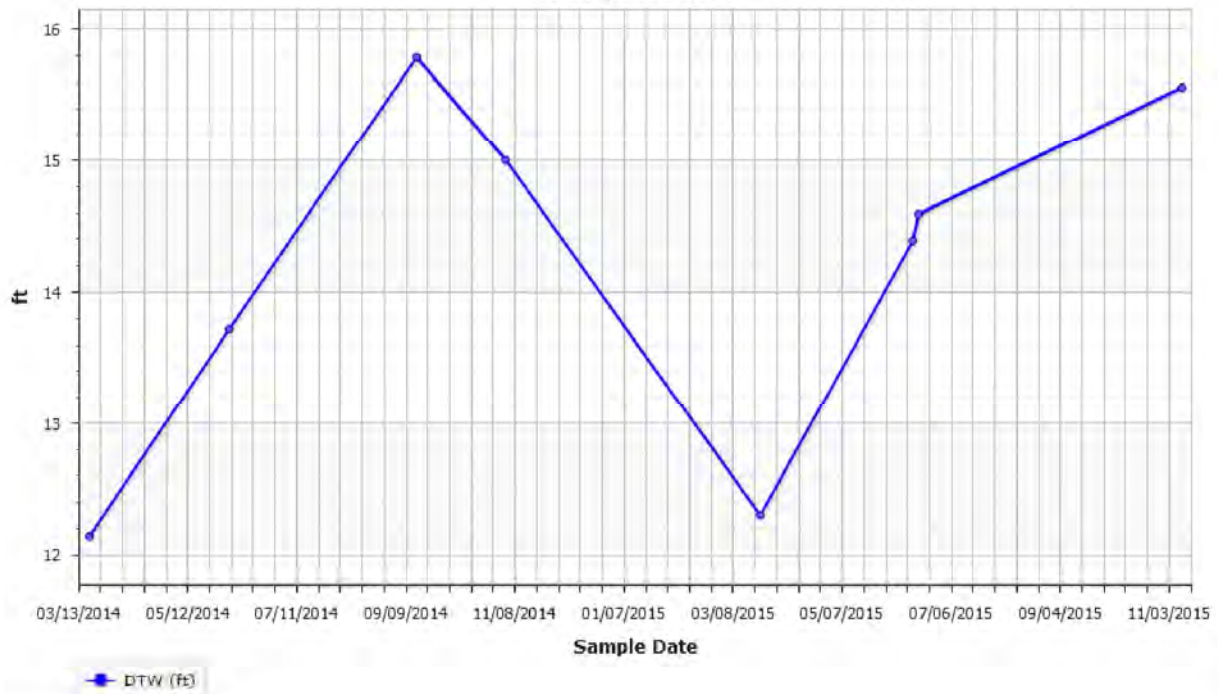
SWMW-44 (Bedrock)

Site: Beacon, NY



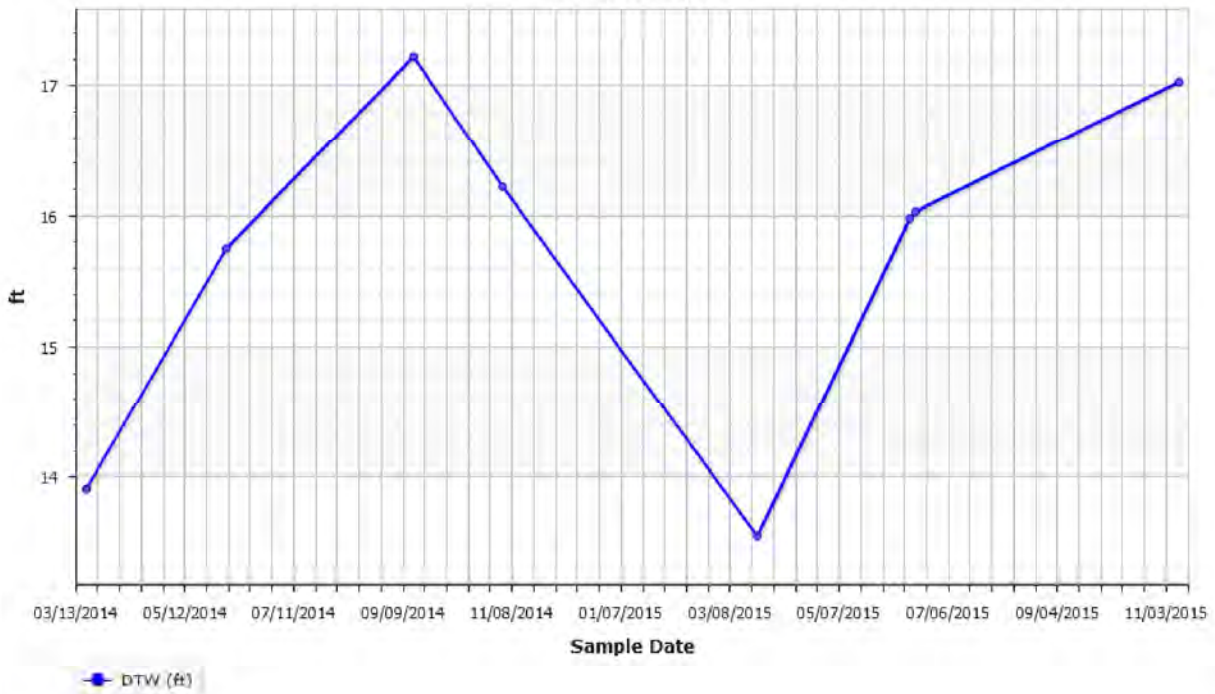
SWMW-45 (Bedrock)

Site: Beacon, NY



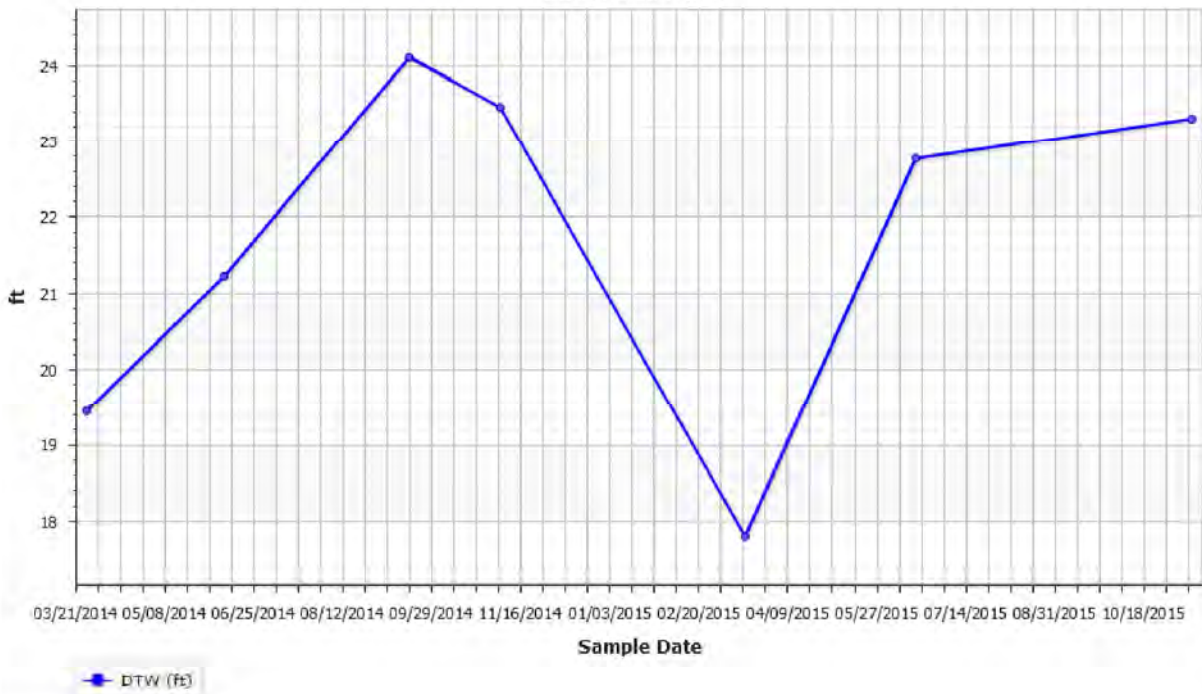
SWMW-55 (Bedrock)

Site: Beacon, NY



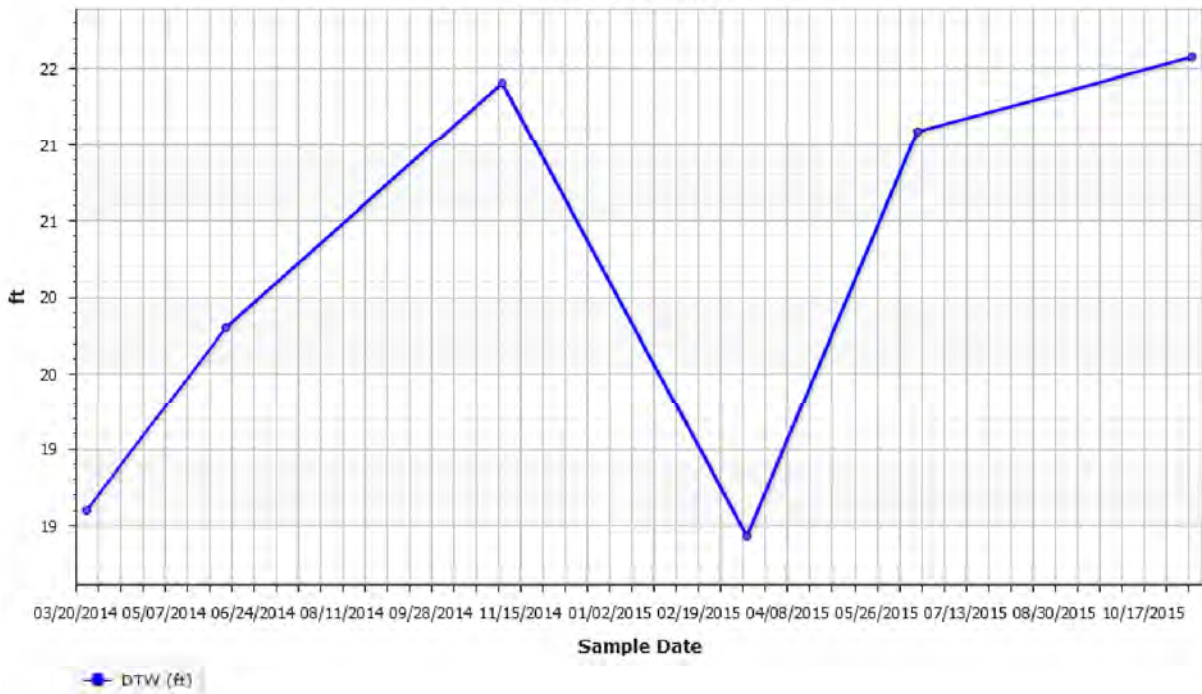
SWMW-56 (Bedrock)

Site: Beacon, NY



SWMW-66 (Bedrock)

Site: Beacon, NY



SWMW-68 (Bedrock)

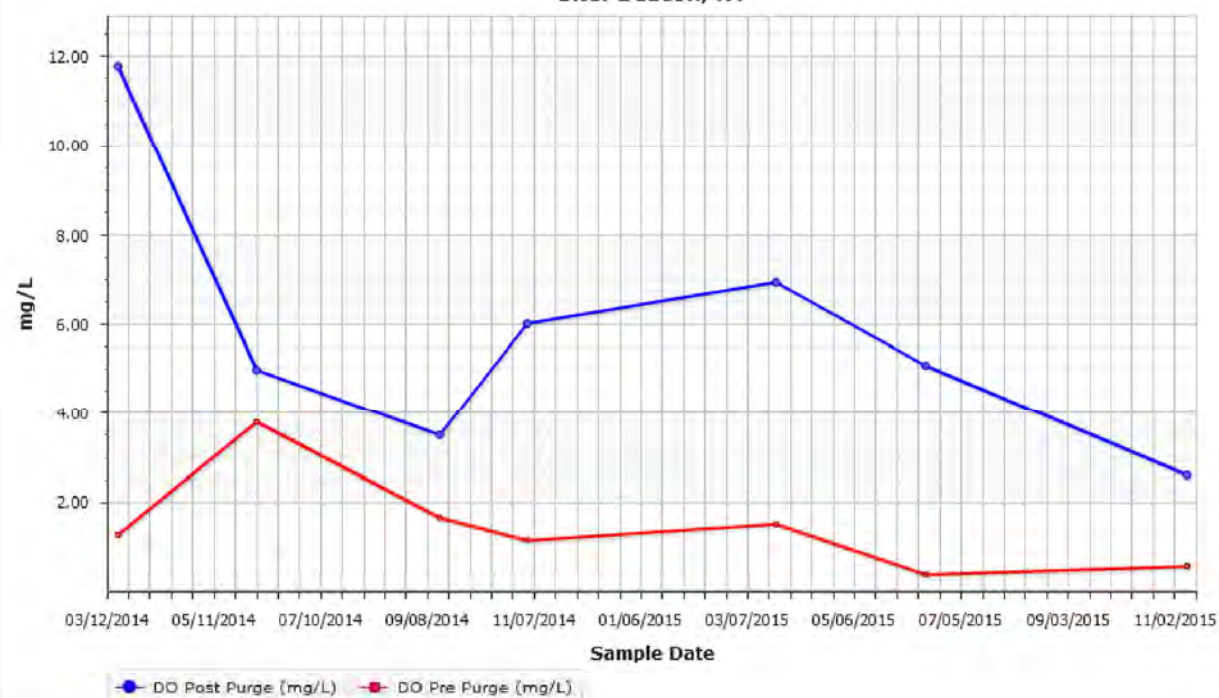
Site: Beacon, NY



2014 THROUGH 2015 DO BEDROCK WELLS SUMMARY GRAPHS

ITMW-13 (Bedrock)

Site: Beacon, NY



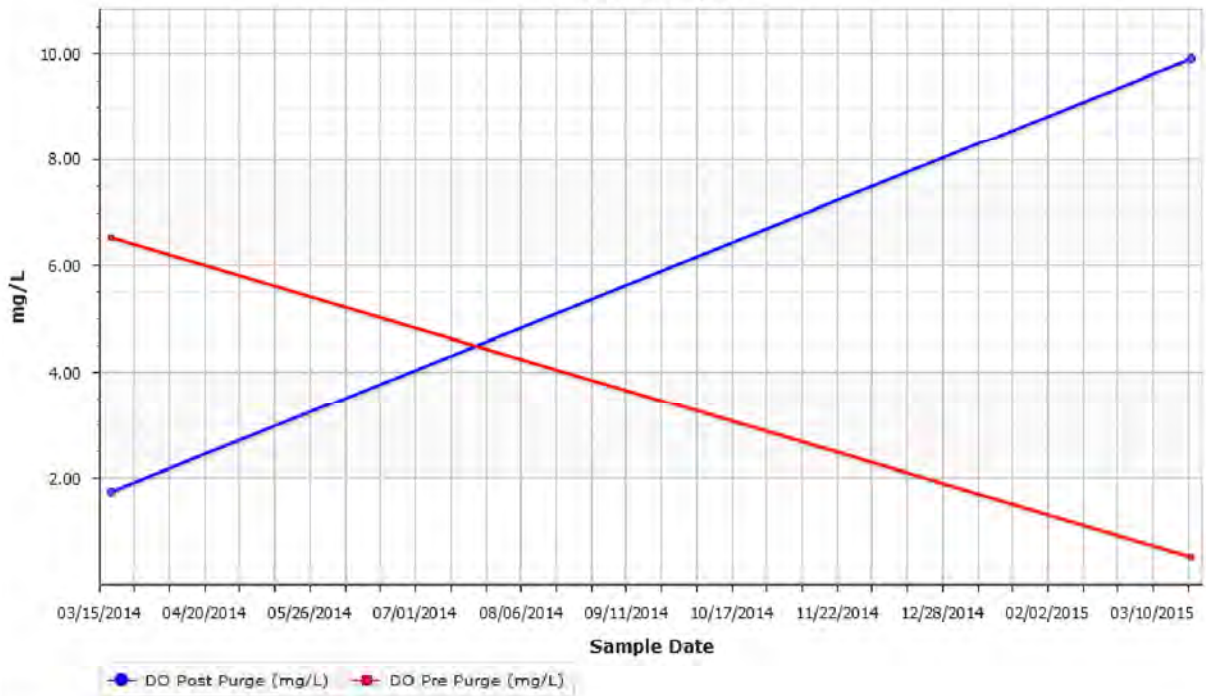
ITMW-30 (Bedrock)

Site: Beacon, NY



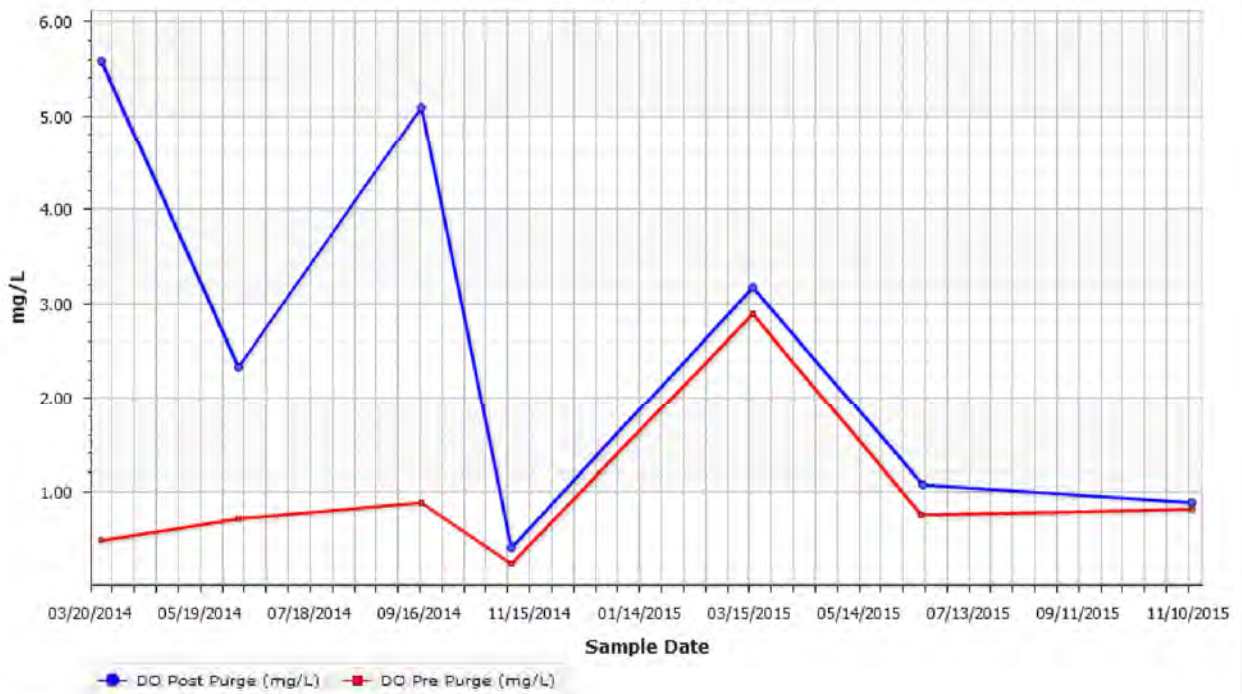
ITMW-31 (Bedrock)

Site: Beacon, NY



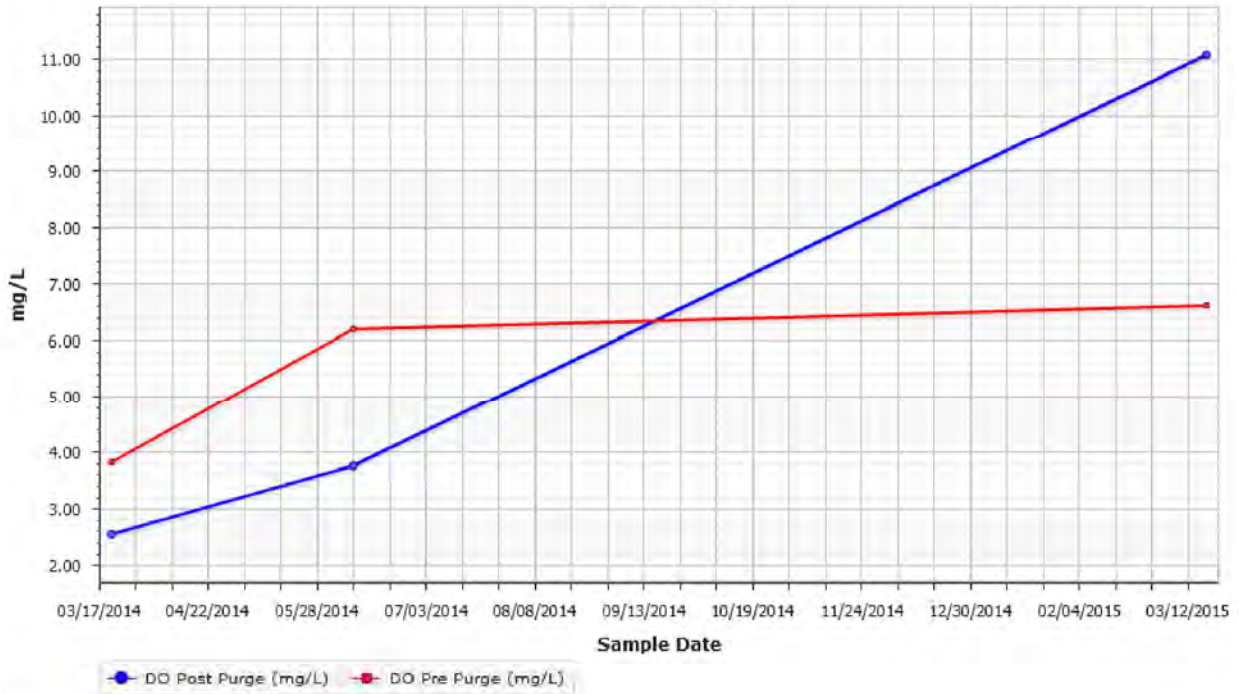
ITMW-6 (Bedrock)

Site: Beacon, NY



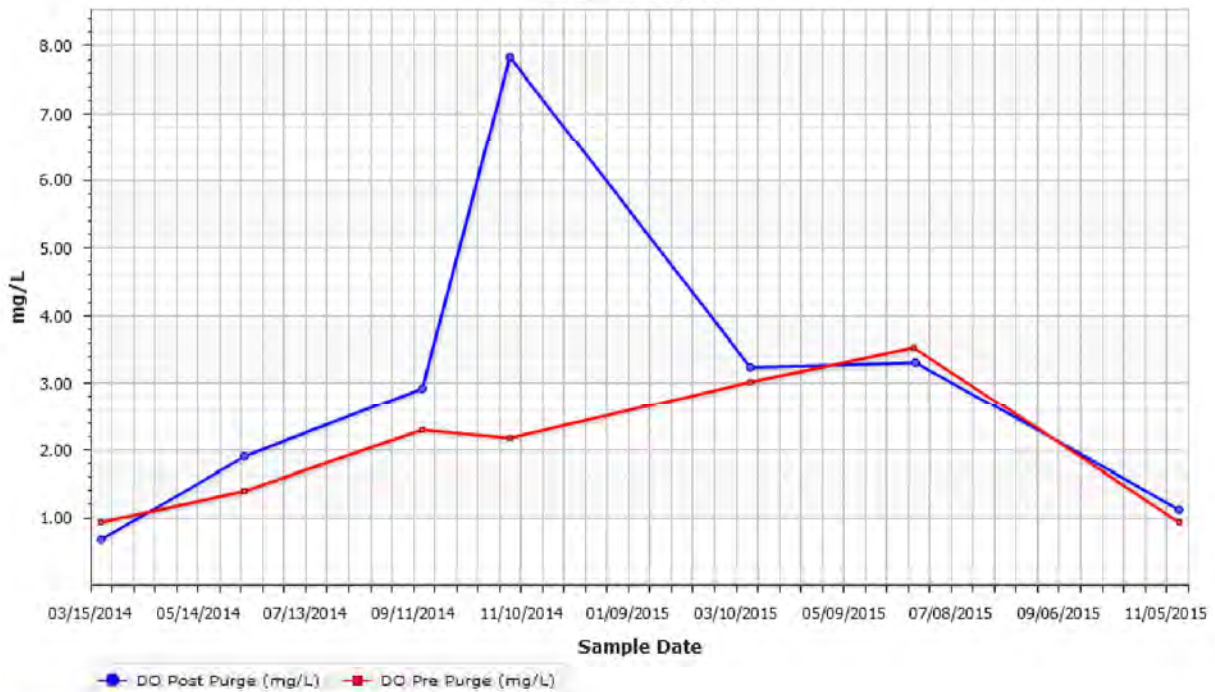
SWMW-103 (Bedrock)

Site: Beacon, NY



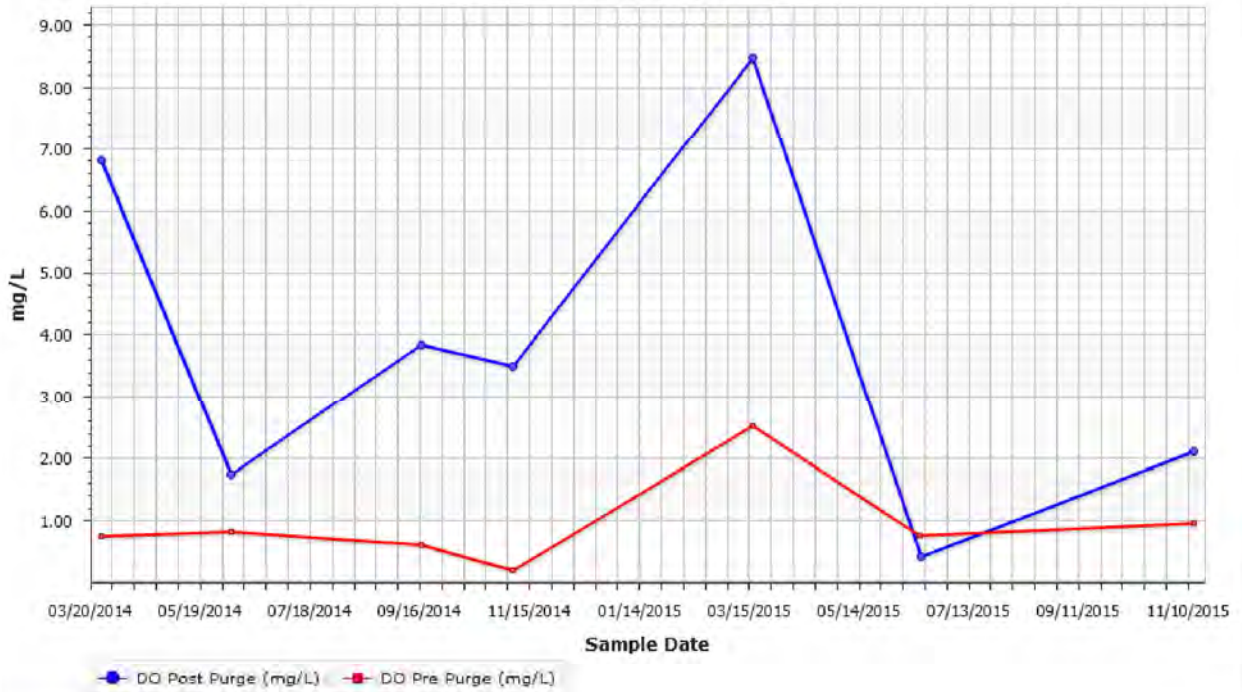
SWMW-111 (Bedrock)

Site: Beacon, NY



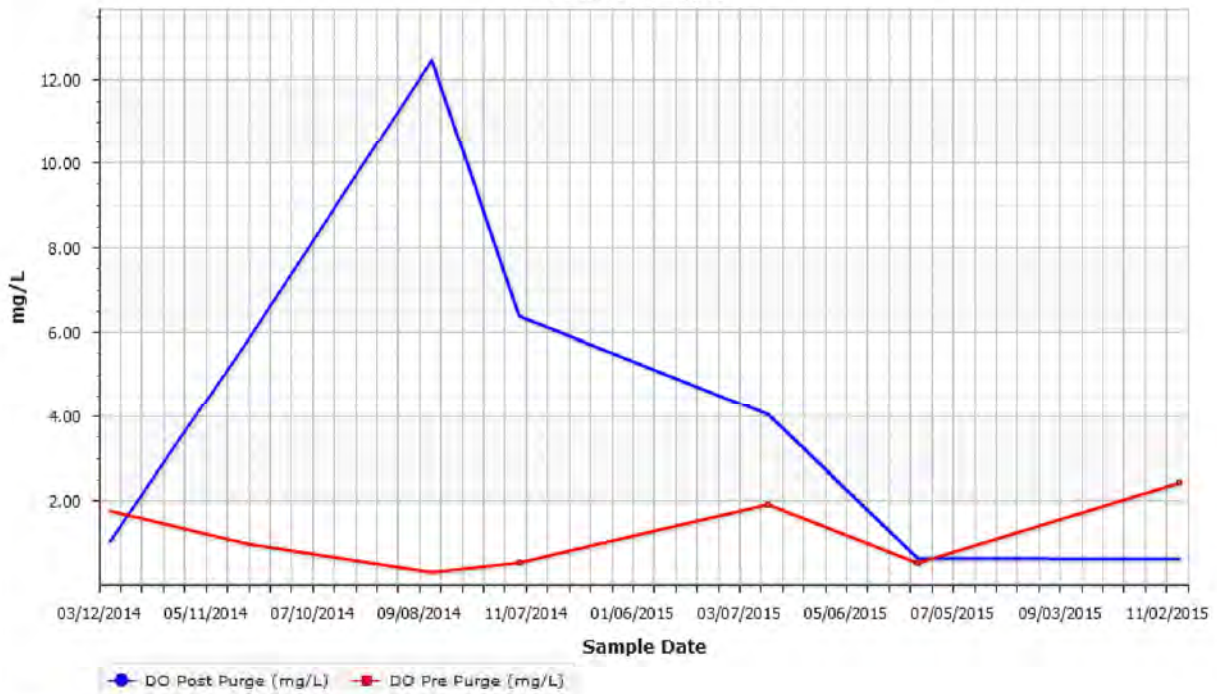
SWMW-112 (Bedrock)

Site: Beacon, NY



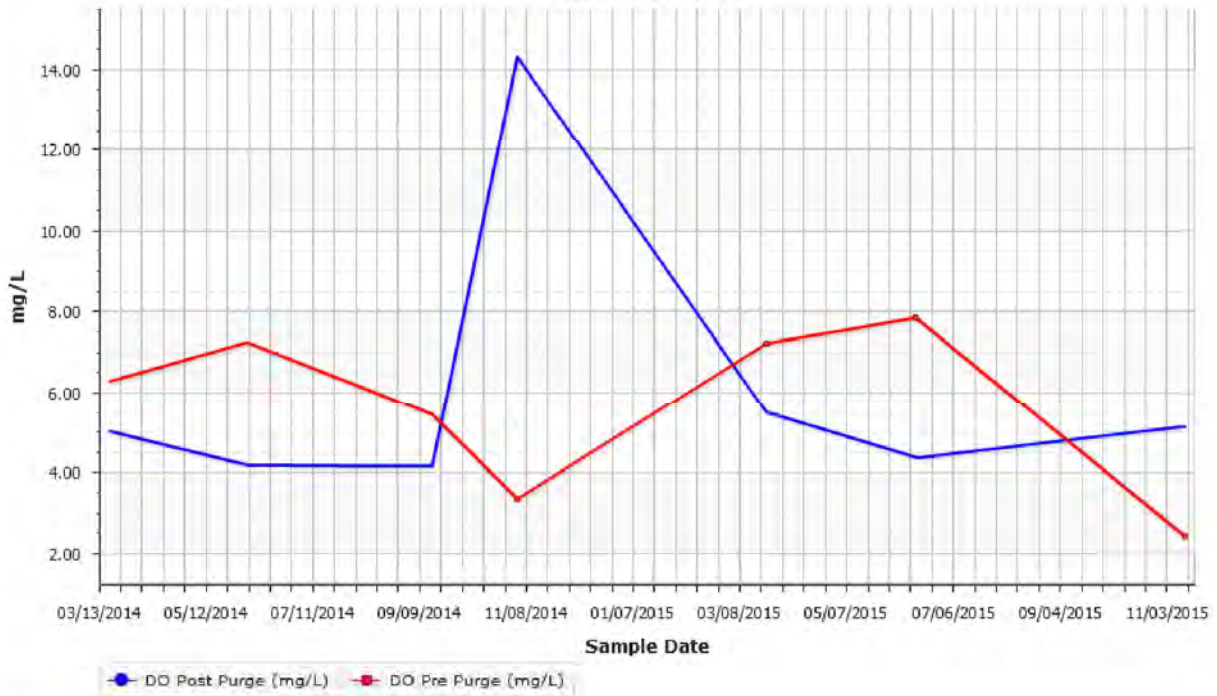
SWMW-114 (Bedrock)

Site: Beacon, NY



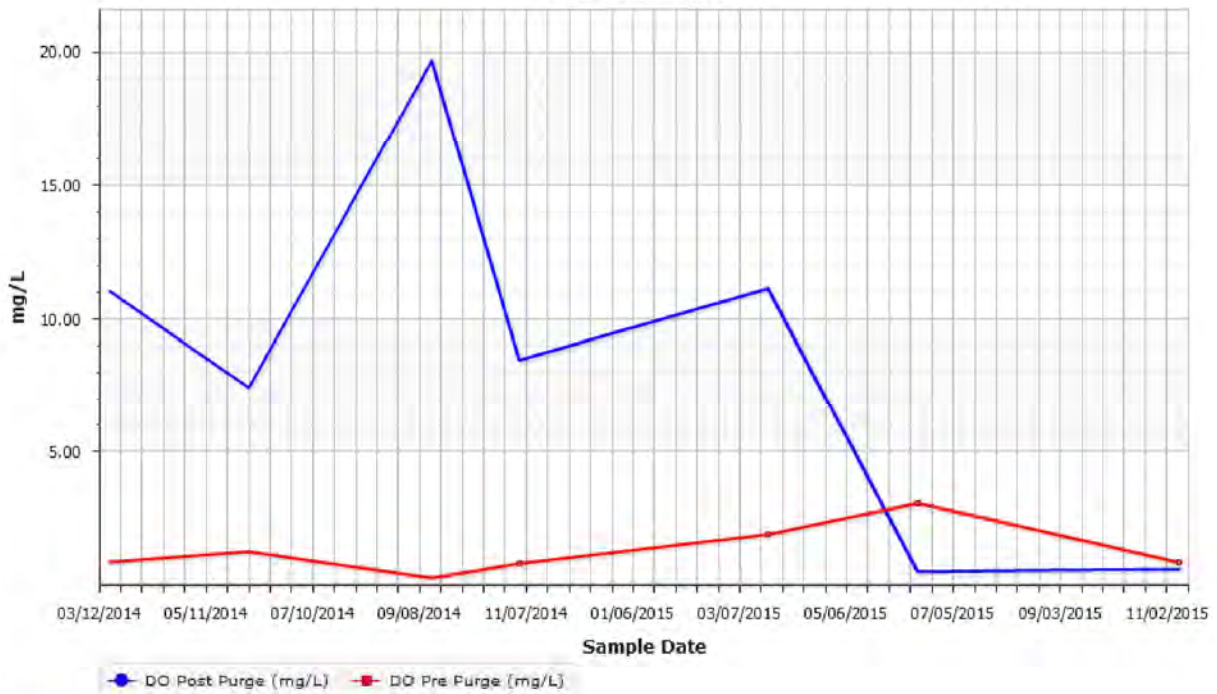
SWMW-123 (Bedrock)

Site: Beacon, NY



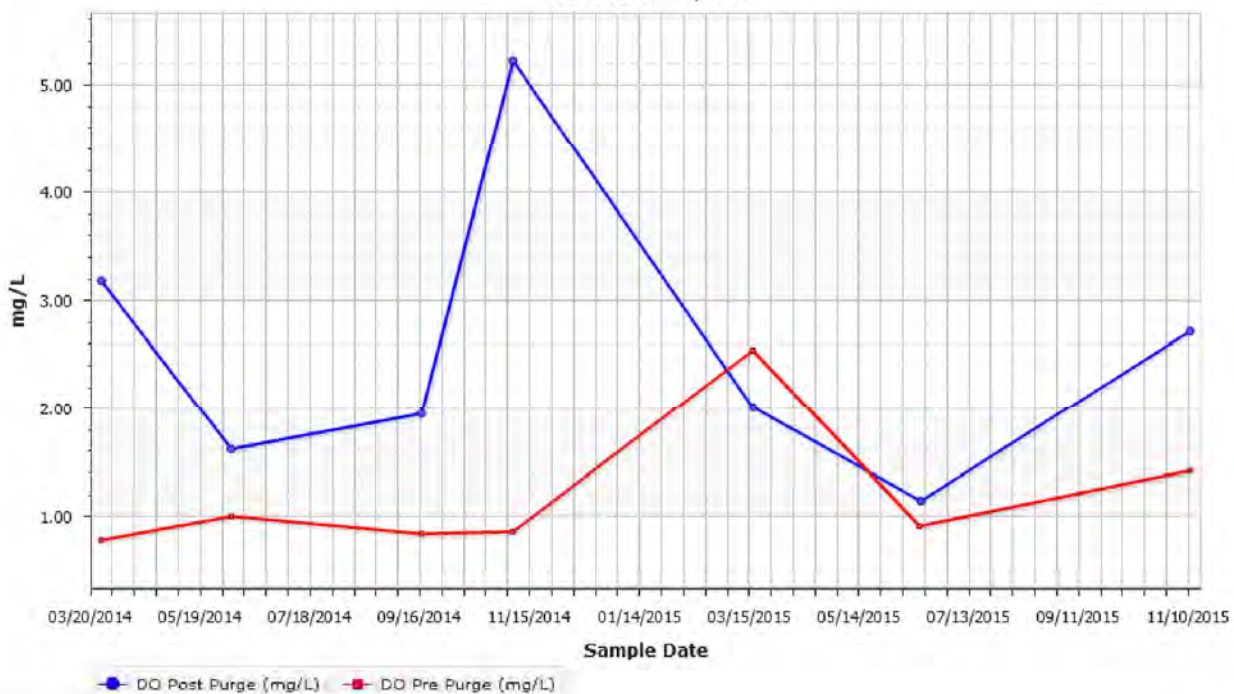
SWMW-125 (Bedrock)

Site: Beacon, NY



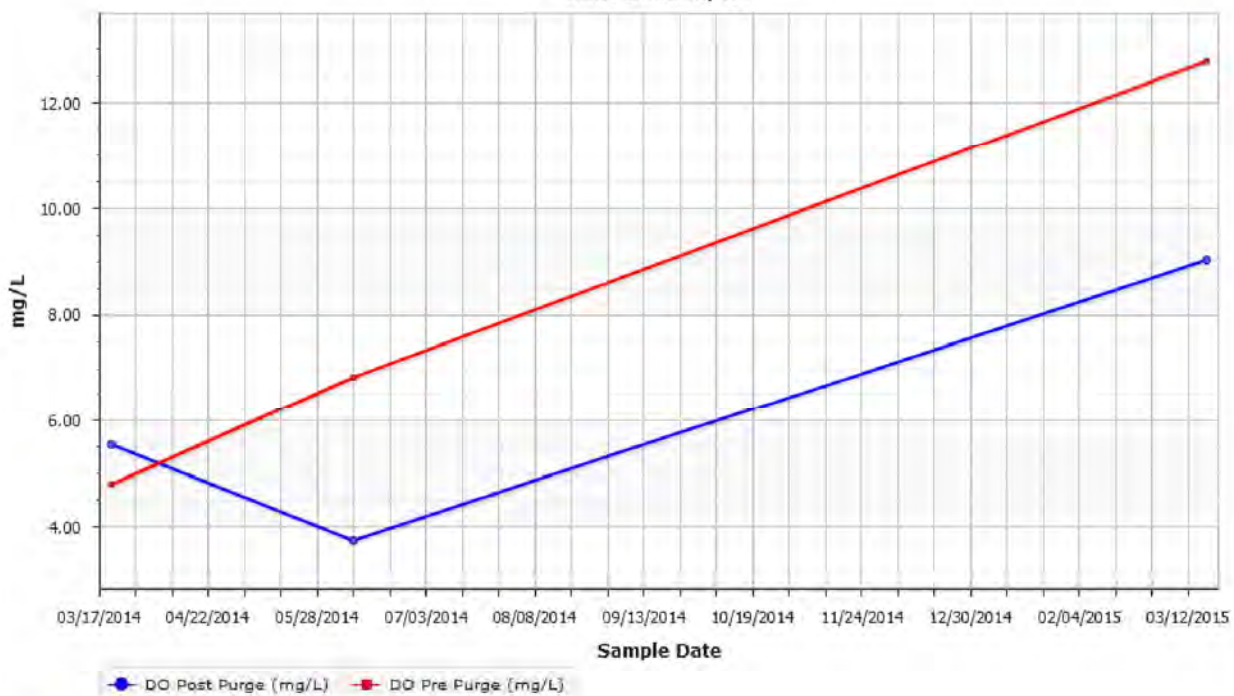
SWMW-126 (Bedrock)

Site: Beacon, NY



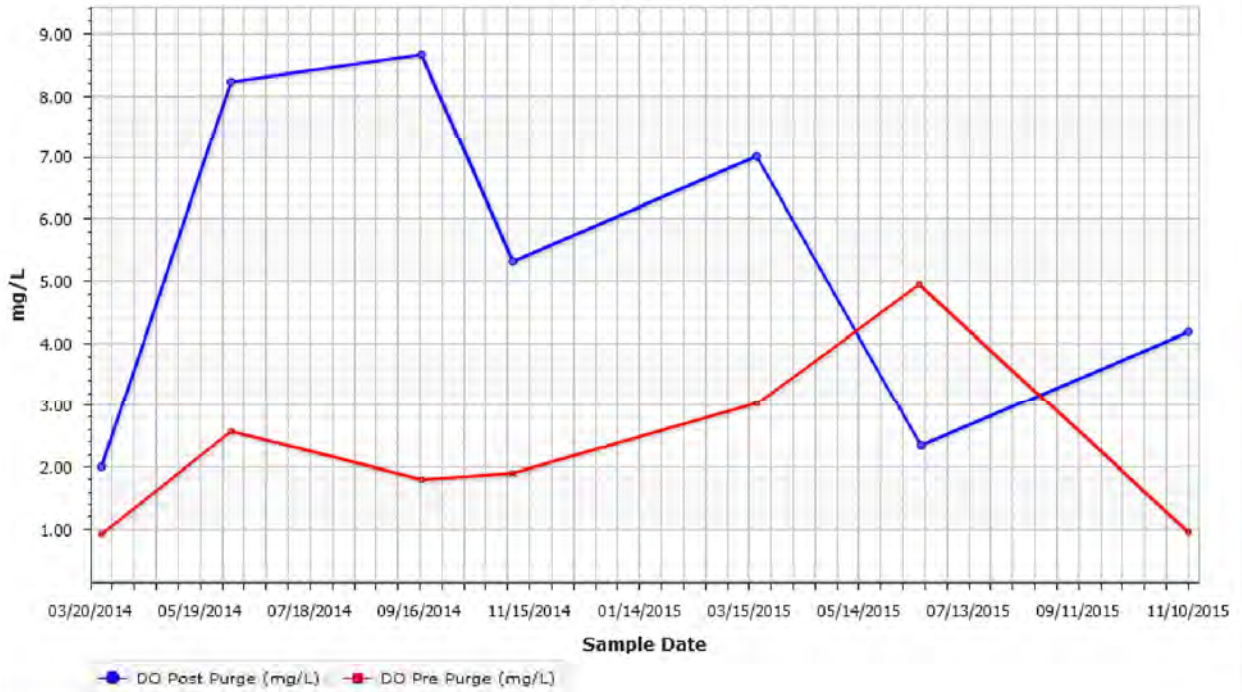
SWMW-13 (Bedrock)

Site: Beacon, NY



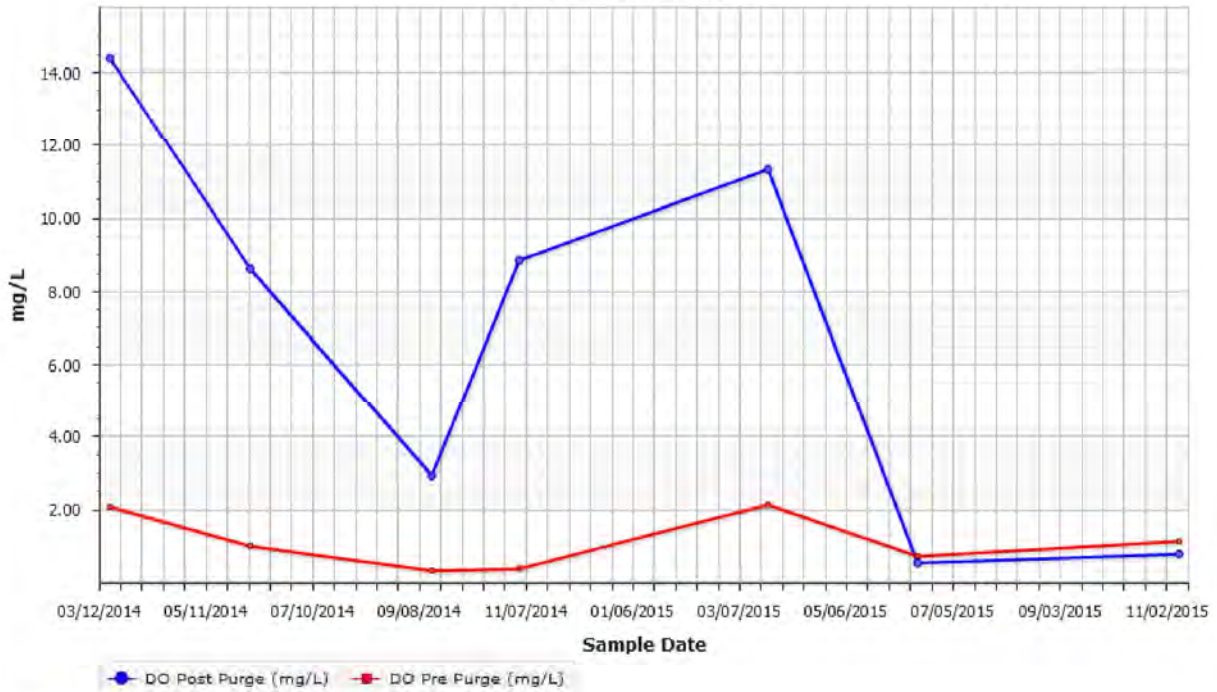
SWMW-14 (Bedrock)

Site: Beacon, NY



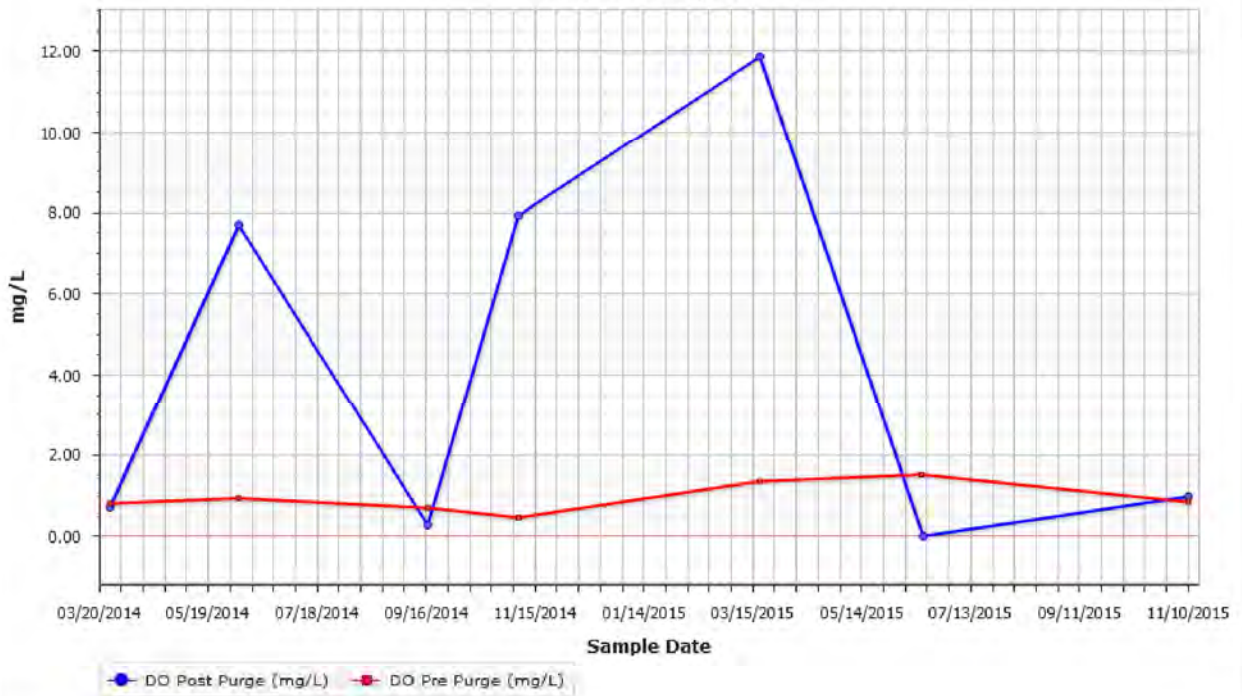
SWMW-2 (Bedrock)

Site: Beacon, NY



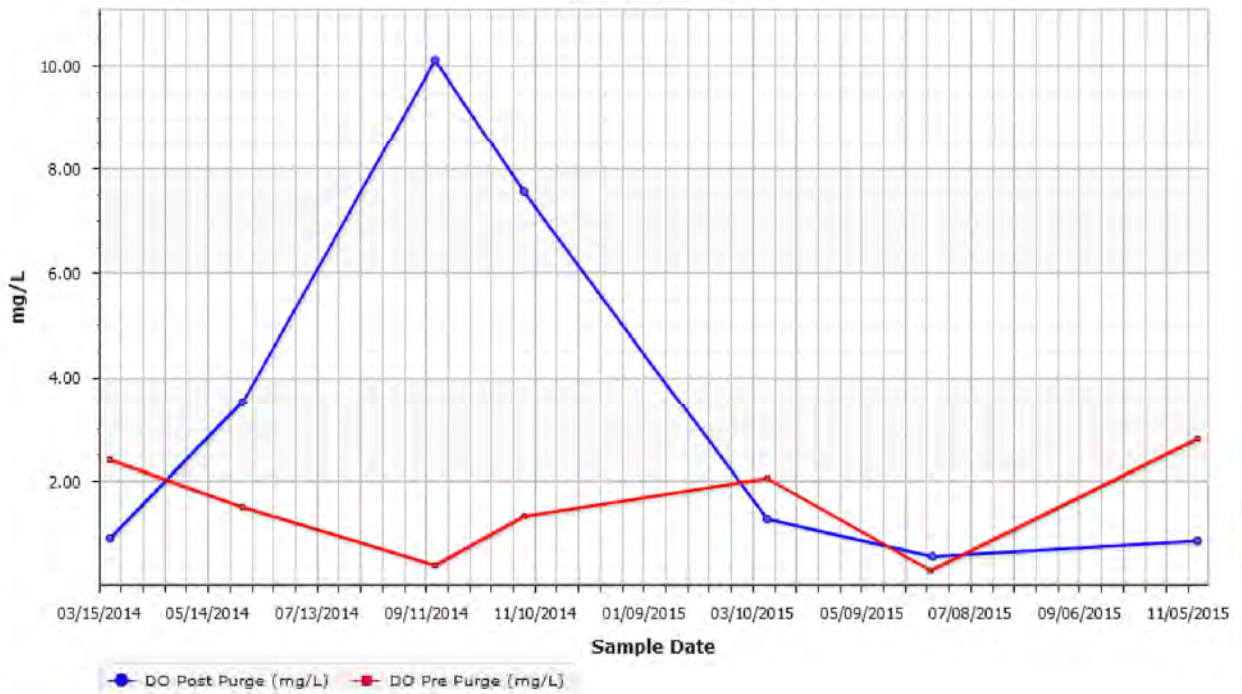
SWMW-41 (Bedrock)

Site: Beacon, NY



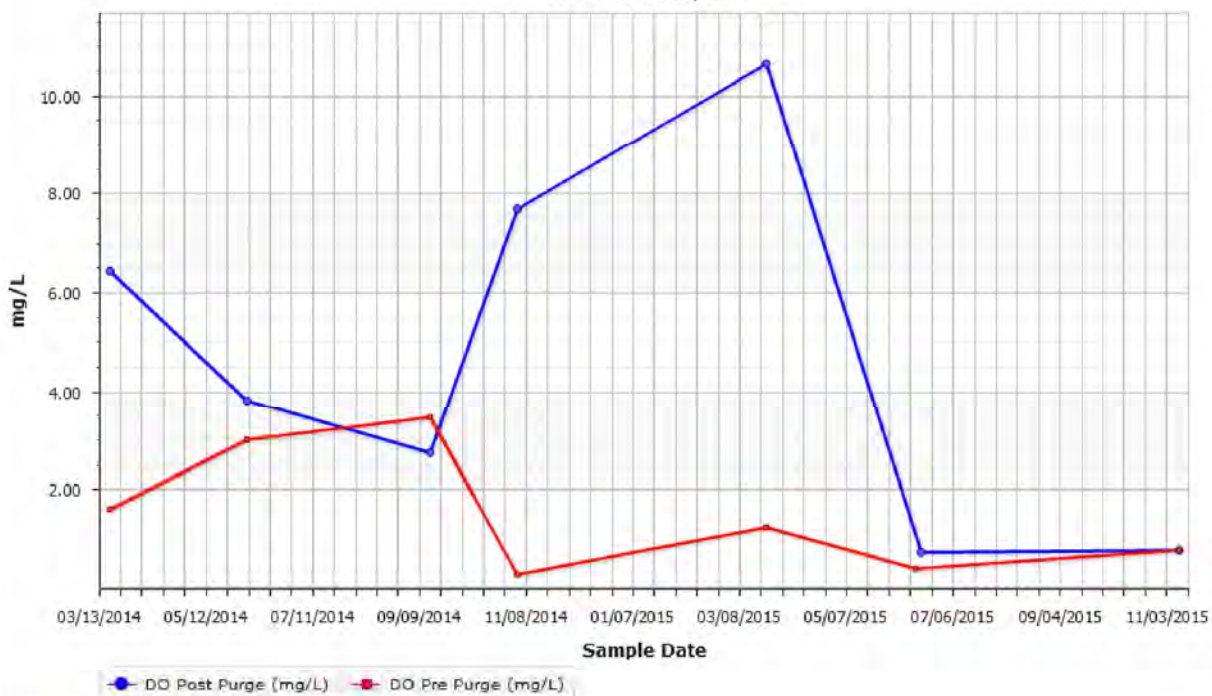
SWMW-44 (Bedrock)

Site: Beacon, NY



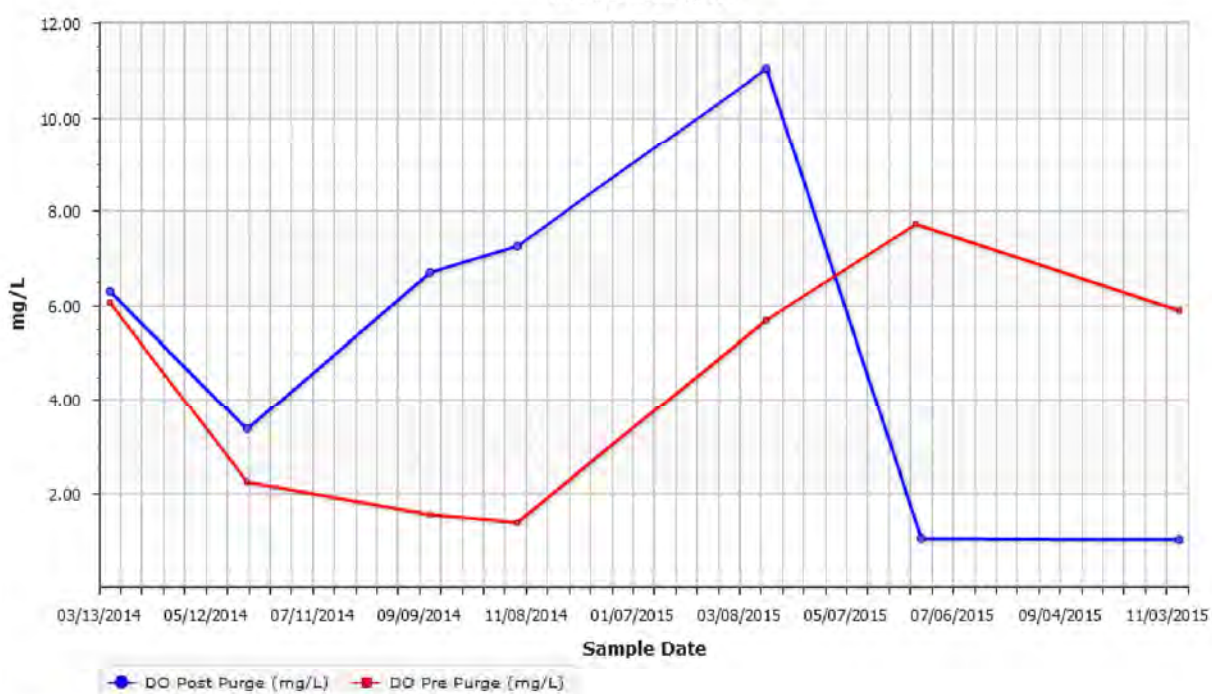
SWMW-45 (Bedrock)

Site: Beacon, NY



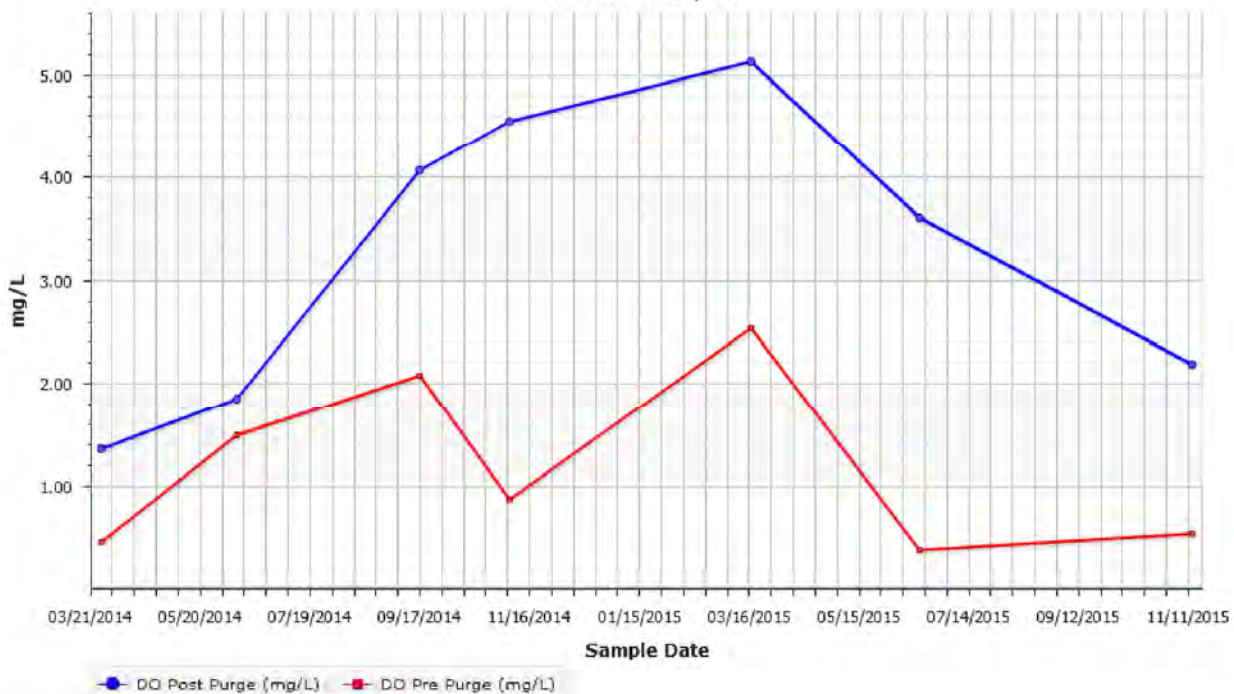
SWMW-55 (Bedrock)

Site: Beacon, NY



SWMW-56 (Bedrock)

Site: Beacon, NY



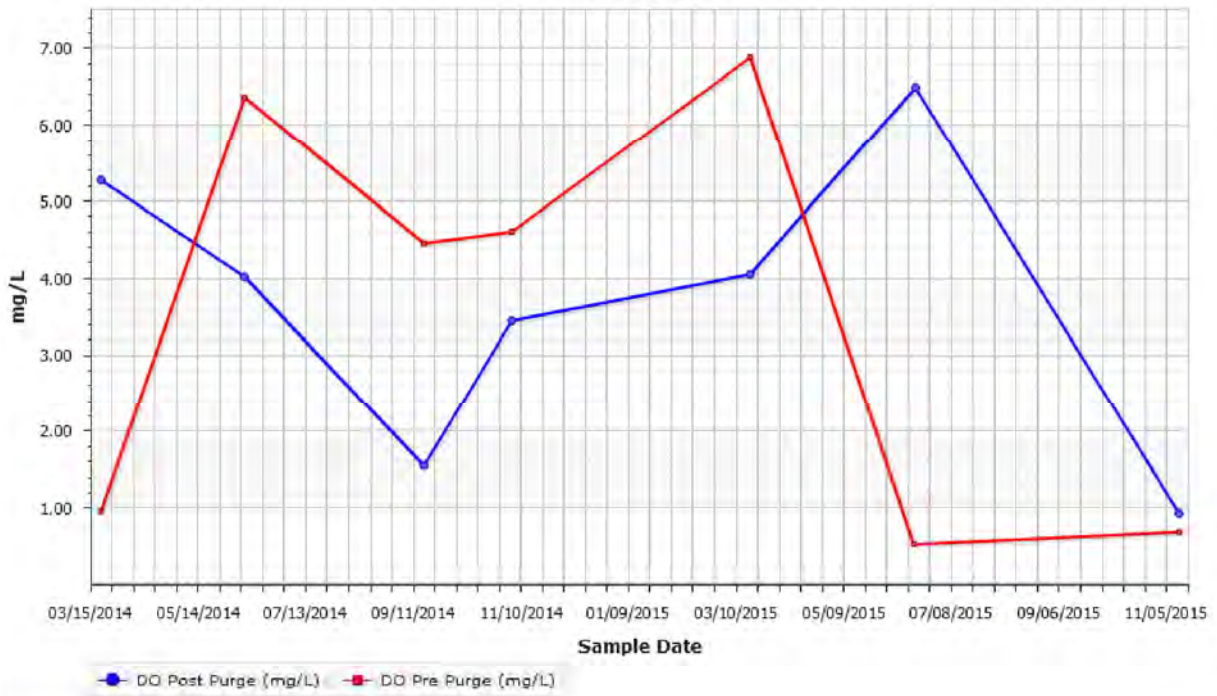
SWMW-66 (Bedrock)

Site: Beacon, NY



SWMW-68 (Bedrock)

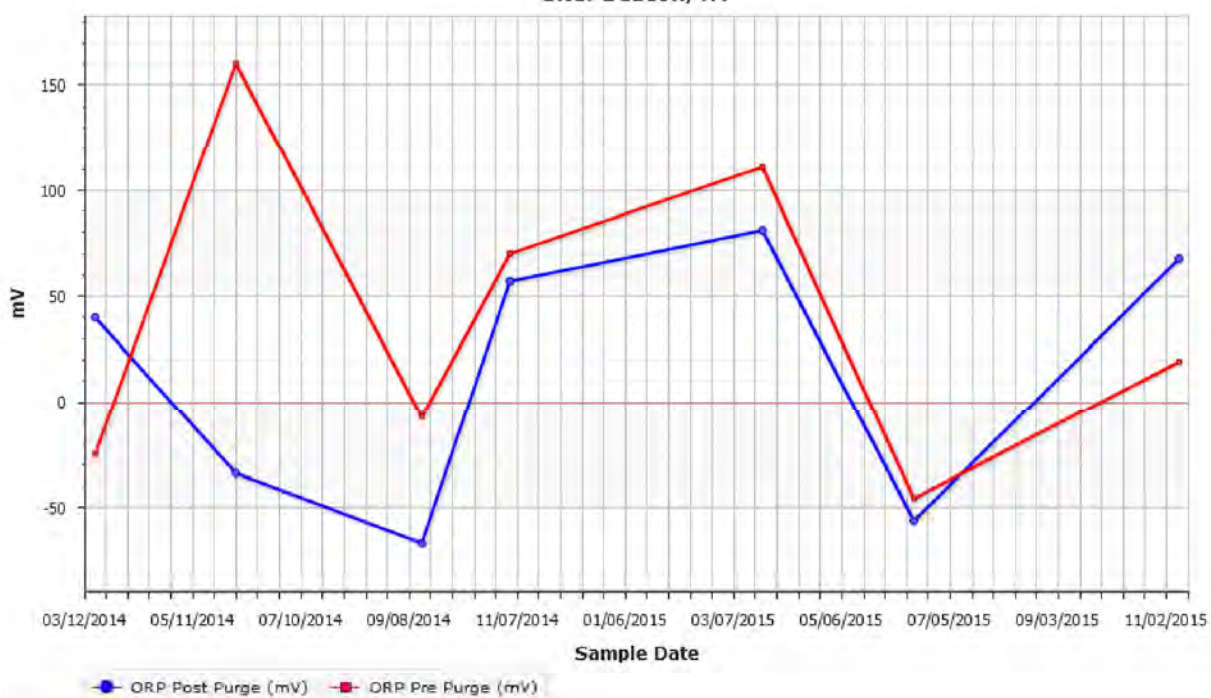
Site: Beacon, NY



2014 THROUGH 2015 ORP BEDROCK WELLS SUMMARY GRAPHS

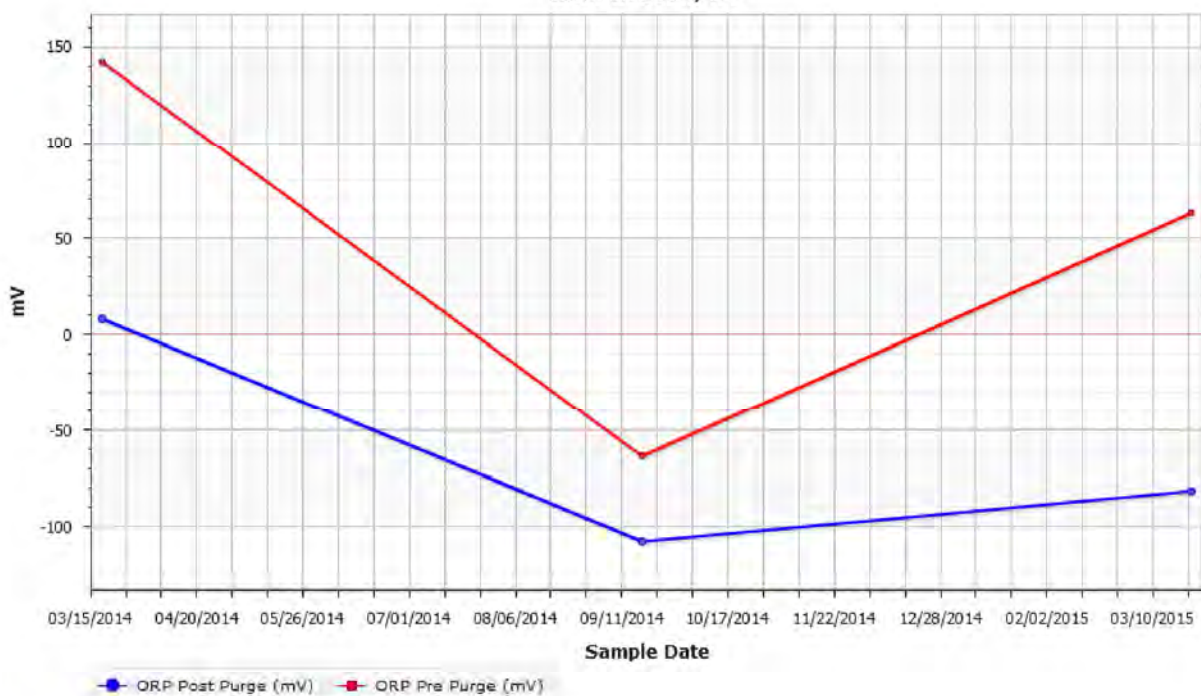
ITMW-13 (Bedrock)

Site: Beacon, NY



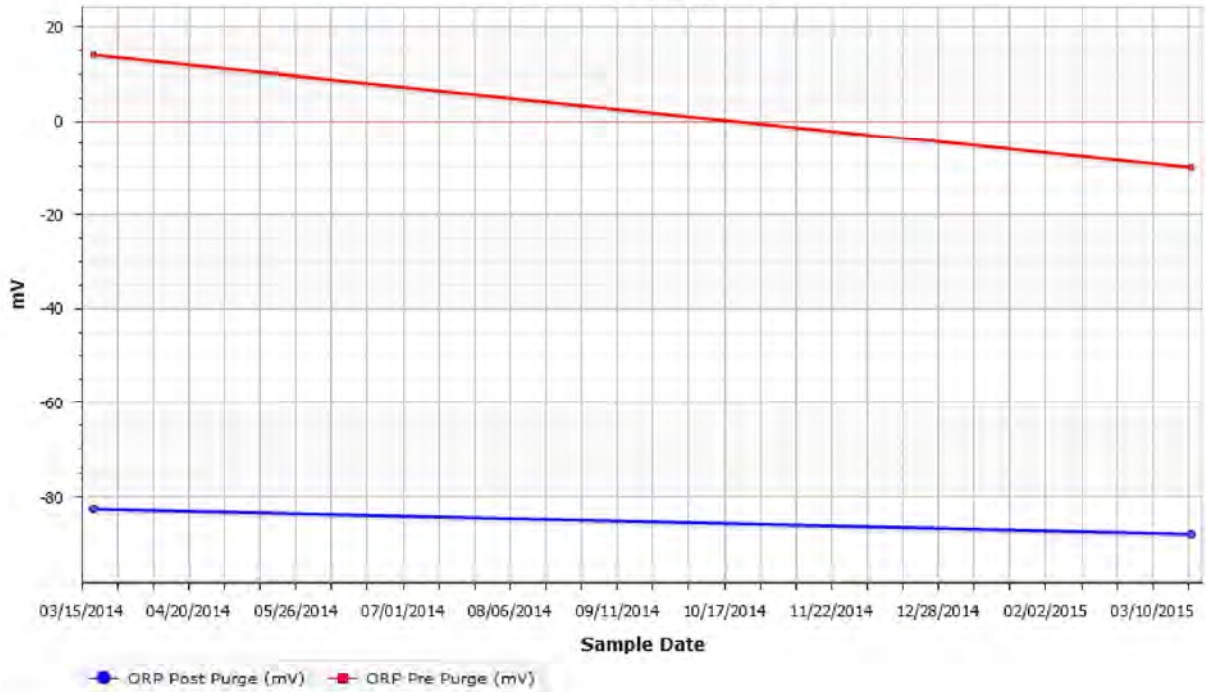
ITMW-30 (Bedrock)

Site: Beacon, NY



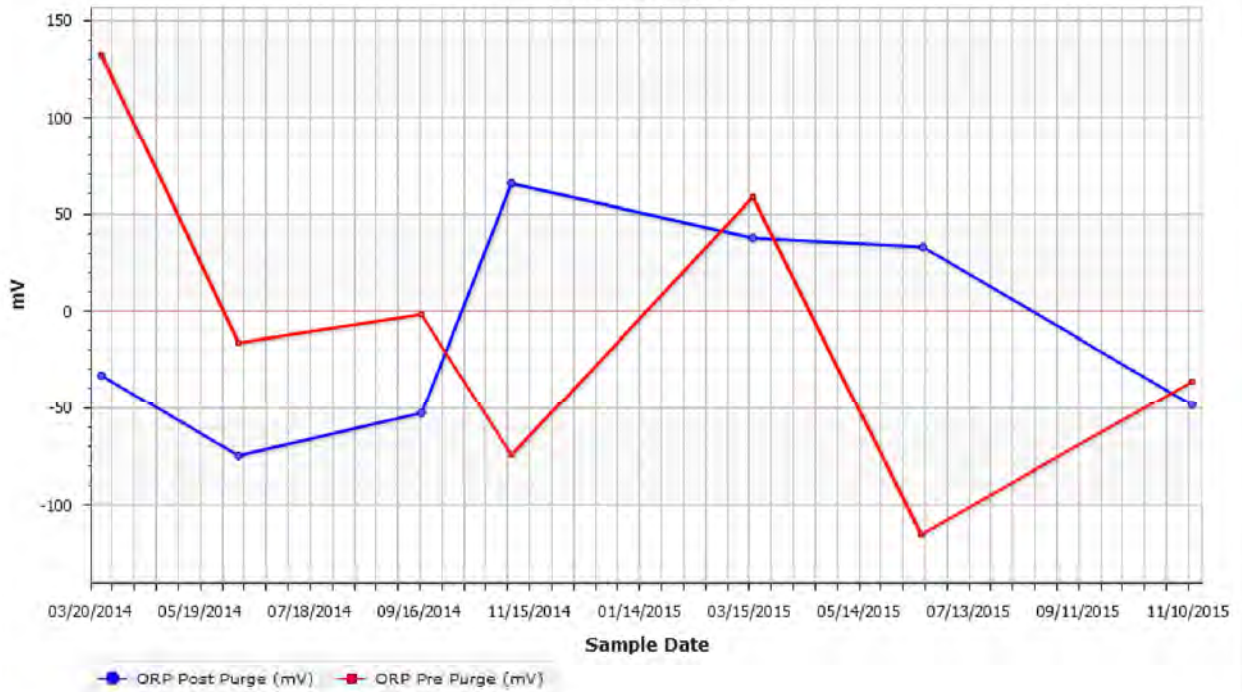
ITMW-31 (Bedrock)

Site: Beacon, NY



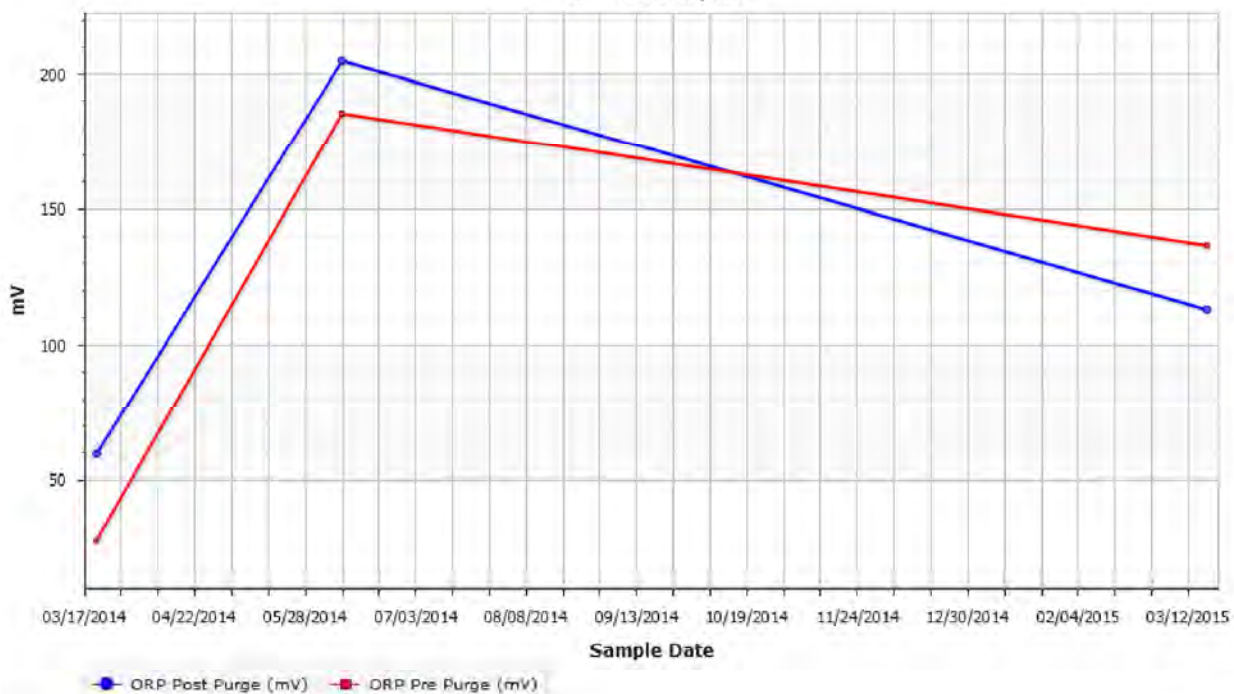
ITMW-6 (Bedrock)

Site: Beacon, NY



SWMW-103 (Bedrock)

Site: Beacon, NY



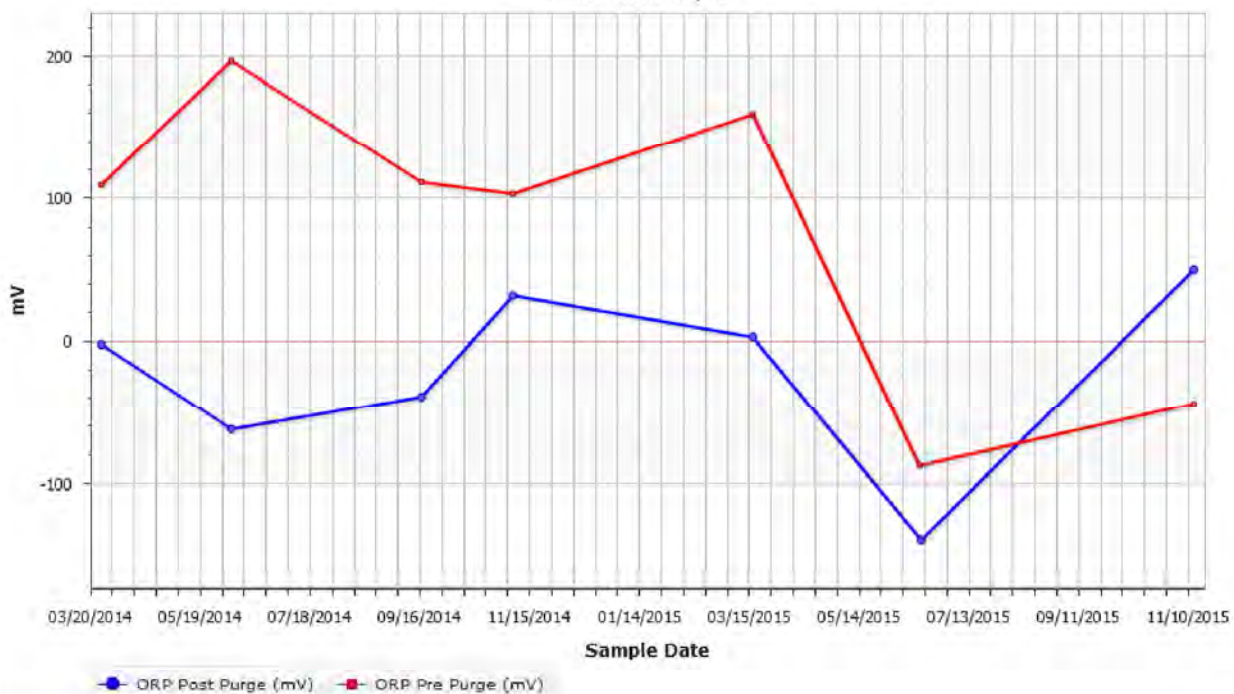
SWMW-111 (Bedrock)

Site: Beacon, NY



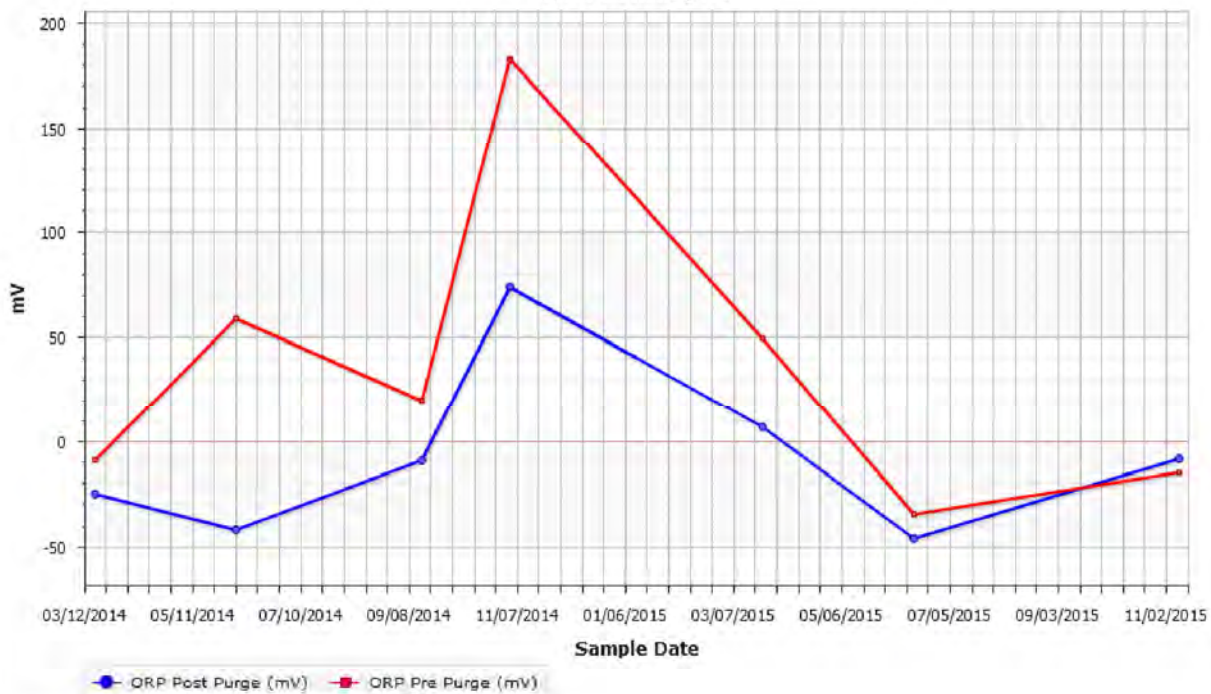
SWMW-112 (Bedrock)

Site: Beacon, NY



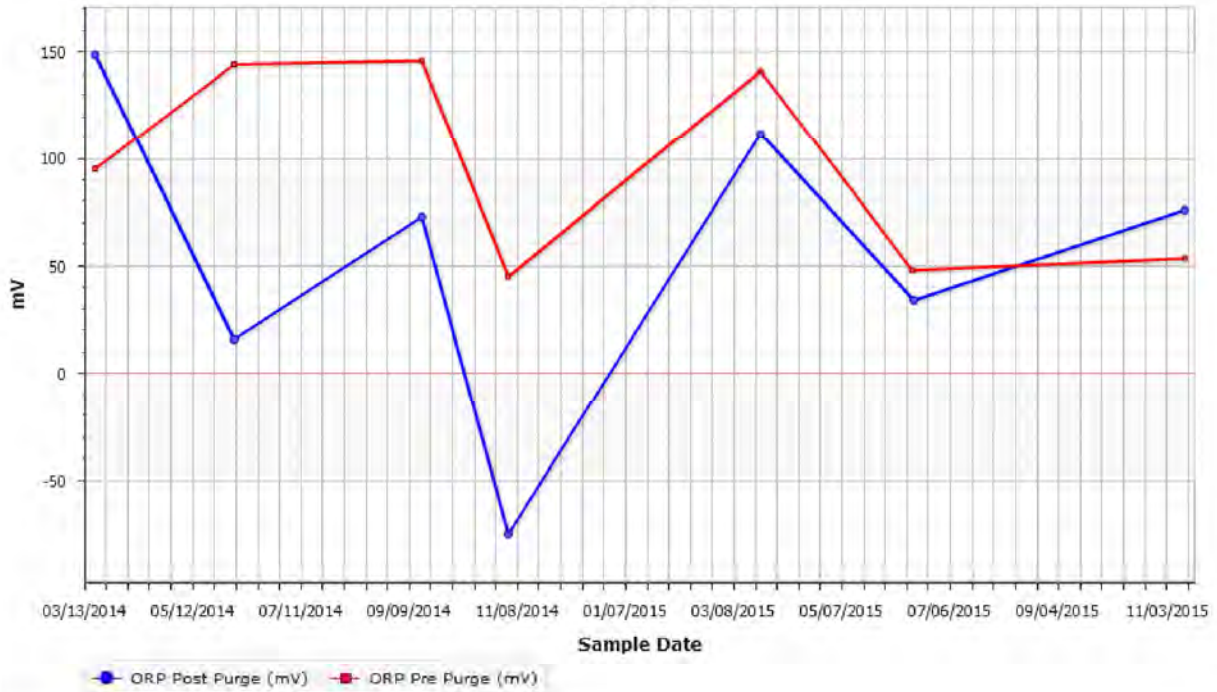
SWMW-114 (Bedrock)

Site: Beacon, NY



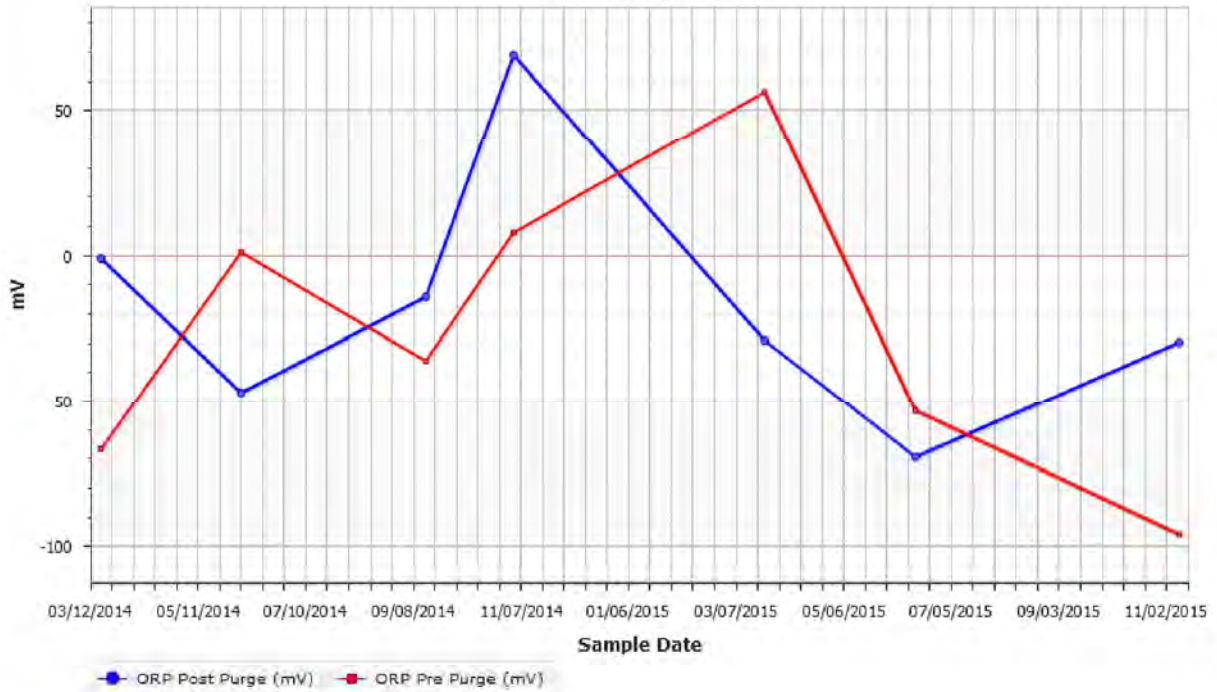
SWMW-123 (Bedrock)

Site: Beacon, NY



SWMW-125 (Bedrock)

Site: Beacon, NY



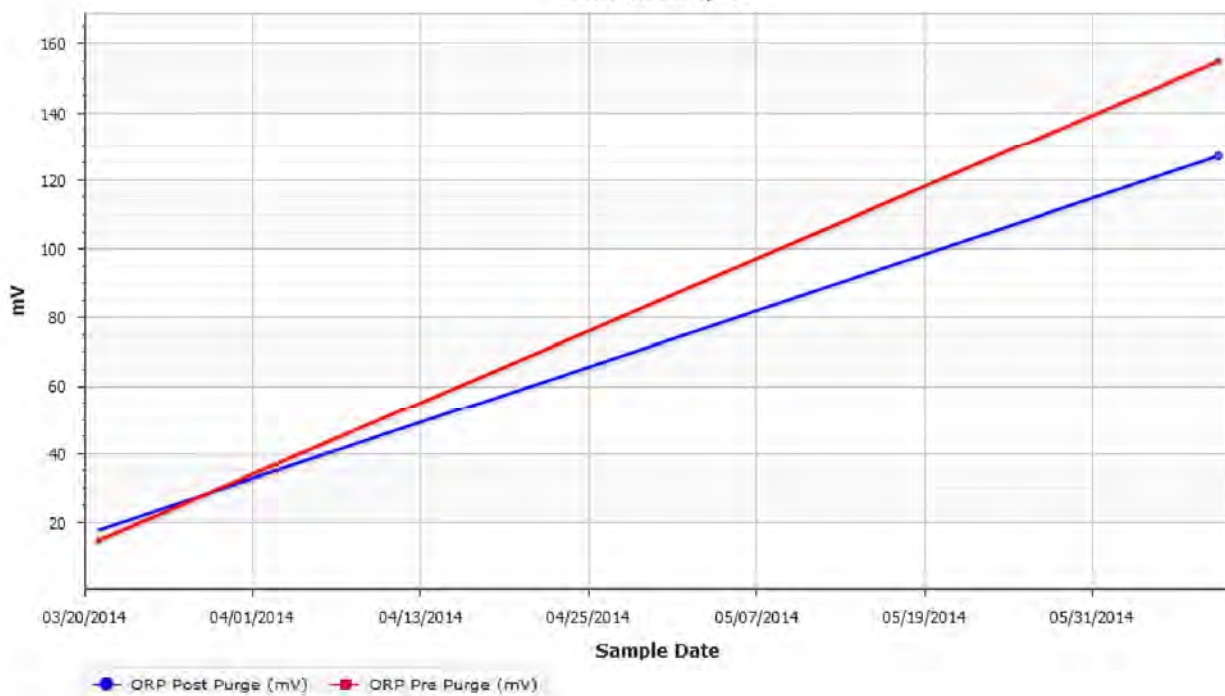
SWMW-126 (Bedrock)

Site: Beacon, NY



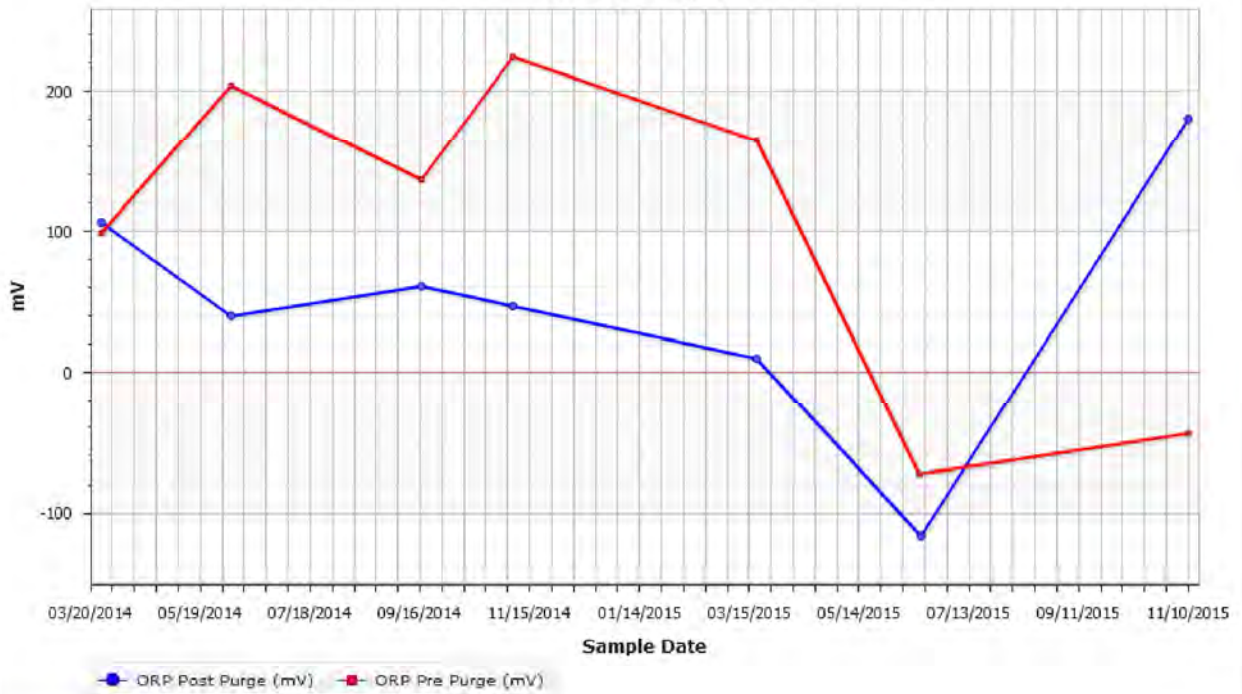
SWMW-13 (Bedrock)

Site: Beacon, NY



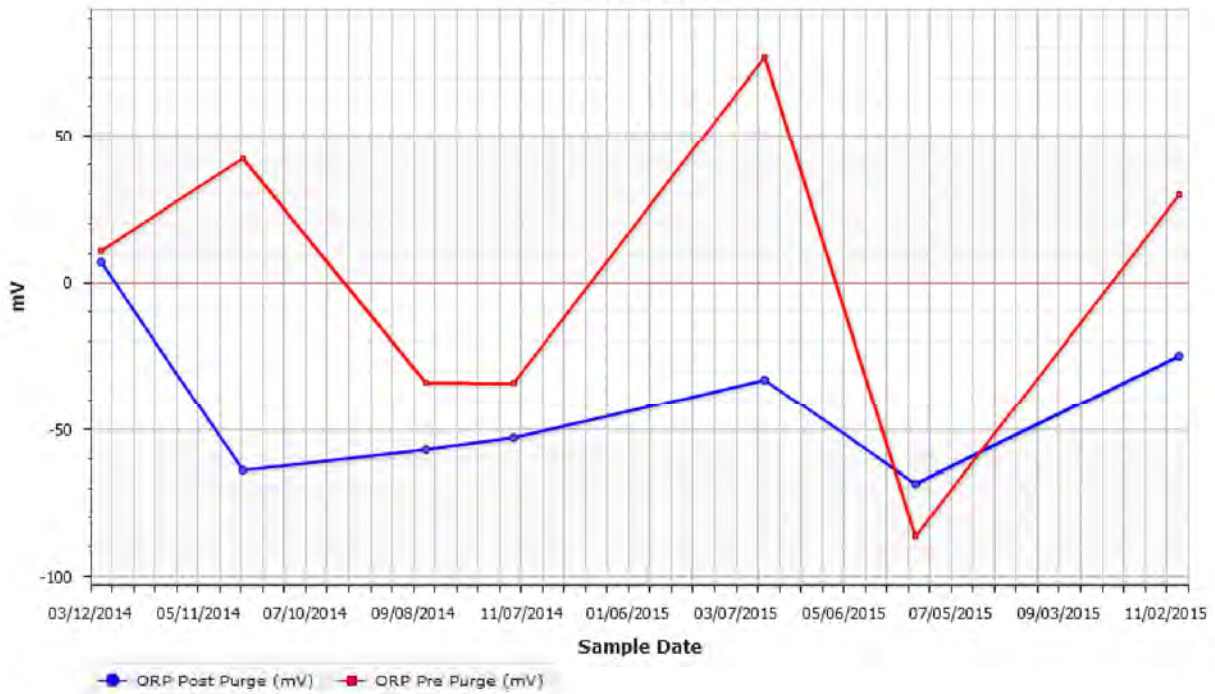
SWMW-14 (Bedrock)

Site: Beacon, NY



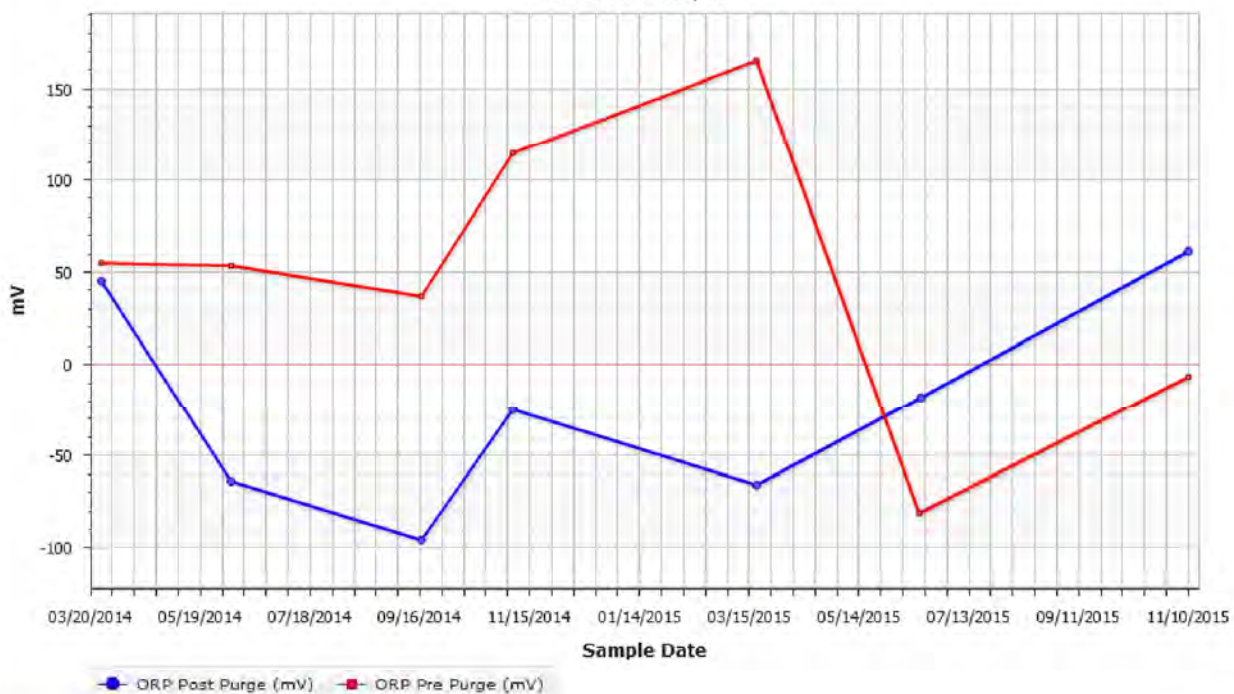
SWMW-2 (Bedrock)

Site: Beacon, NY



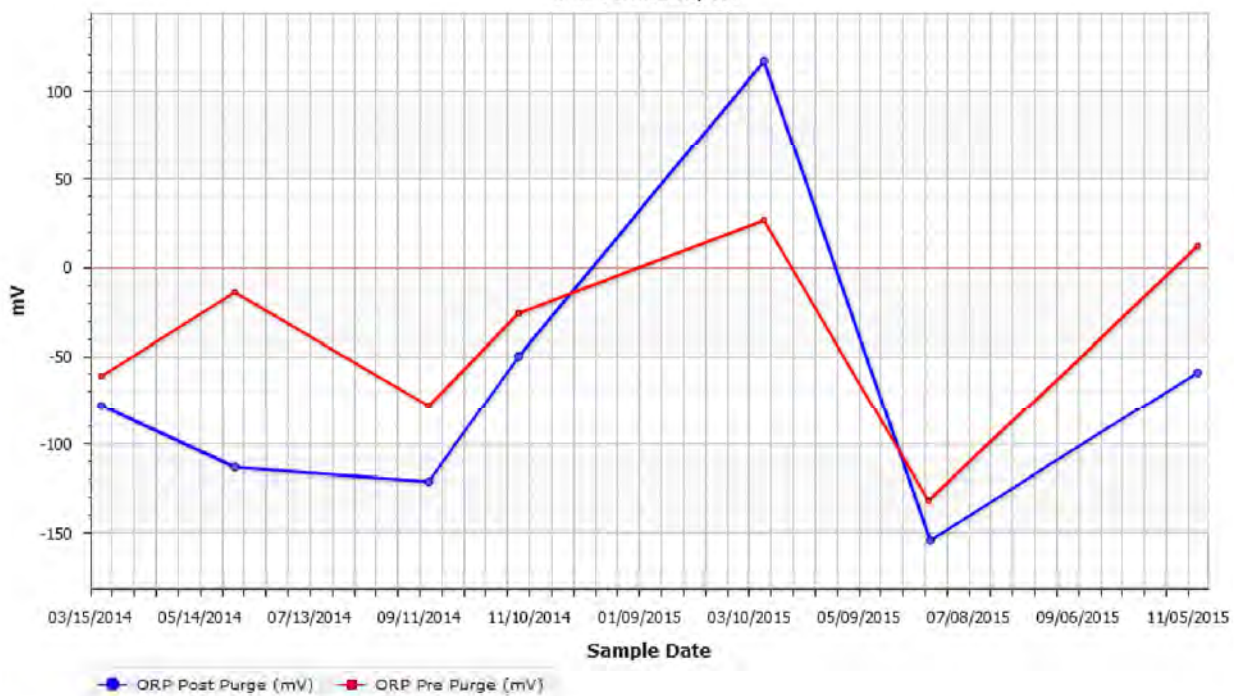
SWMW-41 (Bedrock)

Site: Beacon, NY



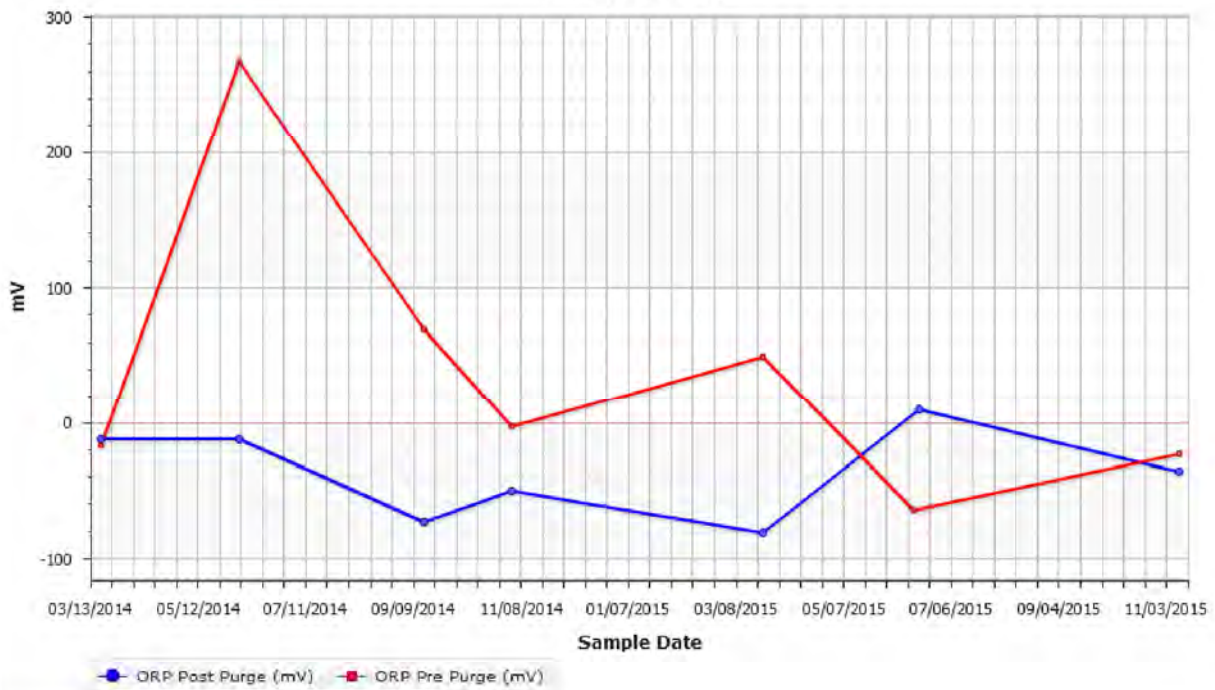
SWMW-44 (Bedrock)

Site: Beacon, NY



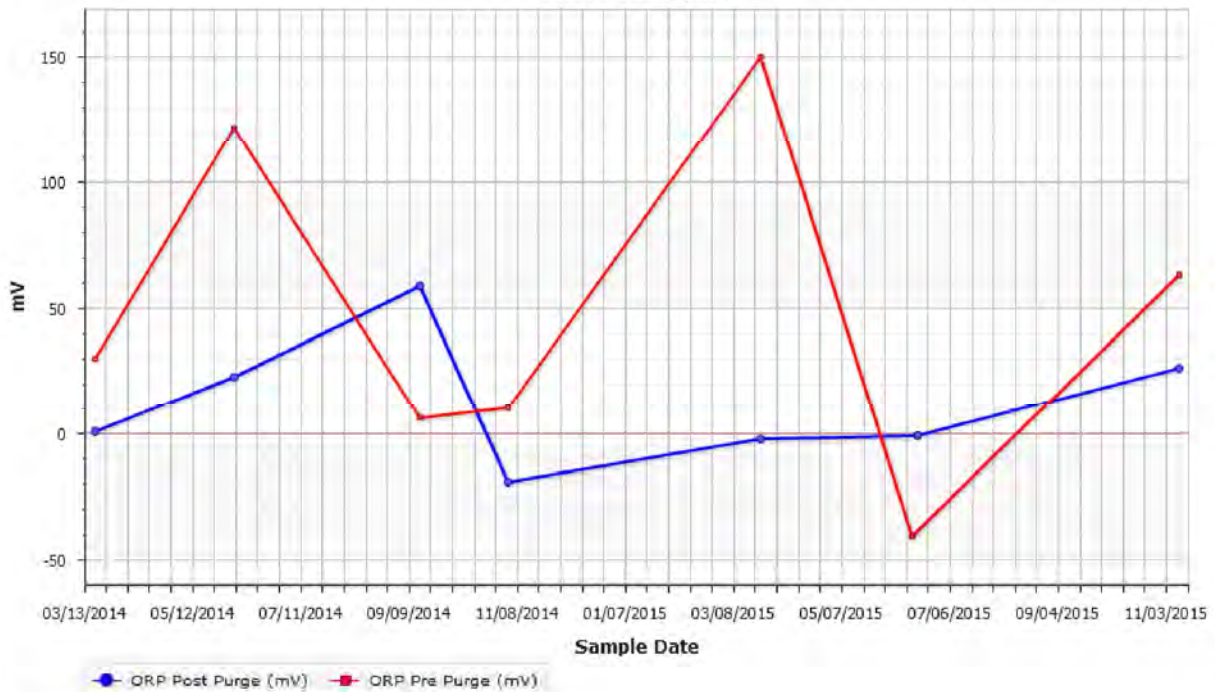
SWMW-45 (Bedrock)

Site: Beacon, NY



SWMW-55 (Bedrock)

Site: Beacon, NY



SWMW-56 (Bedrock)

Site: Beacon, NY



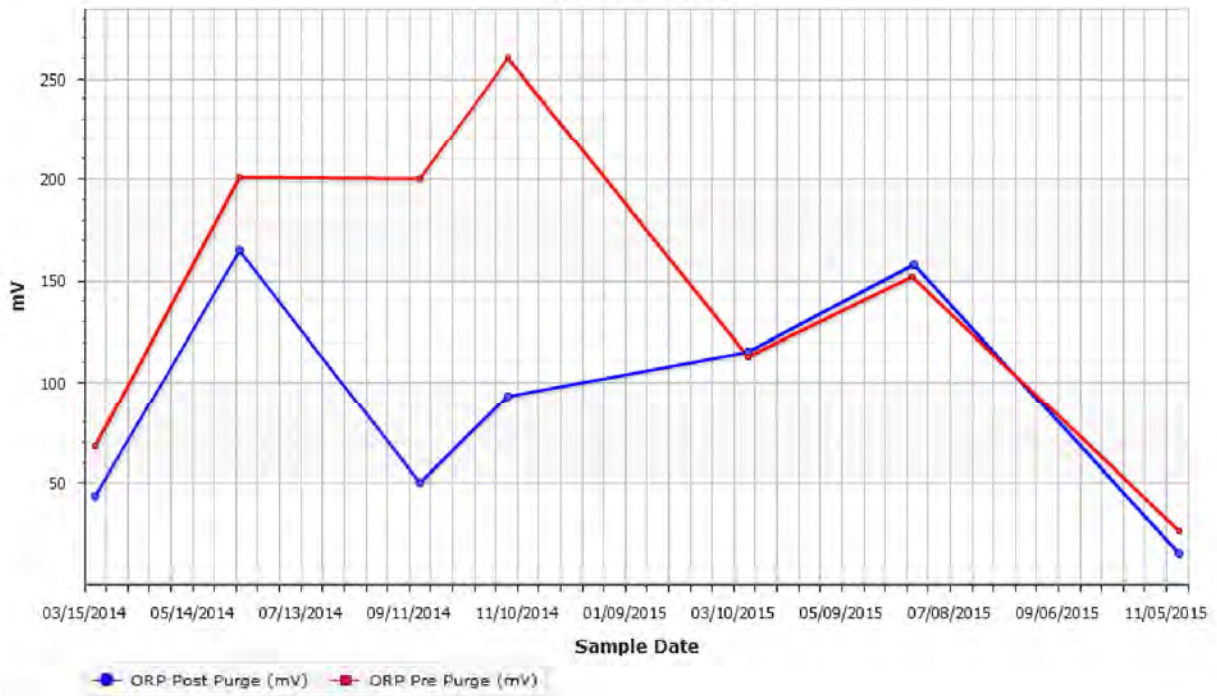
SWMW-66 (Bedrock)

Site: Beacon, NY



SWMW-68 (Bedrock)

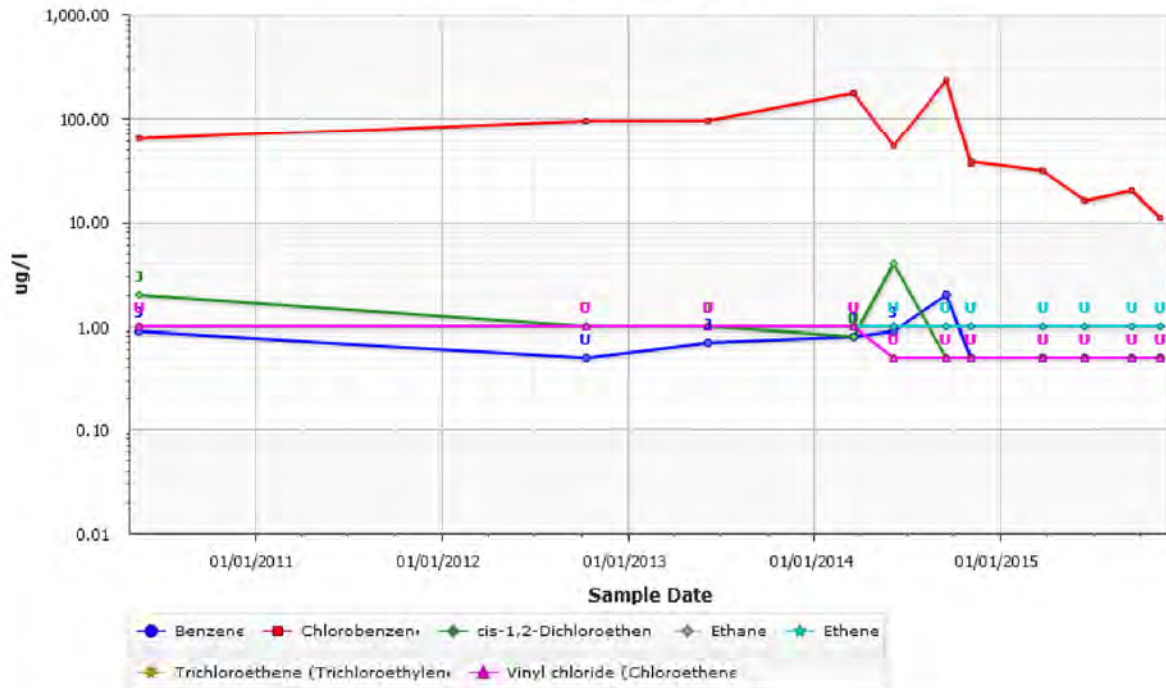
Site: Beacon, NY



2014 THROUGH 2015 VOC BEDROCK WELLS SUMMARY GRAPHS

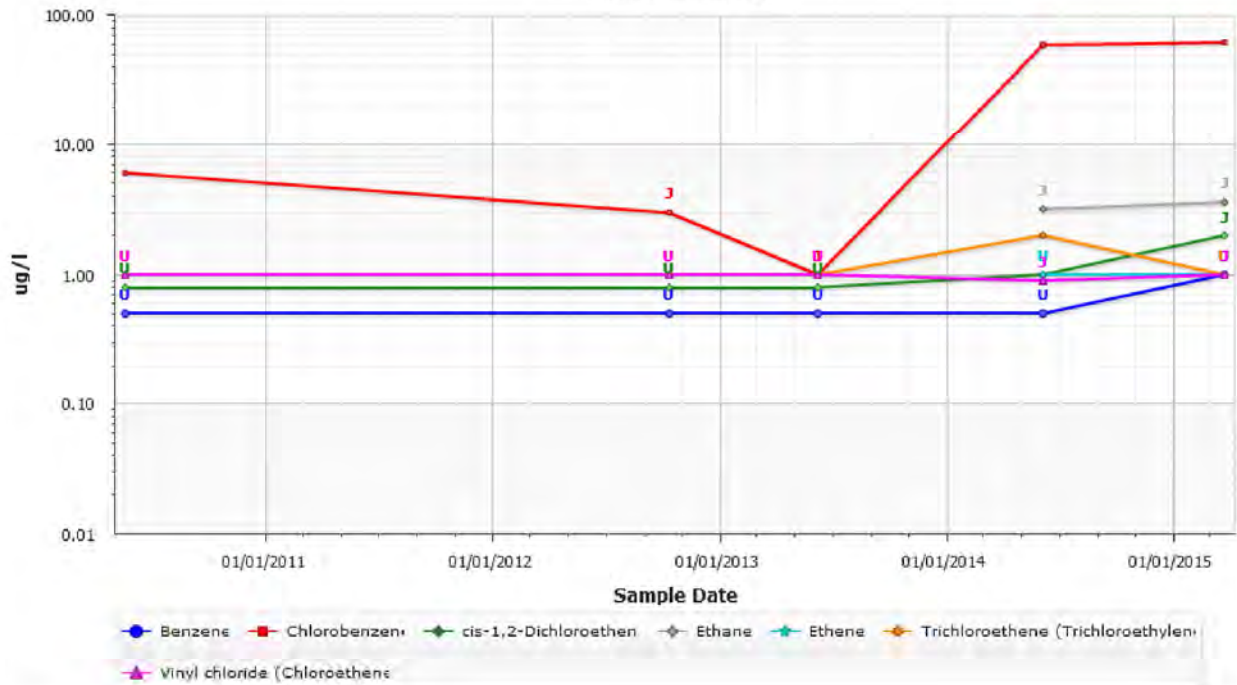
ITMW-13 (Bedrock)

Site: Beacon, NY



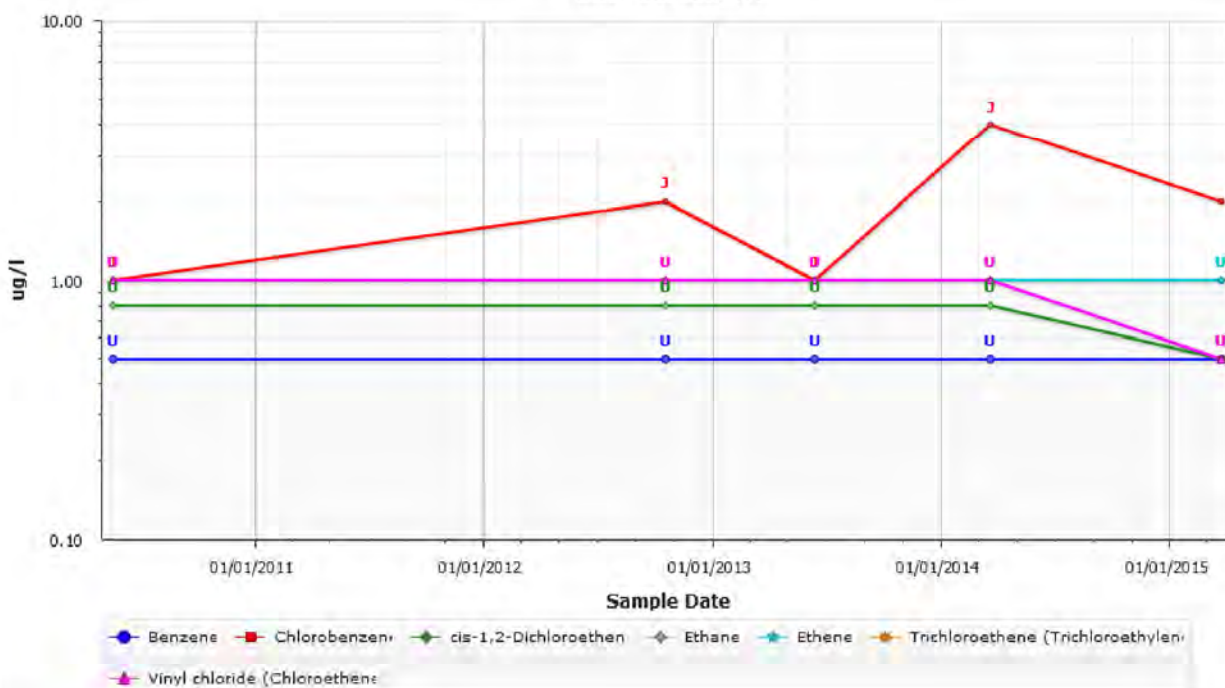
ITMW-14 (Bedrock)

Site: Beacon, NY



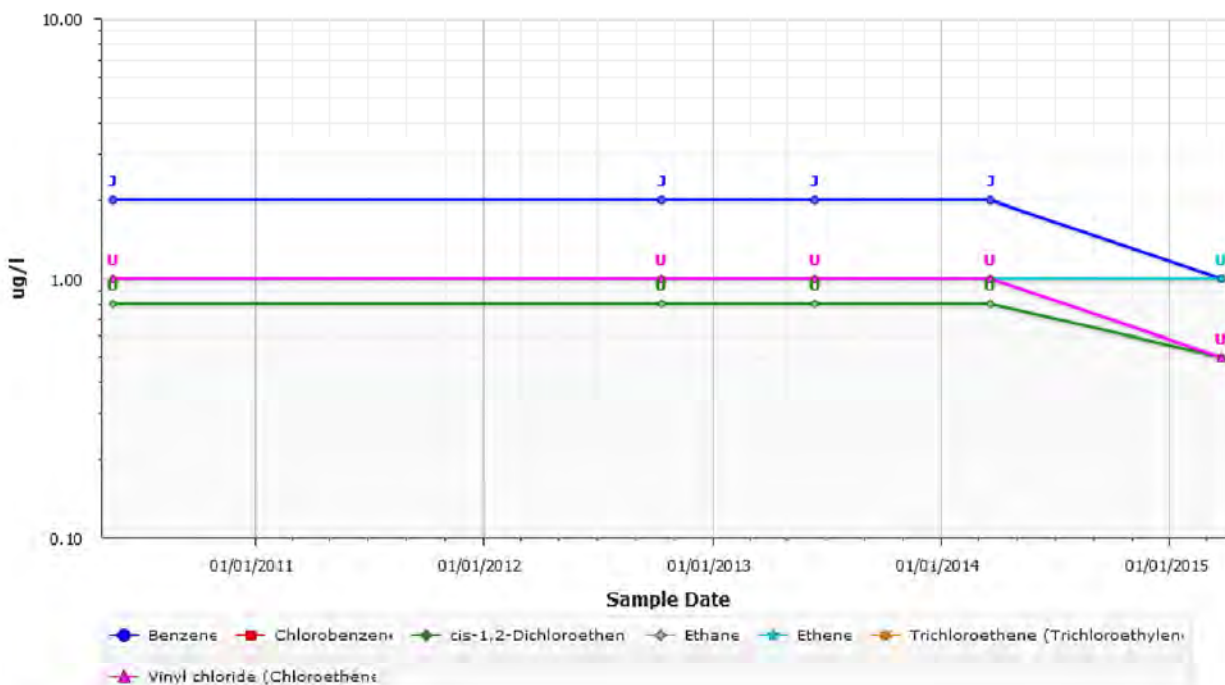
ITMW-30 (Bedrock)

Site: Beacon, NY



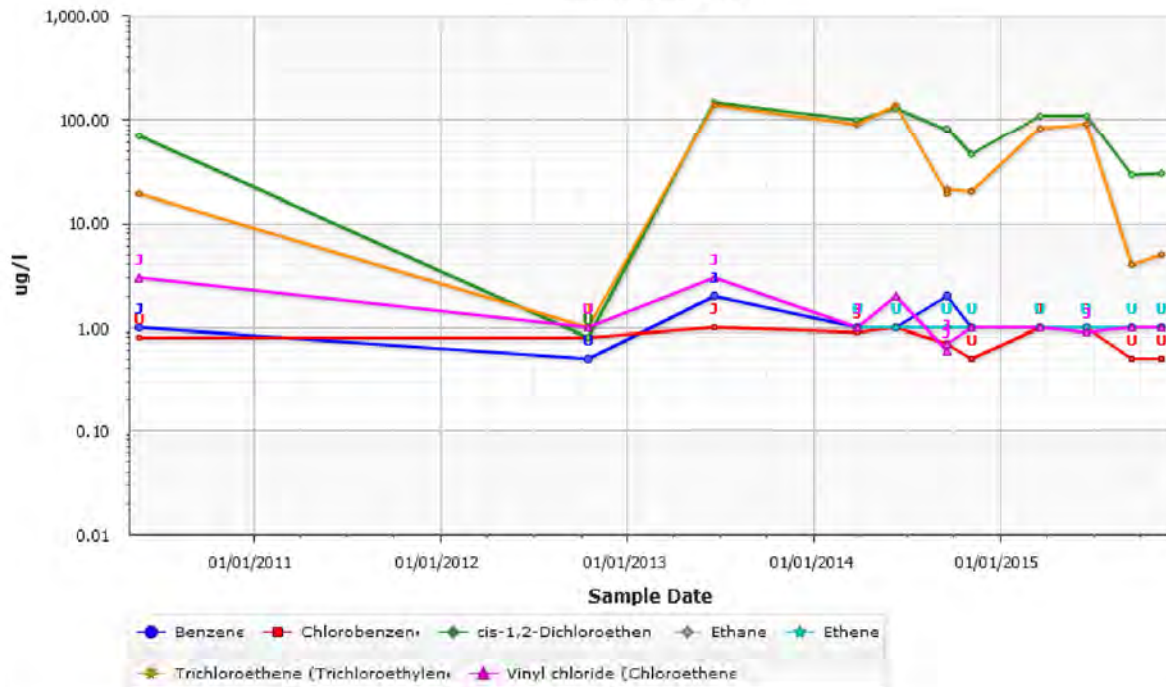
ITMW-31 (Bedrock)

Site: Beacon, NY



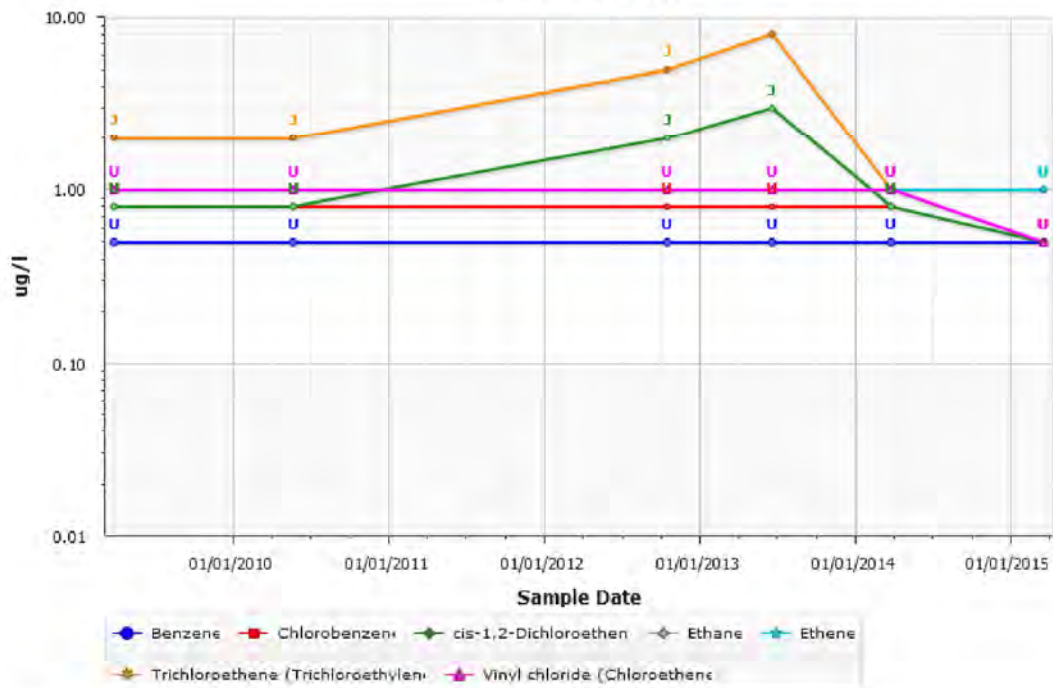
ITMW-6 (Bedrock)

Site: Beacon, NY



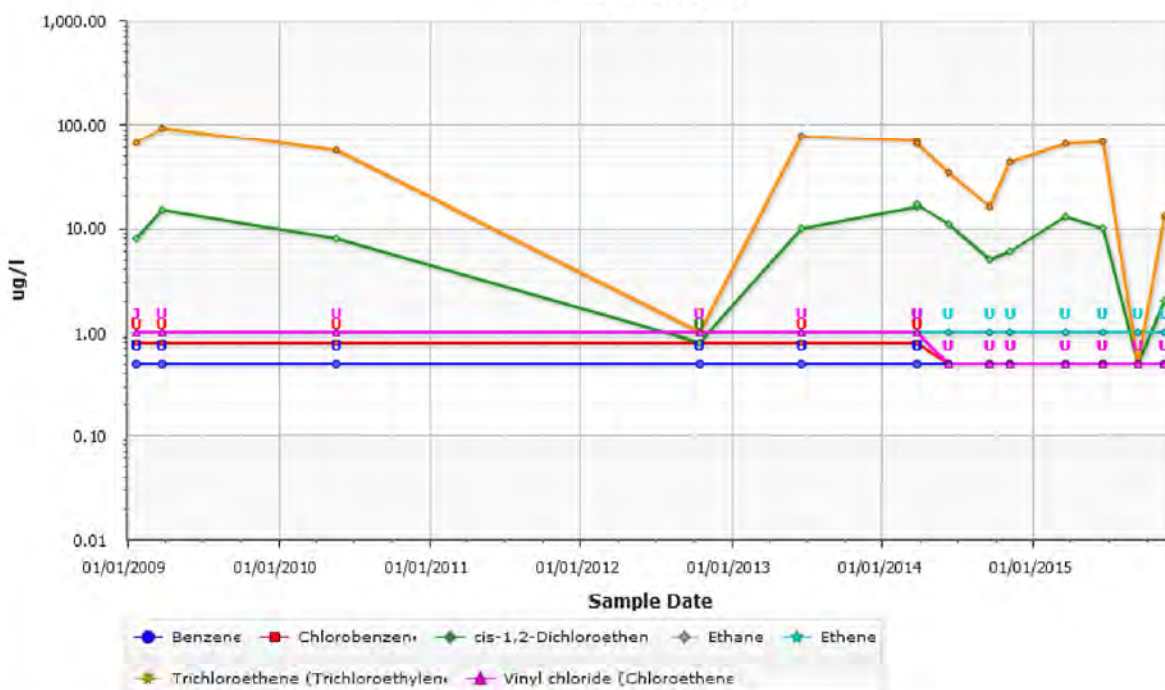
SWMW-103 (Bedrock)

Site: Beacon, NY



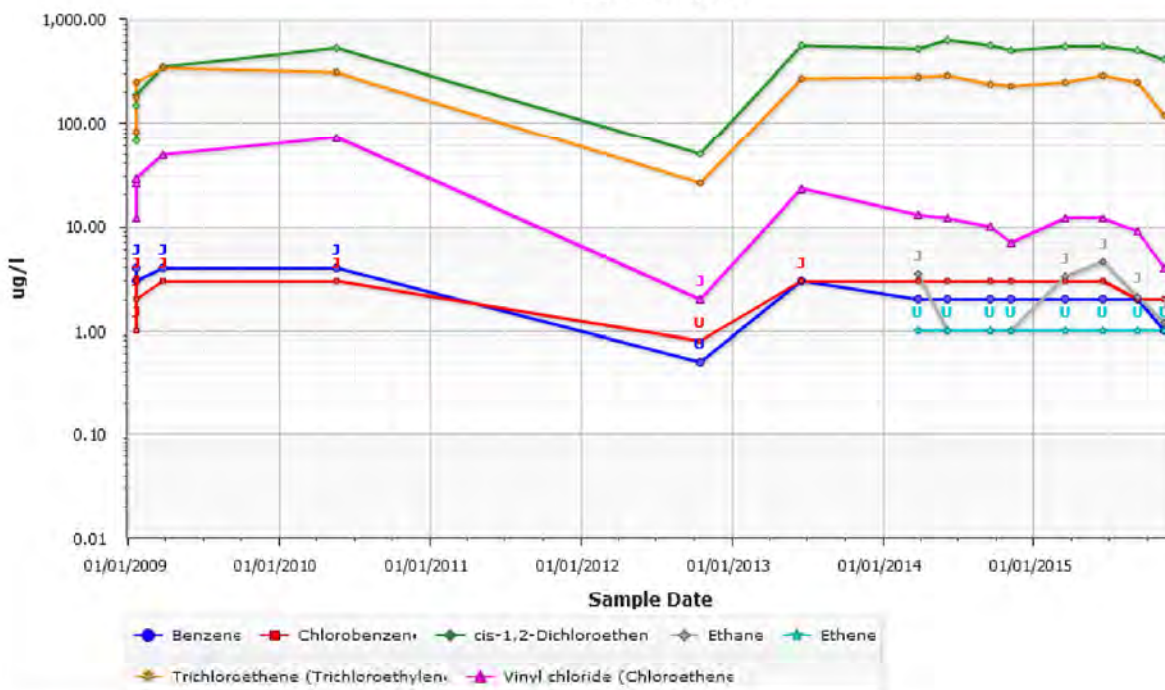
SWMW-111 (Bedrock)

Site: Beacon, NY



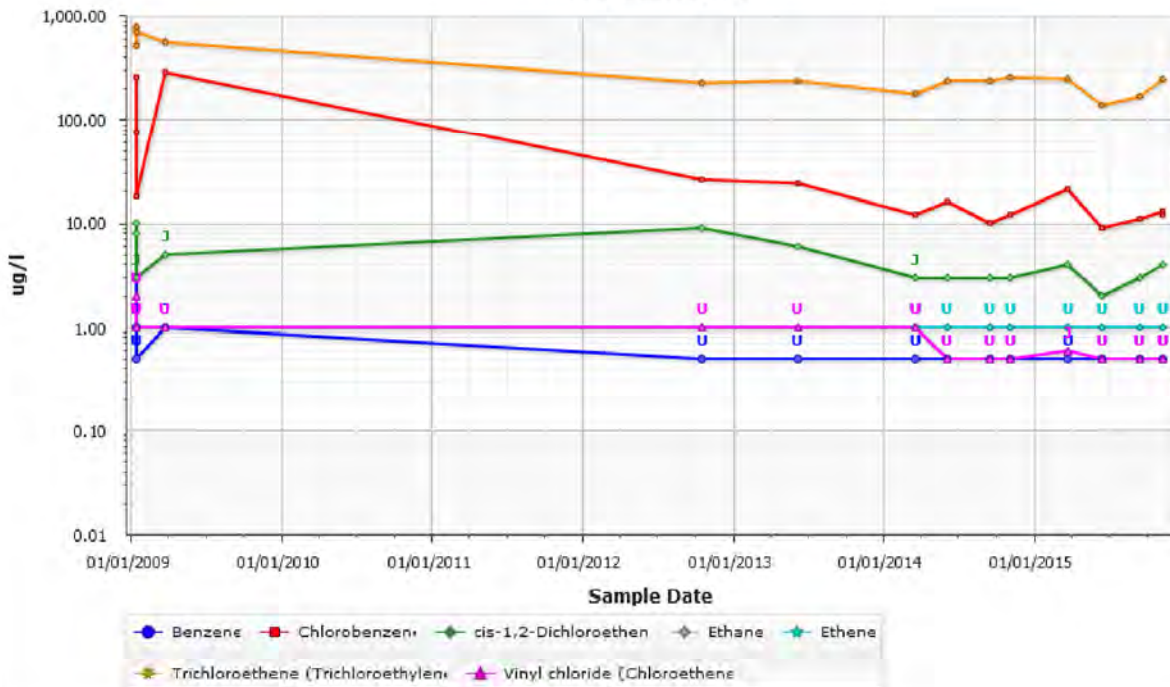
SWMW-112 (Bedrock)

Site: Beacon, NY



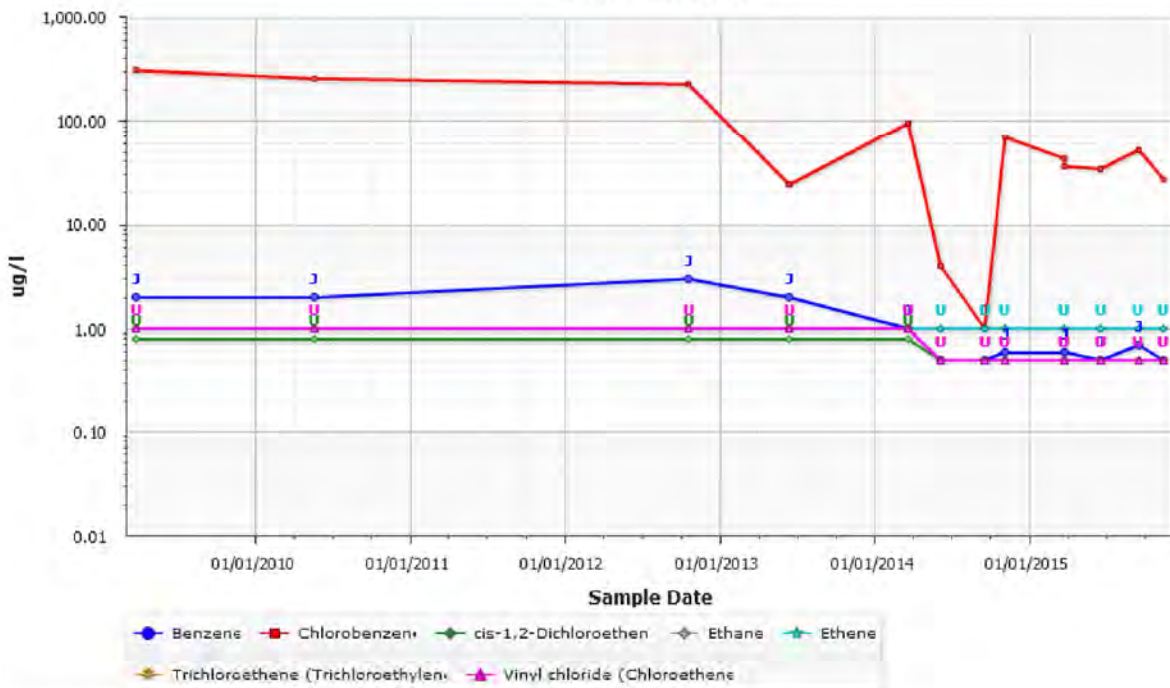
SWMW-114 (Bedrock)

Site: Beacon, NY



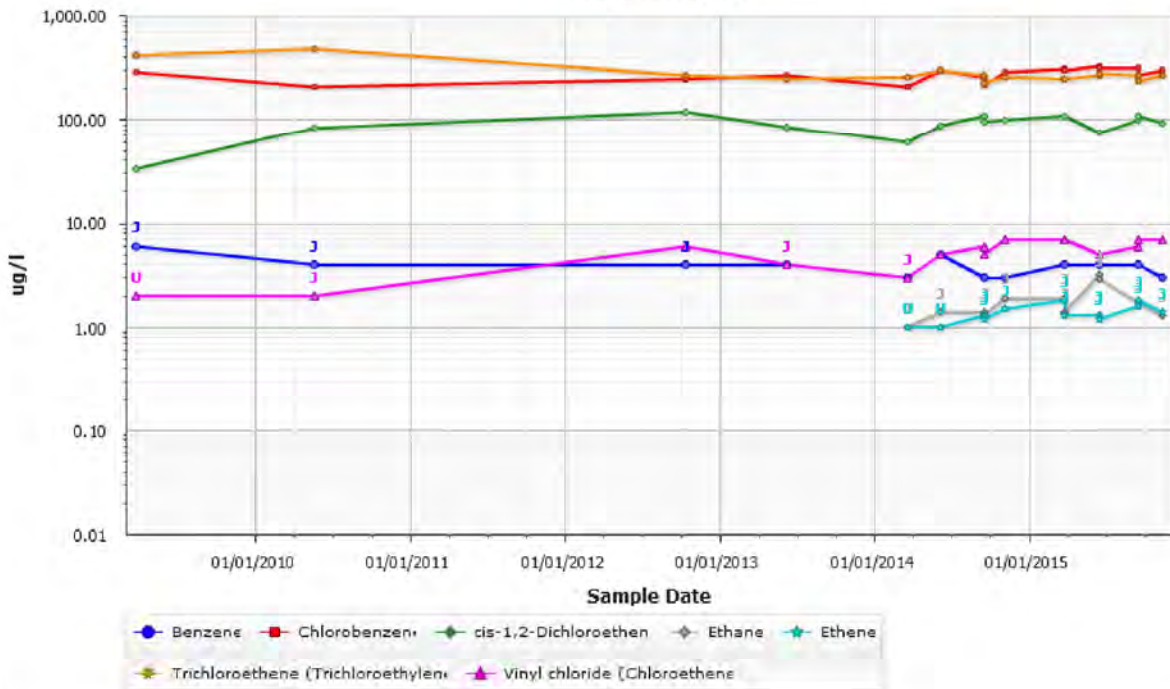
SWMW-123 (Bedrock)

Site: Beacon, NY



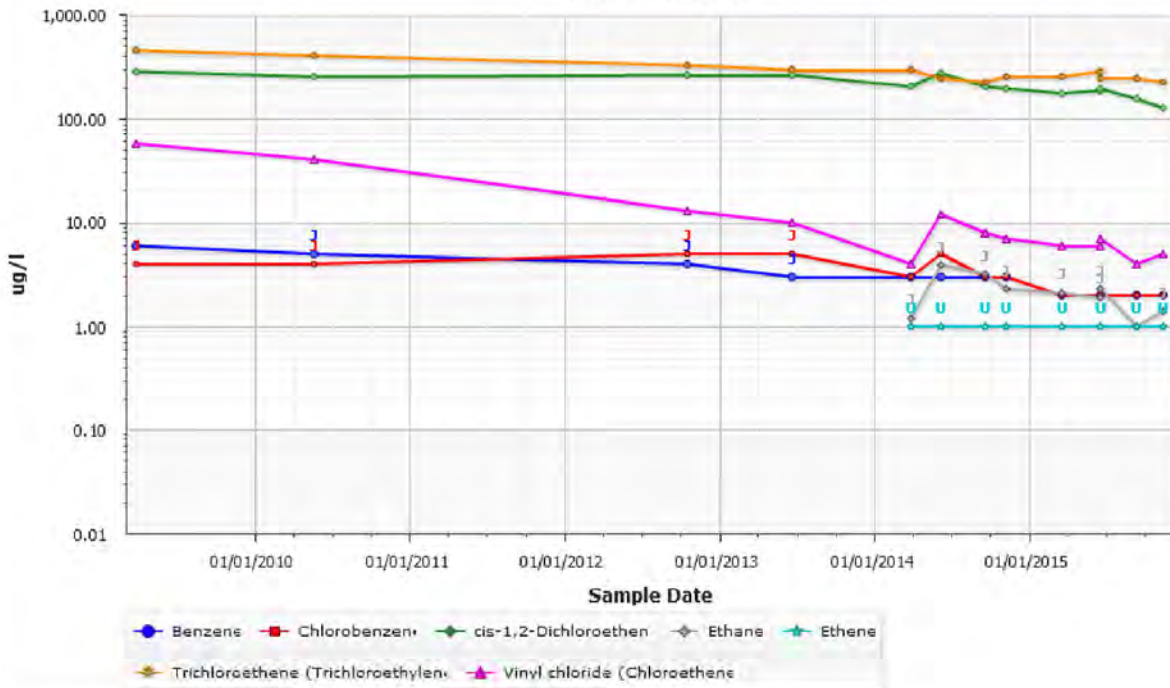
SWMW-125 (Bedrock)

Site: Beacon, NY



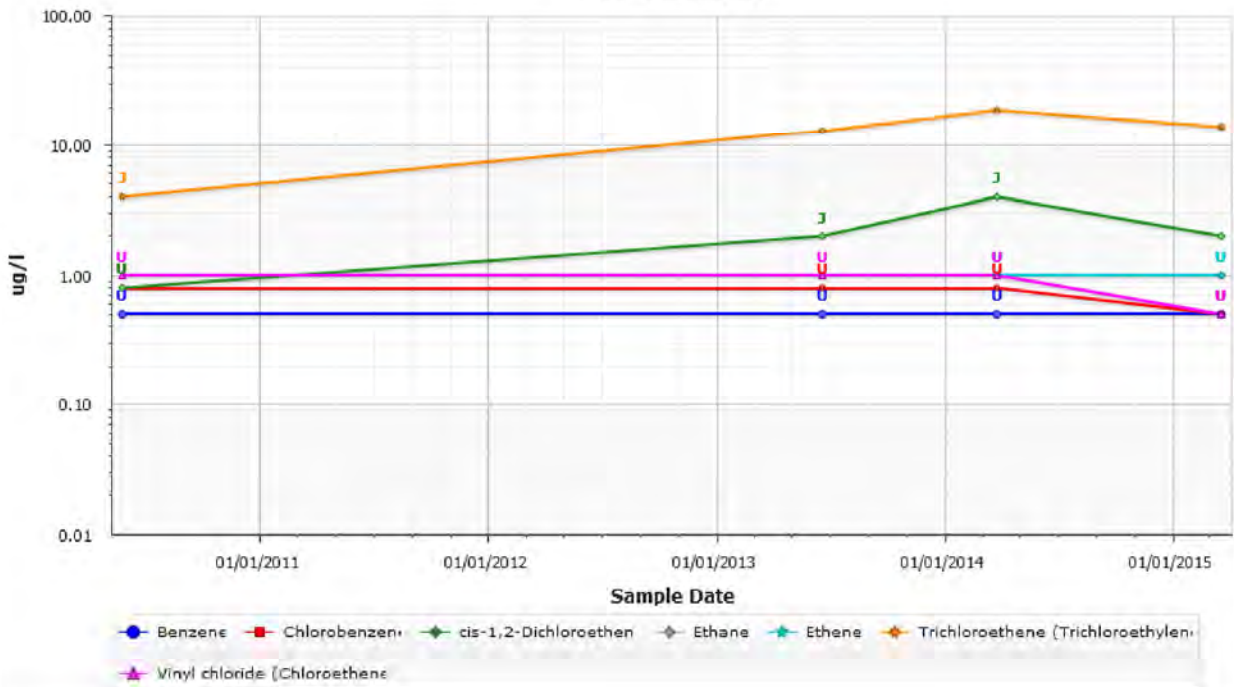
SWMW-126 (Bedrock)

Site: Beacon, NY



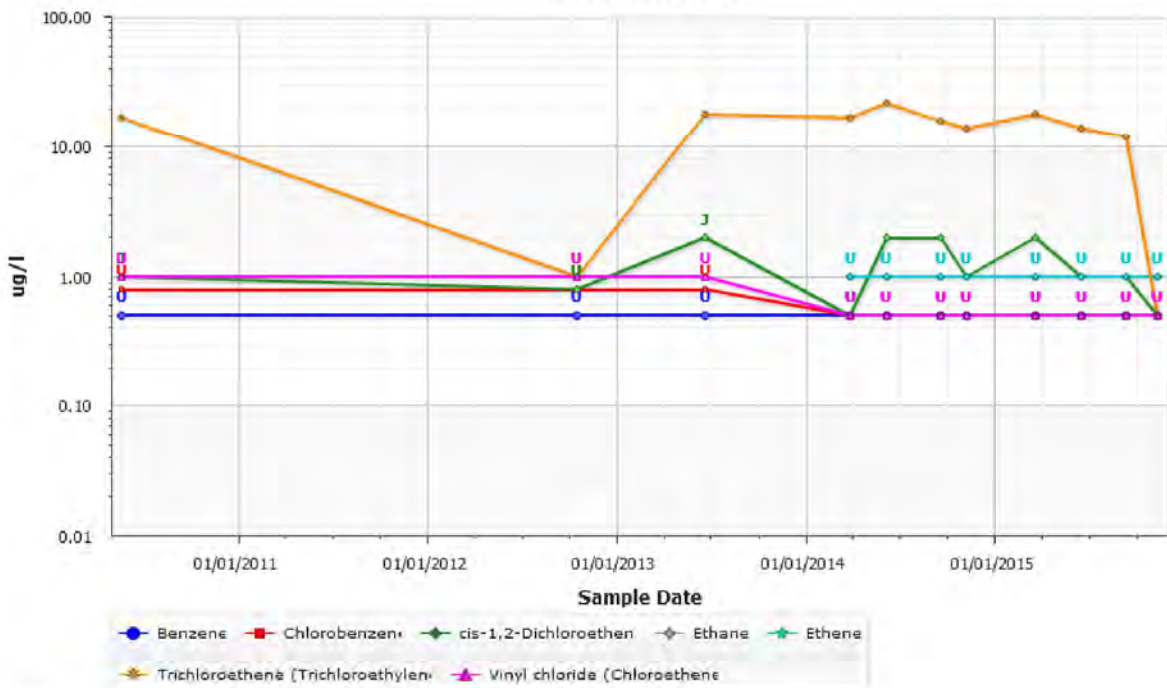
SWMW-13 (Bedrock)

Site: Beacon, NY



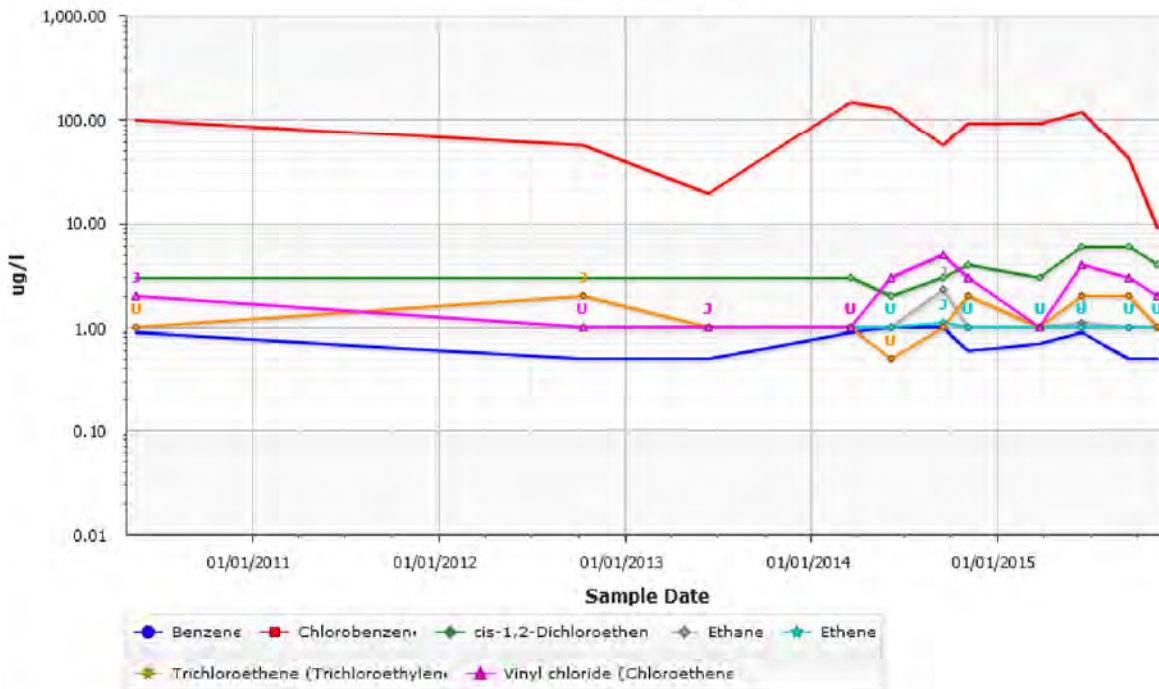
SWMW-14 (Bedrock)

Site: Beacon, NY



SWMW-2 (Bedrock)

Site: Beacon, NY



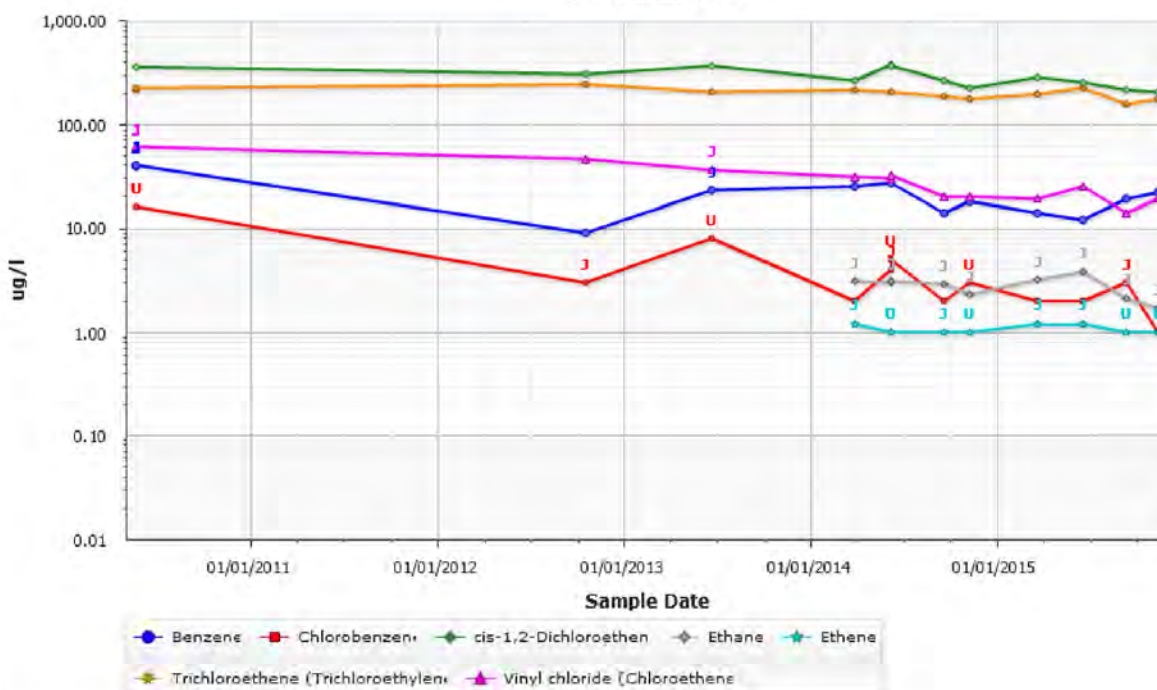
SWMW-27 (Bedrock)

Site: Beacon, NY



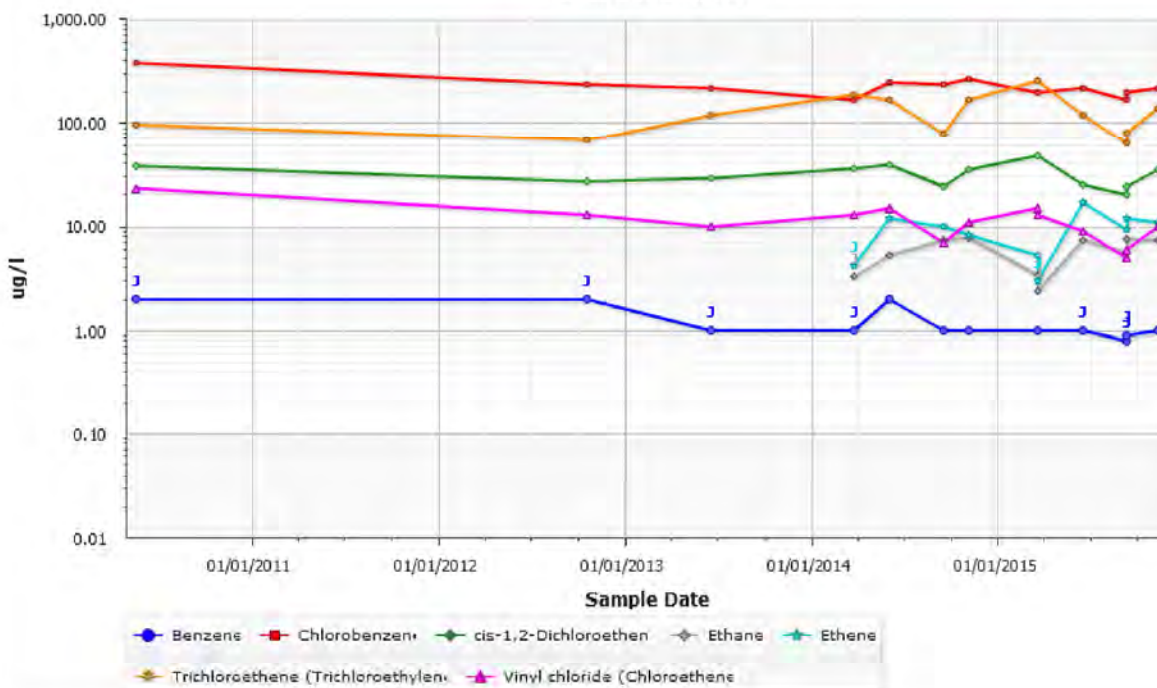
SWMW-41 (Bedrock)

Site: Beacon, NY



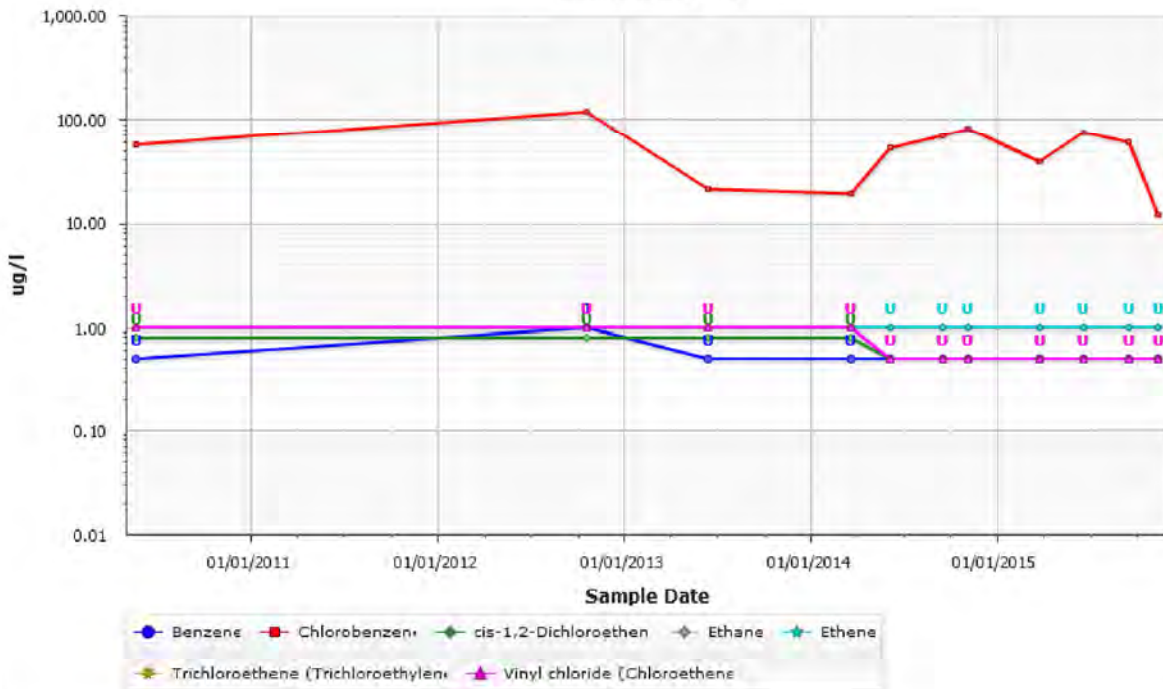
SWMW-44 (Bedrock)

Site: Beacon, NY



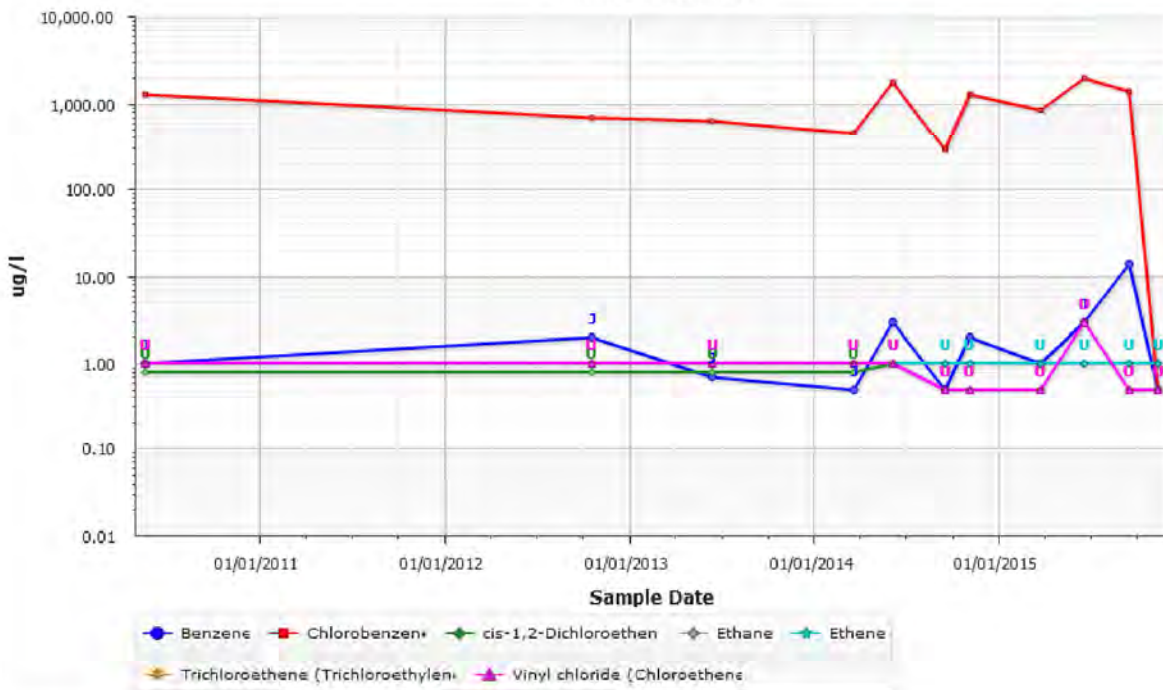
SWMW-45 (Bedrock)

Site: Beacon, NY



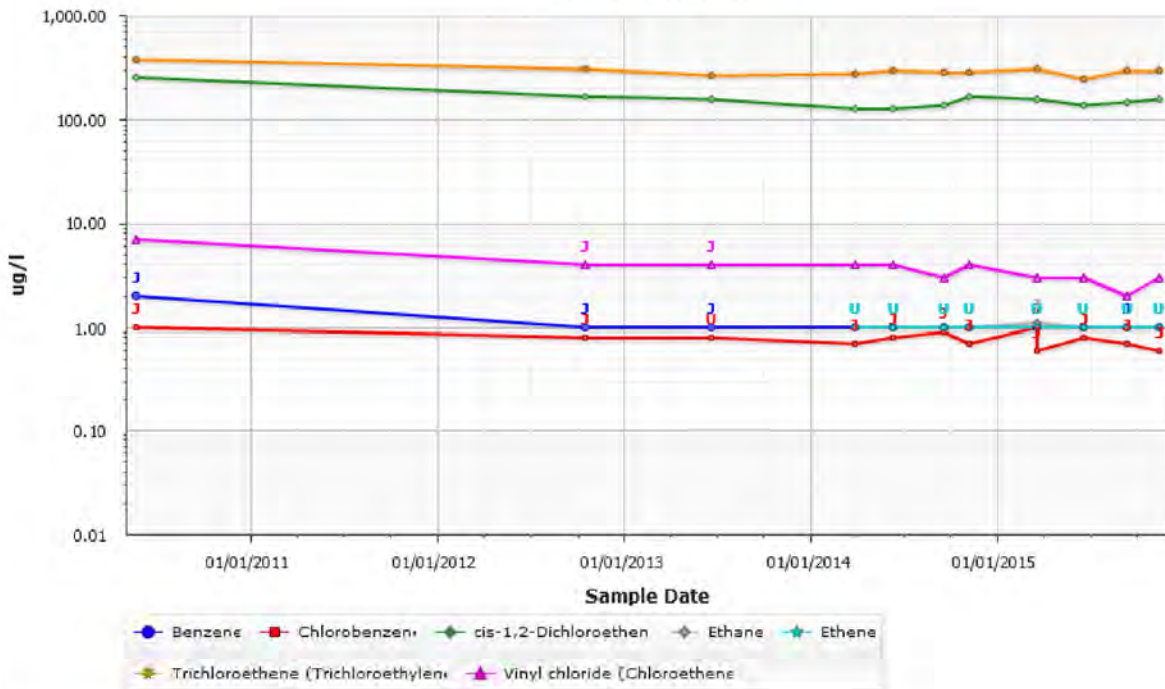
SWMW-55 (Bedrock)

Site: Beacon, NY



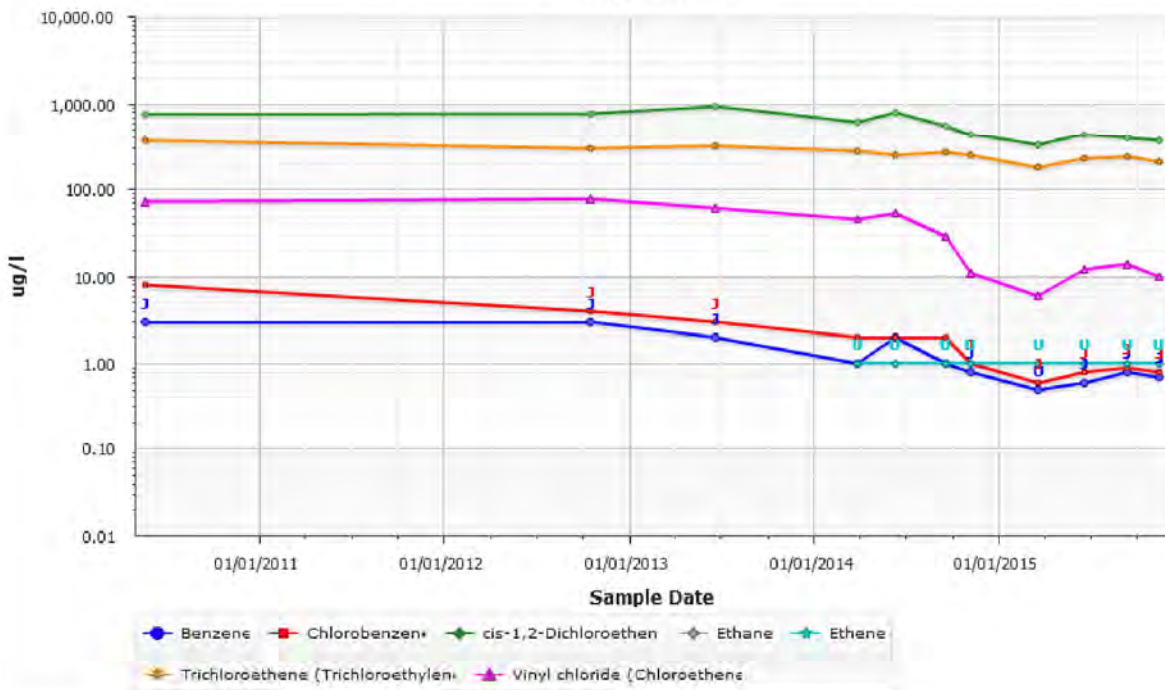
SWMW-56 (Bedrock)

Site: Beacon, NY



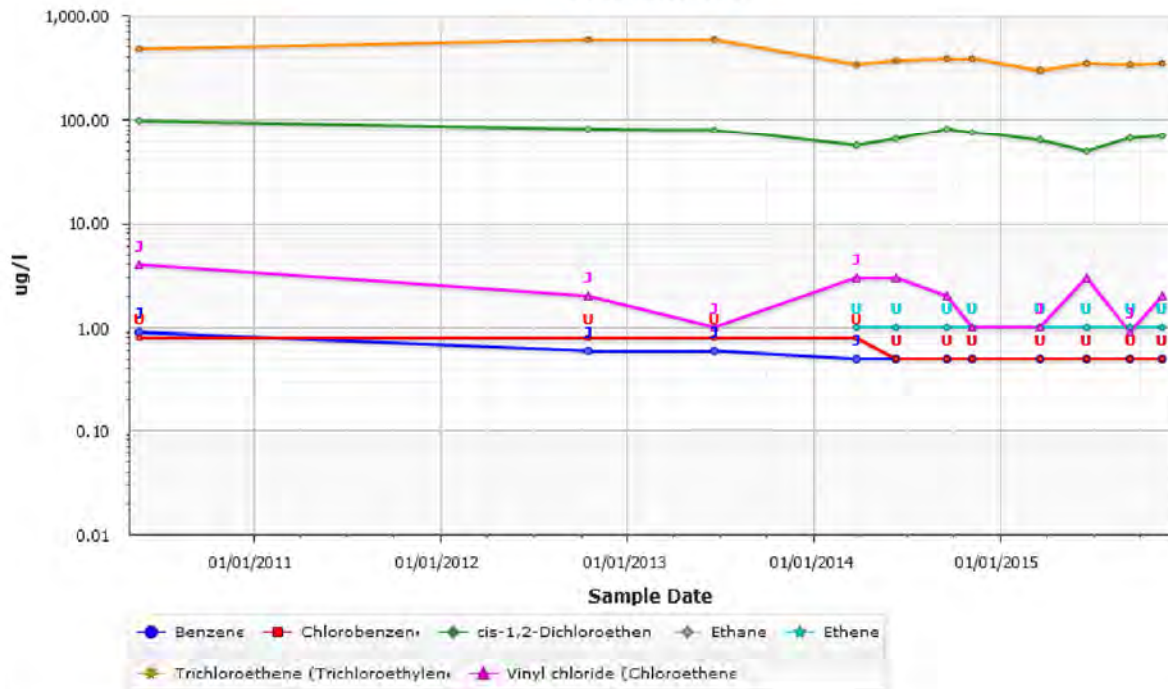
SWMW-66 (Bedrock)

Site: Beacon, NY



SWMW-68 (Bedrock)

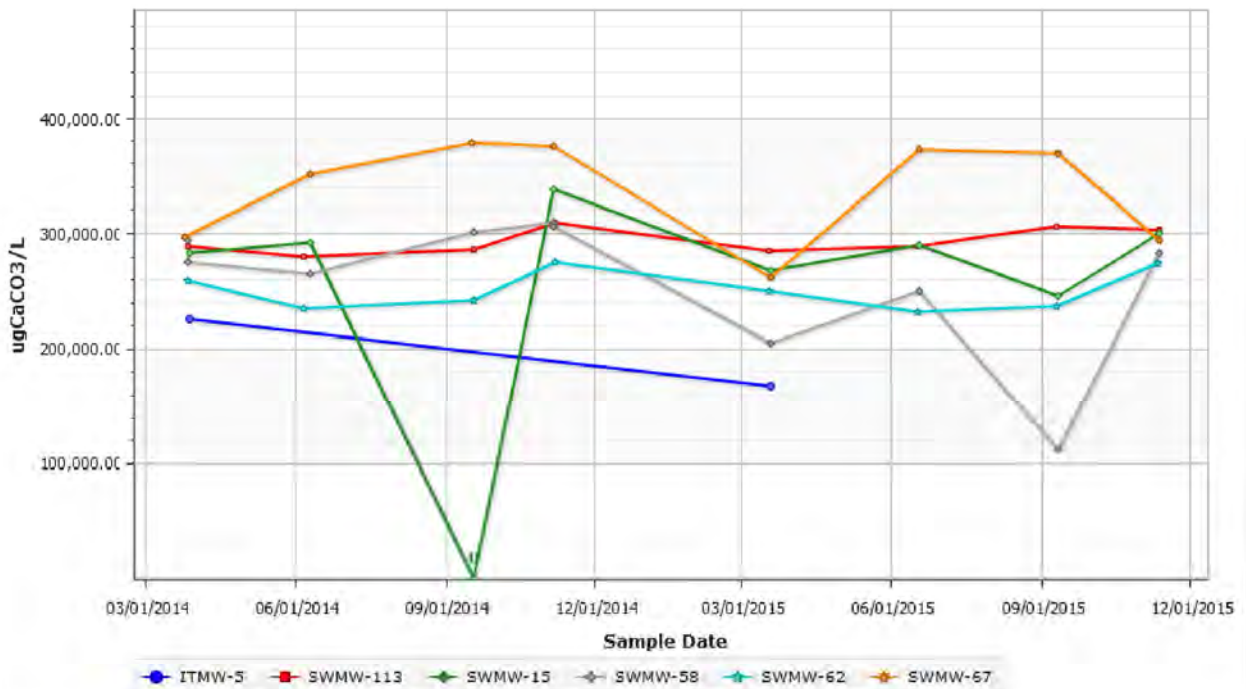
Site: Beacon, NY



**2014 THROUGH 2015 NATURAL ATTENUATION PARAMETERS
SUMMARY GRAPHS
(OVERBURDEN AND BEDROCK WELLS)**

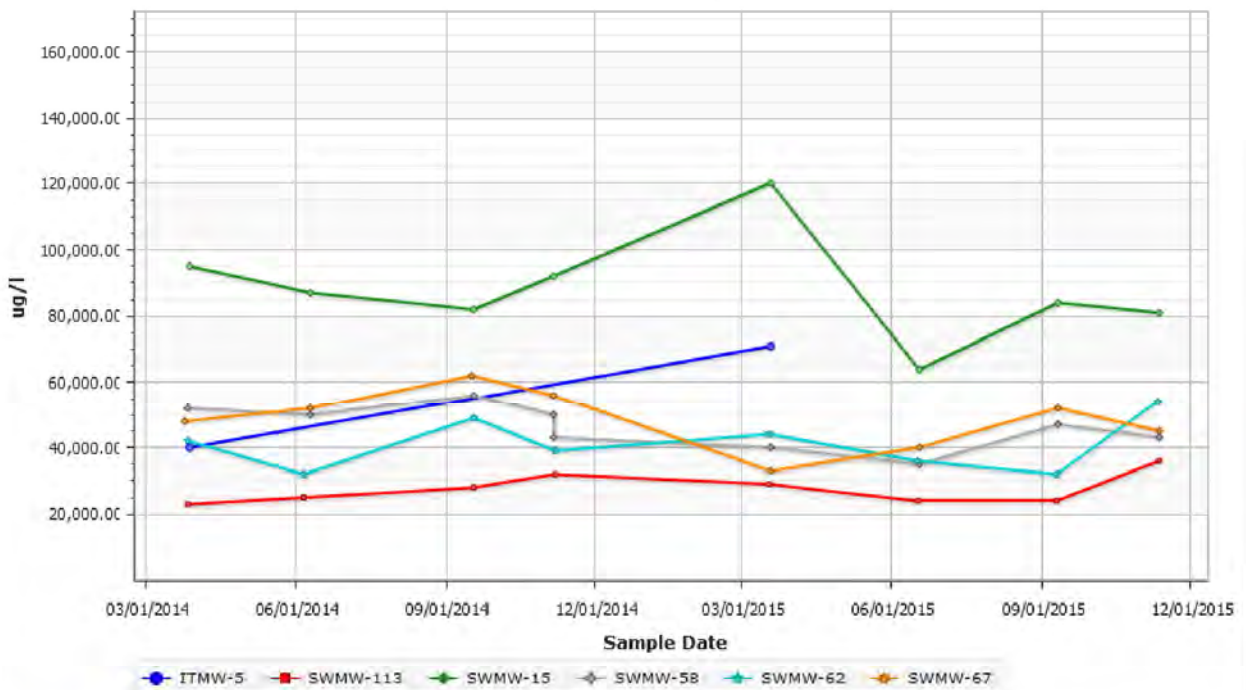
Bld 51 Overburden Alkalinity, Total as CaCO3

Site: Beacon, NY



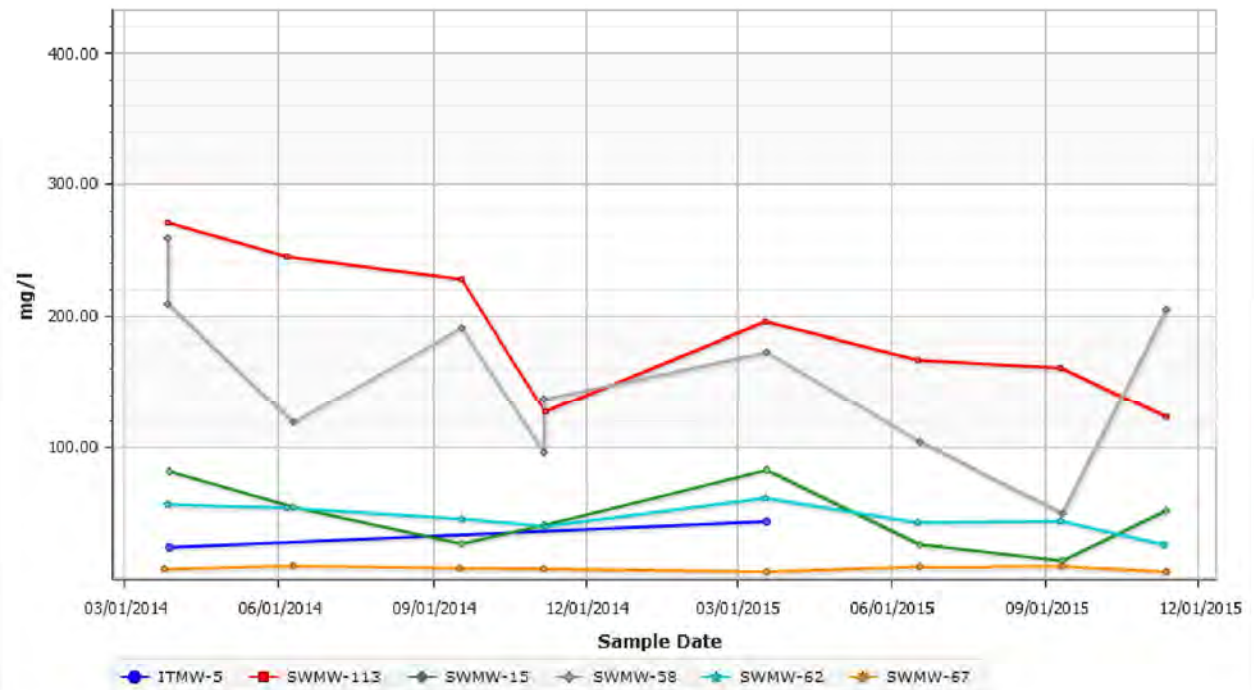
Bld 51 Overburden CARBON DIOXIDE

Site: Beacon, NY



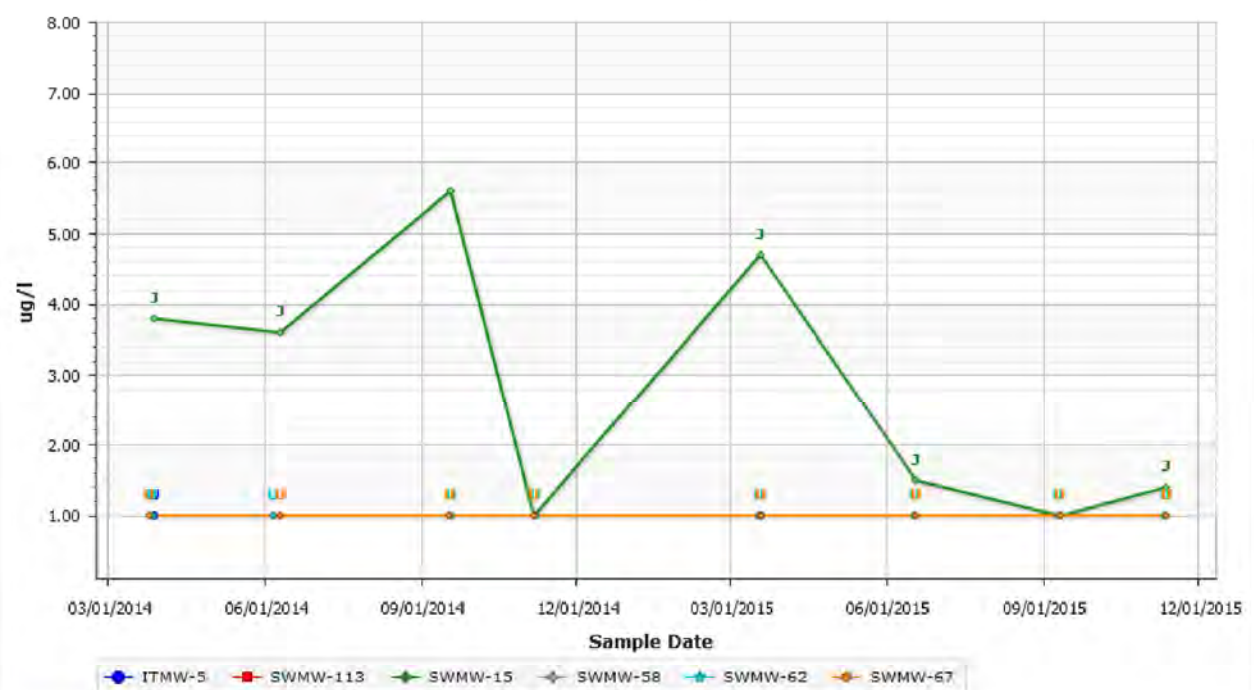
Bld 51 Overburden Chloride

Site: Beacon, NY



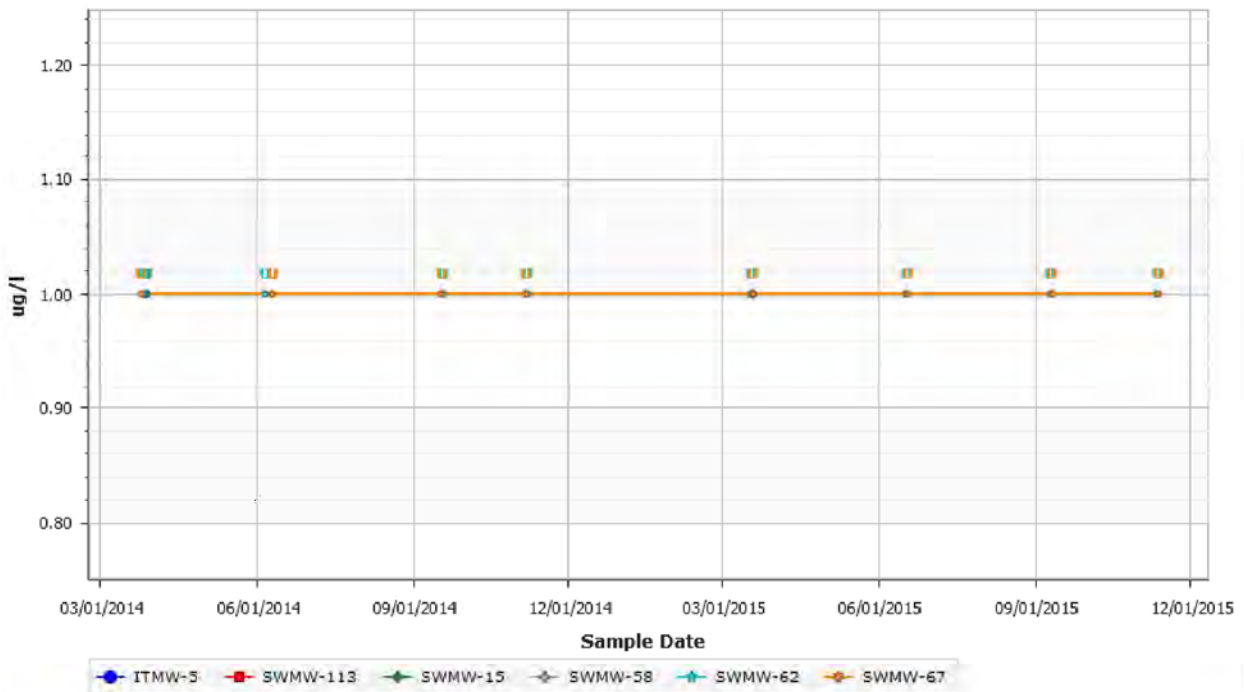
Bld 51 Overburden Ethane

Site: Beacon, NY



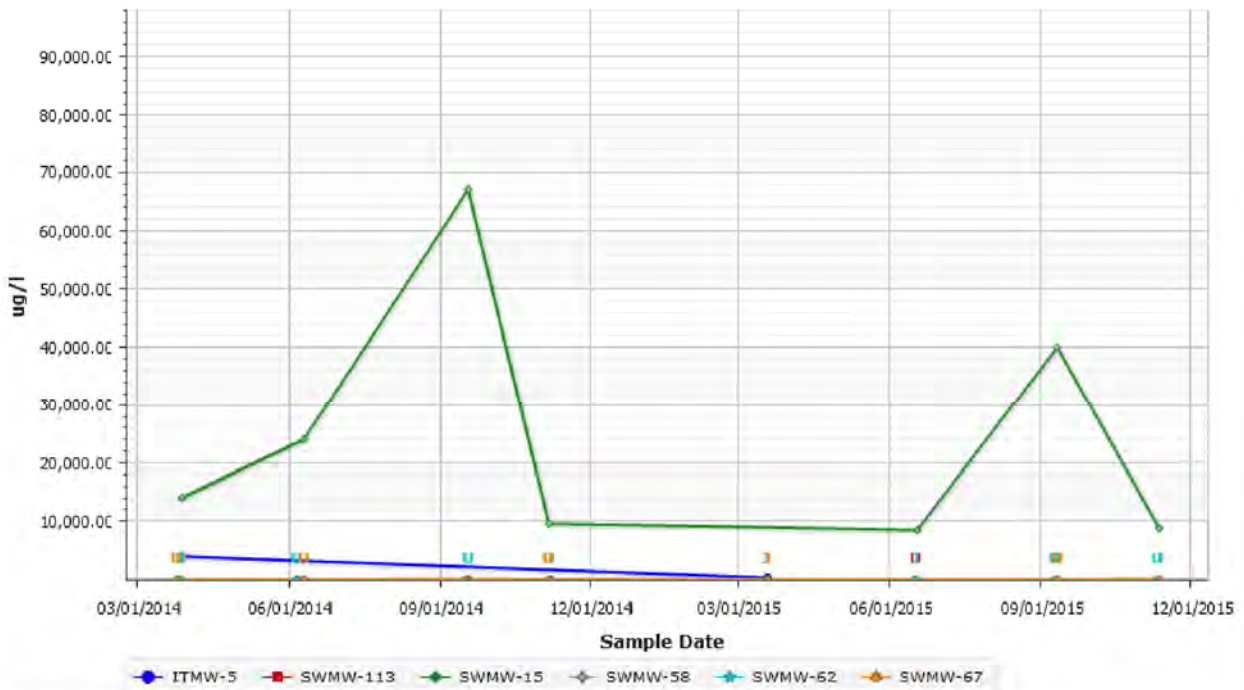
Bld 51 Overburden Ethene

Site: Beacon, NY



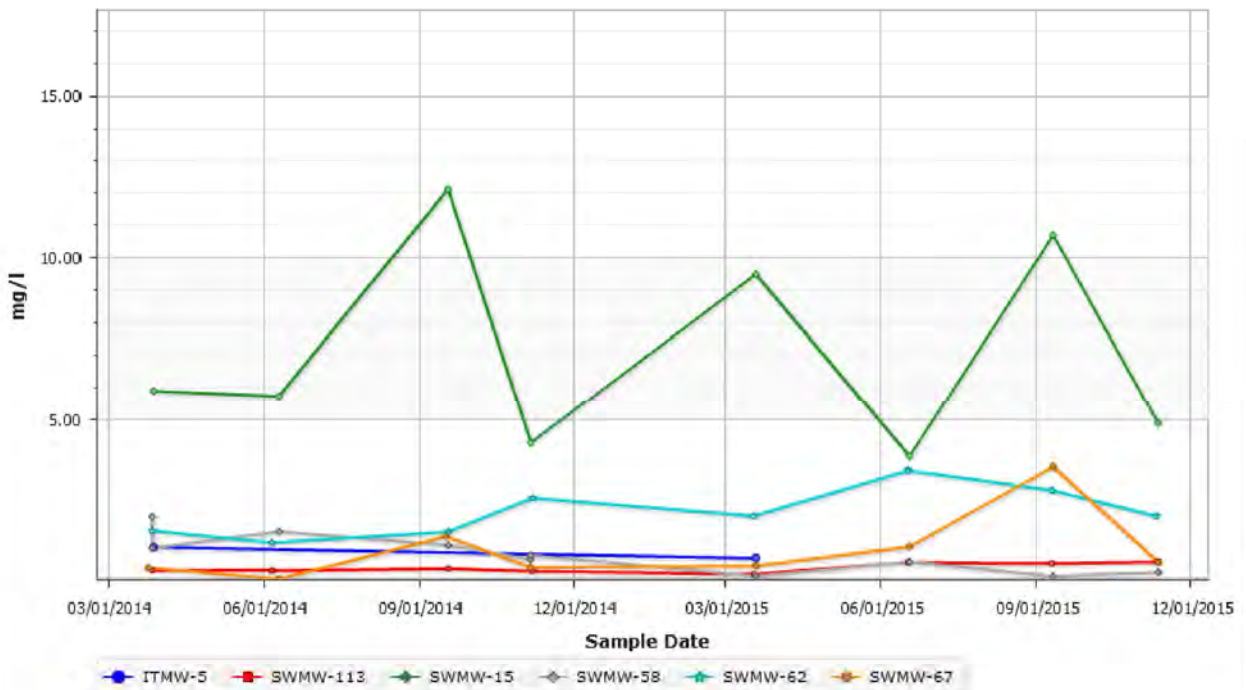
Bld 51 Overburden Ferrous Iron

Site: Beacon, NY



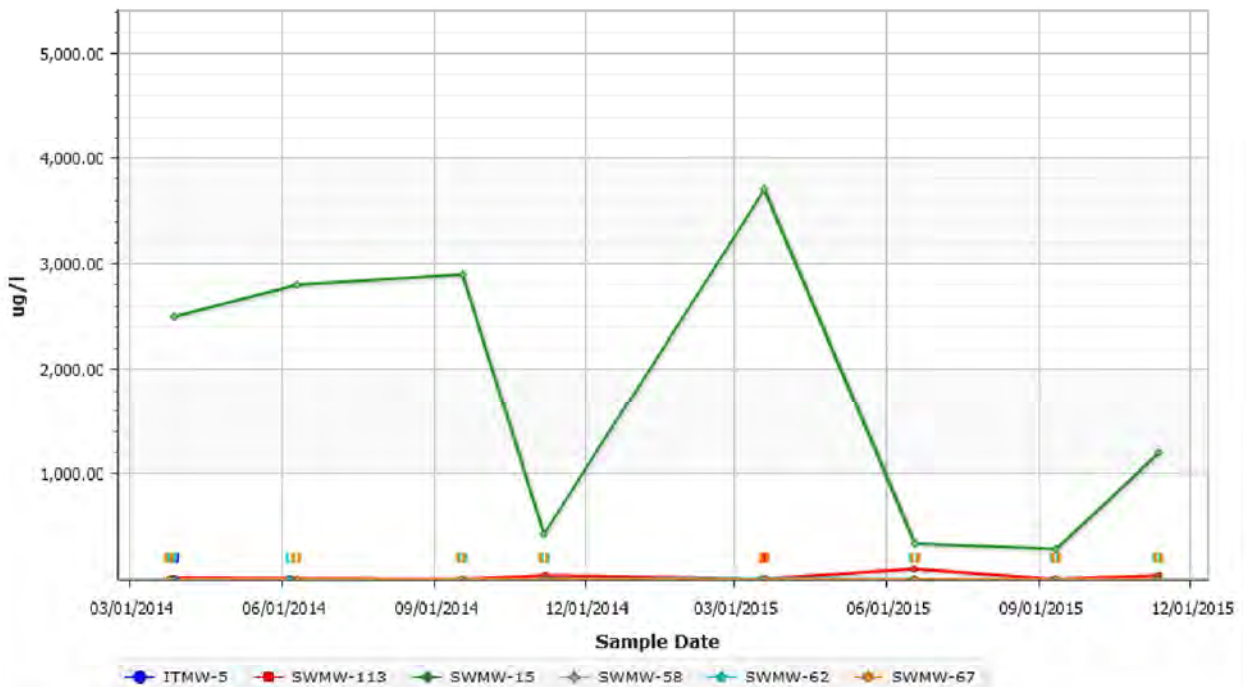
Bld 51 Overburden Manganese

Site: Beacon, NY

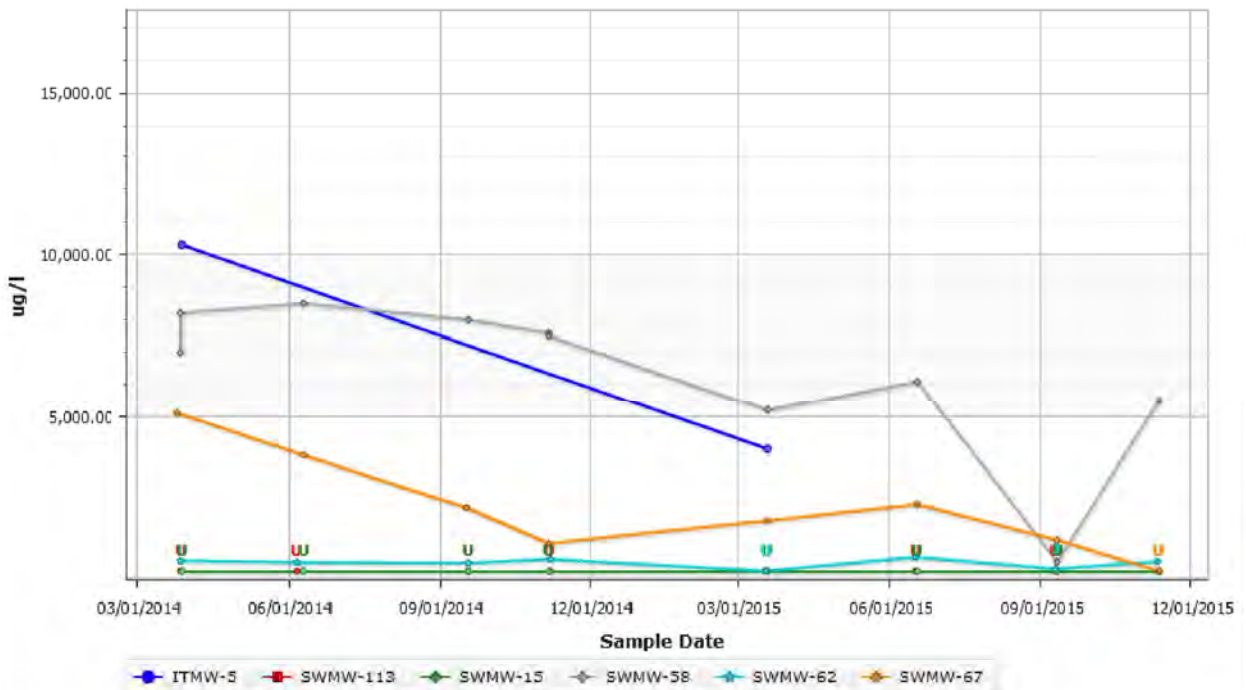


Bld 51 Overburden Methane

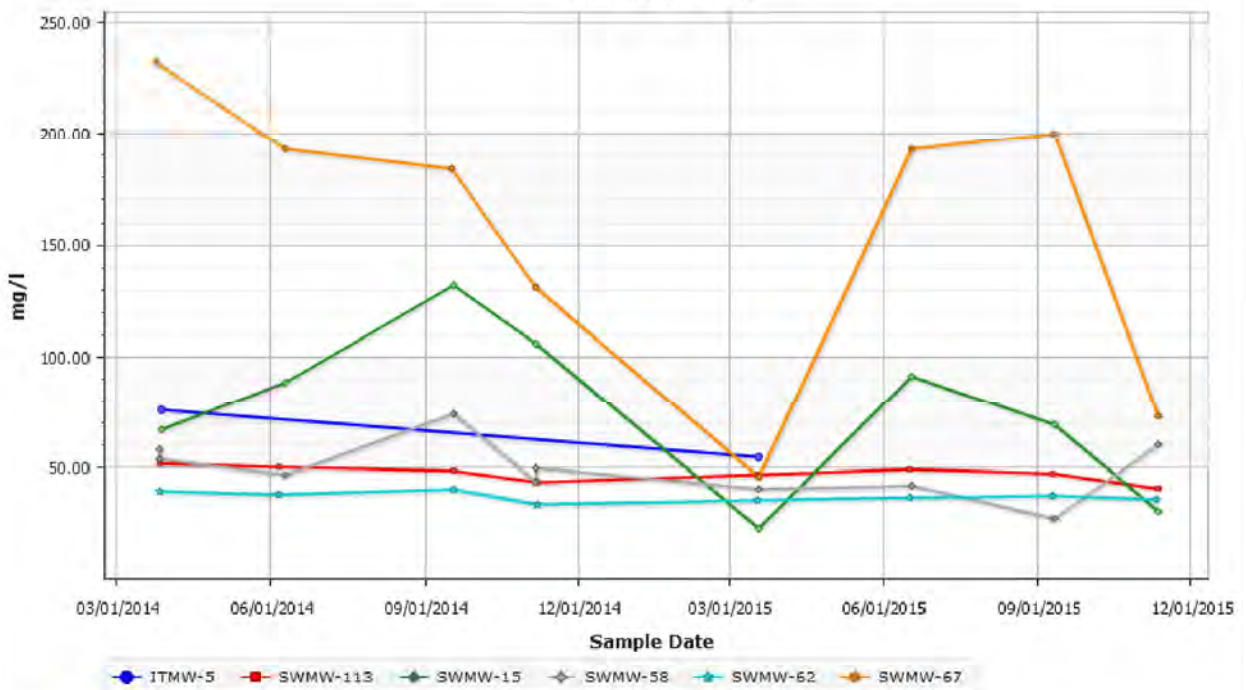
Site: Beacon, NY



Bld 51 Overburden Nitrogen, Nitrate as N
Site: Beacon, NY

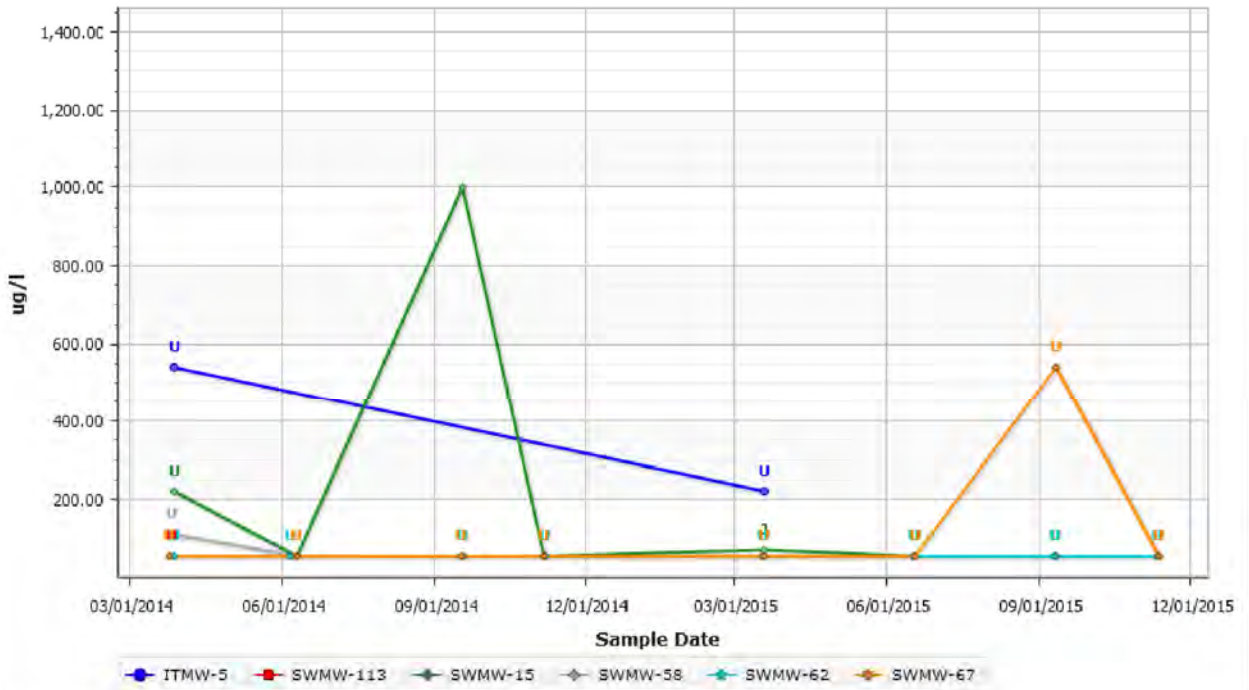


Bld 51 Overburden Sulfate (SO4)
Site: Beacon, NY



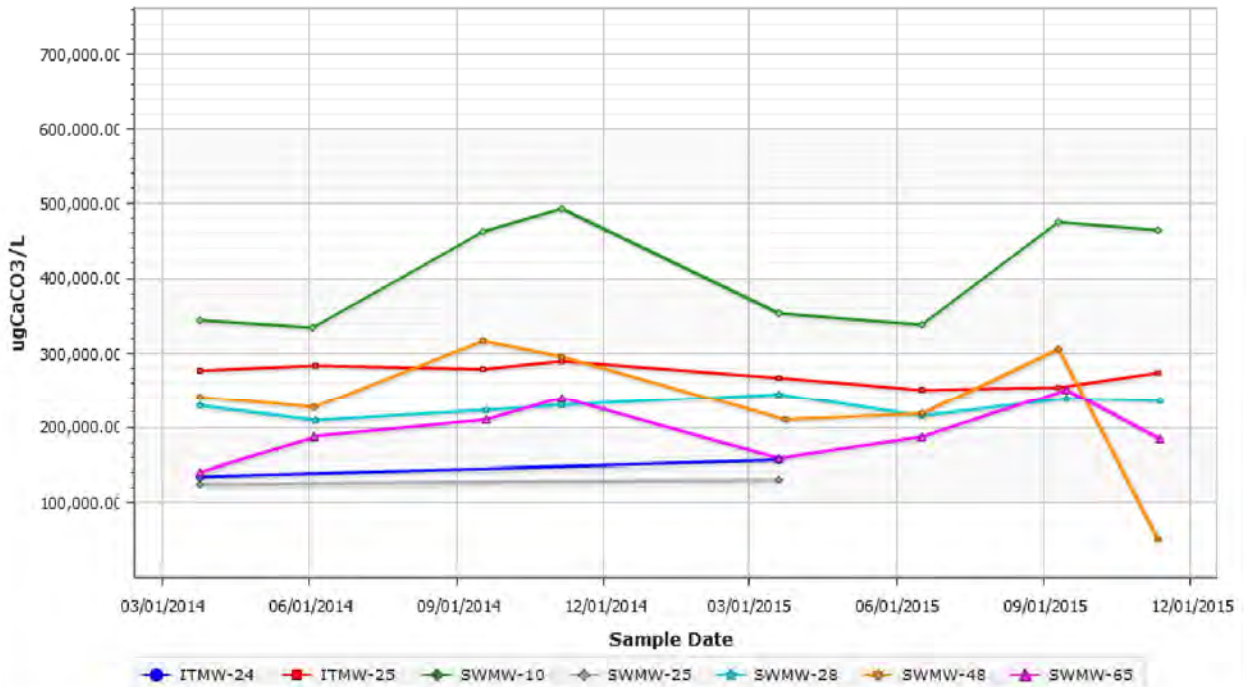
Bld 51 Overburden Sulfide

Site: Beacon, NY



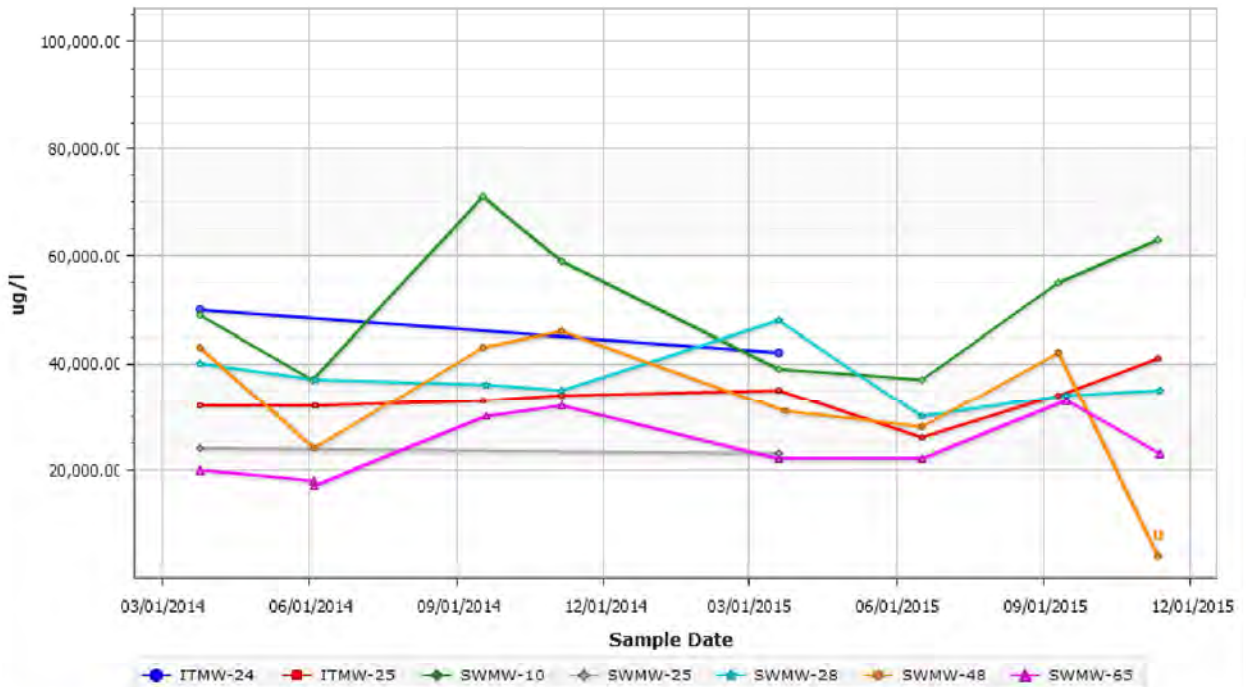
Bld 45 55 Overburden Alkalinity, Total as CaCO3

Site: Beacon, NY



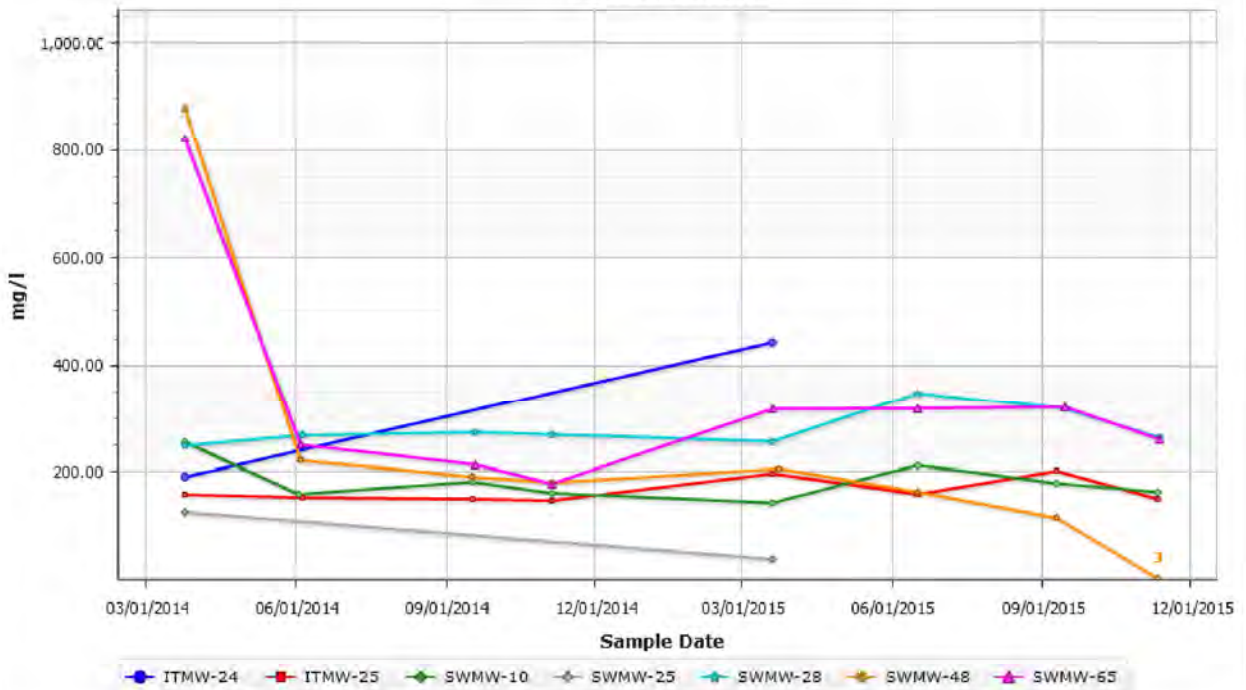
Bld 45 55 Overburden CARBON DIOXIDE

Site: Beacon, NY



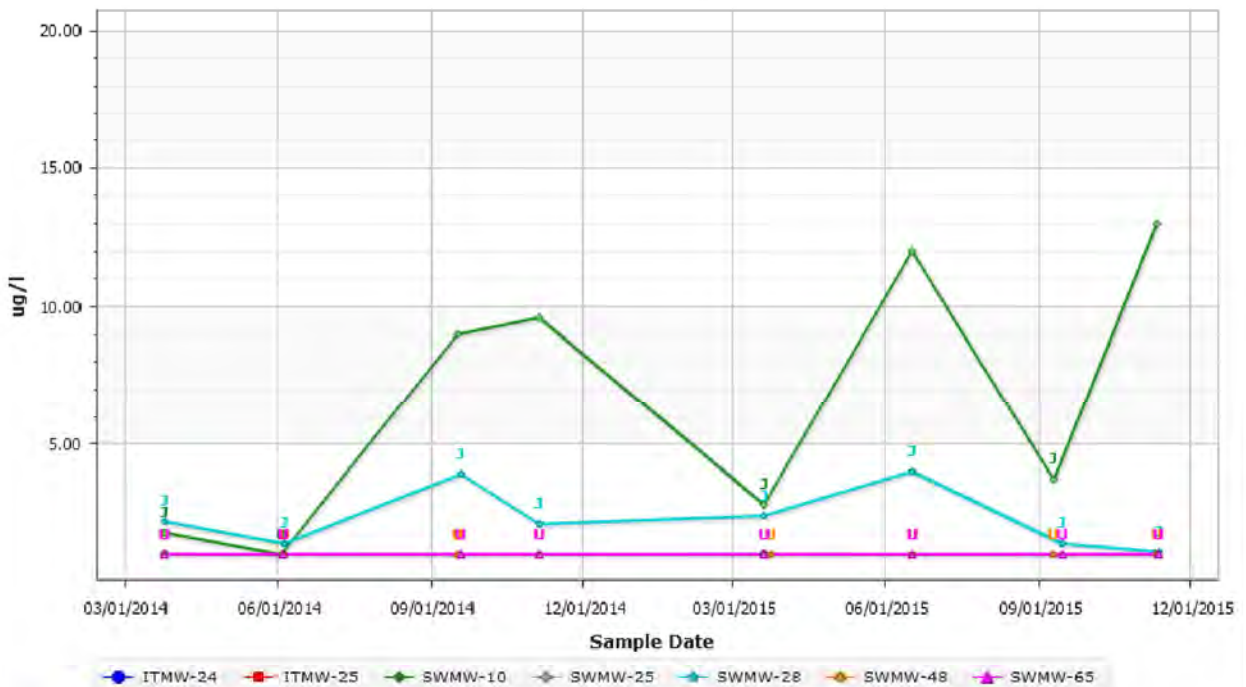
Bld 45 55 Overburden Chloride

Site: Beacon, NY



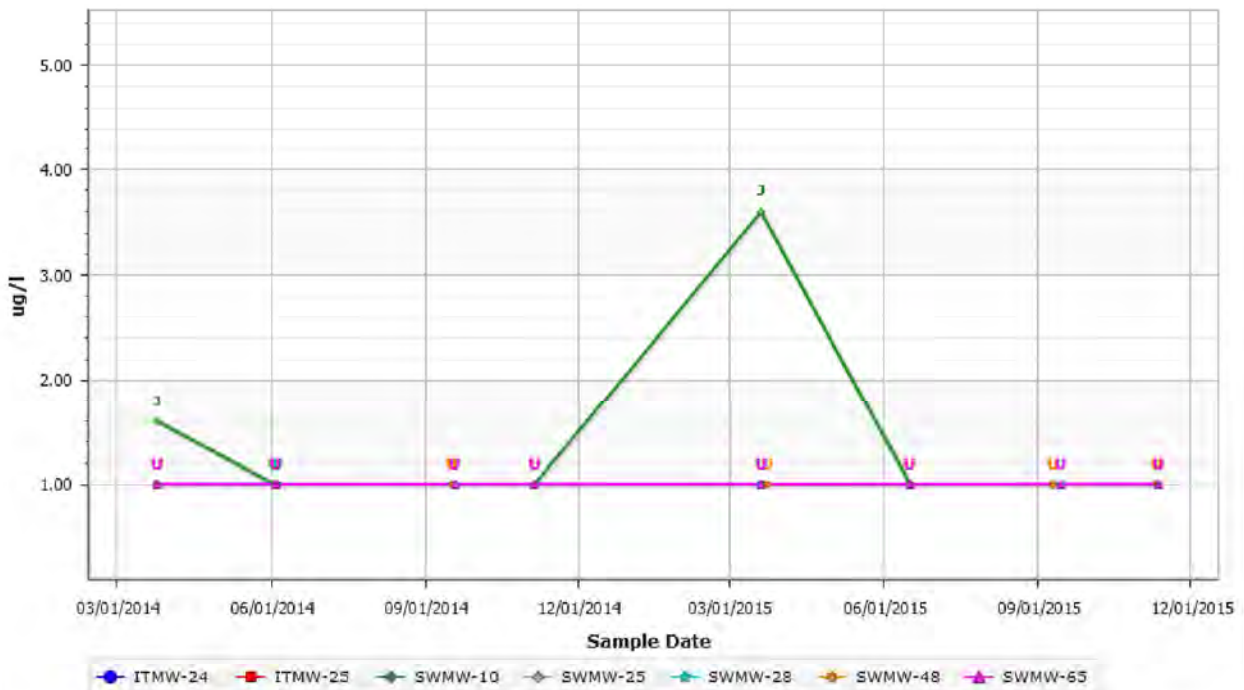
Bld 45 55 Overburden Ethane

Site: Beacon, NY



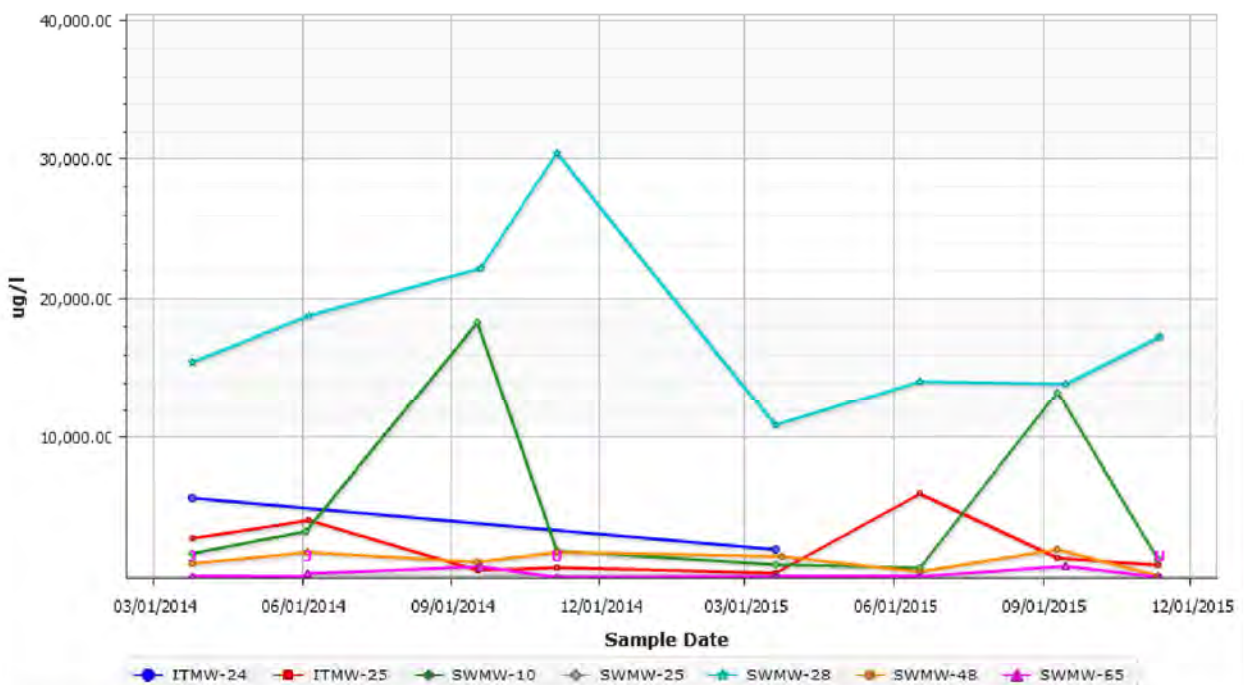
Bld 45 55 Overburden Ethene

Site: Beacon, NY



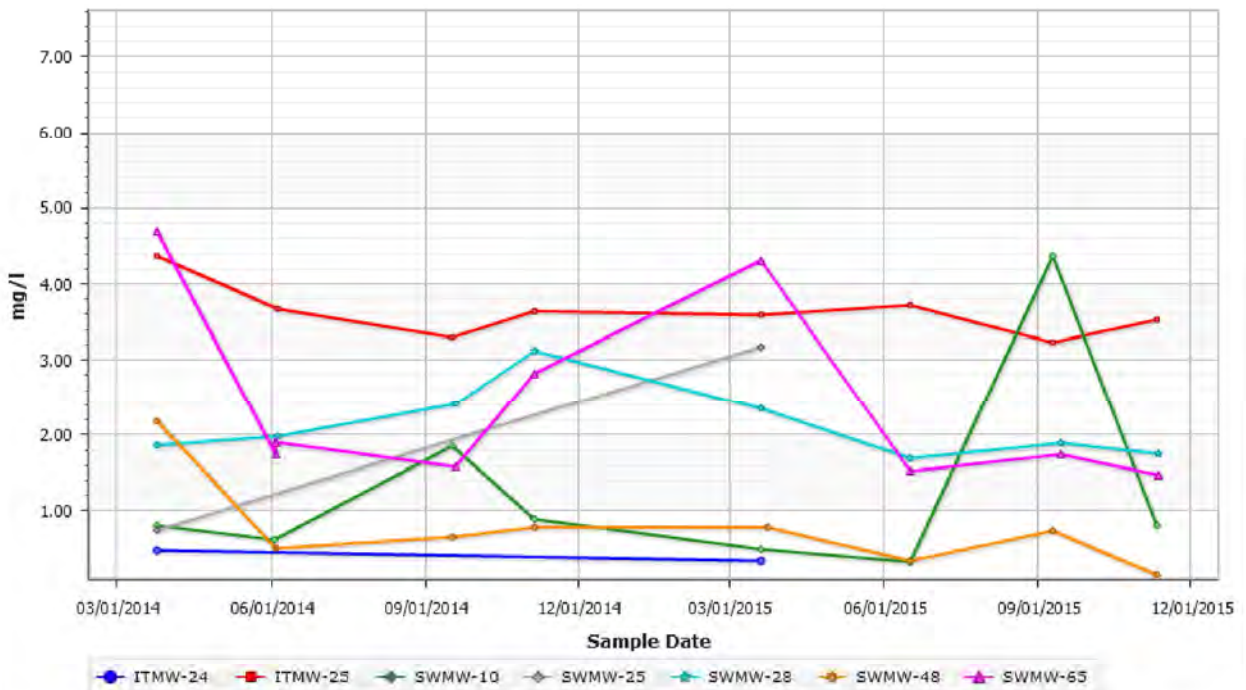
Bld 45 55 Overburden Ferrous Iron

Site: Beacon, NY



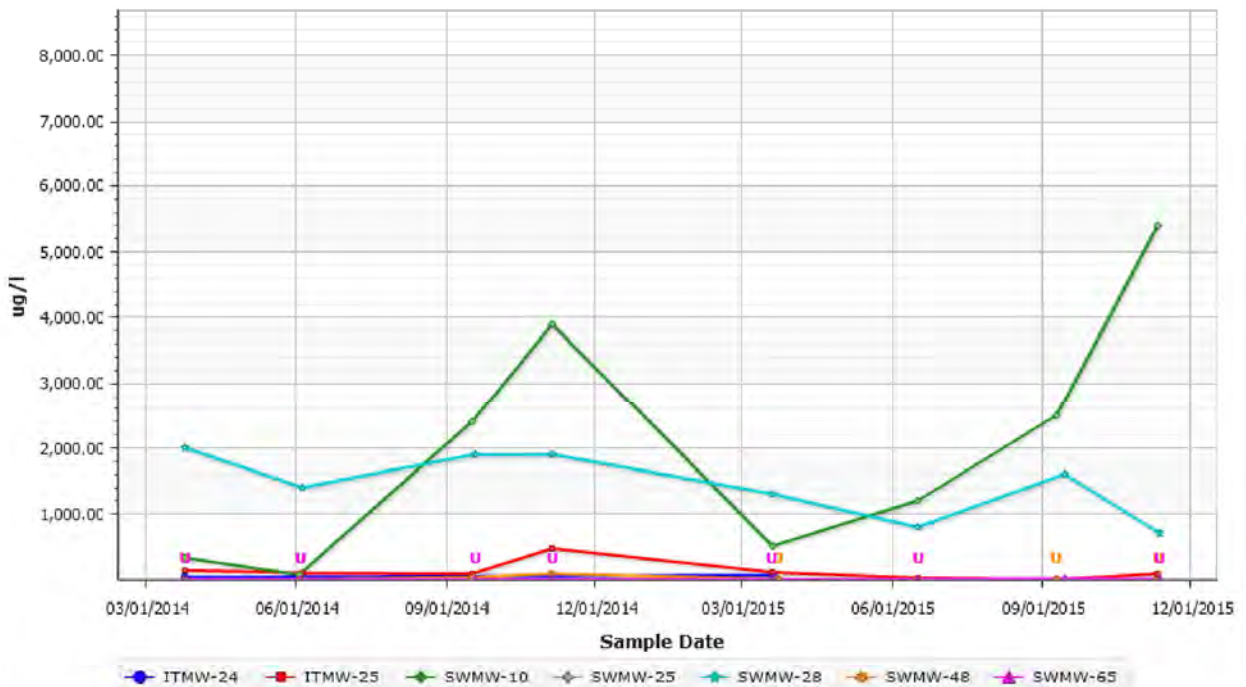
Bld 45 55 Overburden Manganese

Site: Beacon, NY

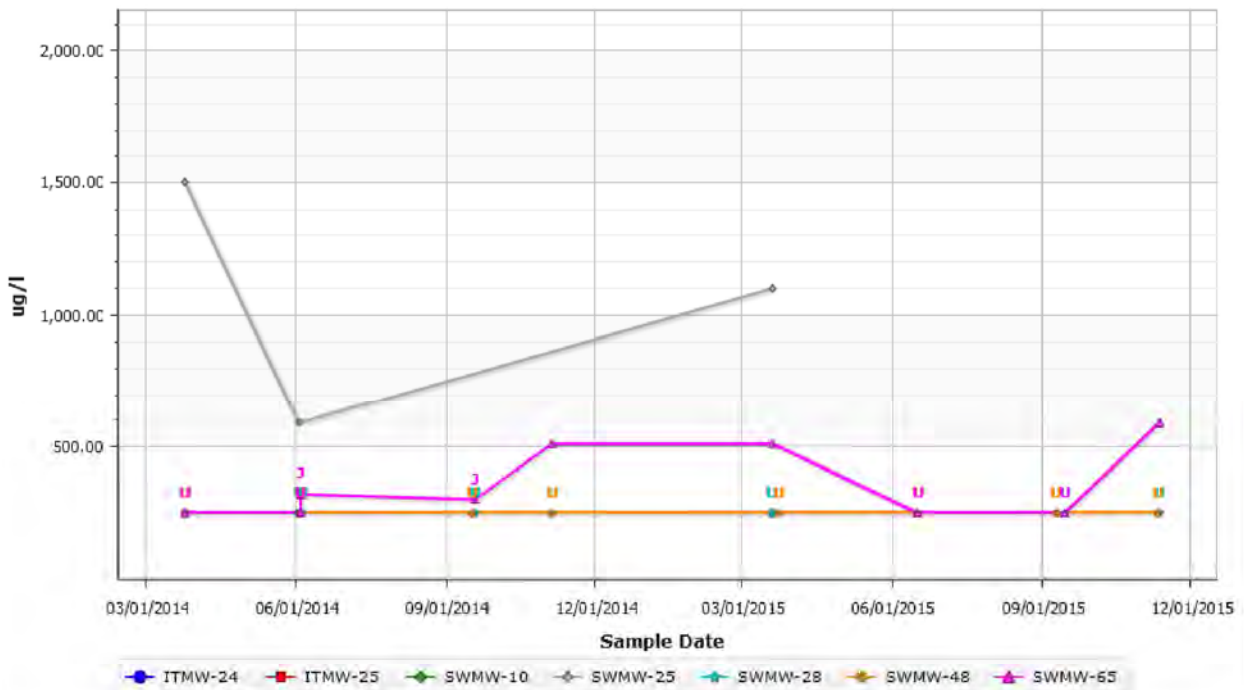


Bld 45 55 Overburden Methane

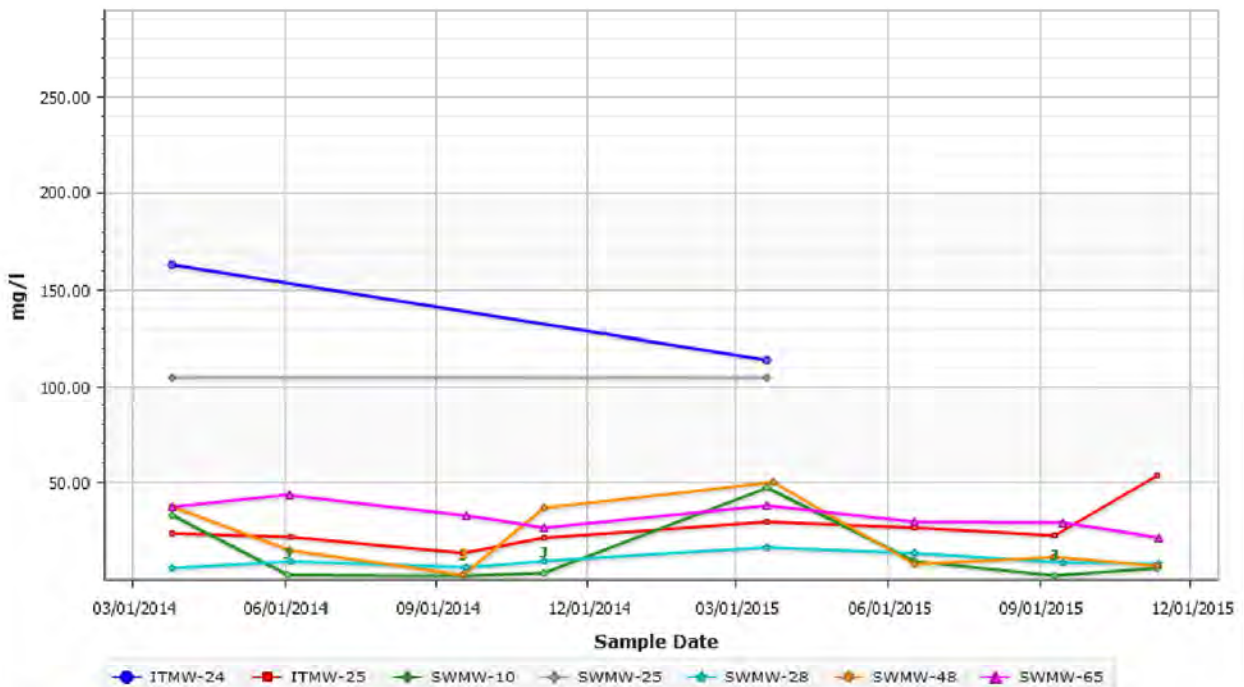
Site: Beacon, NY



Bld 45 55 Overburden Nitrogen, Nitrate as N
Site: Beacon, NY

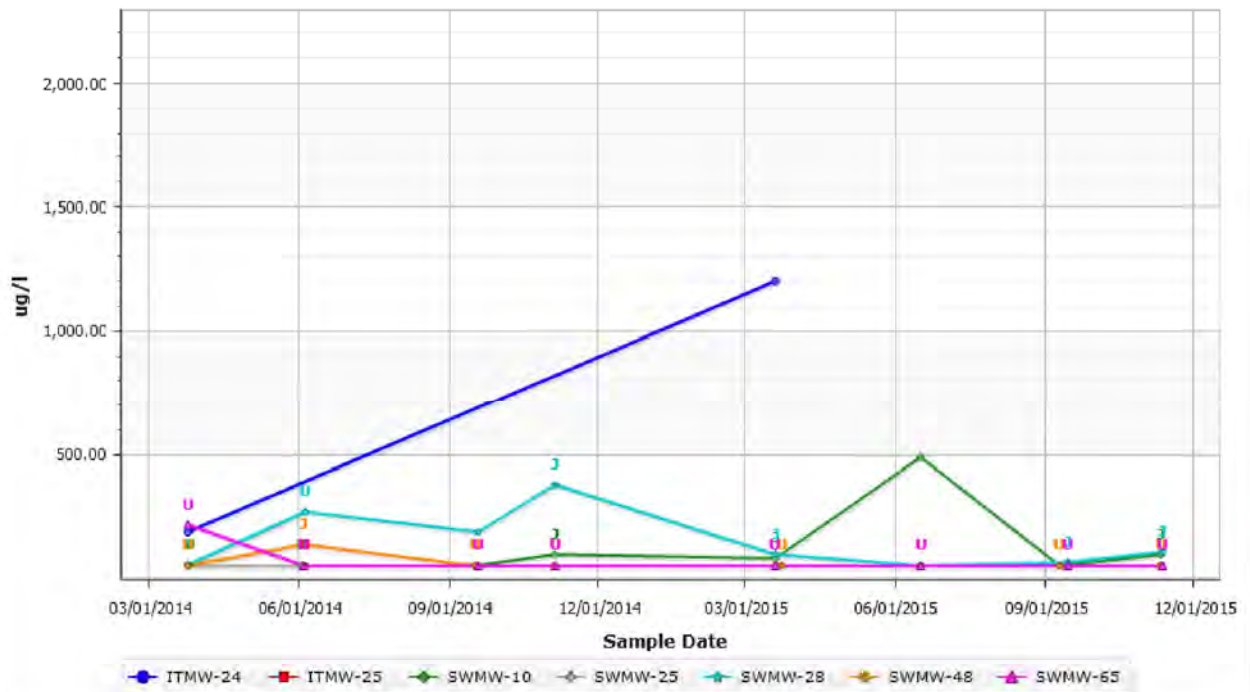


Bld 45 55 Overburden Sulfate (SO4)
Site: Beacon, NY



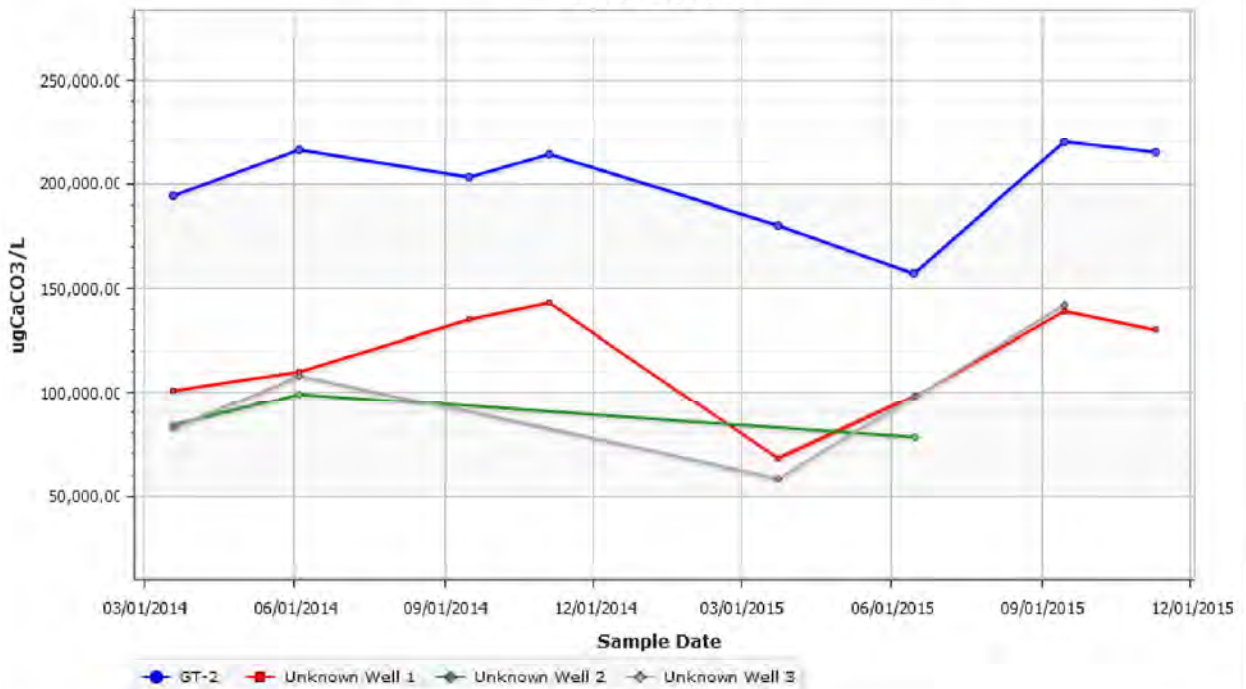
Bld 45 55 Overburden Sulfide

Site: Beacon, NY



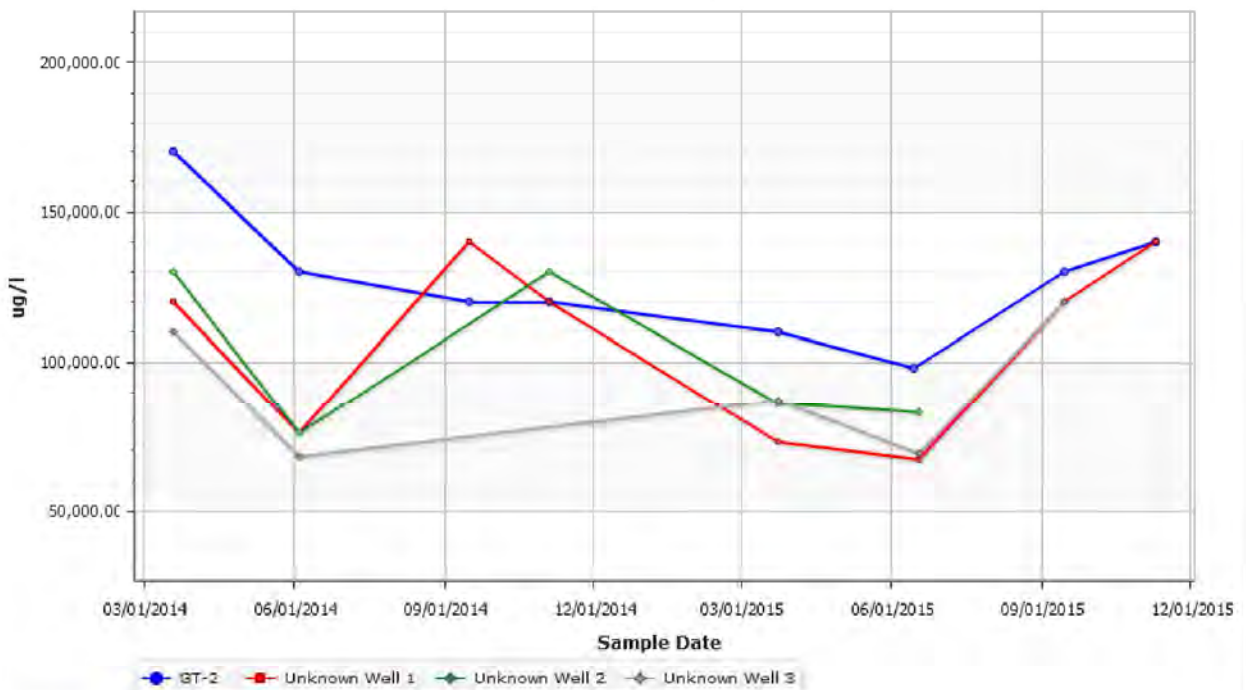
Bld 36 58 83 Overburden Alkalinity, Total as CaCO3

Site: Beacon, NY



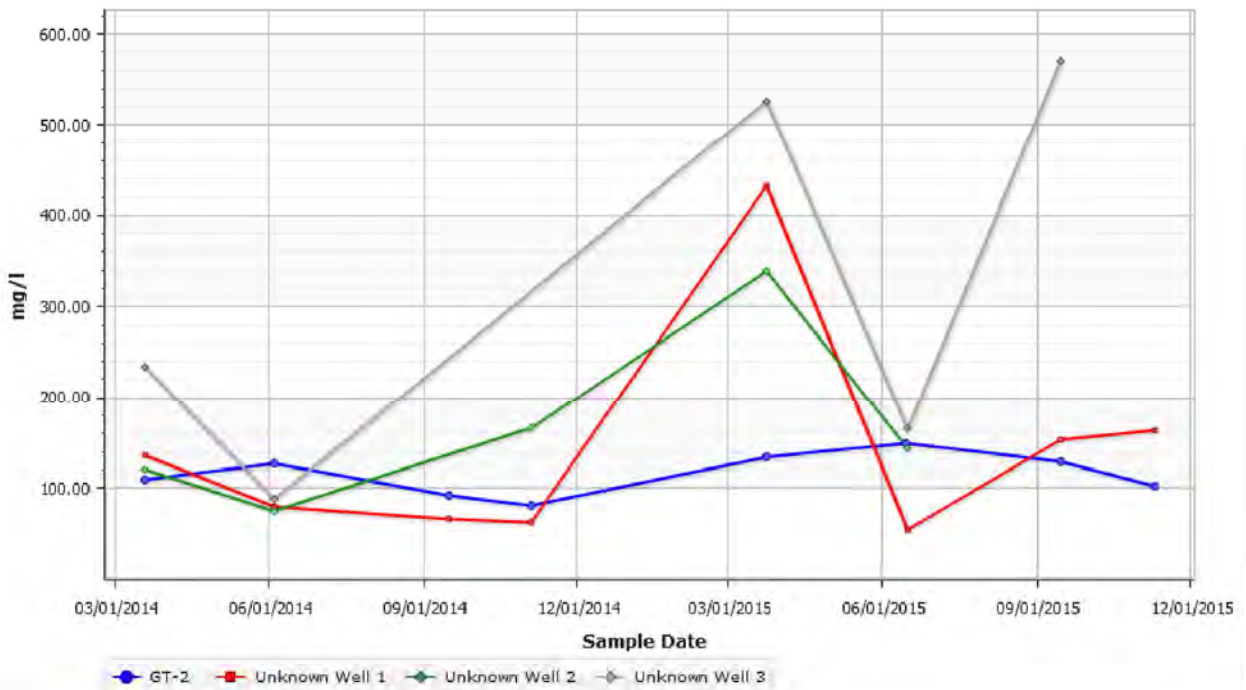
Bld 36 58 83 Overburden CARBON DIOXIDE

Site: Beacon, NY



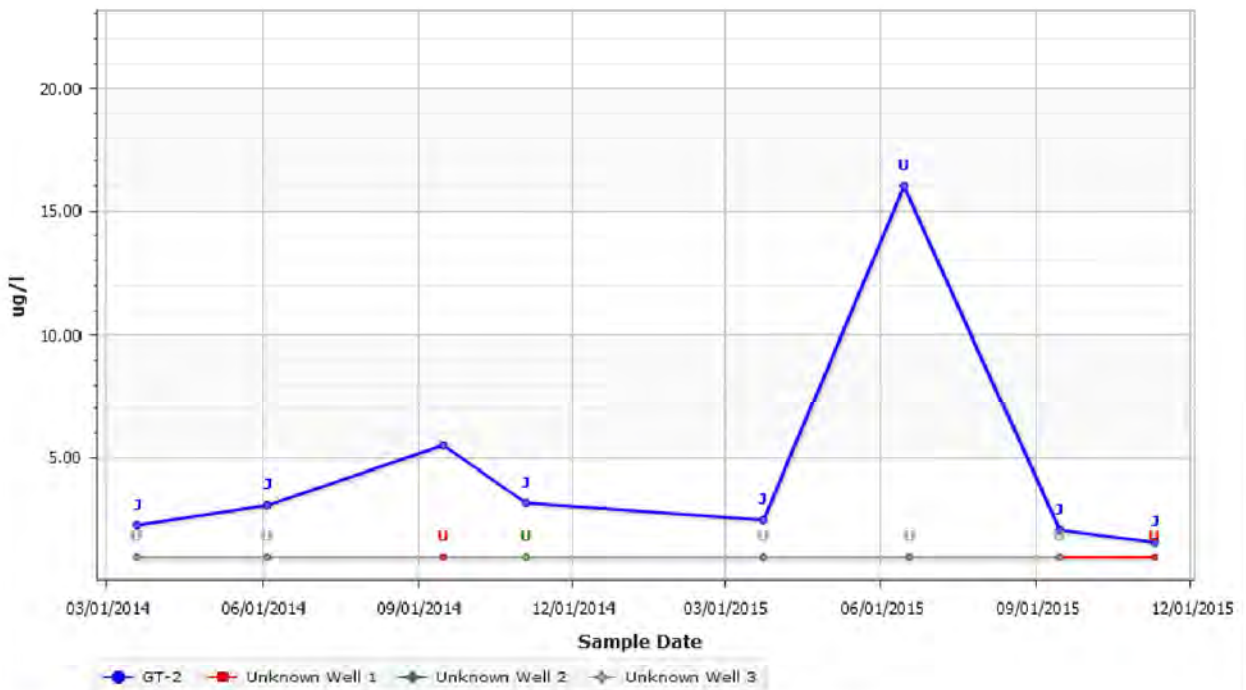
Bld 36 58 83 Overburden Chloride

Site: Beacon, NY



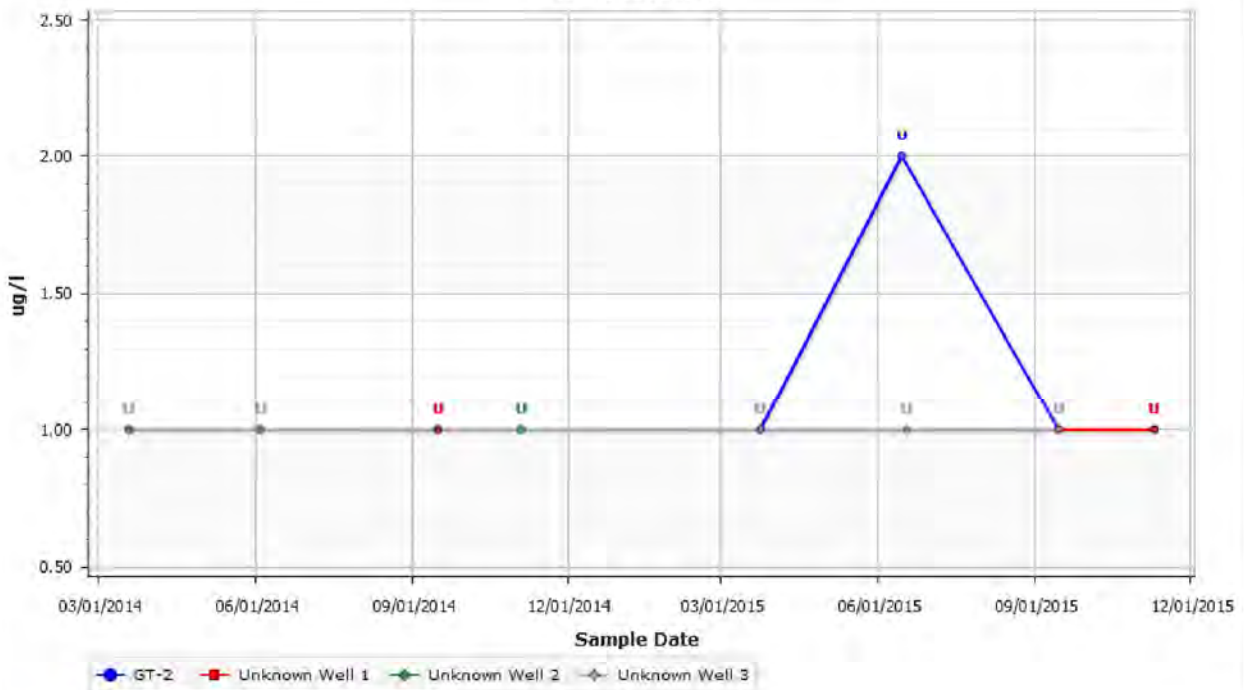
Bld 36 58 83 Overburden Ethane

Site: Beacon, NY



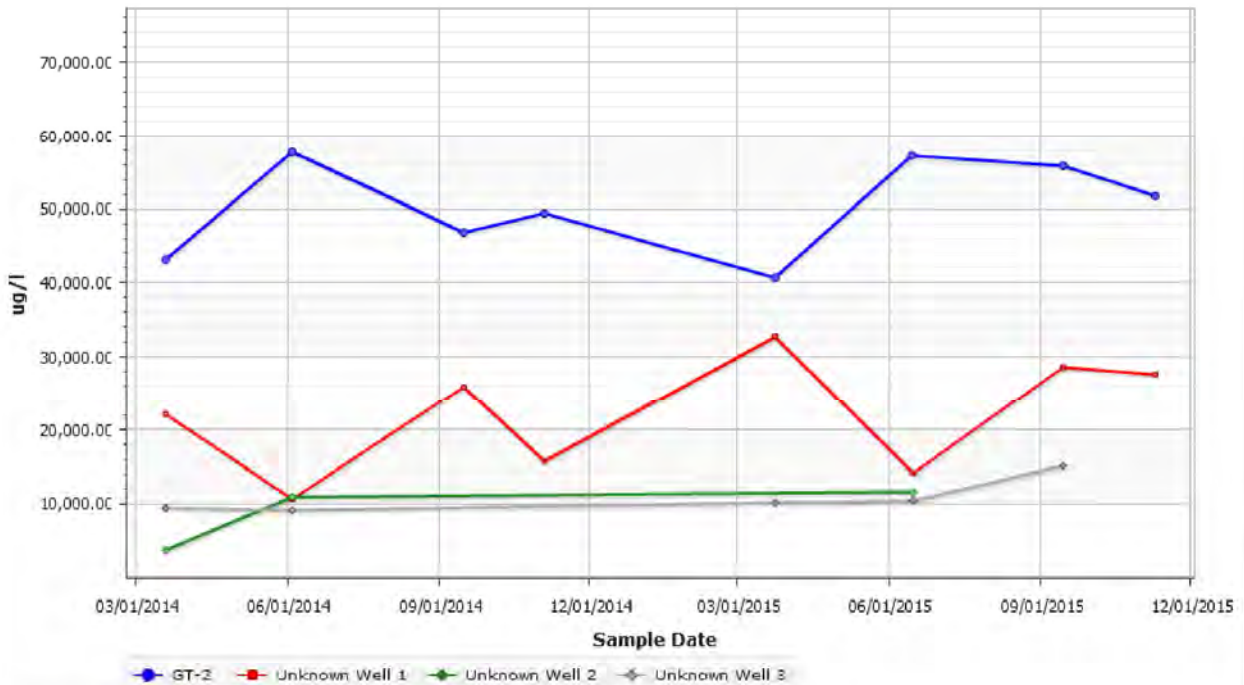
Bld 36 58 83 Overburden Ethene

Site: Beacon, NY



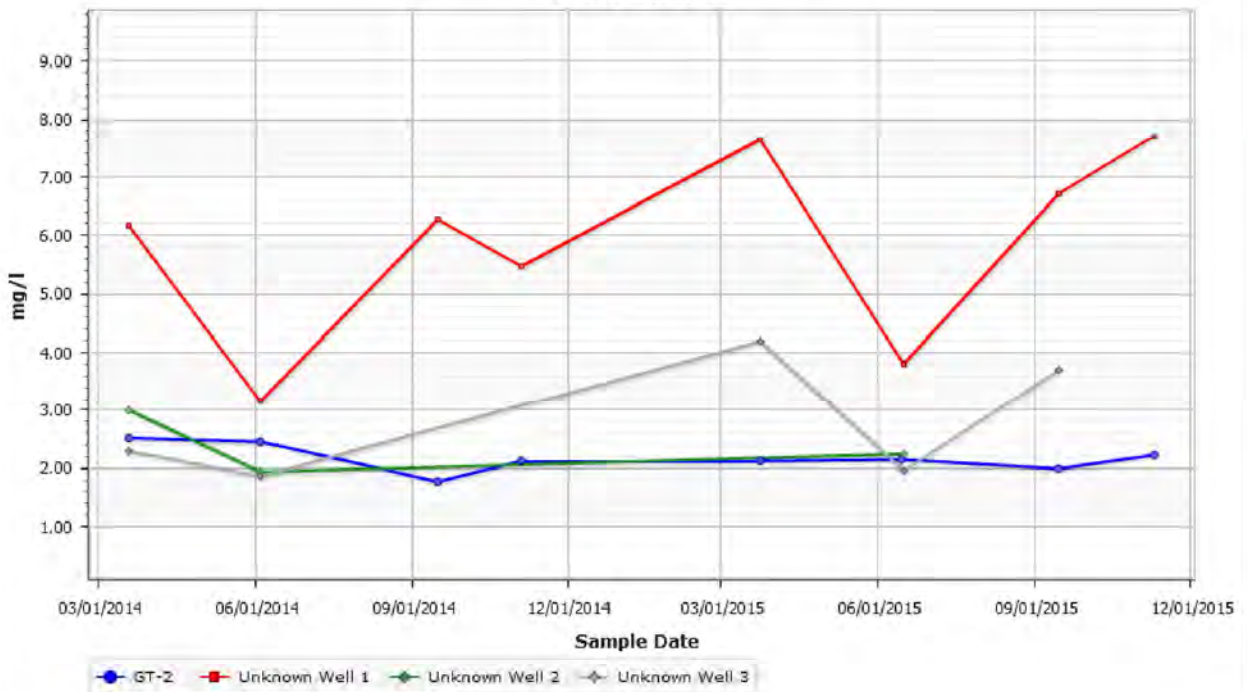
Bld 36 58 83 Overburden Ferrous Iron

Site: Beacon, NY



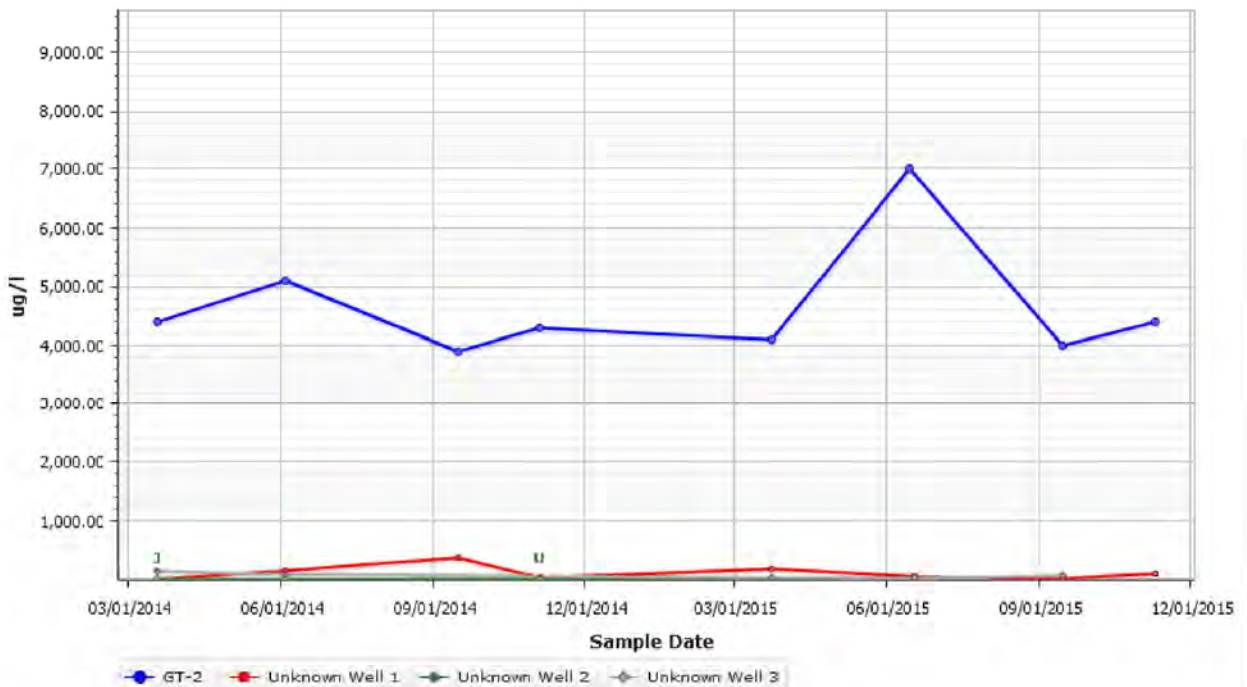
Bld 36 58 83 Overburden Manganese

Site: Beacon, NY



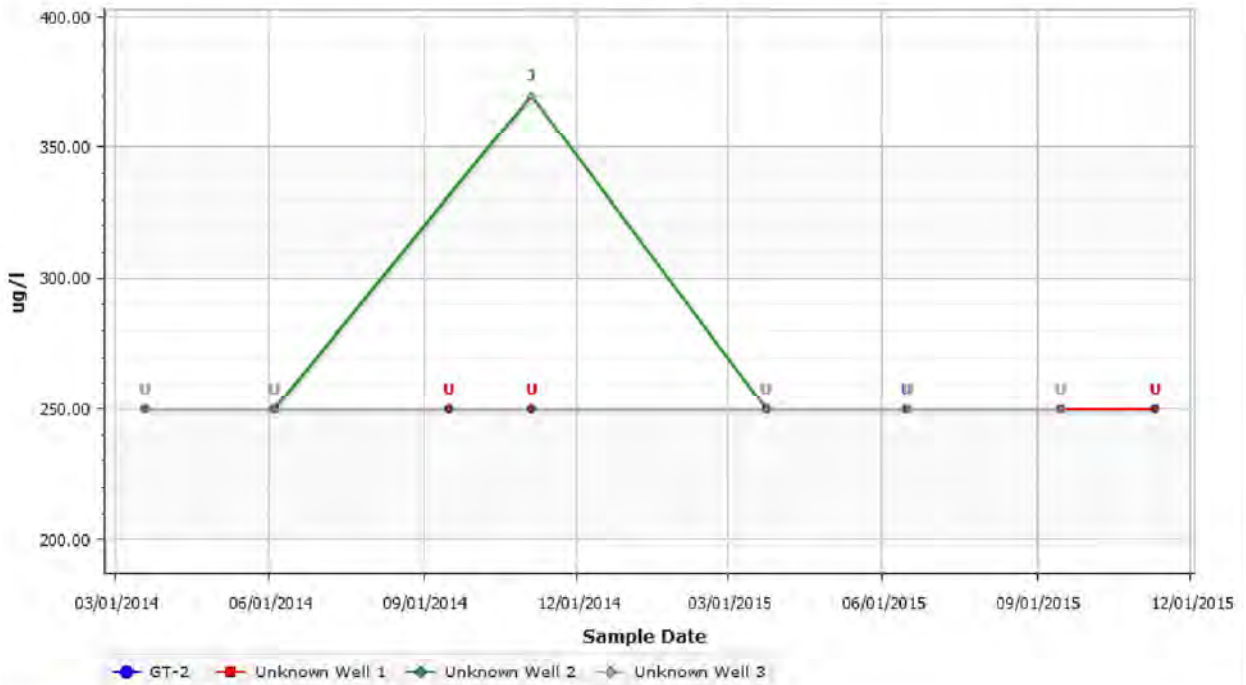
Bld 36 58 83 Overburden Methane

Site: Beacon, NY



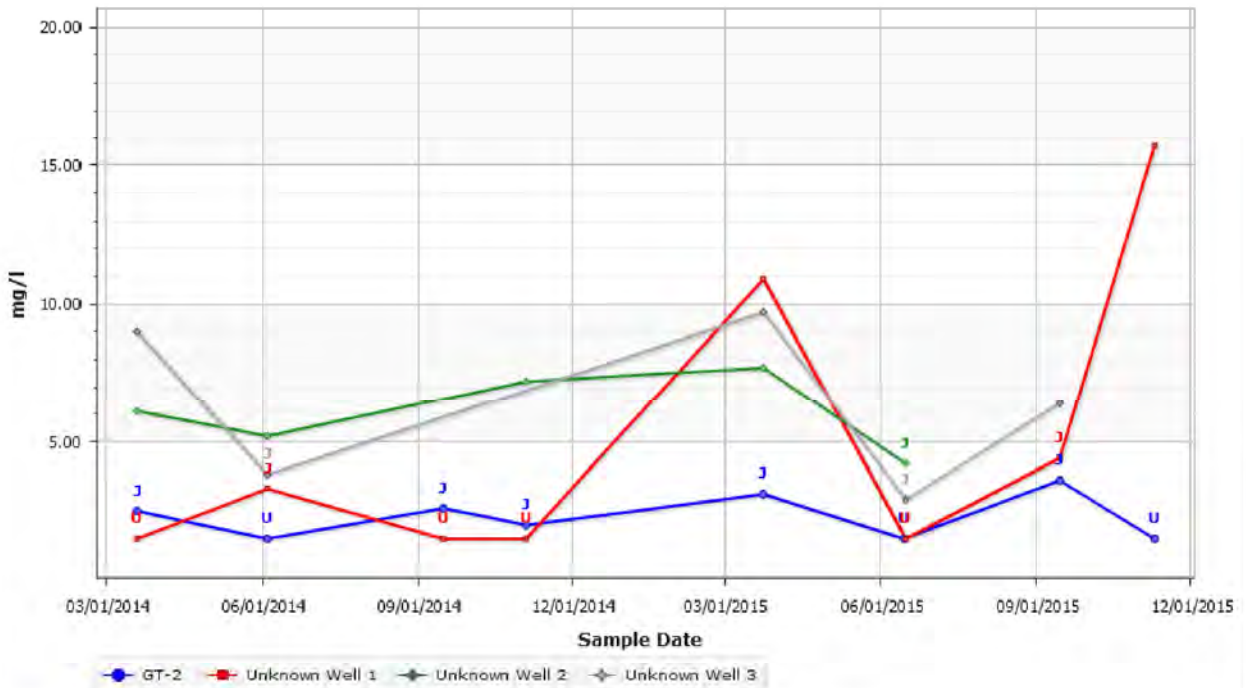
Bld 36 58 83 Overburden Nitrogen, Nitrate as N

Site: Beacon, NY



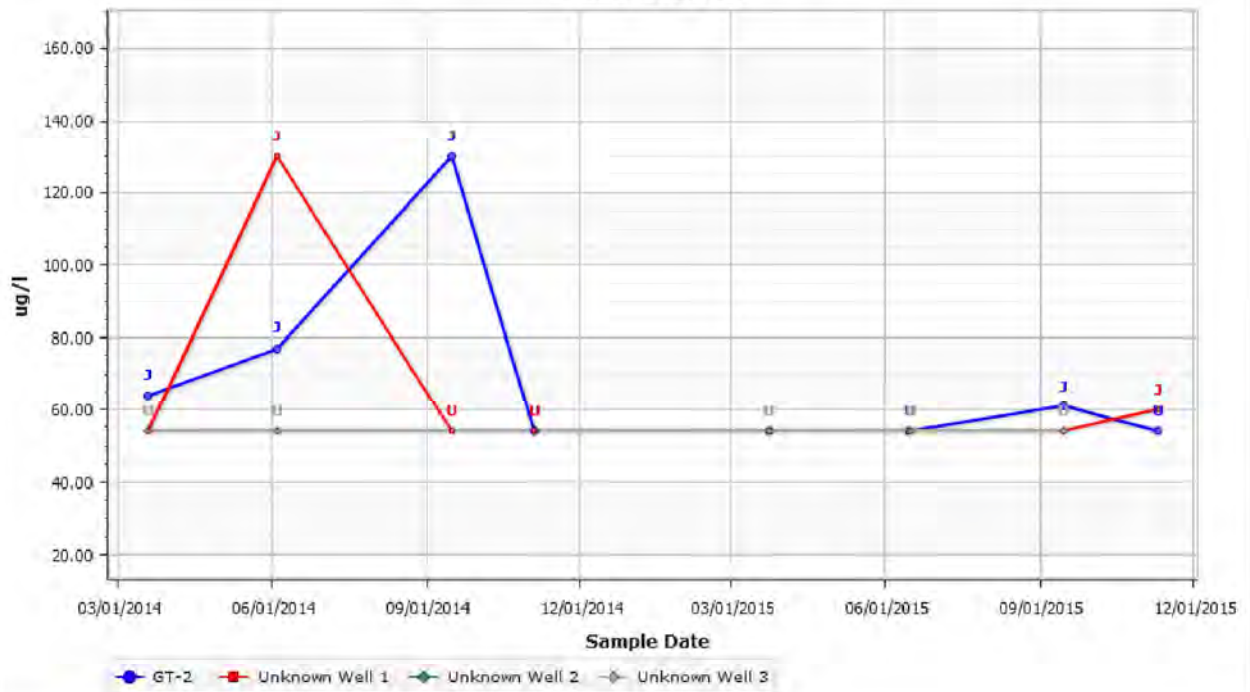
Bld 36 58 83 Overburden Sulfate (SO4)

Site: Beacon, NY



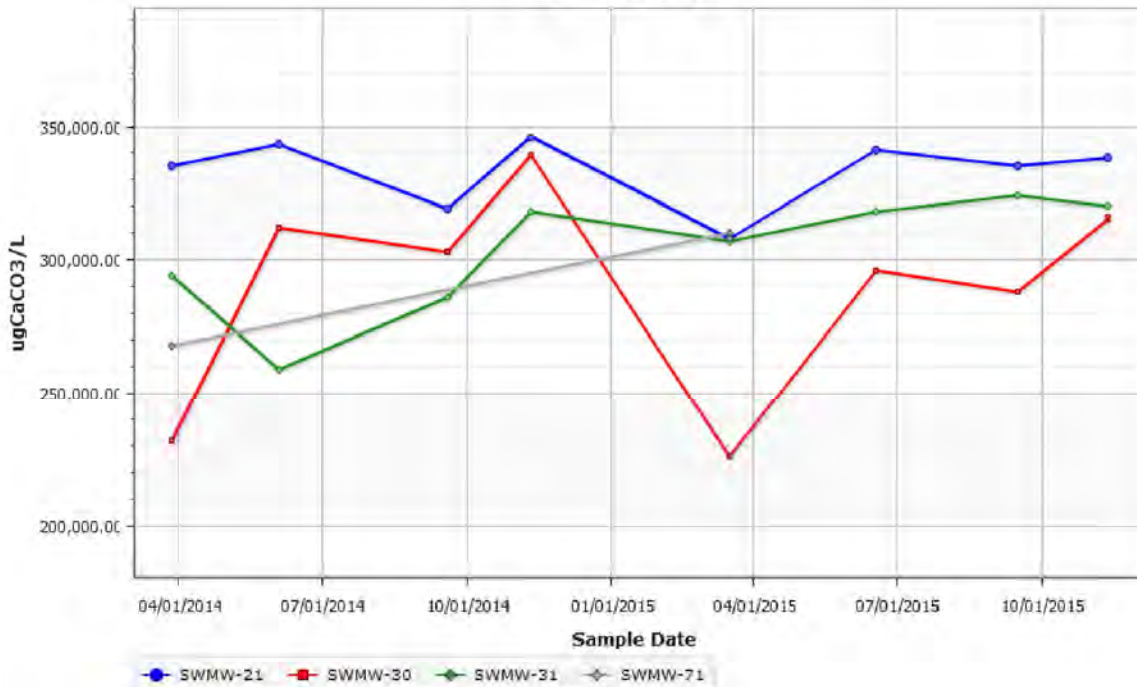
Bld 36 58 83 Overburden Sulfide

Site: Beacon, NY



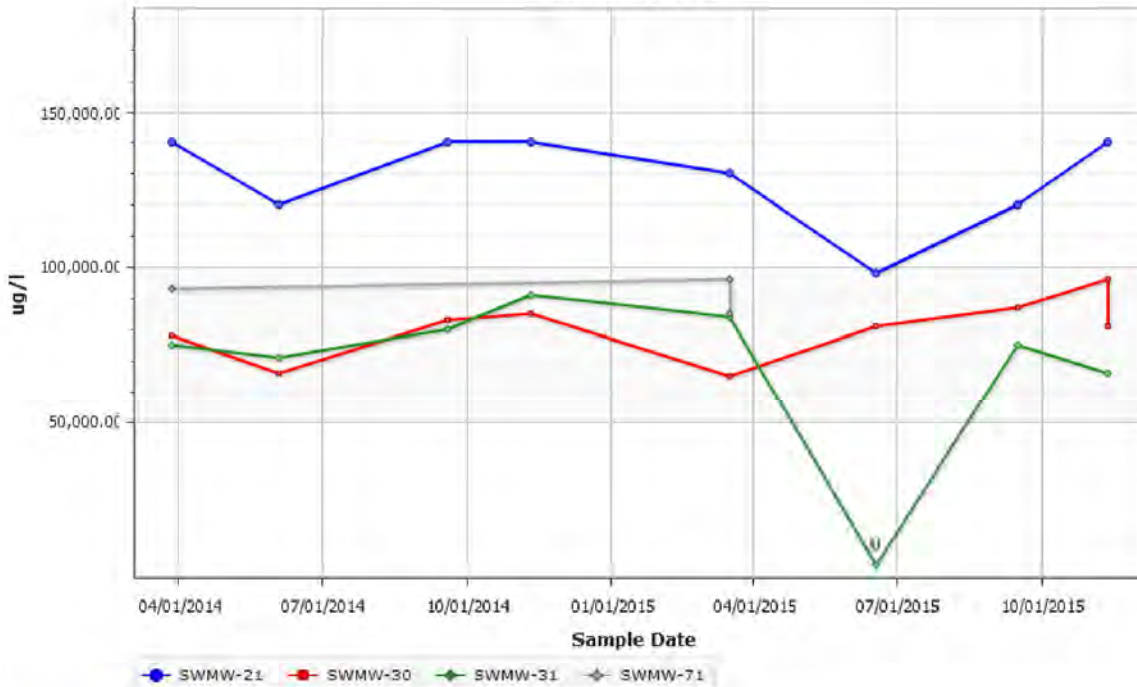
WATF Overburden Alkalinity, Total as CaCO₃

Site: Beacon, NY



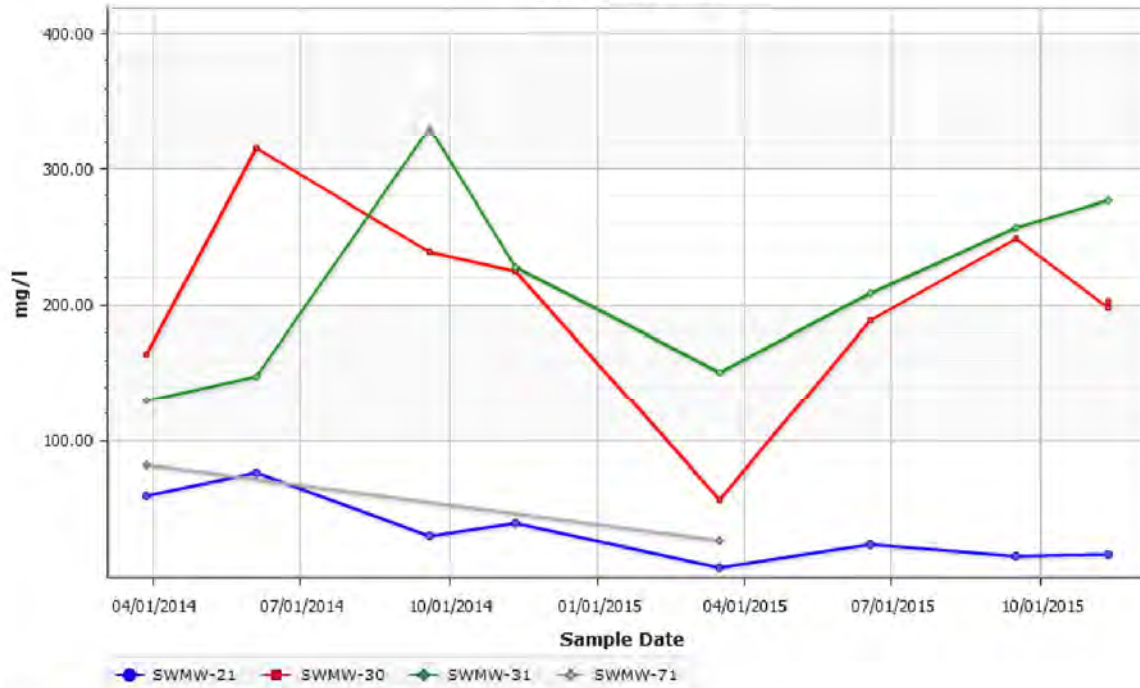
WATF Overburden CARBON DIOXIDE

Site: Beacon, NY



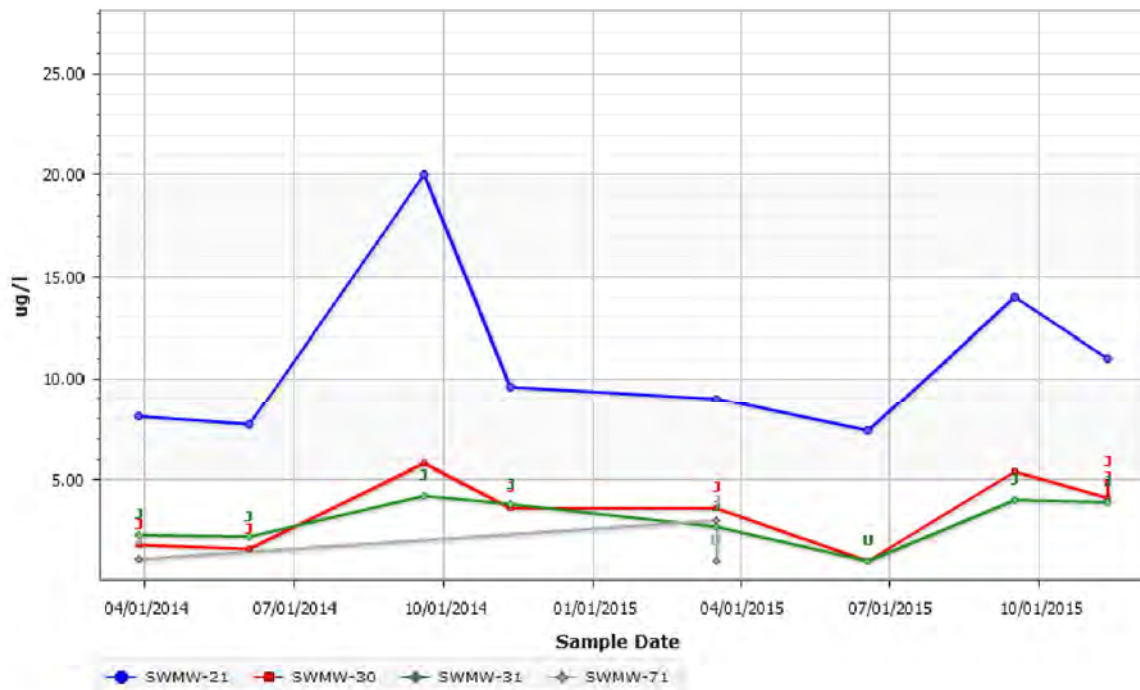
WATF Overburden Chloride

Site: Beacon, NY



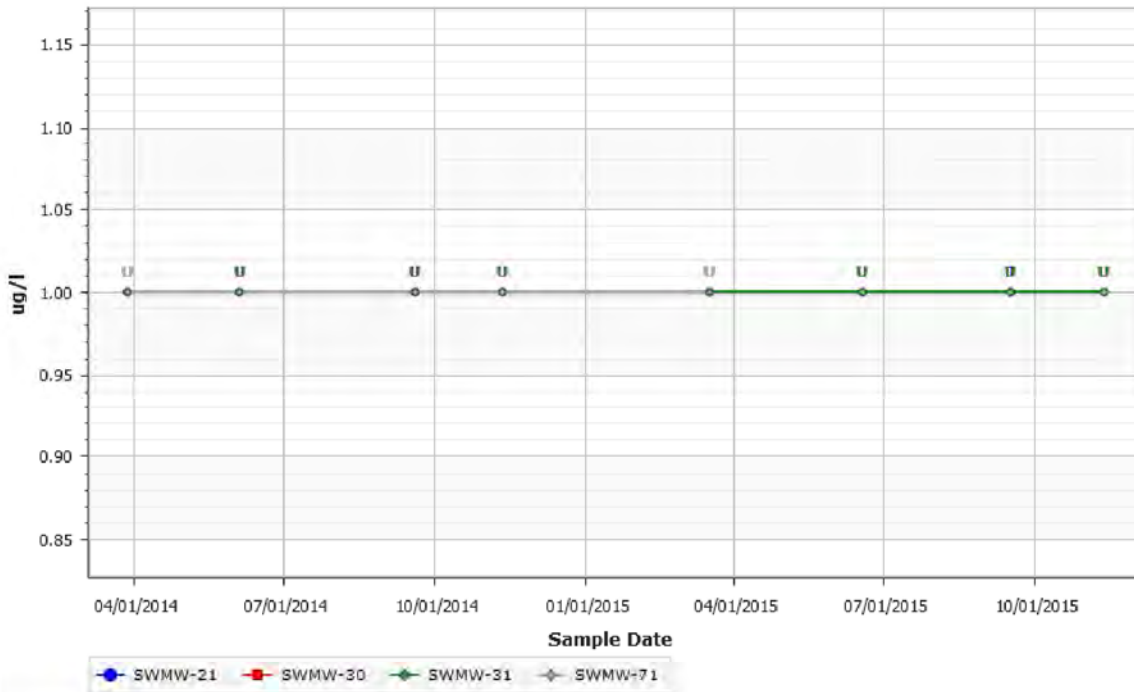
WATF Overburden Ethane

Site: Beacon, NY



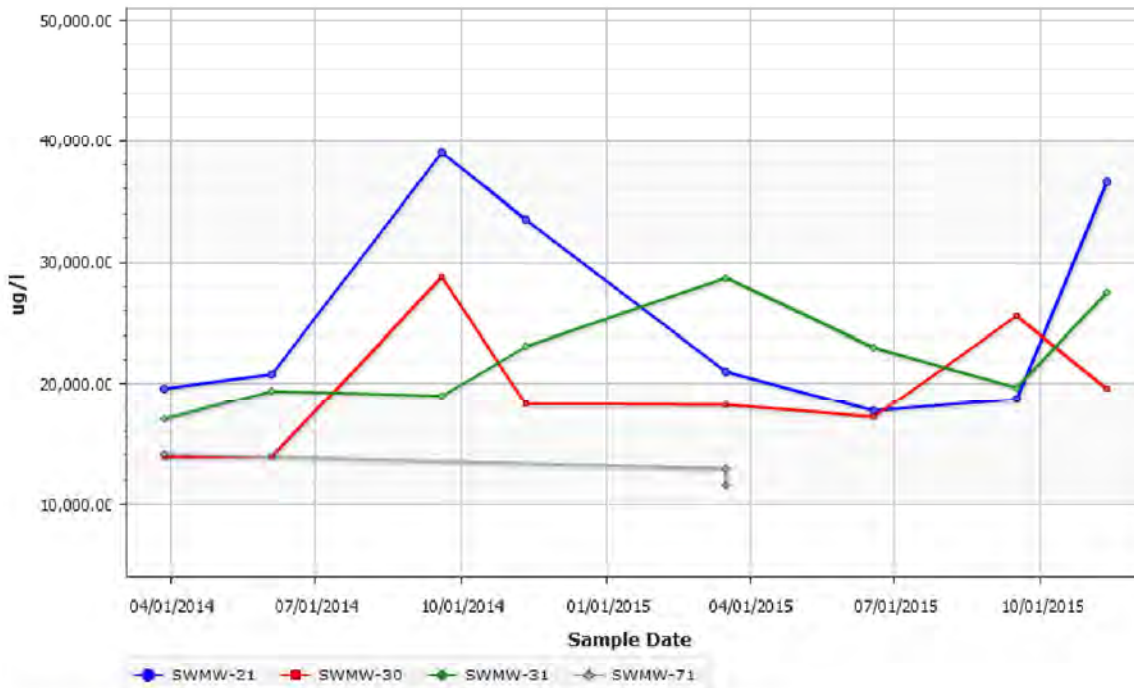
WATF Overburden Ethene

Site: Beacon, NY



WATF Overburden Ferrous Iron

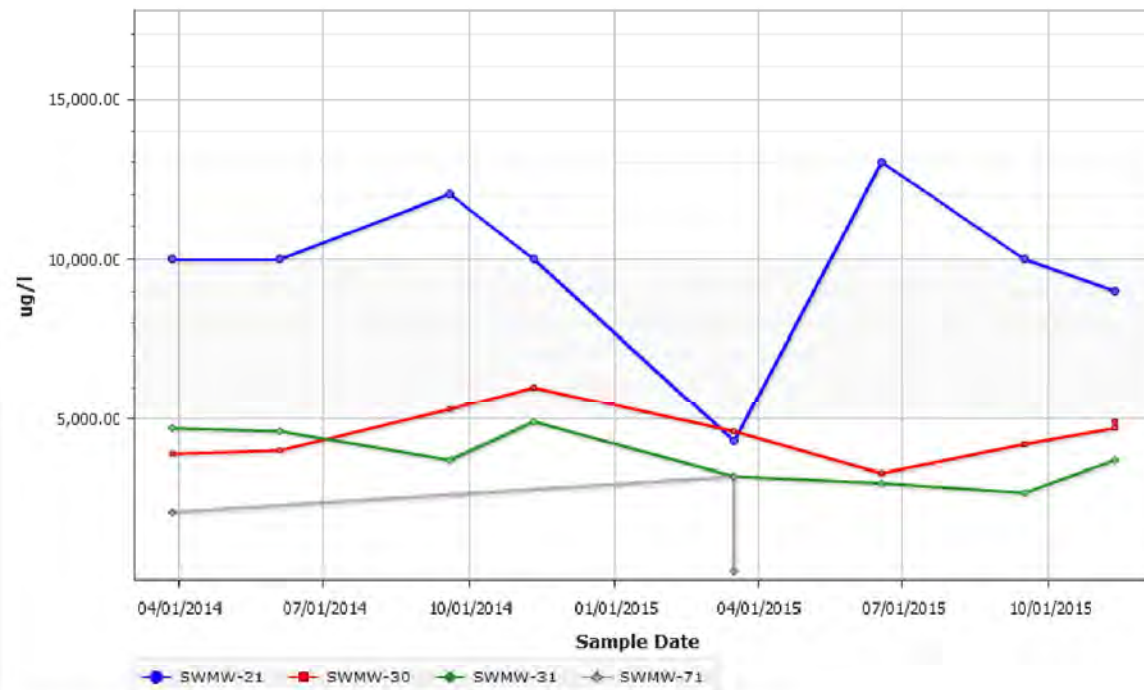
Site: Beacon, NY



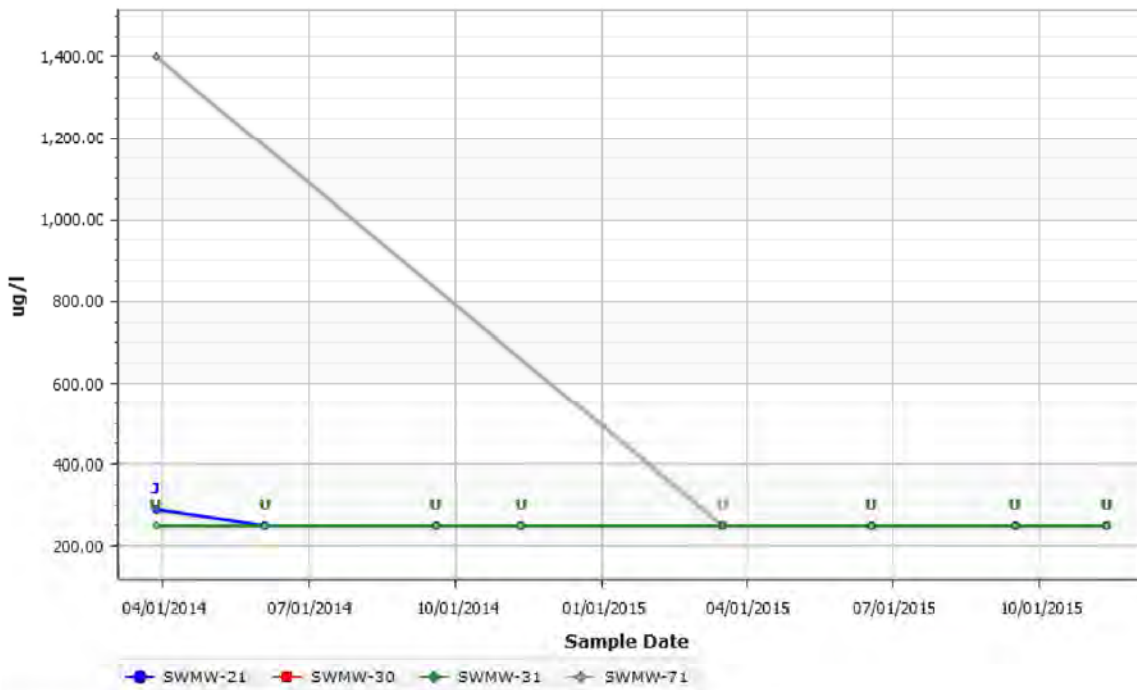
WATF Overburden Manganese Site: Beacon, NY



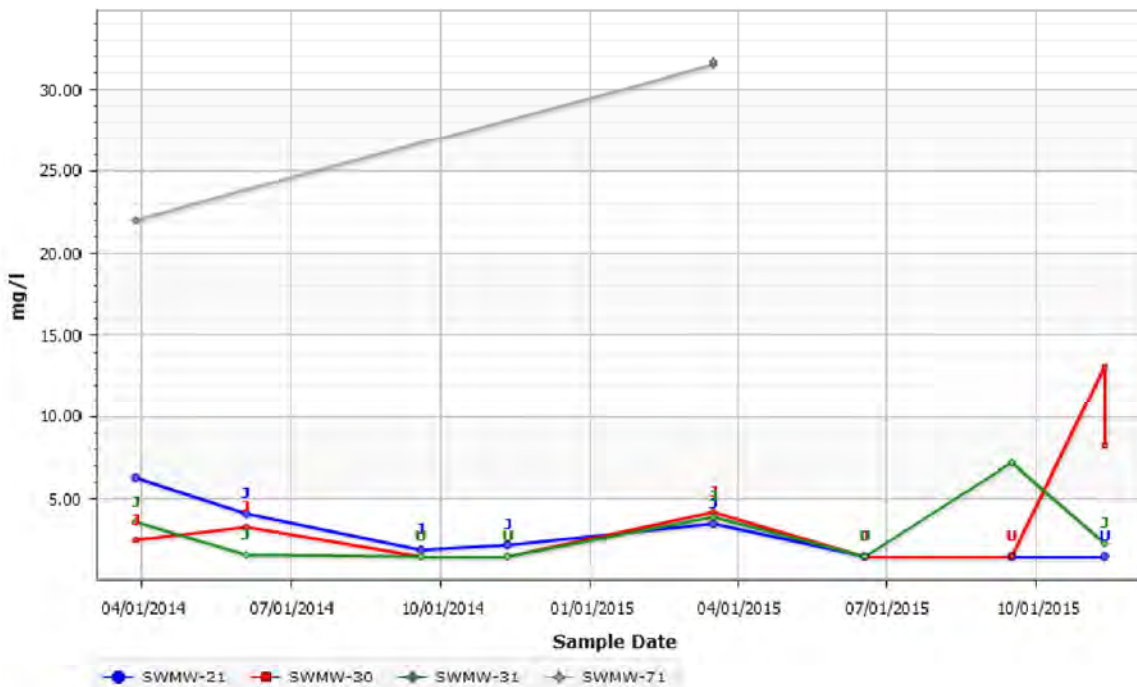
WATF Overburden Methane Site: Beacon, NY



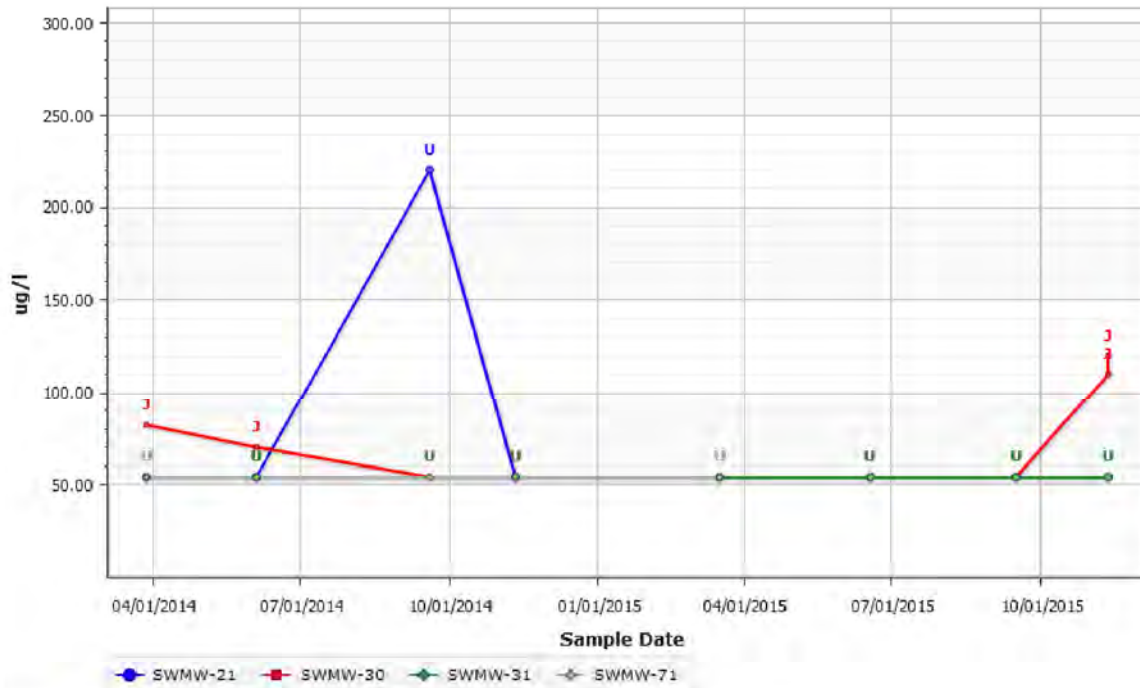
WATF Overburden Nitrogen, Nitrate as N
Site: Beacon, NY



WATF Overburden Sulfate (SO4)
Site: Beacon, NY

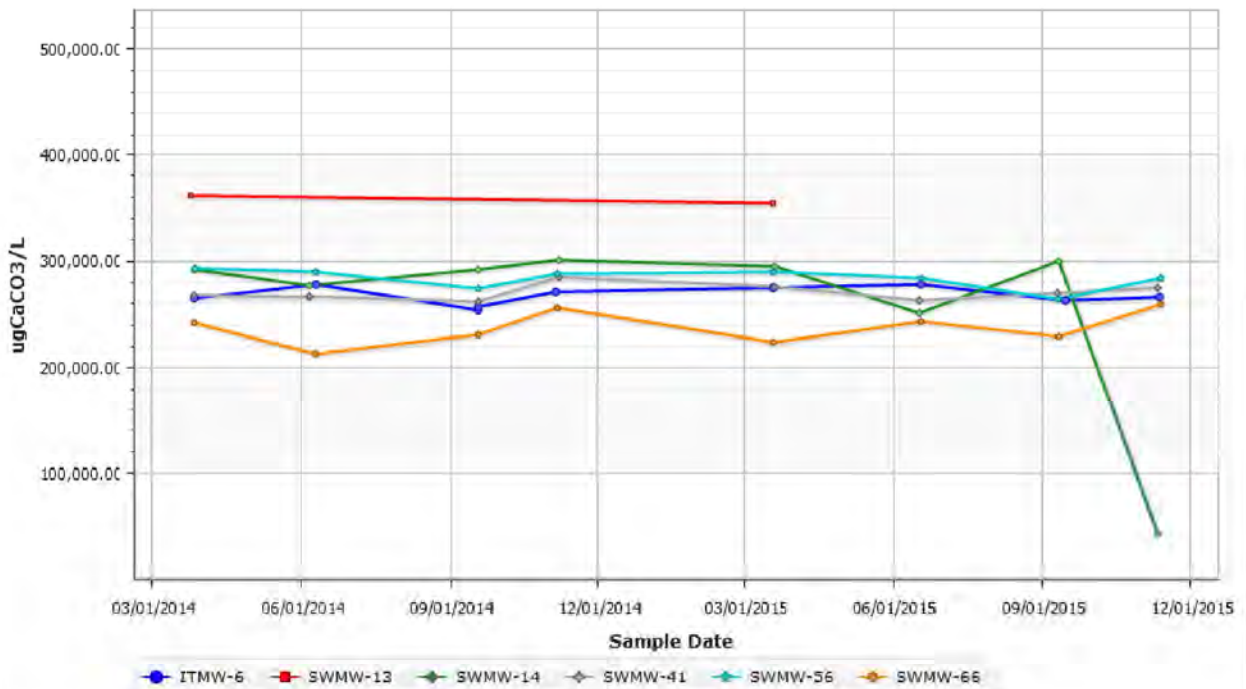


WATF Overburden Sulfide
Site: Beacon, NY



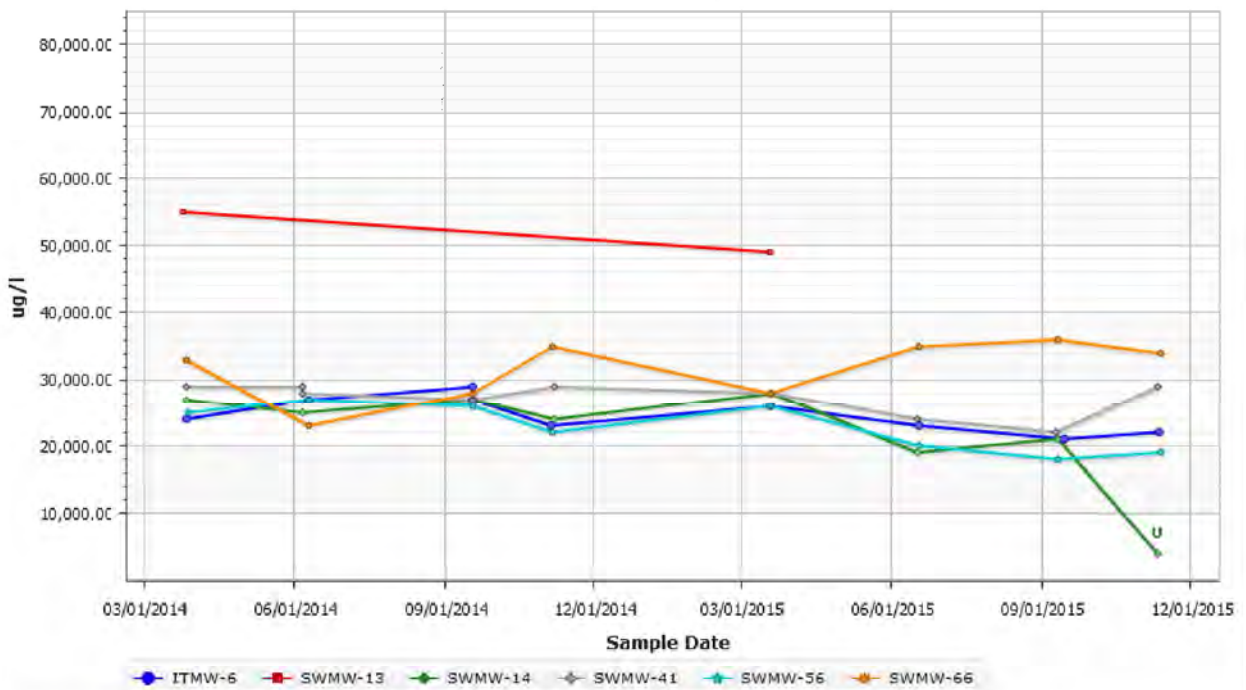
Bld 51 Bedrock Alkalinity, Total as CaCO3

Site: Beacon, NY



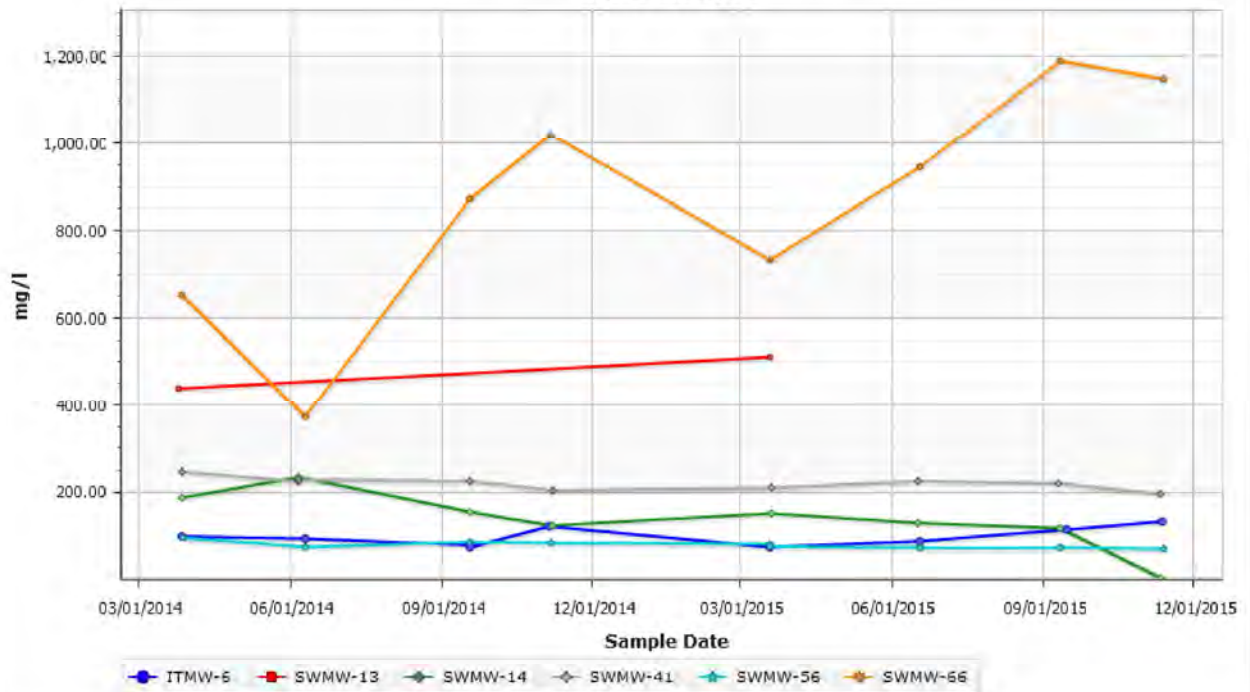
Bld 51 Bedrock CARBON DIOXIDE

Site: Beacon, NY



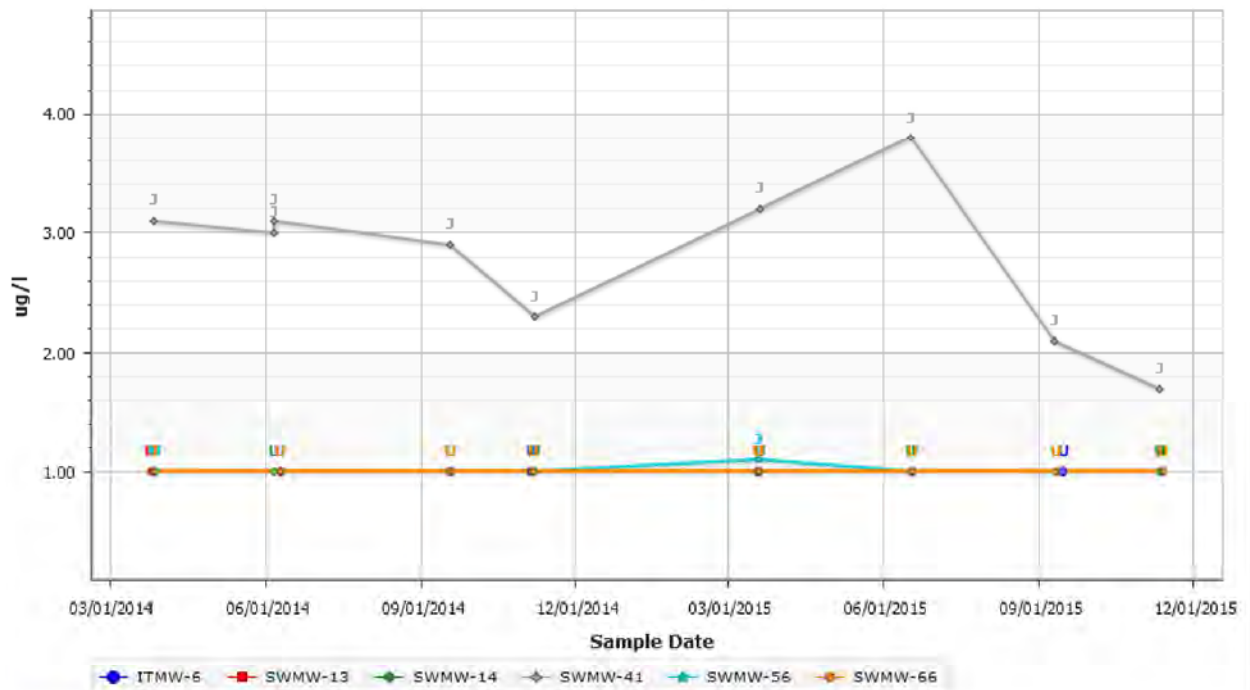
Bld 51 Bedrock Chloride

Site: Beacon, NY



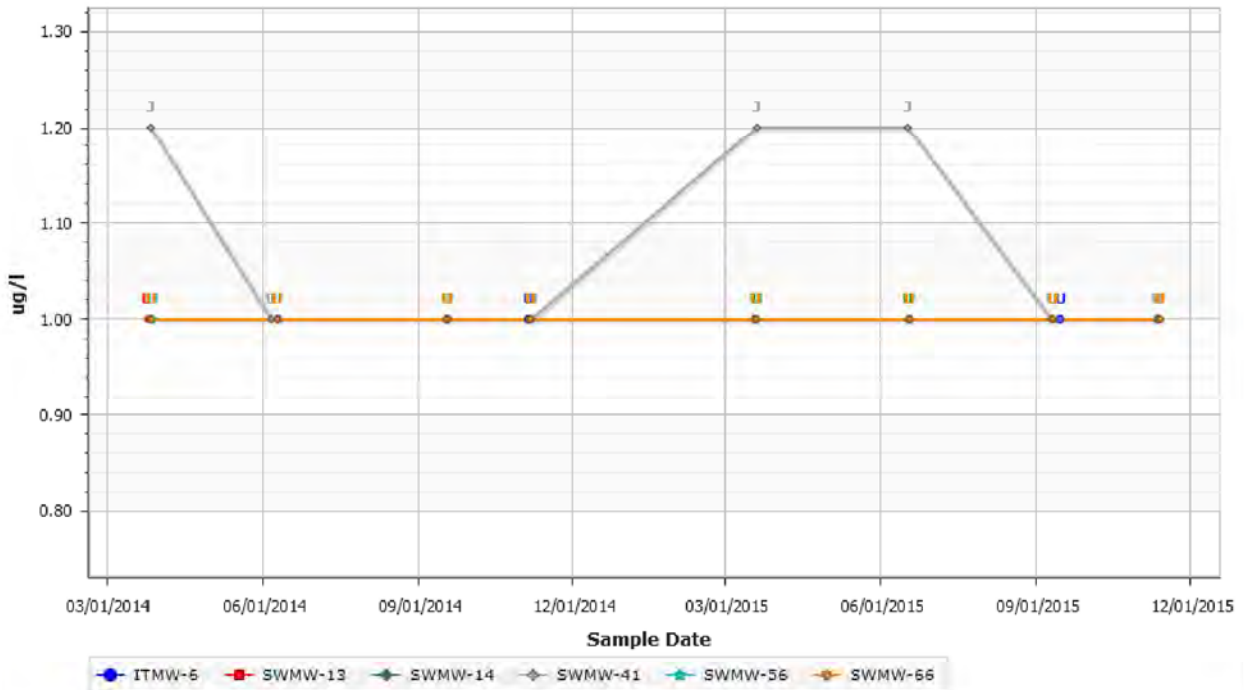
Bld 51 Bedrock Ethane

Site: Beacon, NY



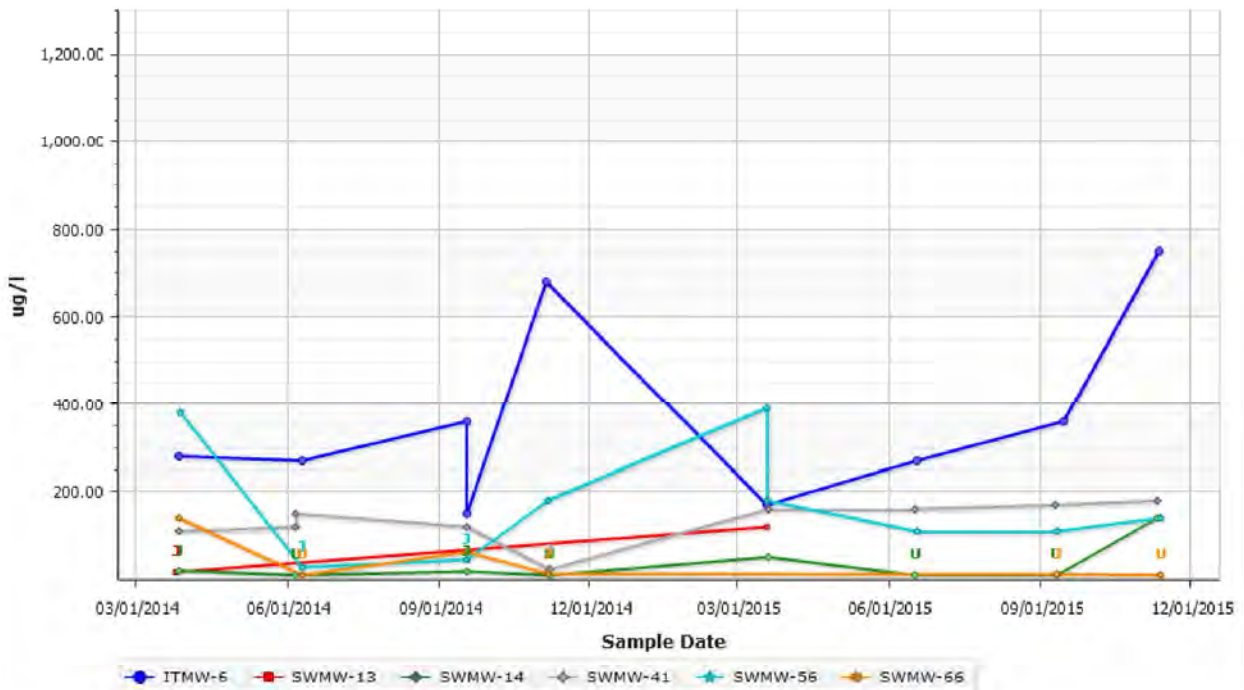
Bld 51 Bedrock Ethene

Site: Beacon, NY



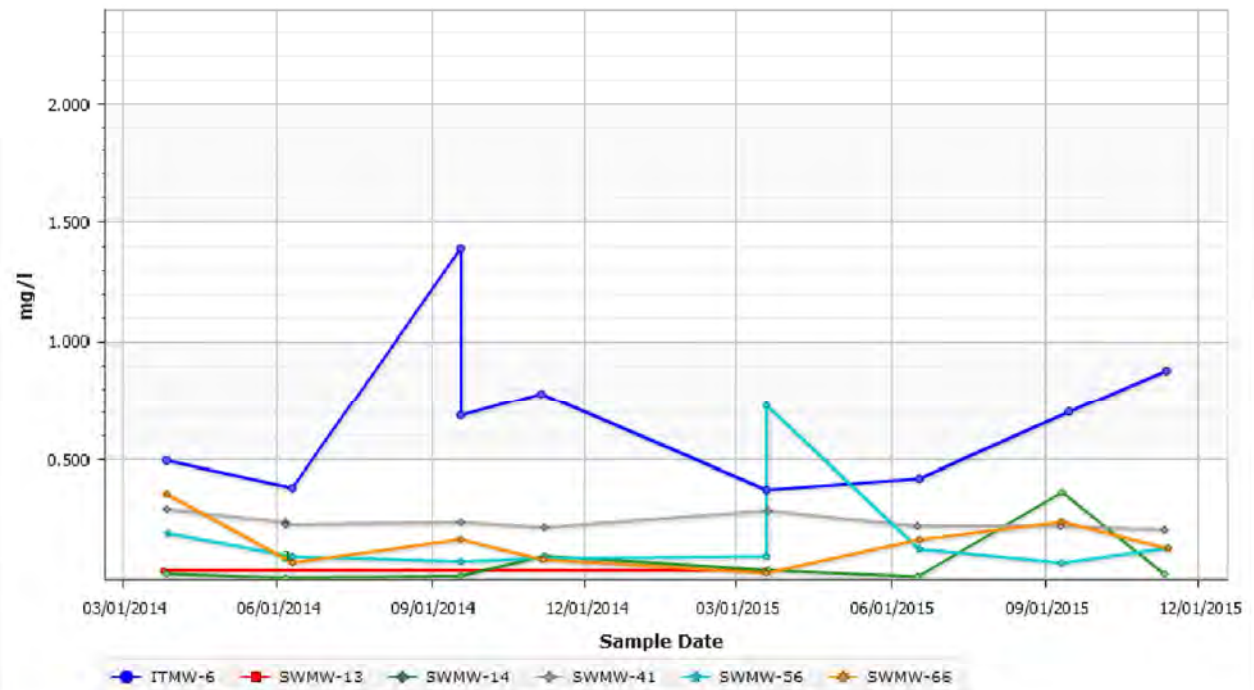
Bld 51 Bedrock Ferrous Iron

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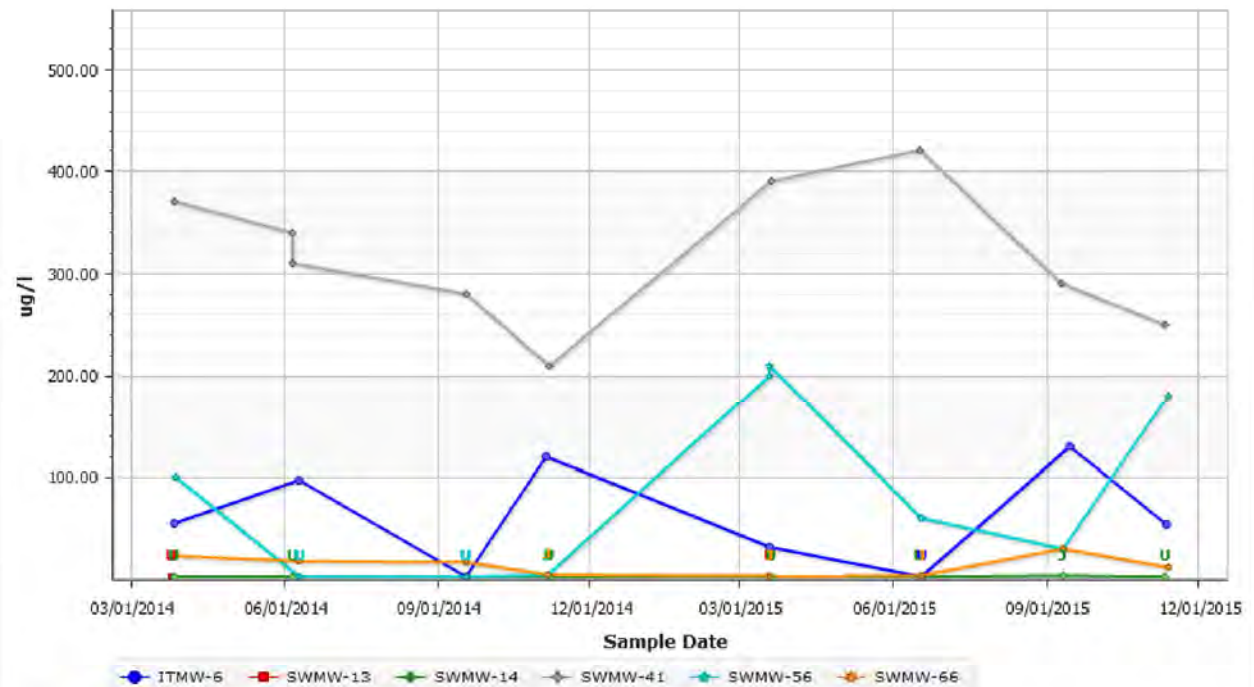
Bld 51 Bedrock Manganese

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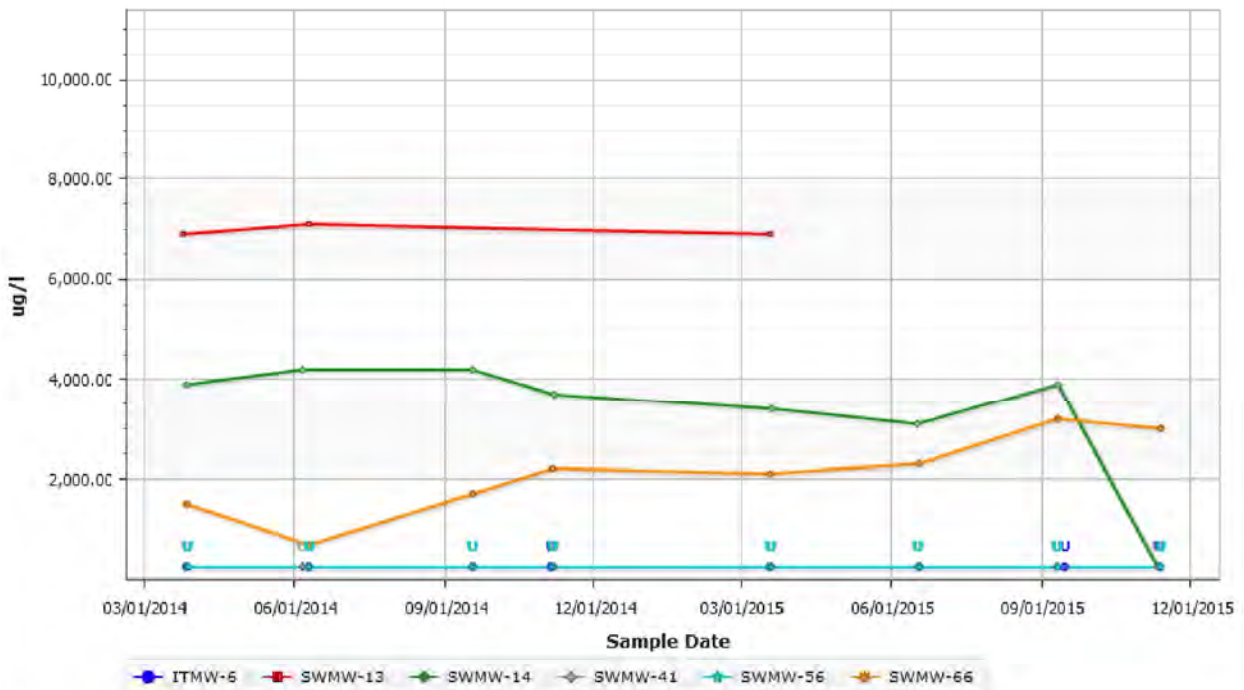
Bld 51 Bedrock Methane

Site: Beacon, NY



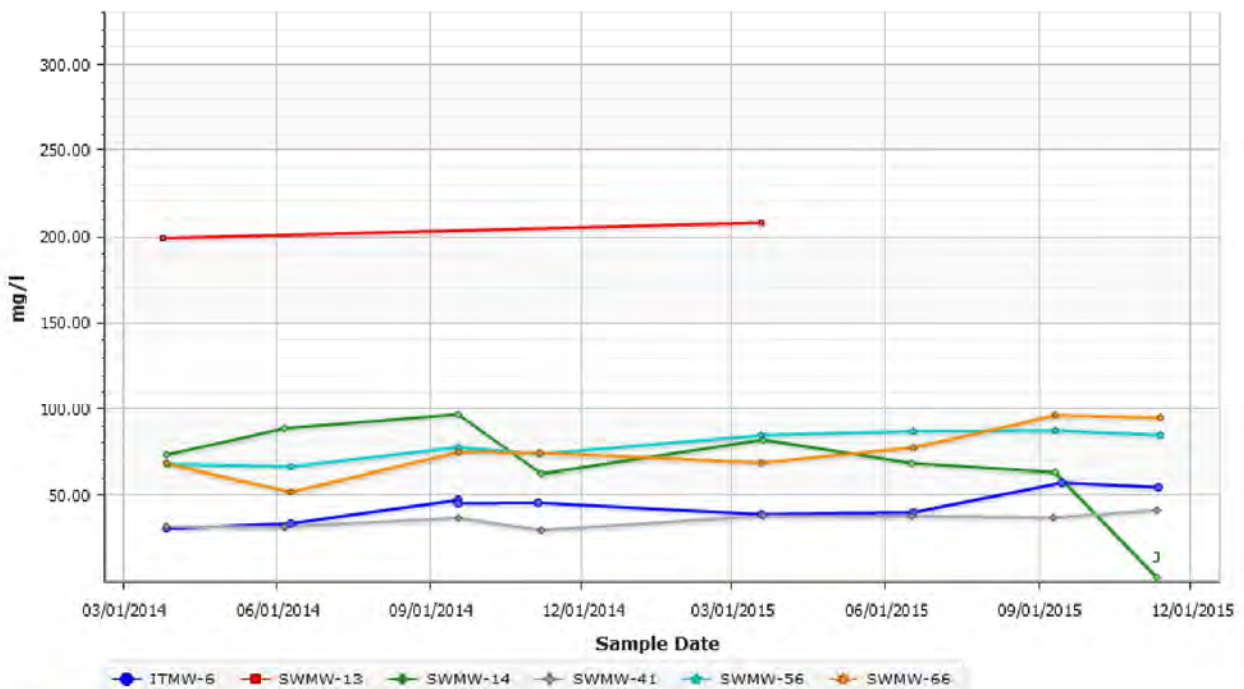
Bld 51 Bedrock Nitrogen, Nitrate as N

Site: Beacon, NY



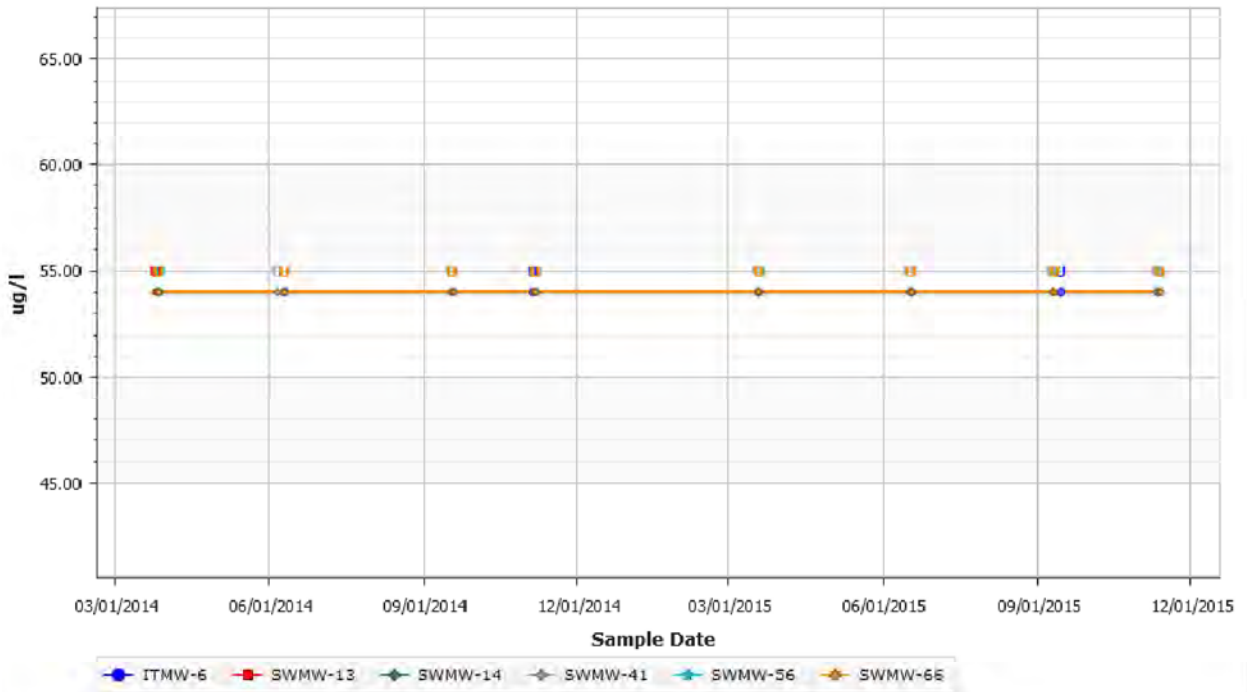
Bld 51 Bedrock Sulfate (SO4)

Site: Beacon, NY



Bld 51 Bedrock Sulfide

Site: Beacon, NY



Bld 51 Bedrock Alkalinity, Total as CaCO3

Site: Beacon, NY



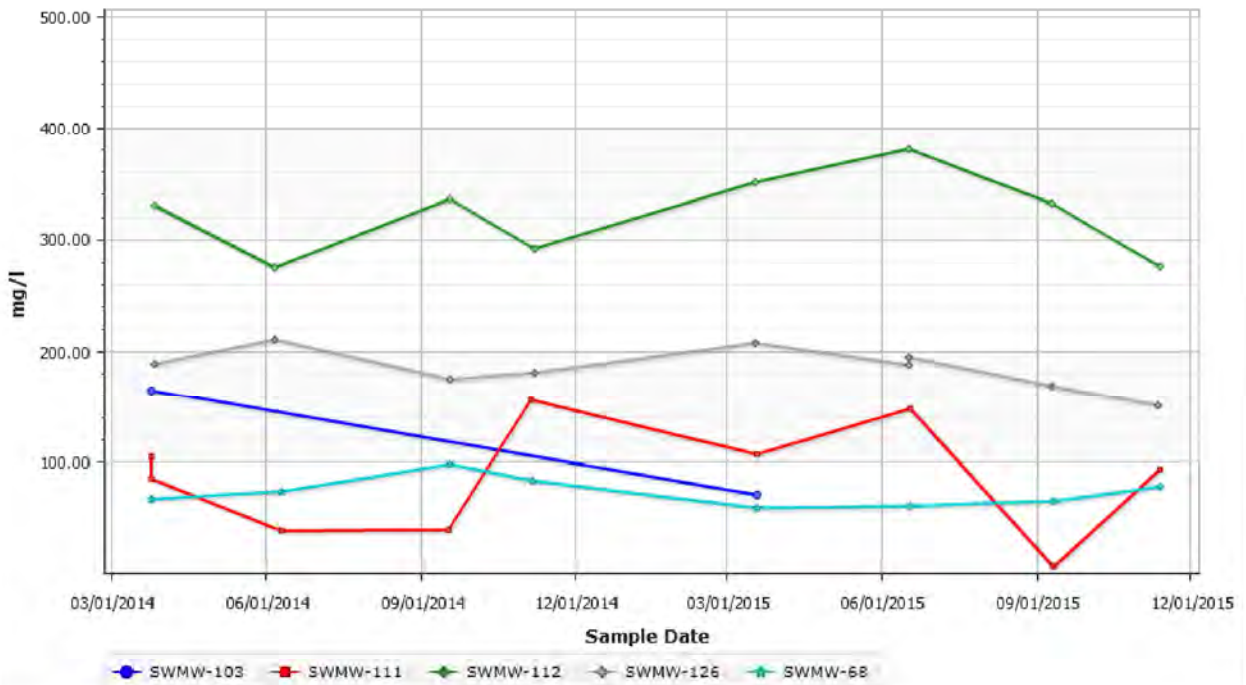
Bld 51 Bedrock CARBON DIOXIDE

Site: Beacon, NY



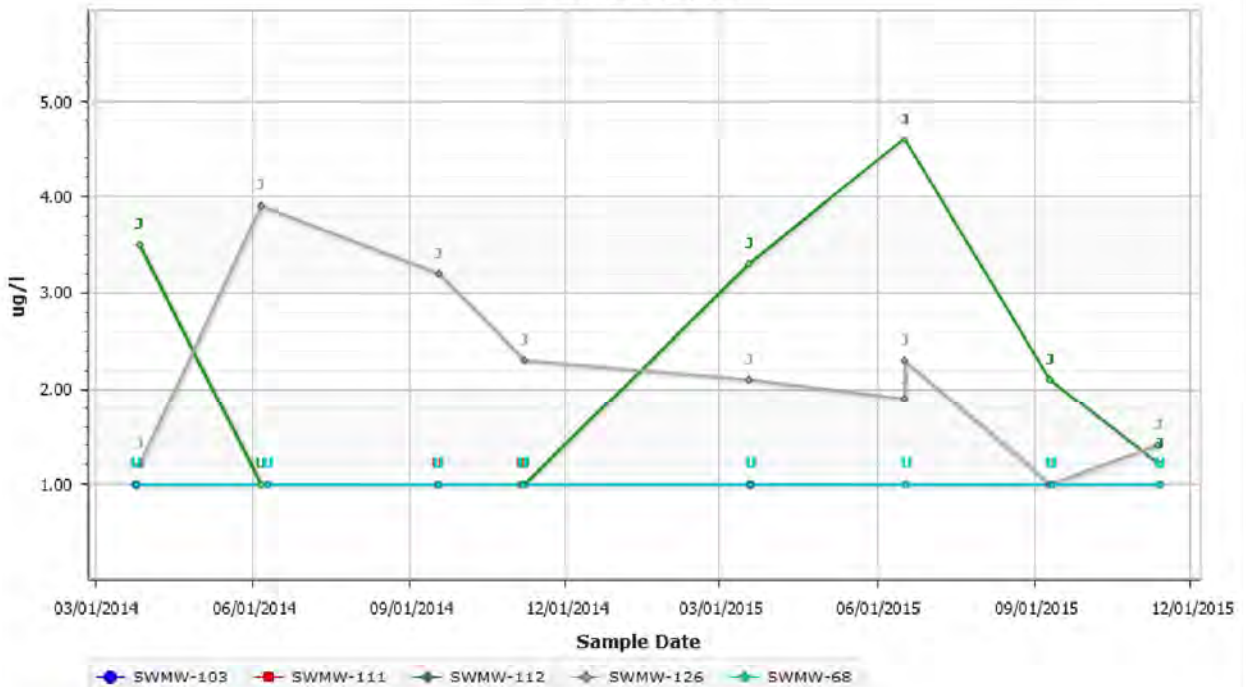
Bld 51 Bedrock Chloride

Site: Beacon, NY



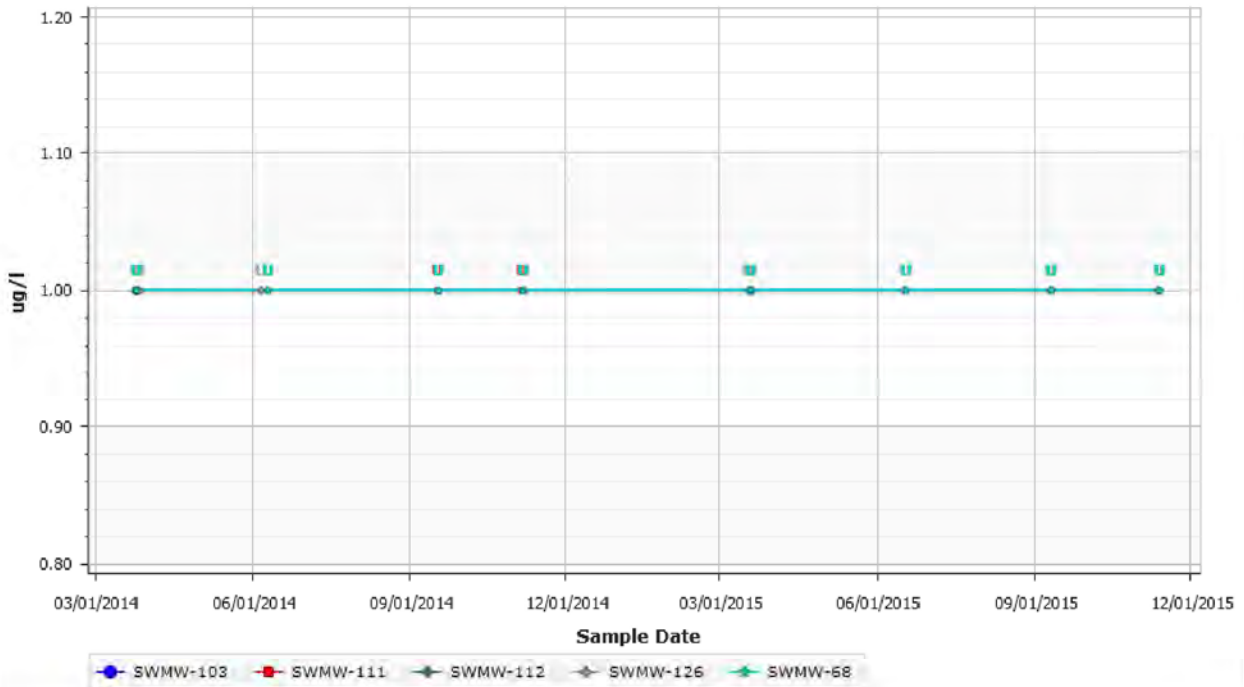
Bld 51 Bedrock Ethane

Site: Beacon, NY



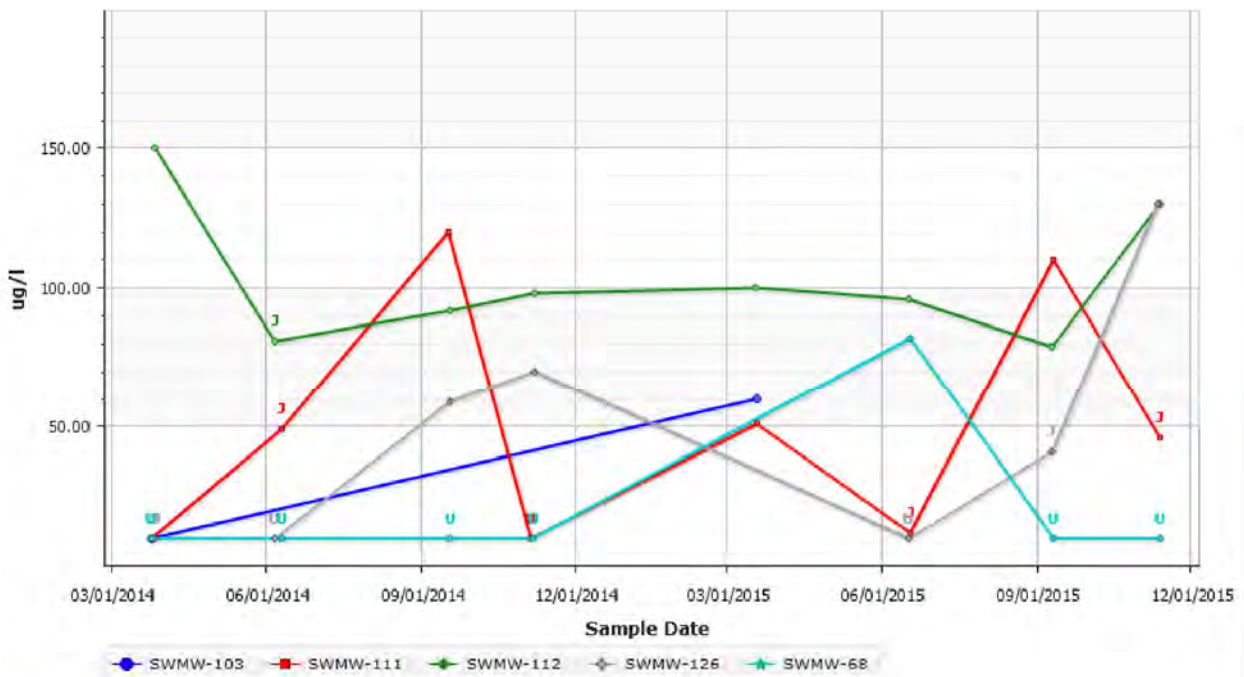
Bld 51 Bedrock Ethene

Site: Beacon, NY

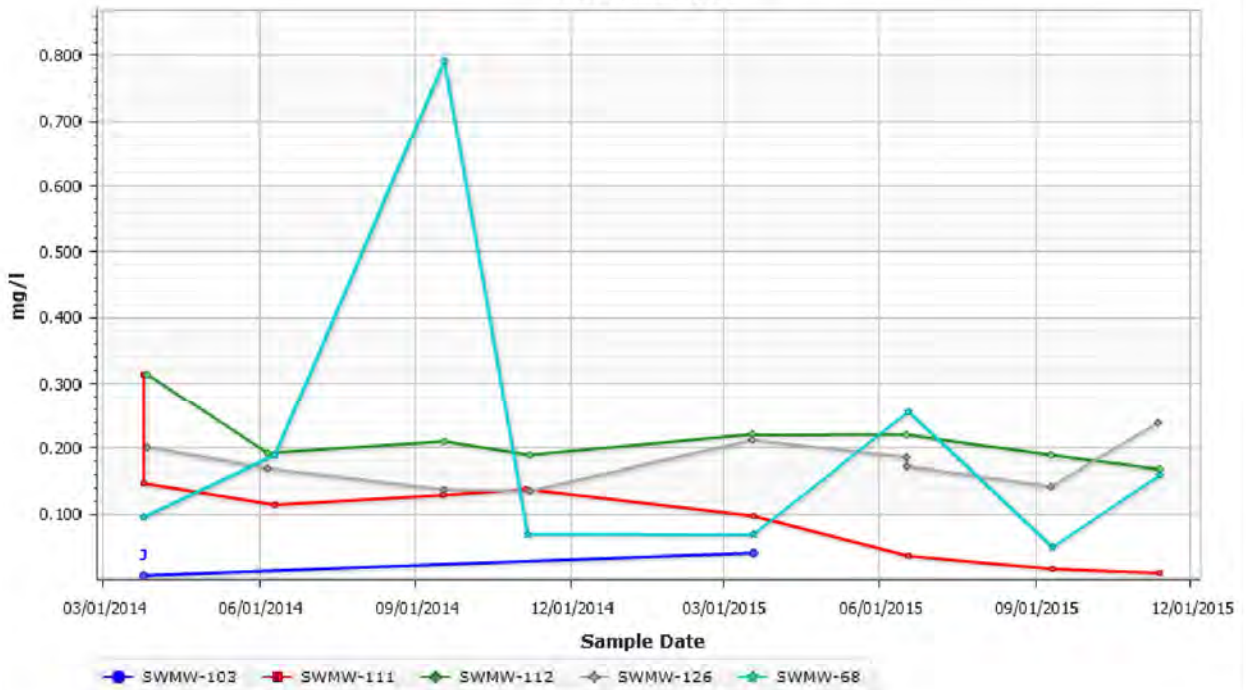


Bld 51 Bedrock Ferrous Iron

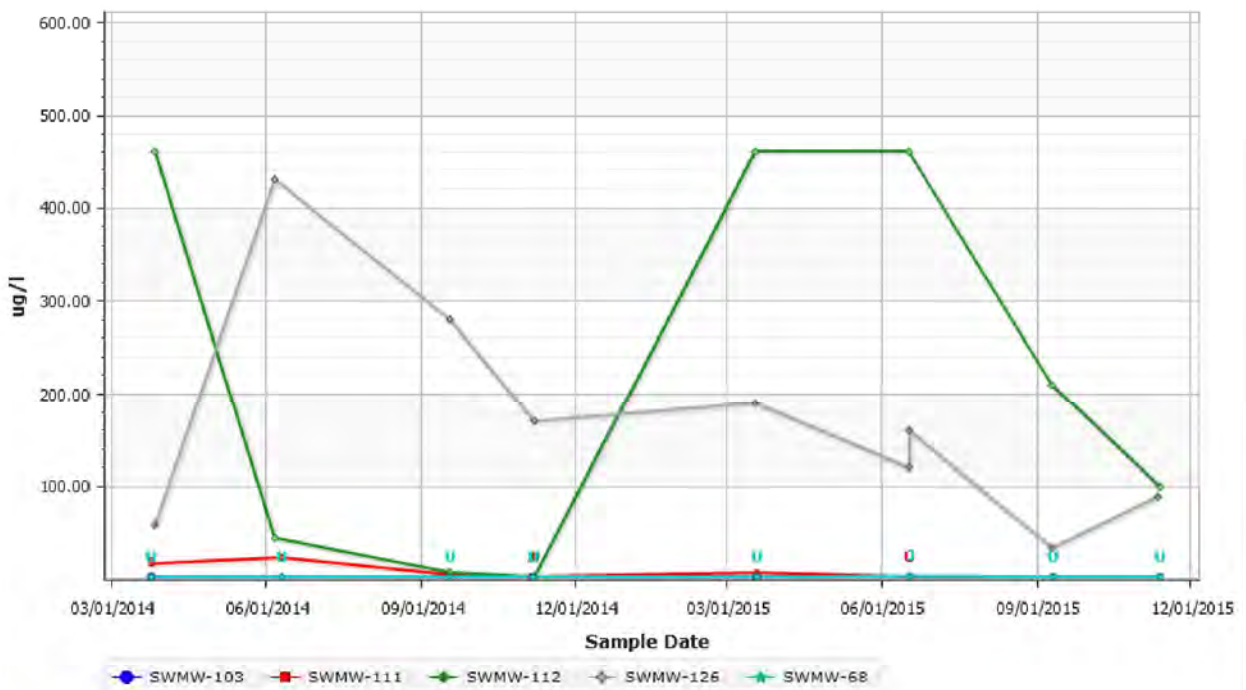
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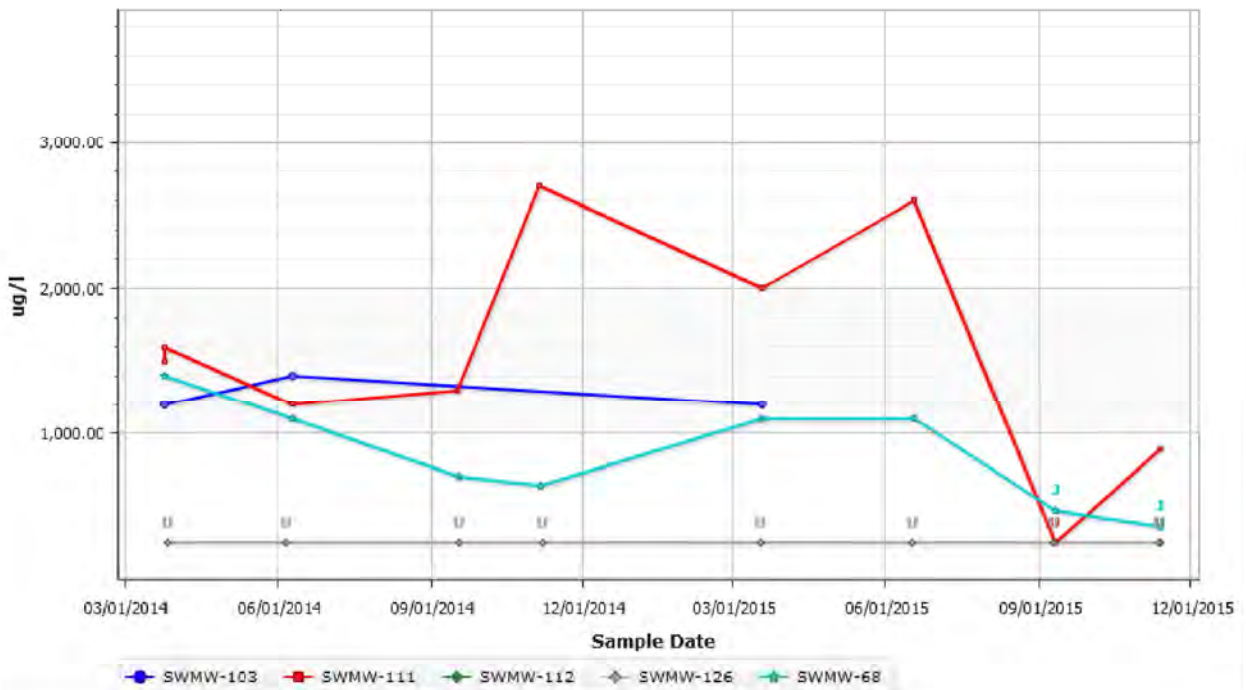
Bld 51 Bedrock Manganese Site: Beacon, NY



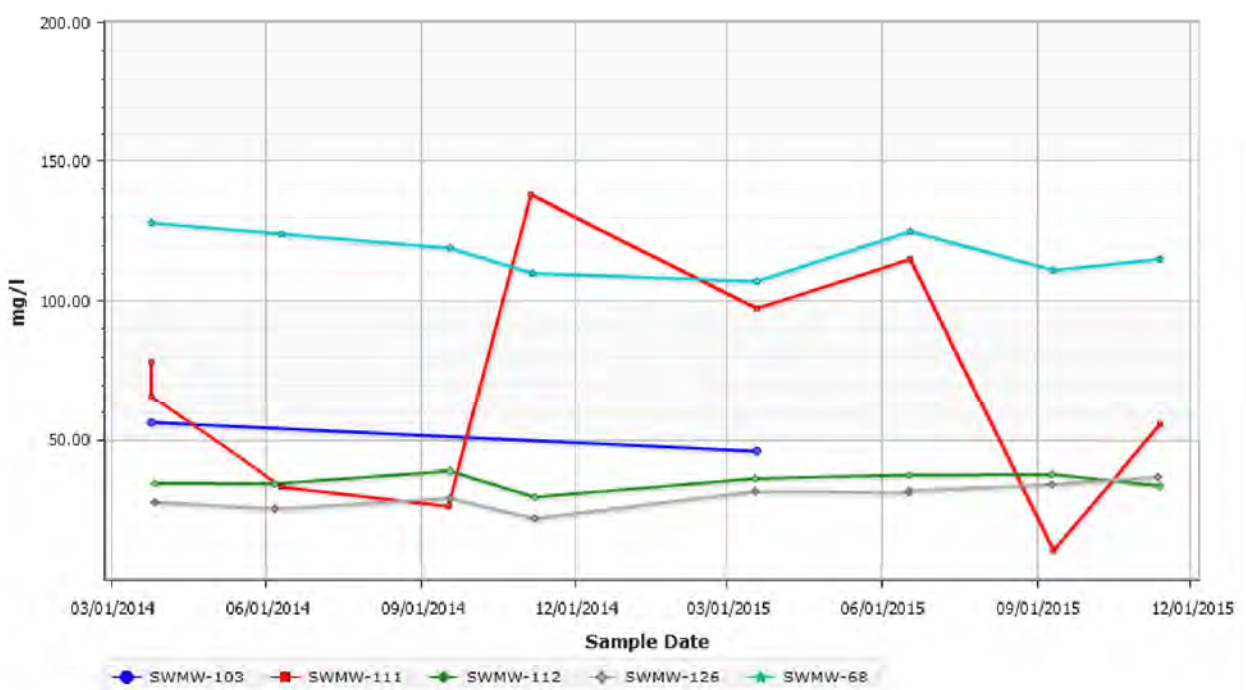
Bld 51 Bedrock Methane Site: Beacon, NY



Bld 51 Bedrock Nitrogen, Nitrate as N
Site: Beacon, NY

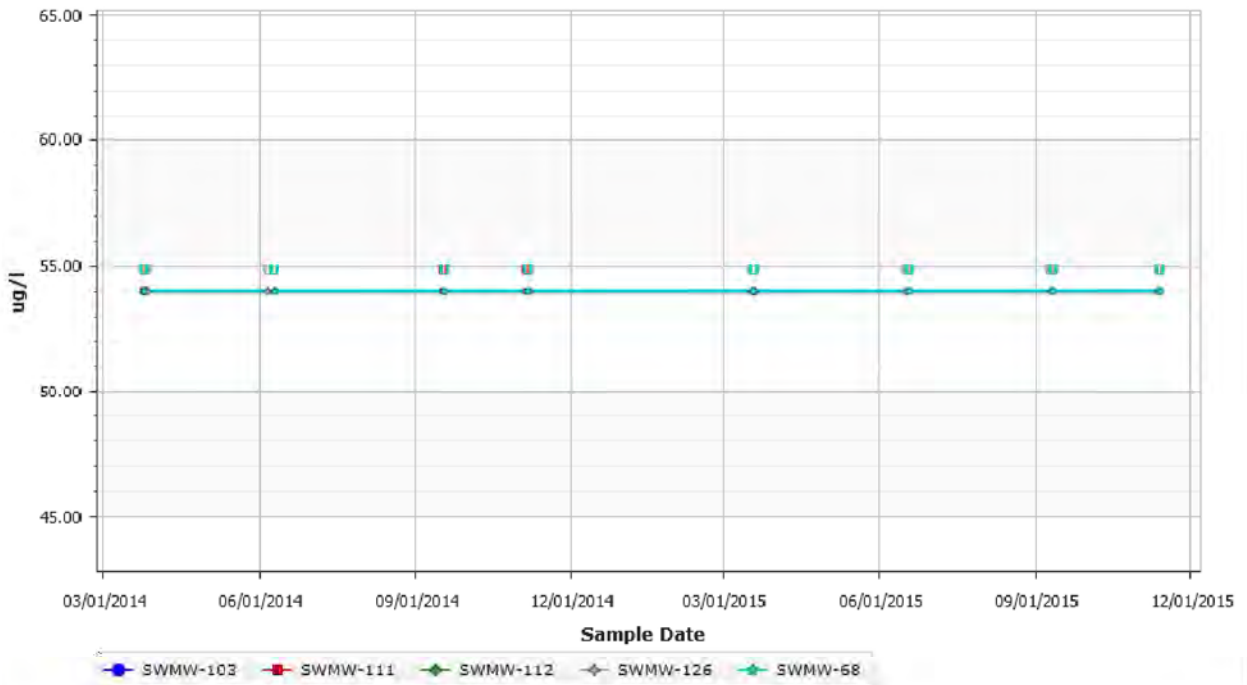


Bld 51 Bedrock Sulfate (SO4)
Site: Beacon, NY



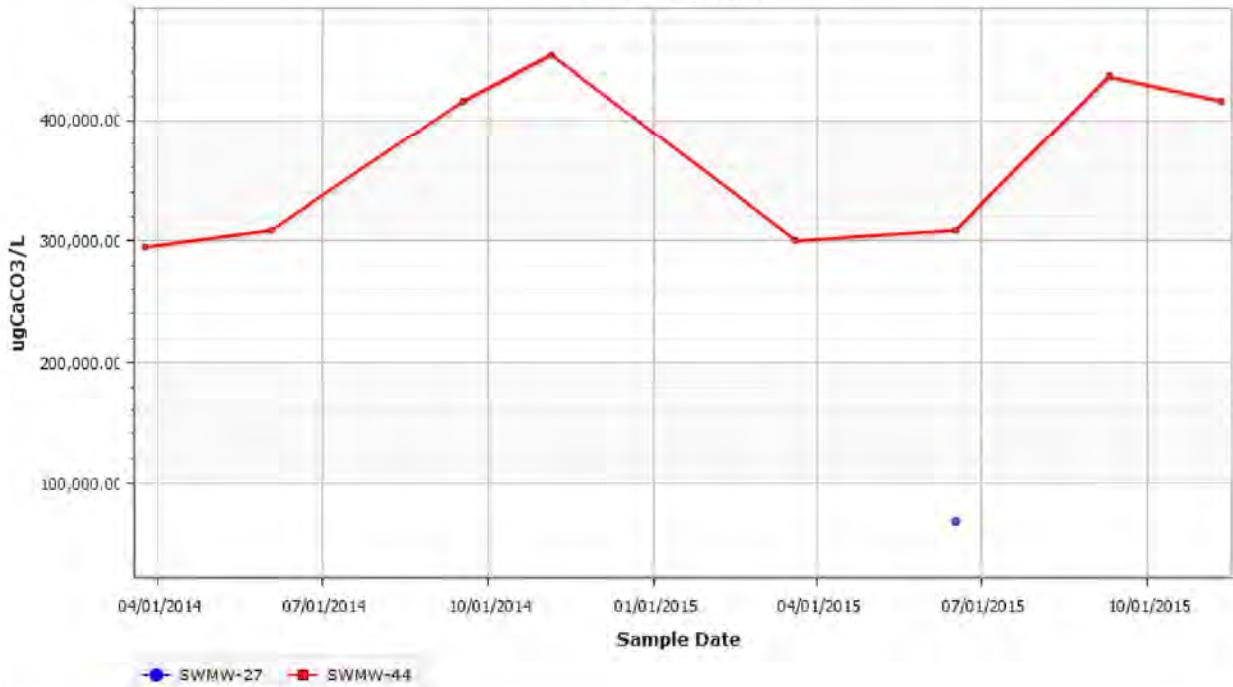
Bld 51 Bedrock Sulfide

Site: Beacon, NY



Bld 45 55 Bedrock Alkalinity, Total as CaCO₃

Site: Beacon, NY



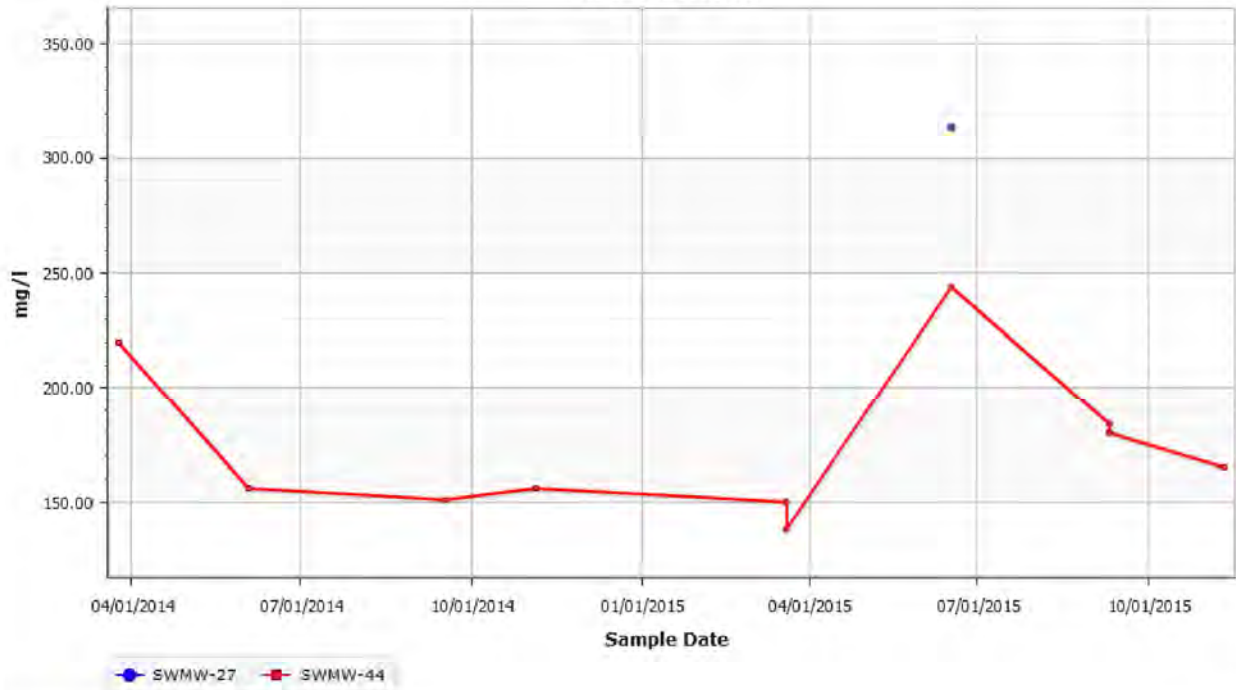
Bld 45 55 Bedrock CARBON DIOXIDE

Site: Beacon, NY



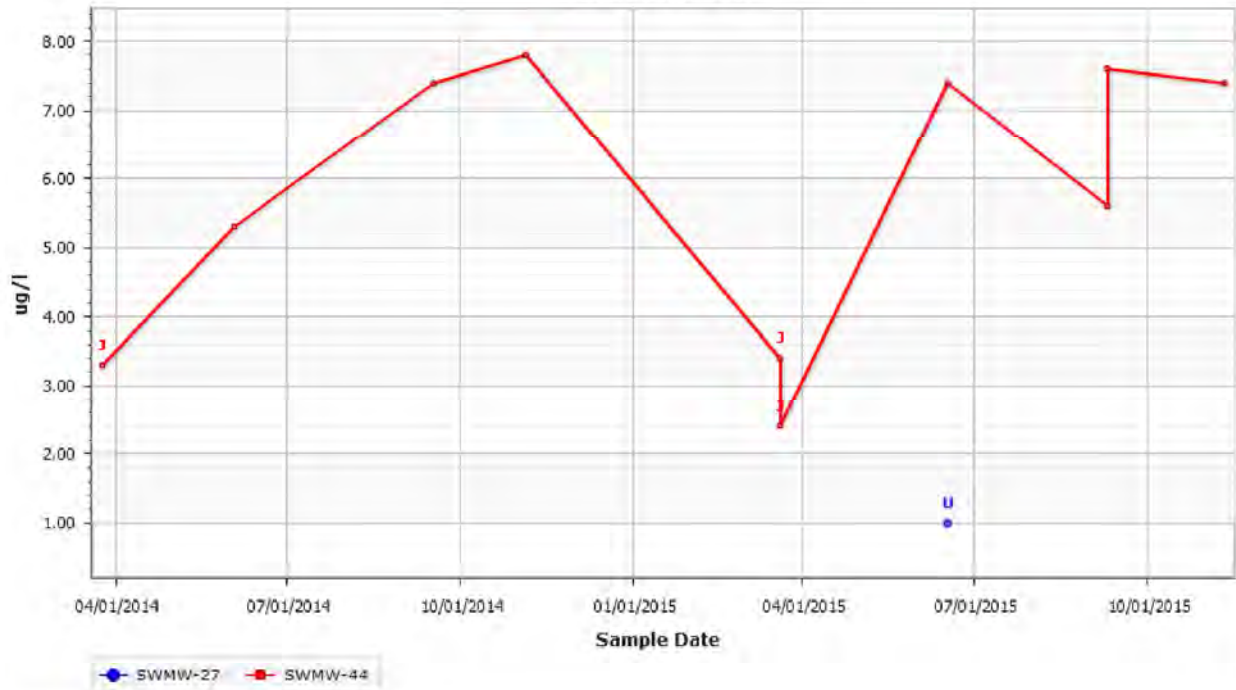
Bld 45 55 Bedrock Chloride

Site: Beacon, NY



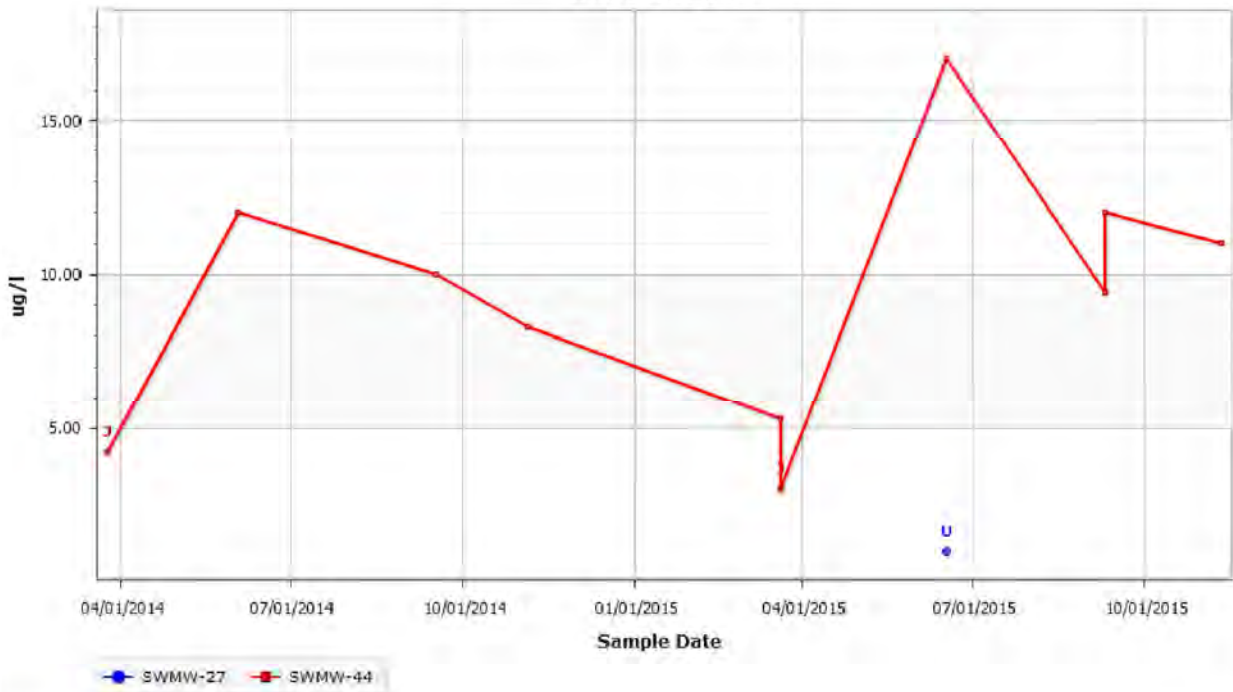
Bld 45 55 Bedrock Ethane

Site: Beacon, NY



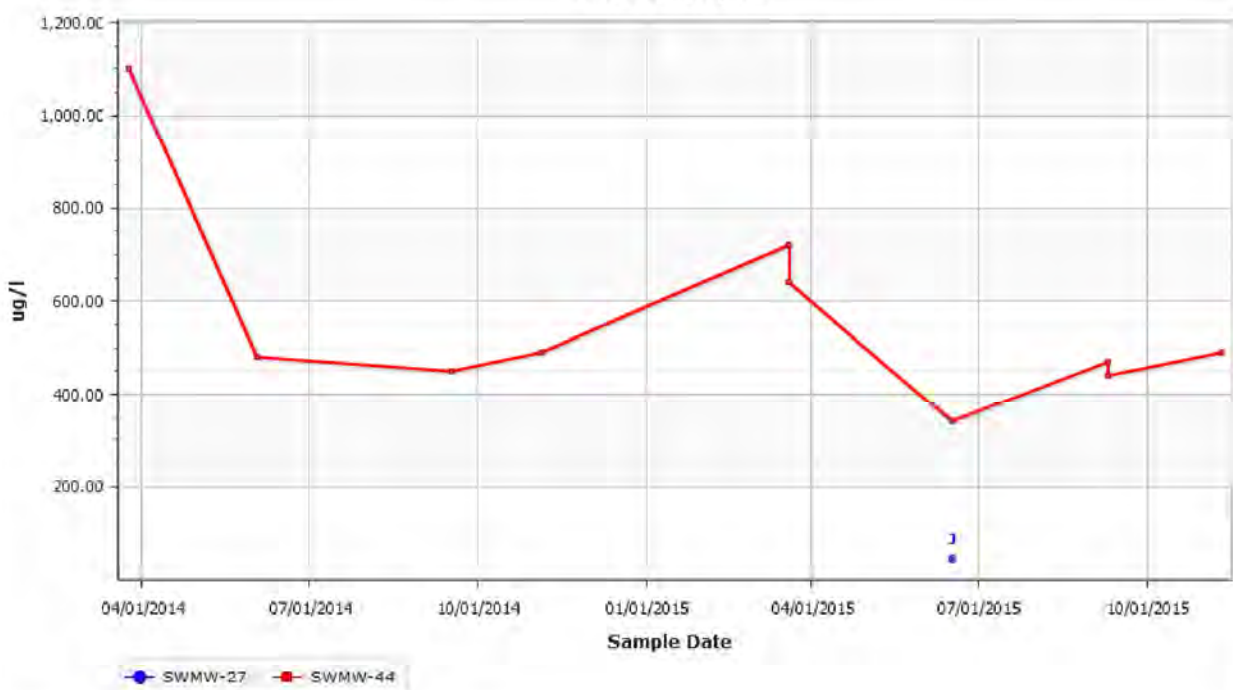
Bld 45 55 Bedrock Ethene

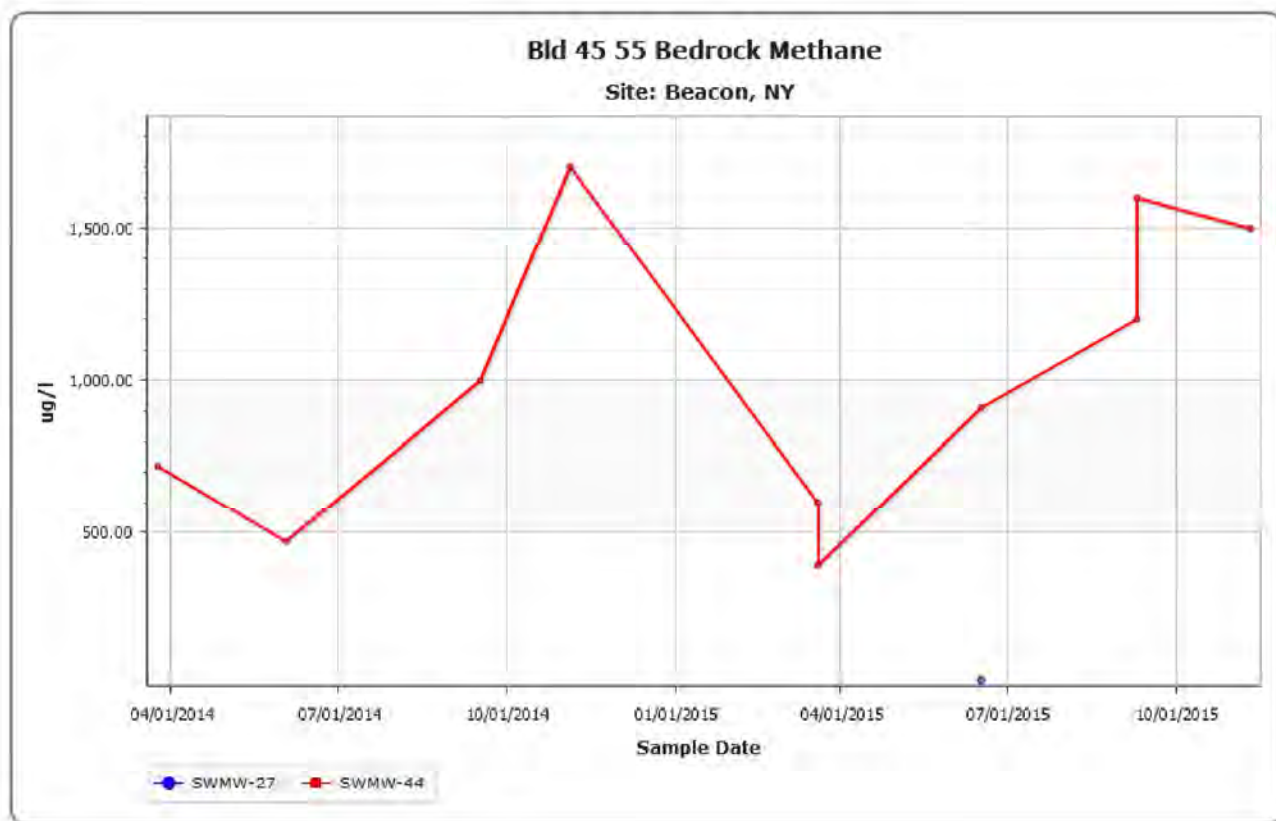
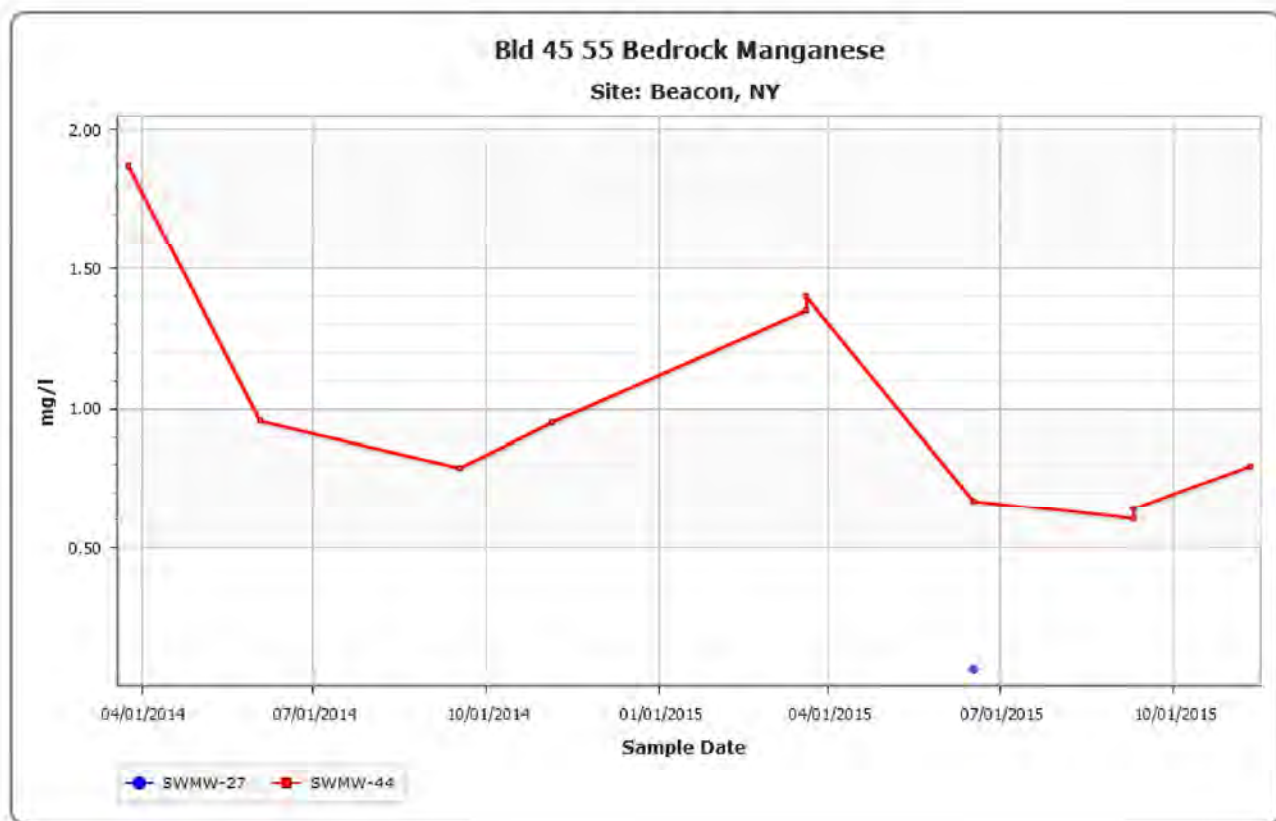
Site: Beacon, NY



Bld 45 55 Bedrock Ferrous Iron

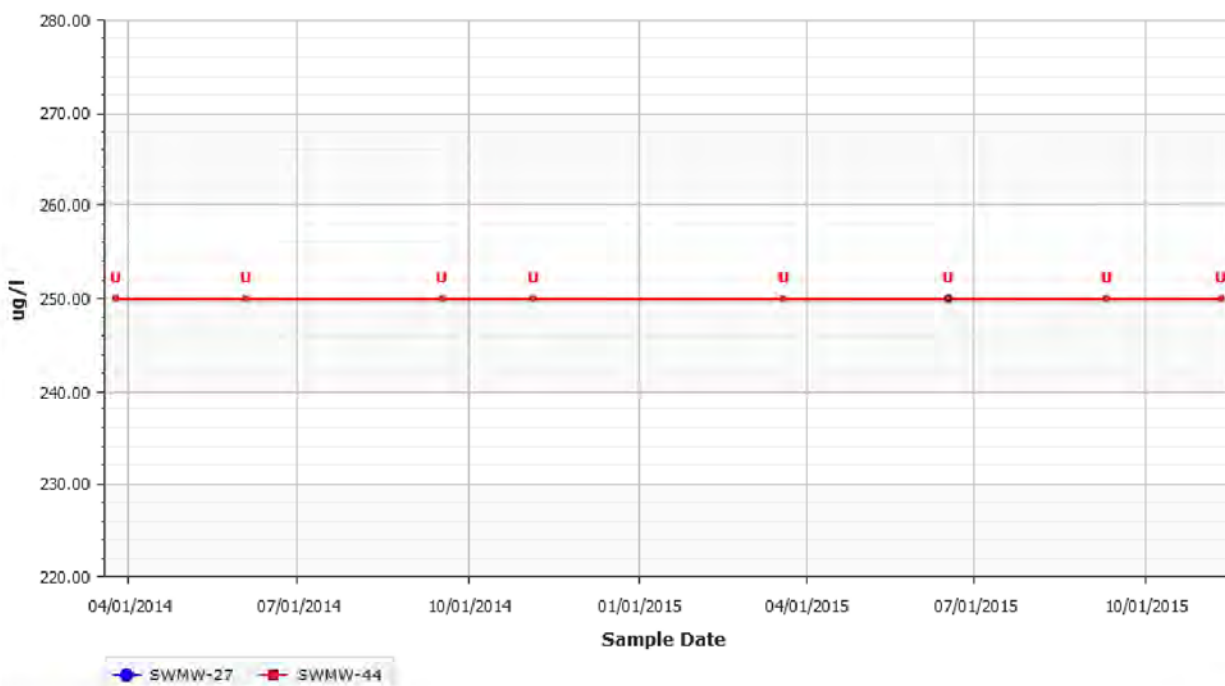
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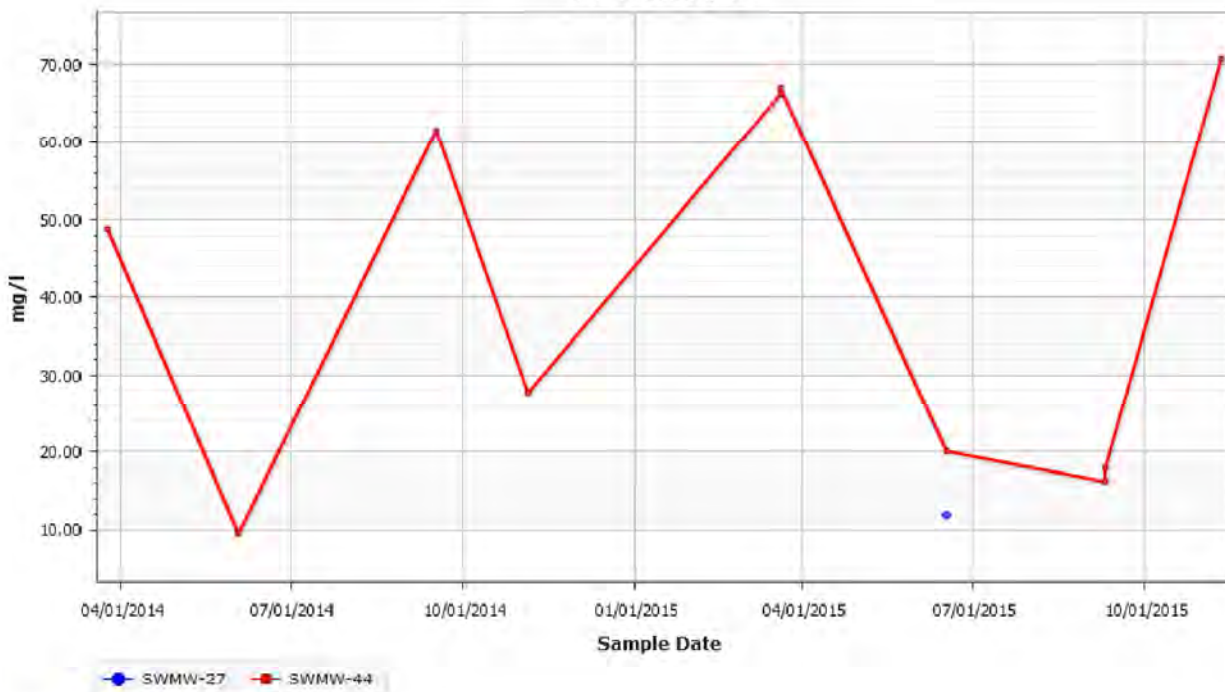
Bld 45 55 Bedrock Nitrogen, Nitrate as N

Site: Beacon, NY



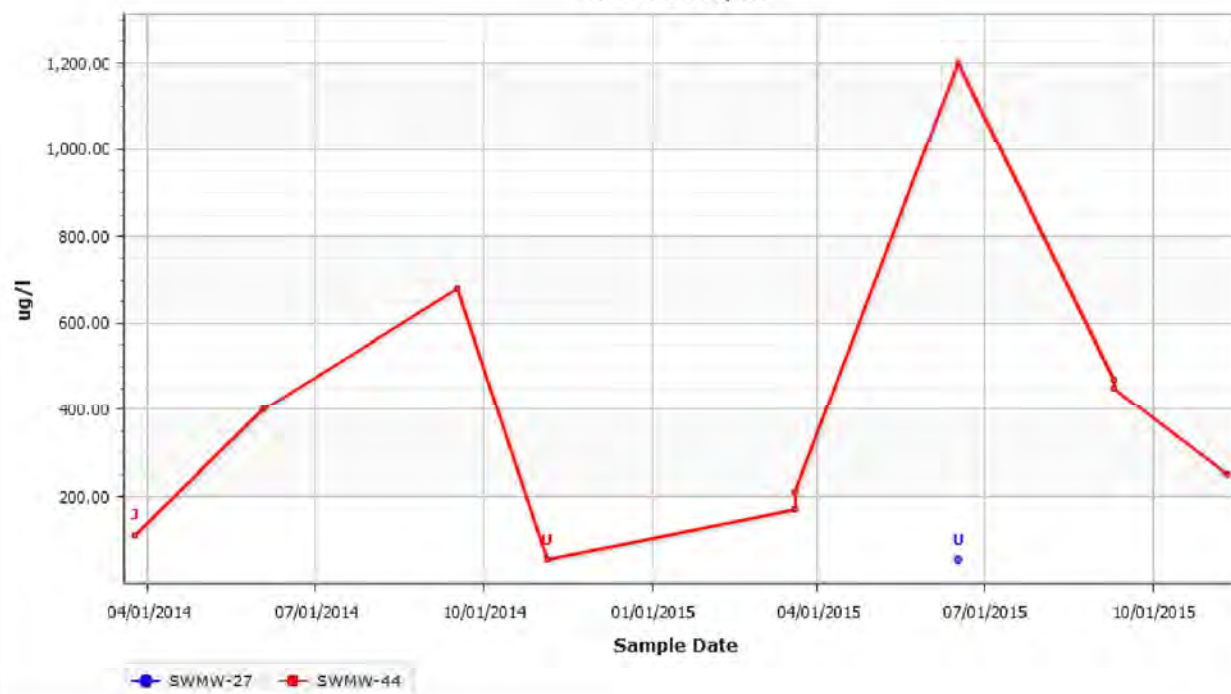
Bld 45 55 Bedrock Sulfate (SO4)

Site: Beacon, NY



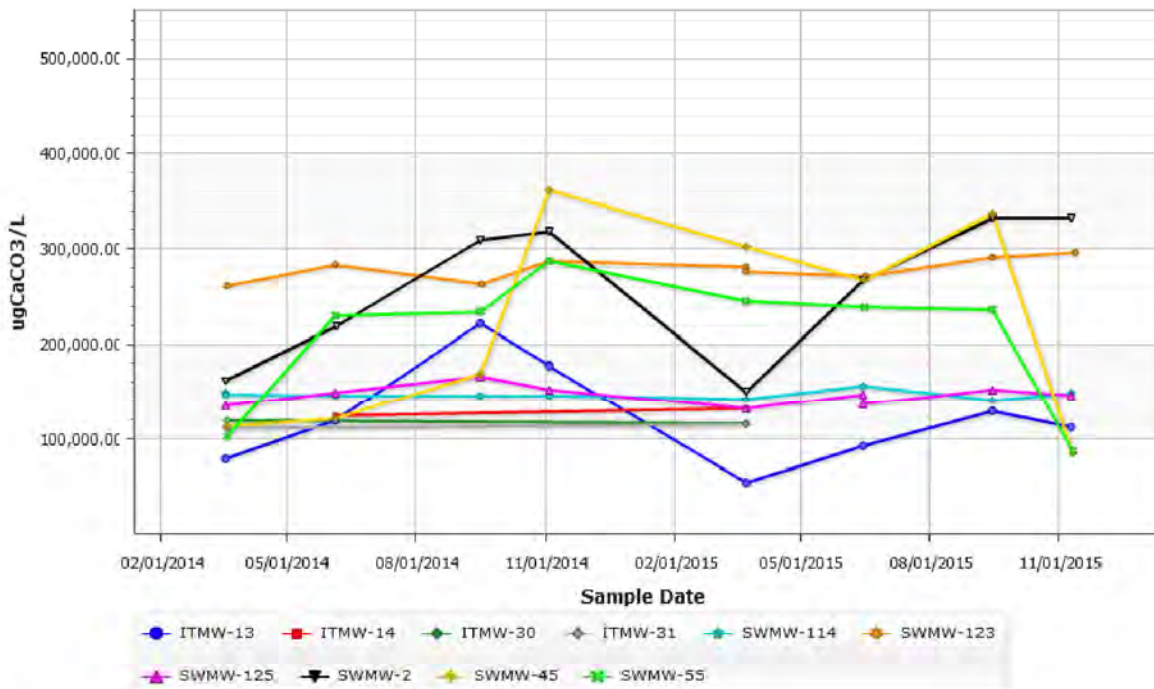
Bld 45 55 Bedrock Sulfide

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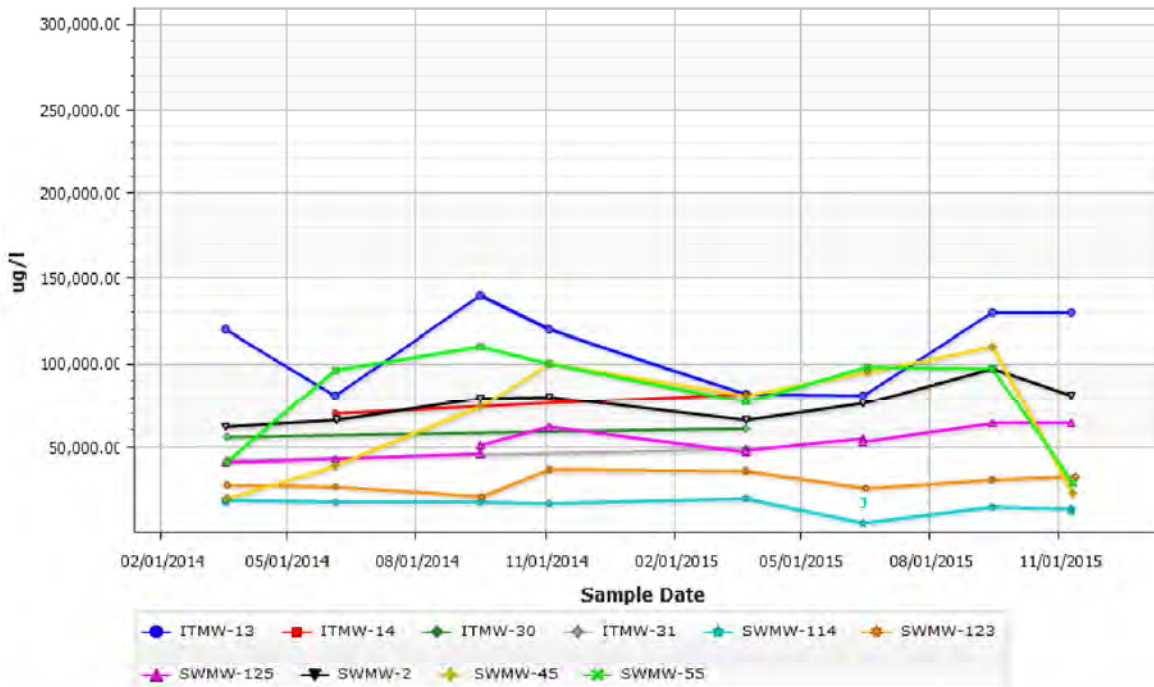
Bld 36 58 83 Bedrock Alkalinity, Total as CaCO₃

Site: Beacon, NY



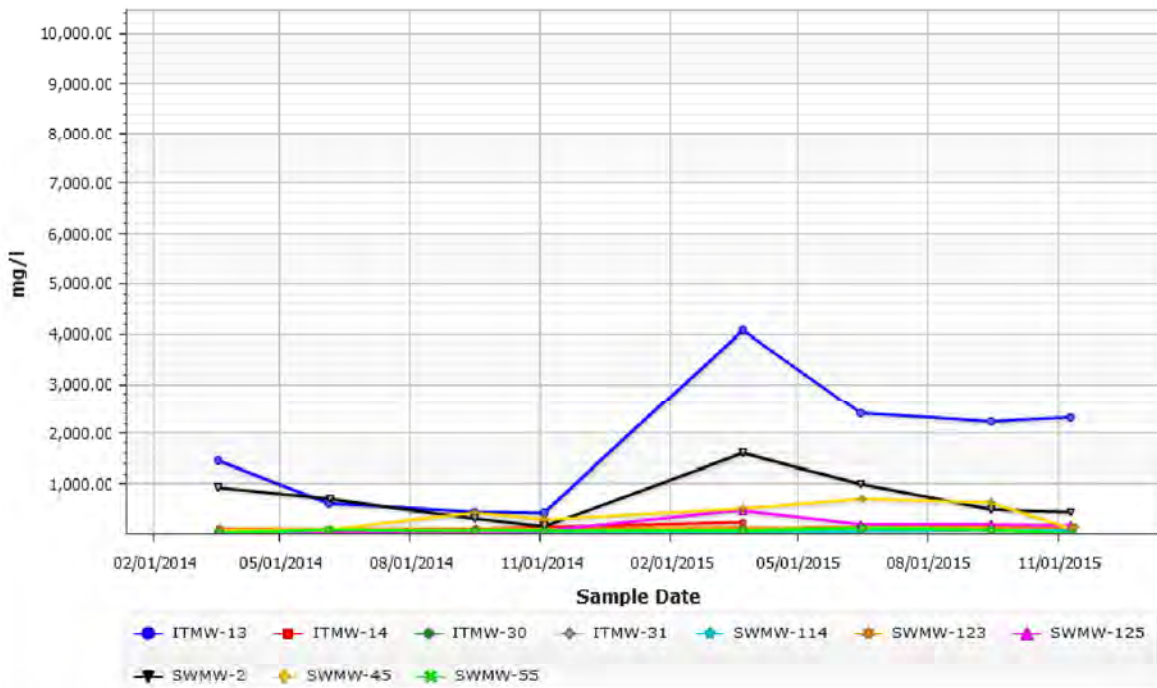
Bld 36 58 83 Bedrock CARBON DIOXIDE

Site: Beacon, NY



Bld 36 58 83 Bedrock Chloride

Site: Beacon, NY

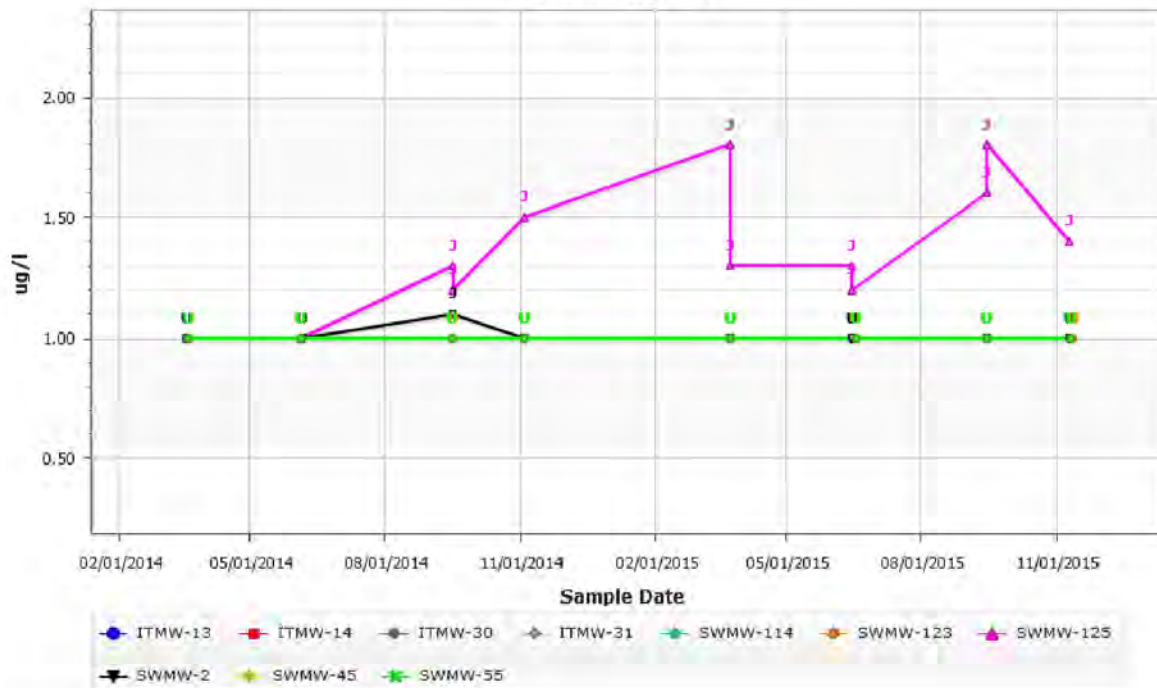


Bld 36 58 83 Bedrock Ethane

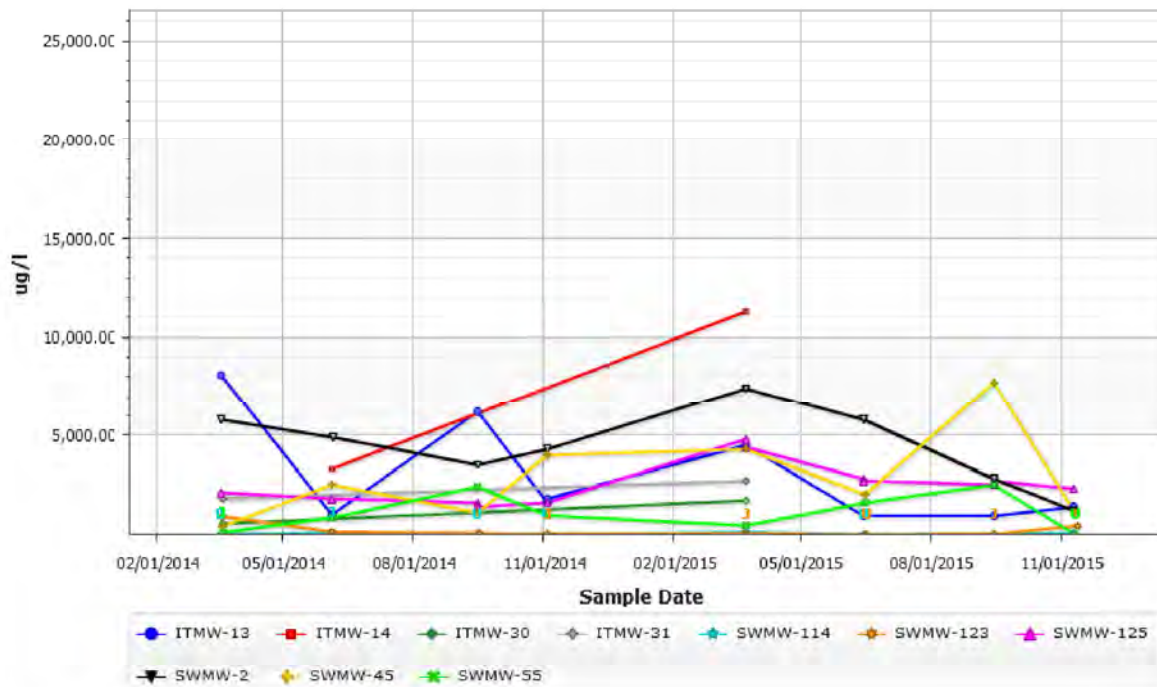
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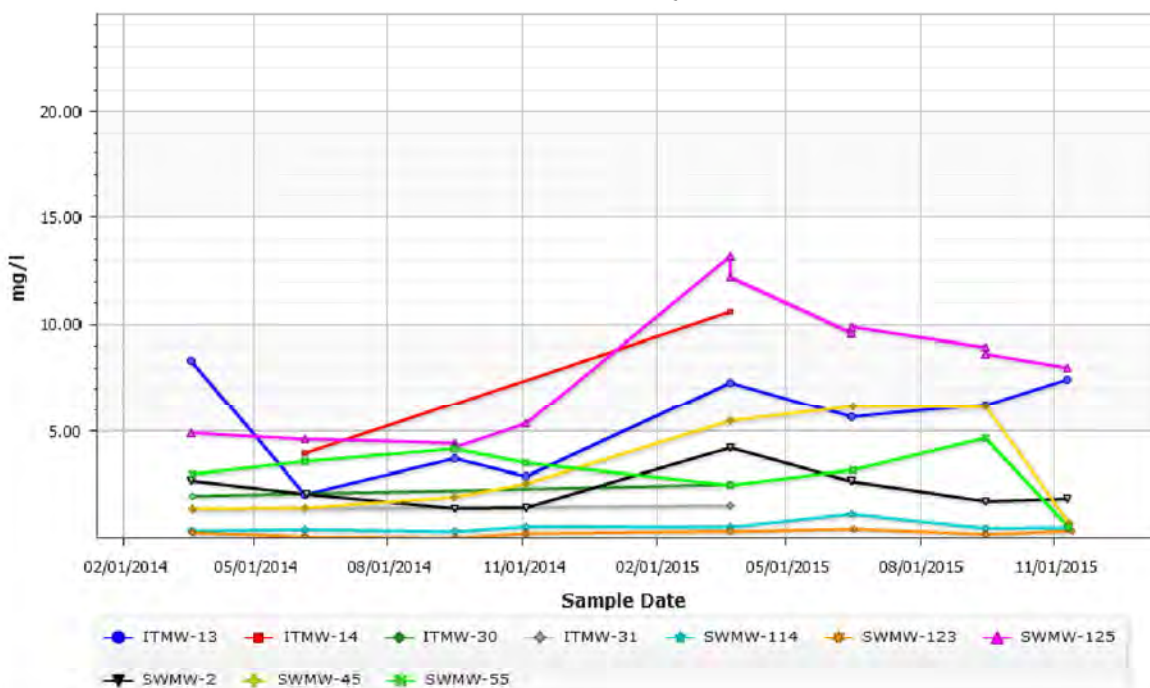
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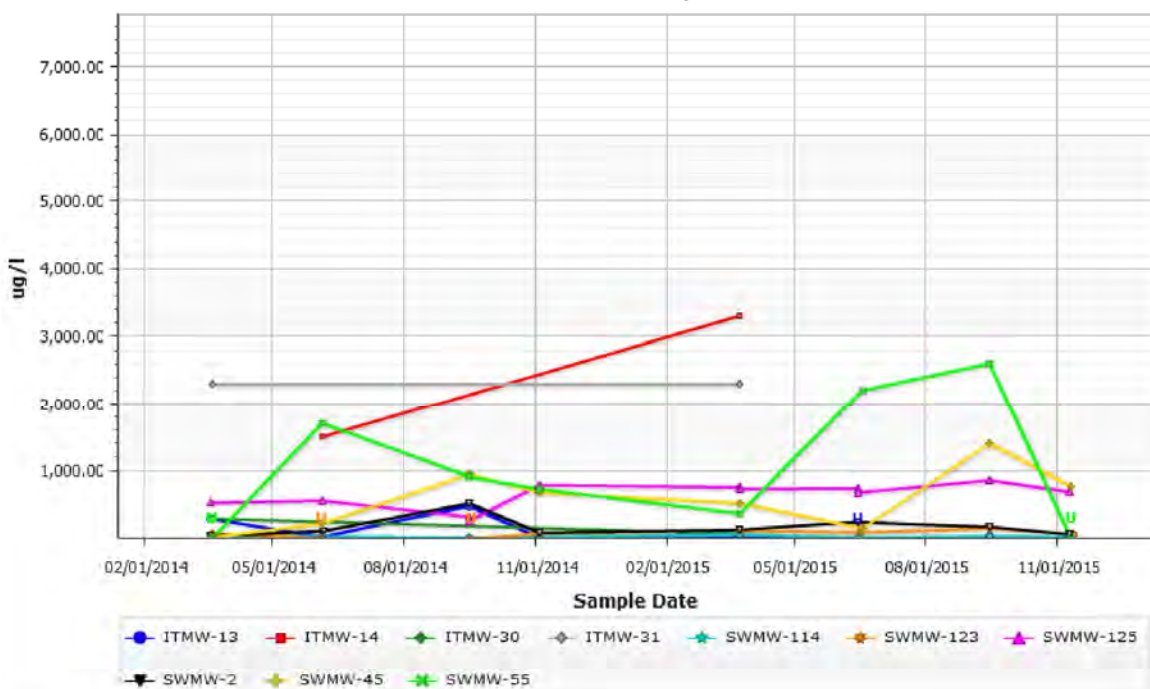
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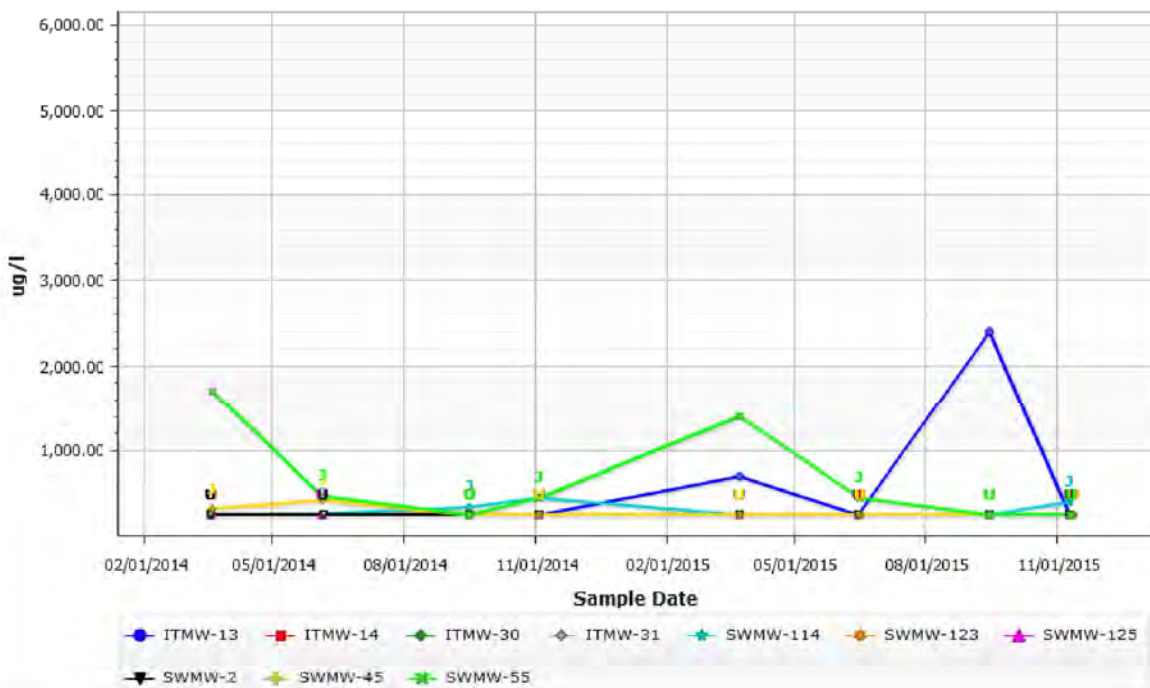
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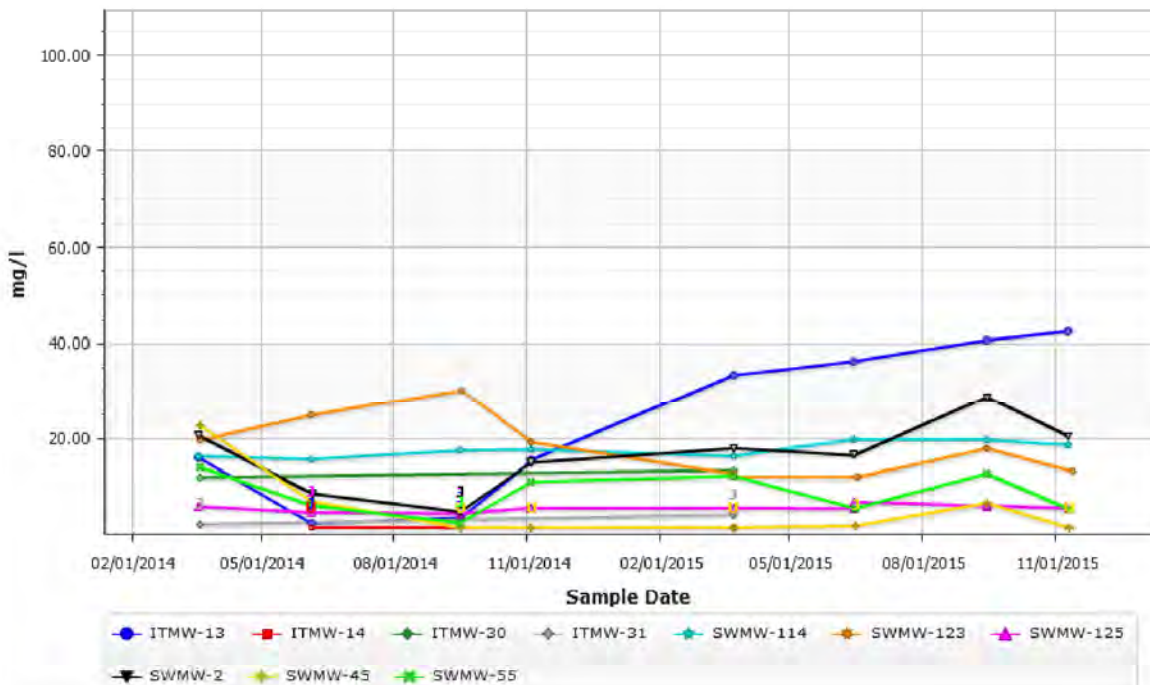
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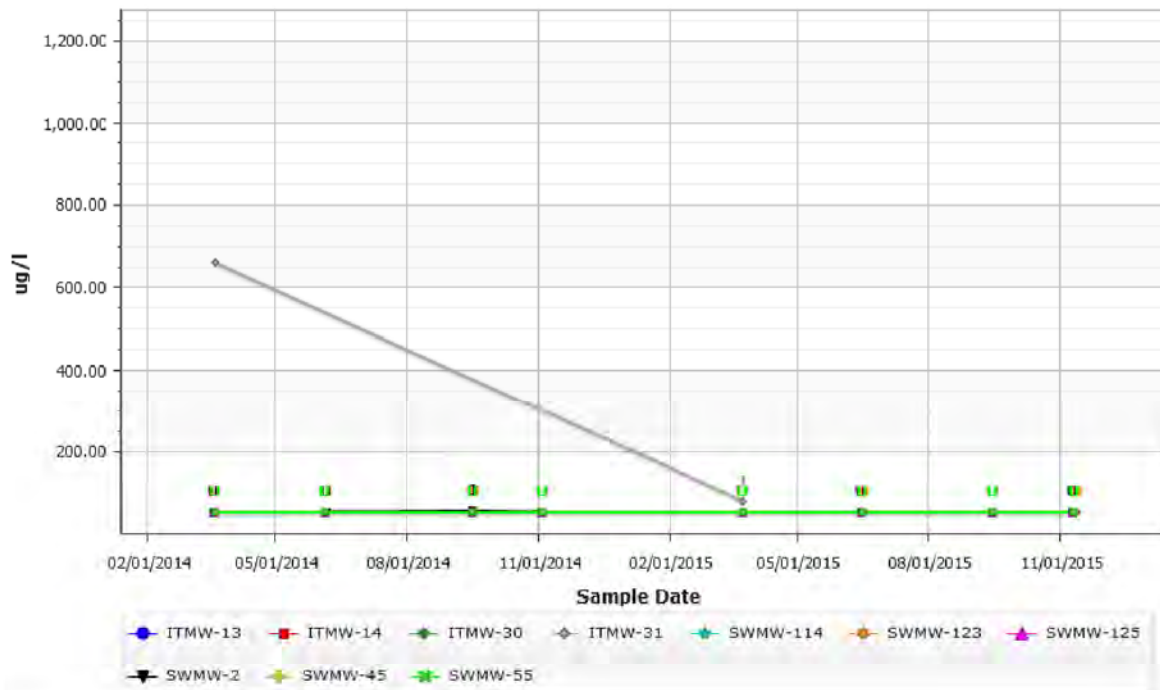
Site: Beacon, NY



Site: Beacon, NY

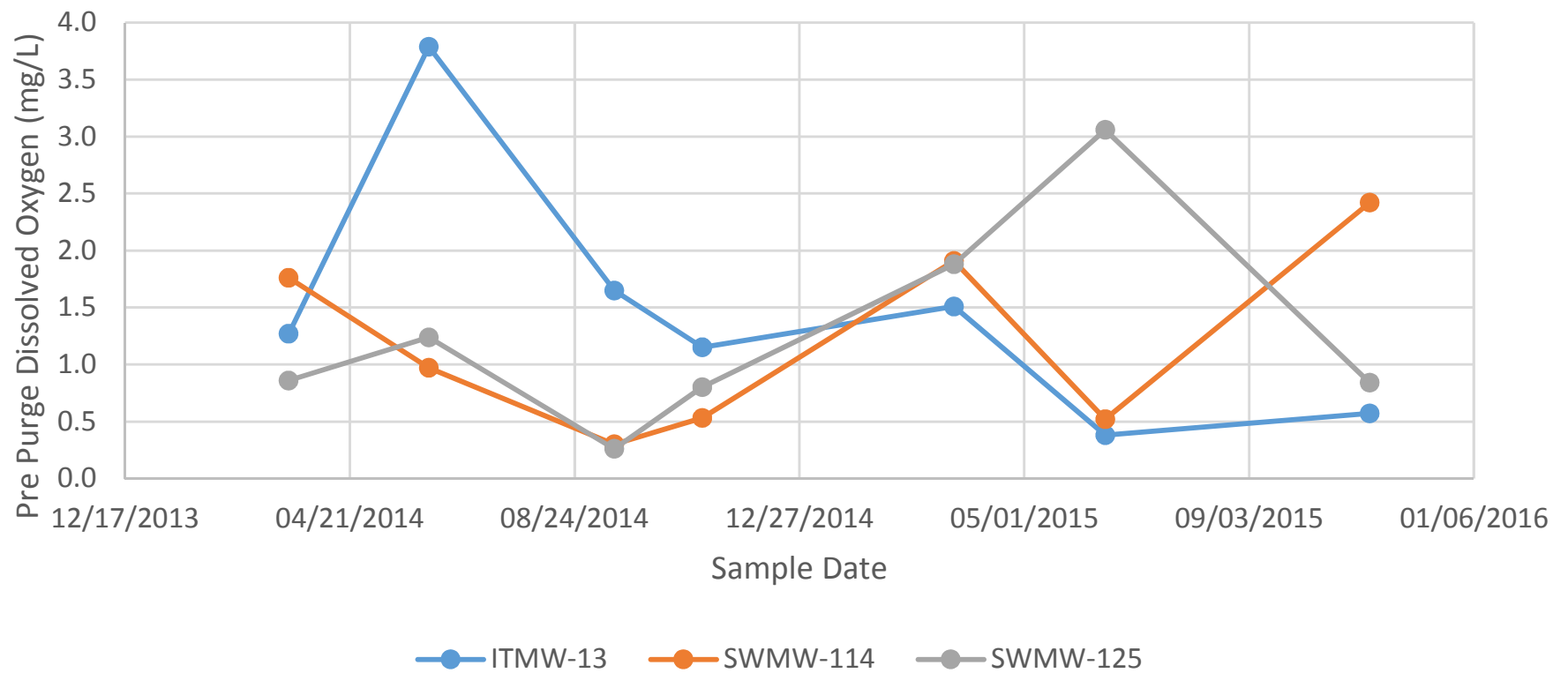


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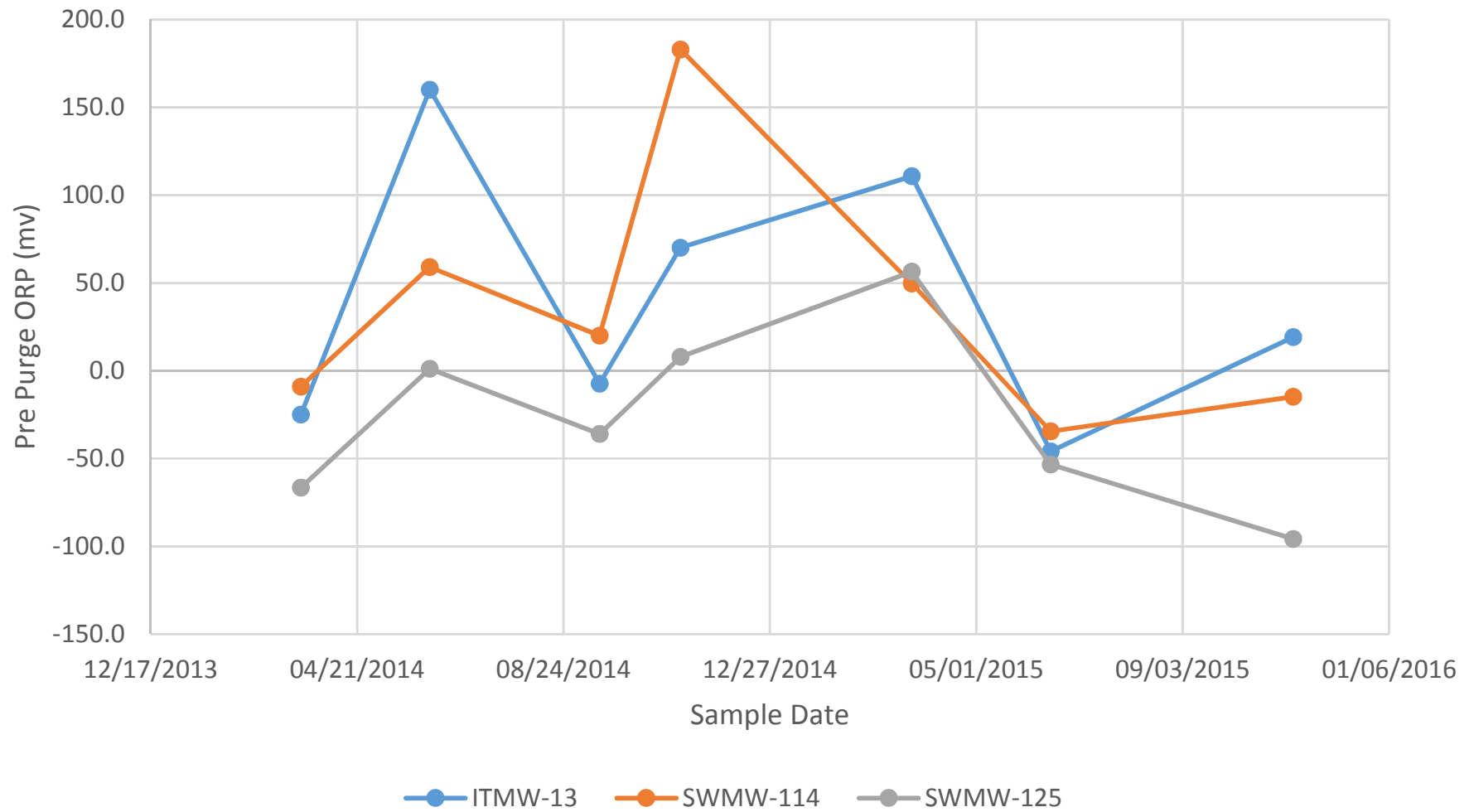


**2014 THROUGH 2015 DO AND REDOX POTENTIAL SUMMARY
GRAPHS WITH WELL GROUPINGS
(OVERBURDEN AND BEDROCK WELLS)**

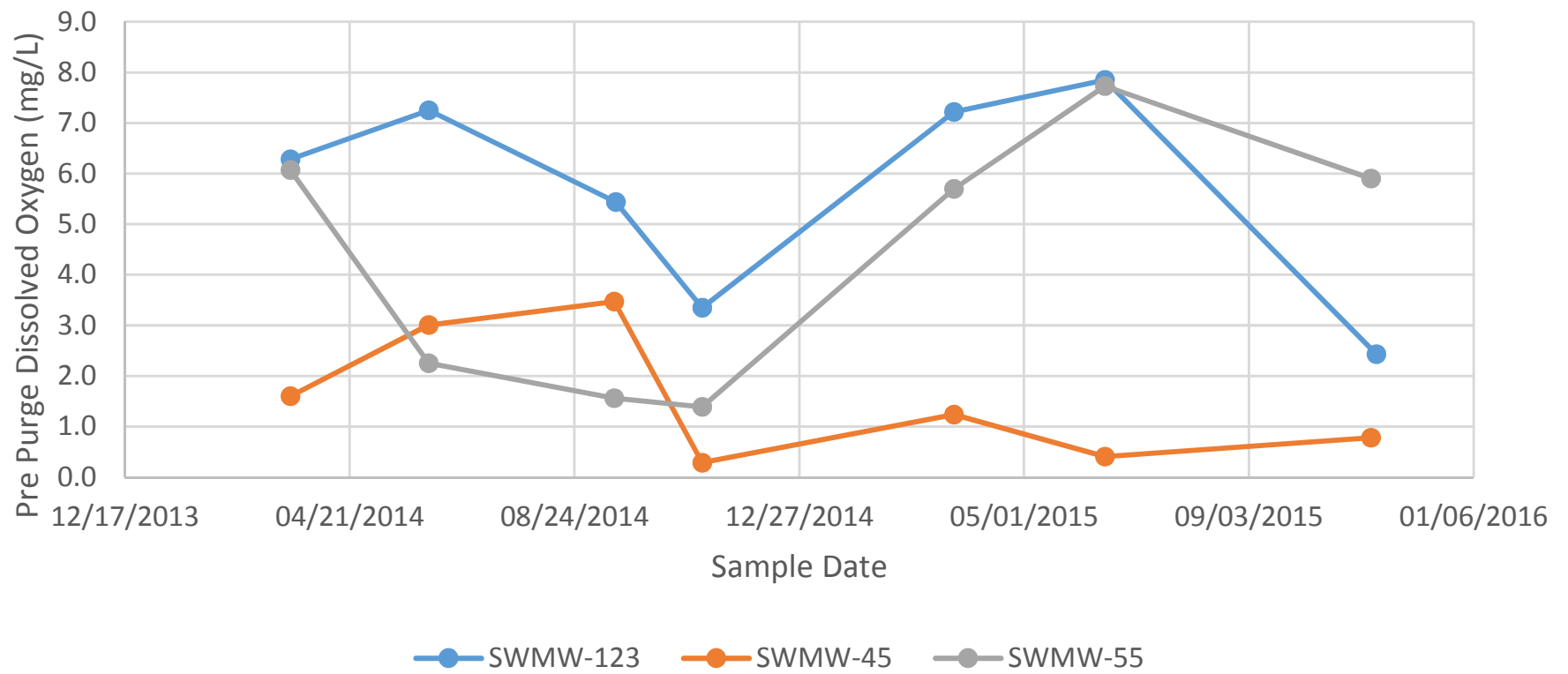
Bld 58/83 (Bedrock)
Site: Beacon, NY



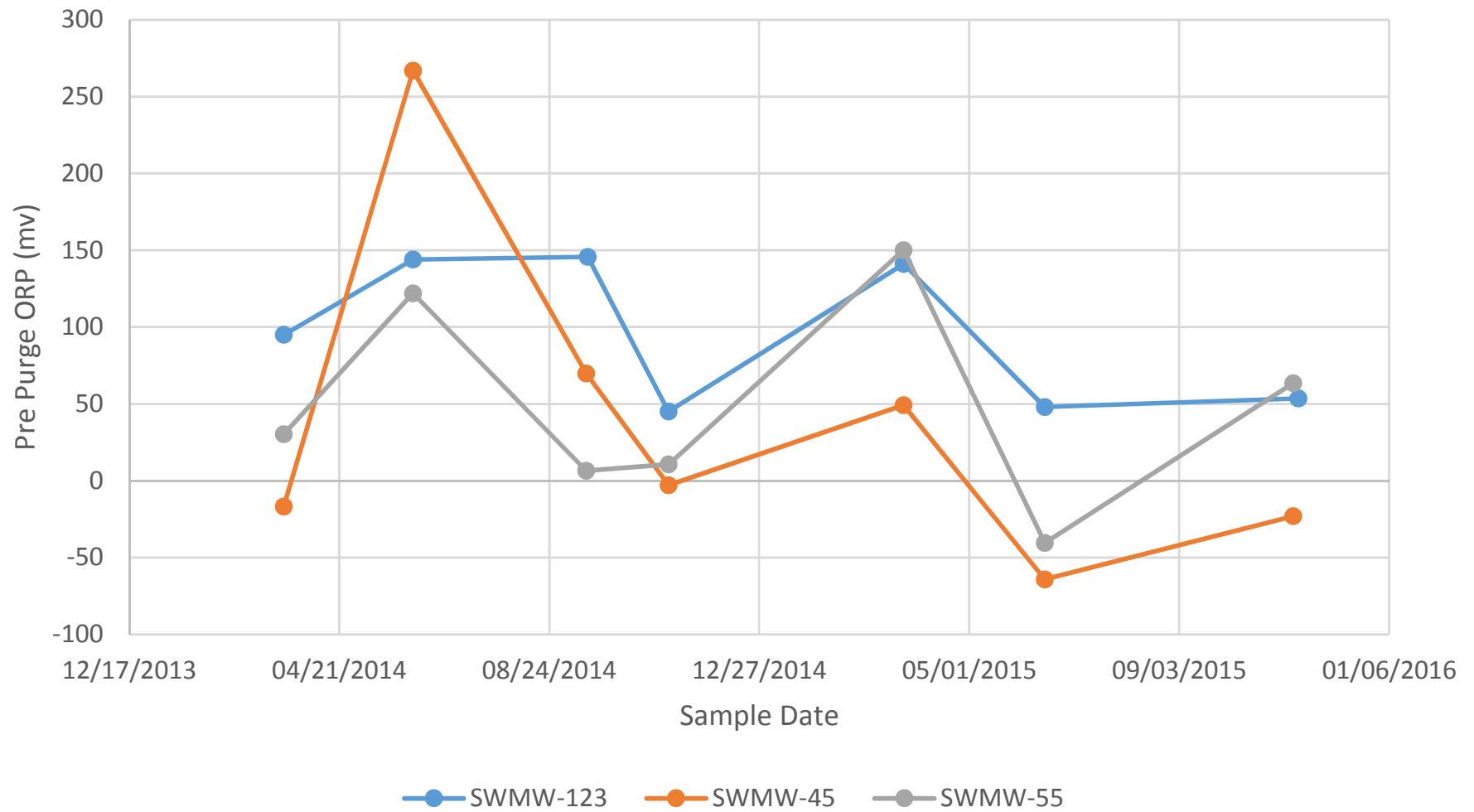
Bld 58/83 (Bedrock)
Site: Beacon, NY



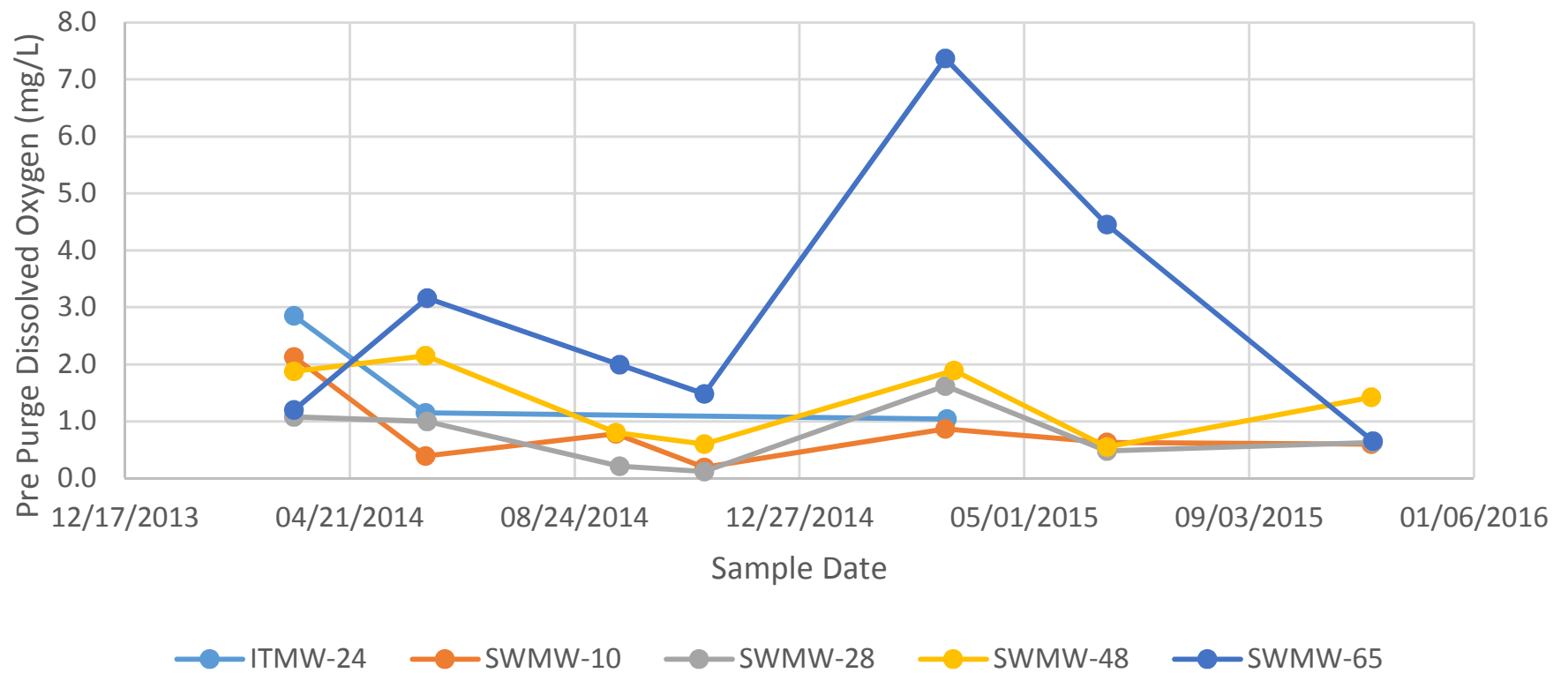
Bld 36 (Bedrock)
Site: Beacon, NY



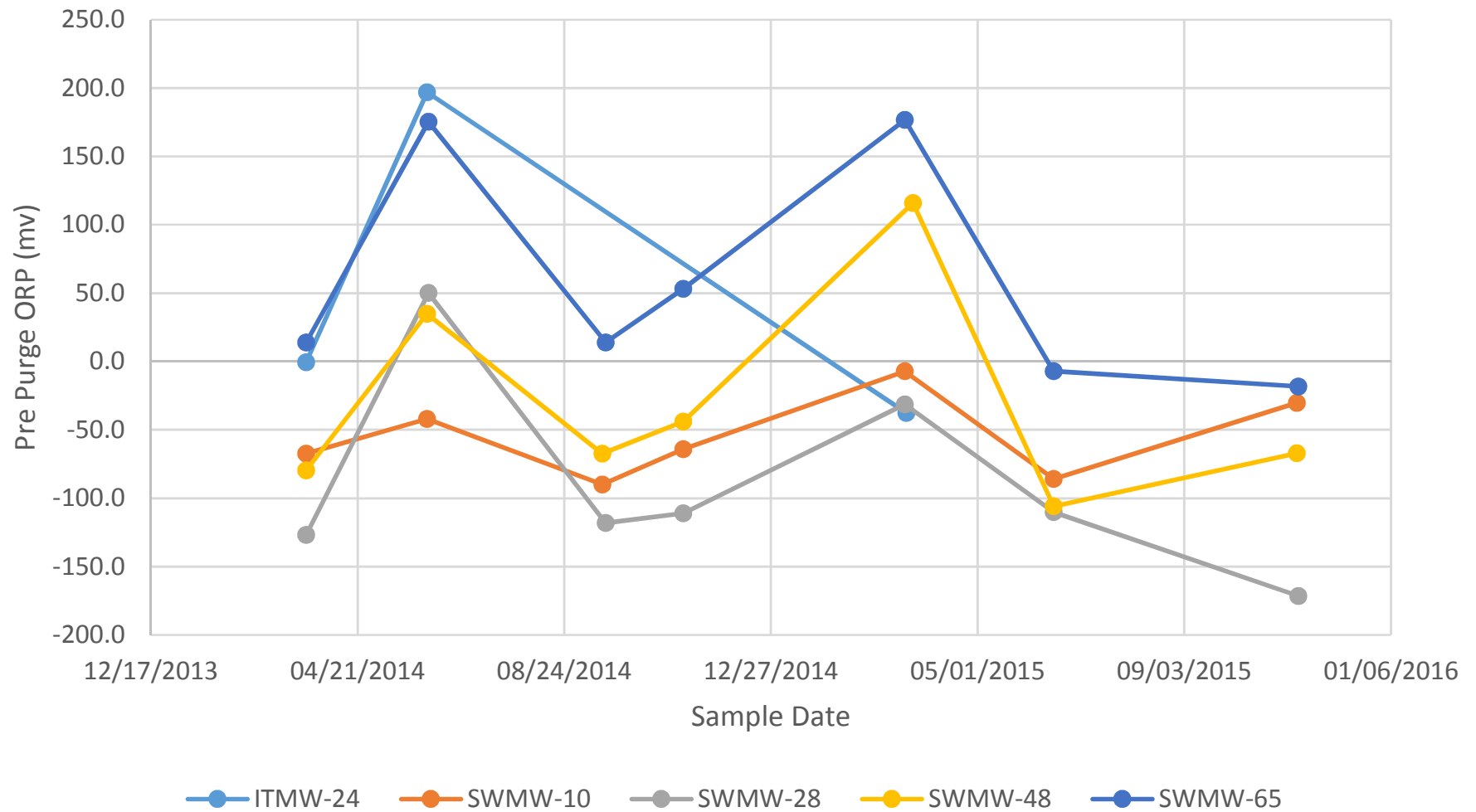
Bld 36 (Bedrock)
Site: Beacon, NY



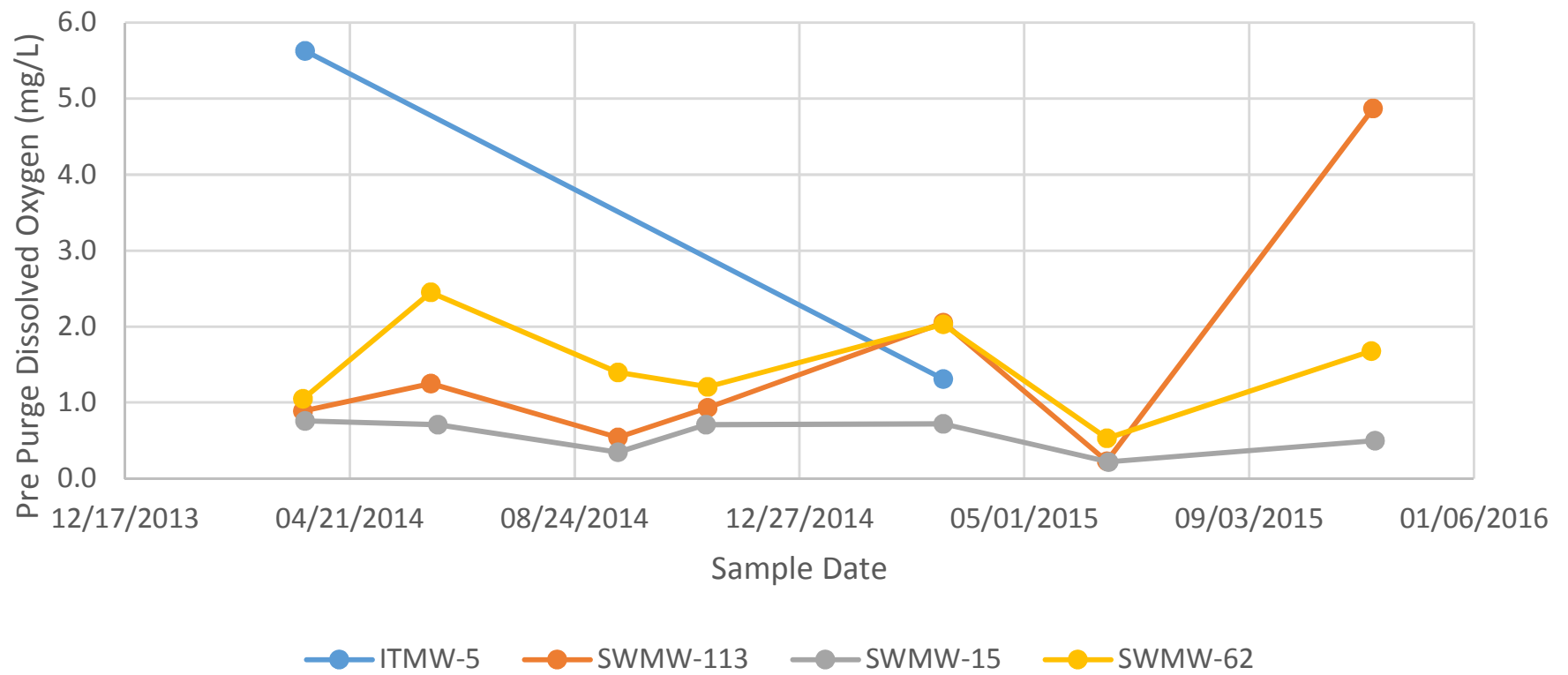
Bld 45/55 (Overburden)
Site: Beacon, NY



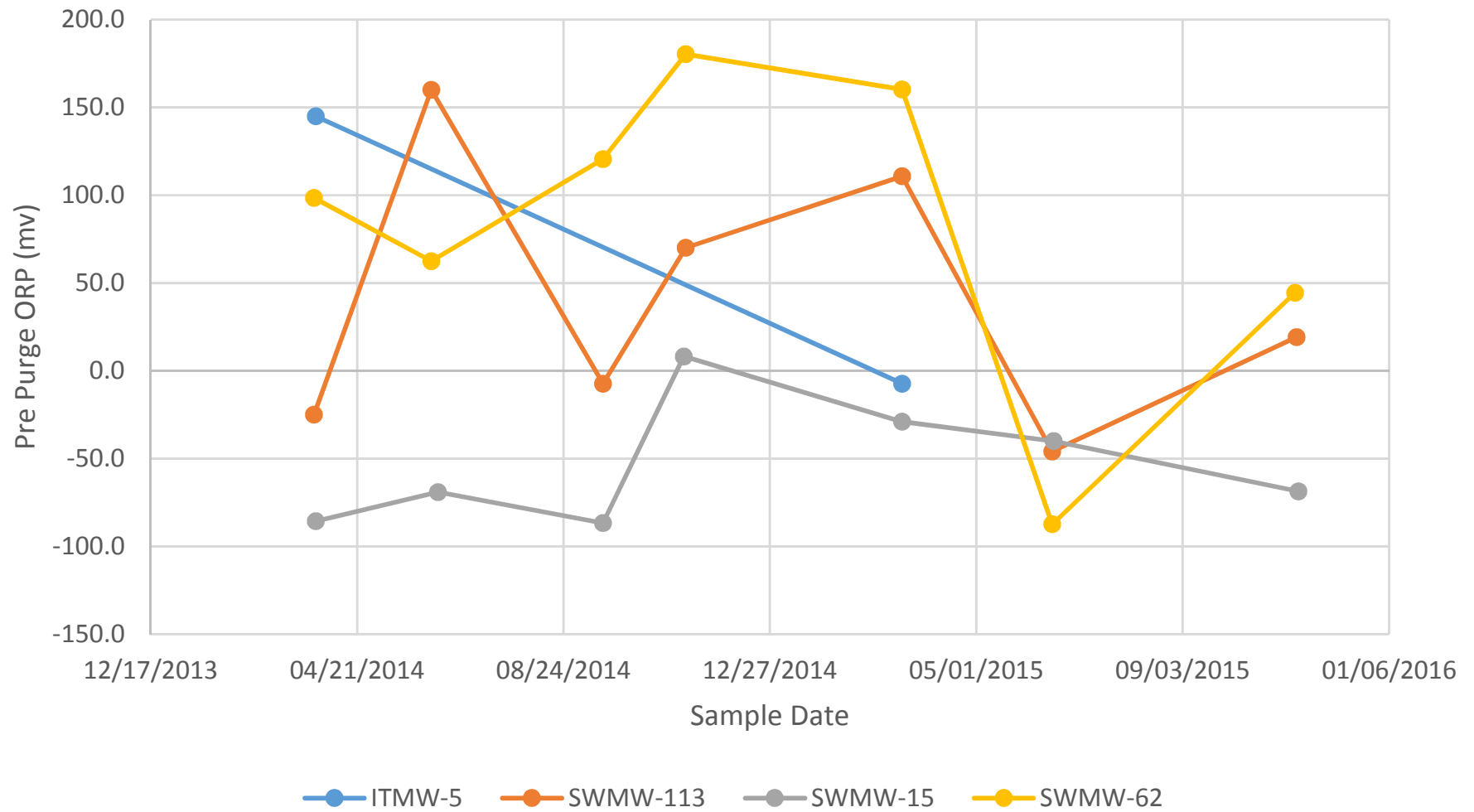
Bld 45/55 (Overburden)
Site: Beacon, NY



Bld 51 (Overburden)
Site: Beacon, NY

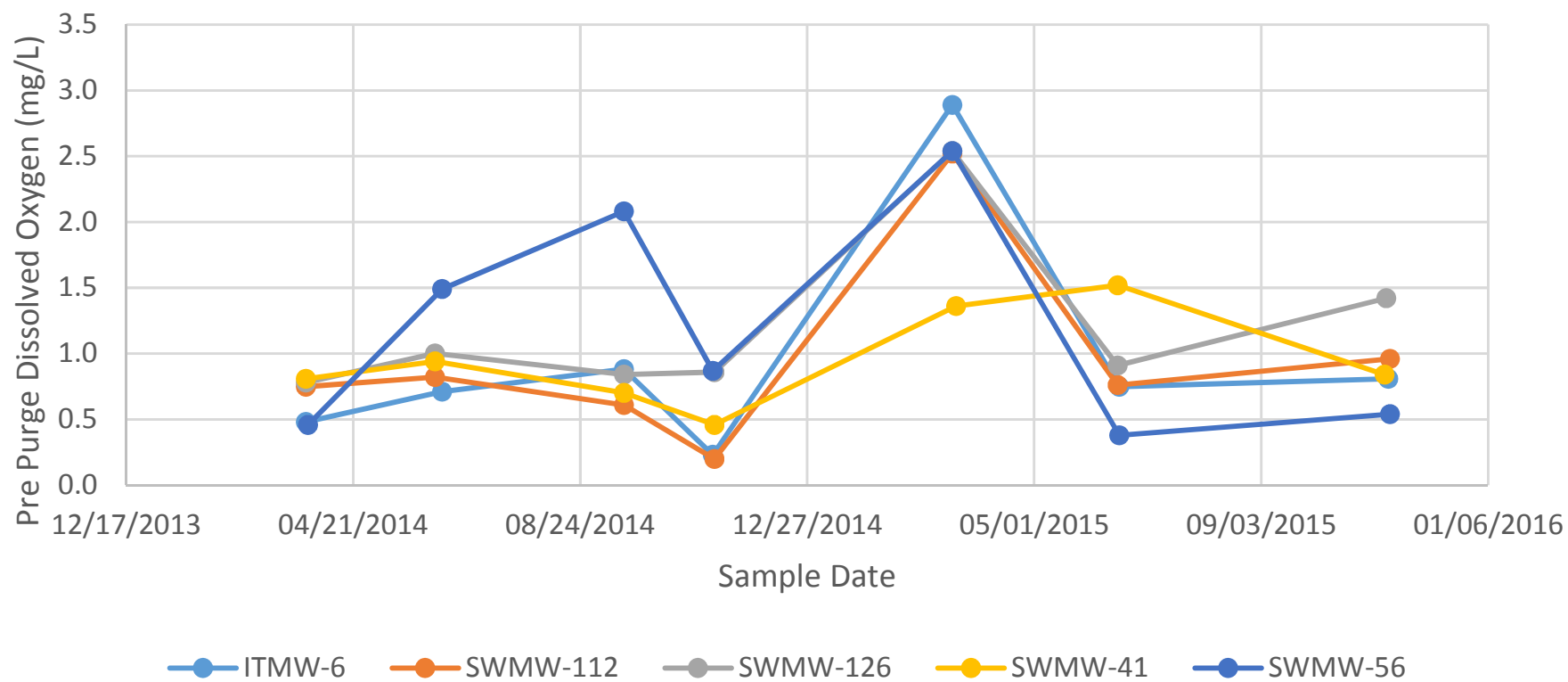


Bld 51 (Overburden)
Site: Beacon, NY

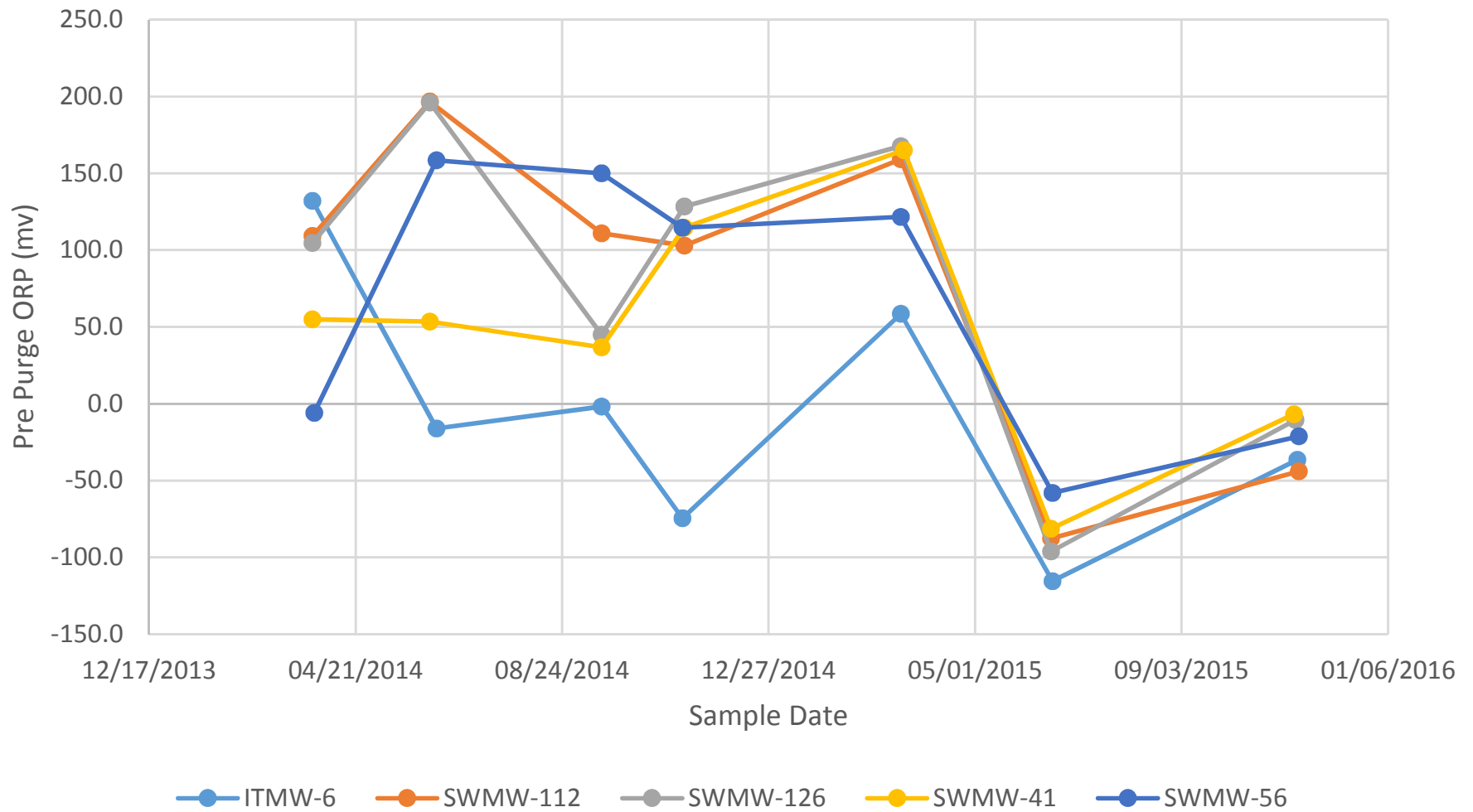


Bld 51 (Bedrock)

Site: Beacon, NY



Bld 51 (Bedrock)
Site: Beacon, NY



APPENDIX F

CSIA DATA SUMMARY PREPARED BY DR. KAMMY SRA CHEVRON ETC DECEMBER 15, 2015

Discussion on Chlorobenzene CSIA Results – Beacon Site, NY

Kammy Sra, Chevron ETC

December 16, 2015

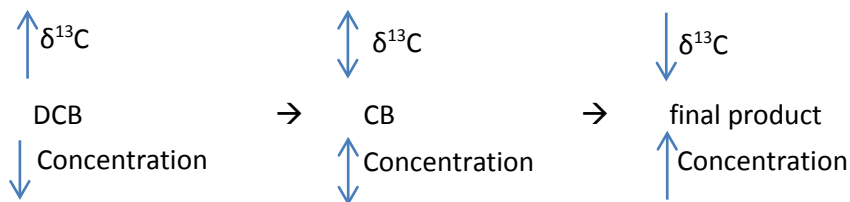
ETC has been working with the Beacon project team in evaluating groundwater monitoring data to assess if monitored natural attenuation (MNA) is a feasible alternative, particularly for chlorobenzene (CB). Based on the historical concentration data and additional quarterly monitoring in 2014, Compound-specific isotope analysis (CSIA) was used as a diagnostic tool to demonstrate natural biodegradation of chlorobenzene. A total of twelve monitoring well locations at the site were sampled for CSIA. The monitoring wells are located within four separate and distinct chlorobenzene plume areas labeled as:

- BLDG 45-55 (Overburden)
- BLDG 45-55 (Bedrock)
- BLDG 58-83-36 (Plume1)
- BLDG 58-83-36 (Plume2)

Overall, it appears that CB is naturally degrading within the distinct plume areas. ^{13}C signature for CB appears to be getting enriched significantly as groundwater is transported downgradient and as CB concentration decreases.

The monitoring wells within these four plumes are identified in Table 1 below along with the concentration data and isotopic data. CSIA for ^{13}C was conducted on all twelve groundwater samples for chlorobenzene, and on four groundwater samples for 1,2-dichlorobenzene (1,2-DCB) (which is generally the most dominant of the three dichlorobenzene (DCB) isomers at the site). These wells were chosen on the basis of relative CB to DCB ratio and the isotopic signature in CB. The objective for CSIA on DCB was to understand the impact of DCB degradation on the change in isotopic signature of both DCB and CB in groundwater samples from wells potentially located along groundwater flow path.

Based on the concentration data and apparent groundwater flow pattern towards the adjacent river (Fishkill Creek), the monitoring wells were assigned relative locations as being upgradient, mid-gradient, downgradient or background wells. If degradation of DCB and CB is taking place along a flow path, the expected chemistry outcomes would be as follows:



Dechlorination of DCB leads to the production of CB. In the forward direction as DCB degrades to CB, ^{13}C in DCB will get enriched whereas ^{13}C in CB will get depleted. The relative concentration of DCB will decrease while the concentration of CB will increase. CB can undergo further dechlorination and

degrade into other by-products and in the process will lead to relatively lower concentrations and also get enriched in ^{13}C . In the presence of DCB degradation, the isotopic signature of CB will be a result of competing depletion and enrichment of ^{13}C . Similarly, the concentration of CB will be determined by competing production (from DCB degradation) and consumption (from CB degradation) of CB. However, as DCB becomes more depleted, or is relatively absent, a stronger enrichment of ^{13}C in CB is expected. It appears at the site that CB was not only a byproduct of DCB degradation but existed as a separate contaminant source as well. This also potentially confounds the isotopic changes to CB.

For CB, enrichment in ^{13}C along an apparent groundwater flow path would imply that significant CB degradation has occurred which was able to overcome the depletion in ^{13}C that would have been produced by DCB degradation. Along a flow path, as CB concentration gets depleted, it is expected that ^{13}C would be enriched. When DCB is present upgradient of the system, lack of enrichment in ^{13}C for CB does not necessarily imply that there is no CB degradation. It is possible that ^{13}C signature does not show a shift, despite CB degradation, due to above mentioned competing depletion (from DCB degradation) and enrichment (from CB degradation) of the isotopic signature. In general, an isotopic shift of $+0.5\text{‰}$ in $\delta^{13}\text{C}$ is considered to be significant for both CB and DCB.

Presenting the data separately for CB, following points are noteworthy:

- Significant increase (1.6‰) in isotopic signature is noted for CB for groundwater samples for monitoring wells located relatively downgradient and with lower CB concentration in BLDG 45-55 (Overburden) plume.
- Significant increase (1.5‰) in isotopic signature is noted for CB for groundwater samples for monitoring wells located relatively downgradient and with lower CB concentration in BLDG 45-55 (Bedrock) plume.
- Significant increase (1.6‰) in isotopic signature is noted for CB for groundwater samples for monitoring wells located relatively downgradient and with lower CB concentration in BLDG 58-83-36 (Plume1) plume.
- The significantly higher enrichment of ^{13}C in monitoring wells located downgradient indicates that CB degradation is taking place within those plumes. Overall, the enrichment of ^{13}C occurs in CB in the direction of lower CB concentrations providing a strong evidence of natural degradation of CB.
- No changes in isotopic signature were noted for CB within BLDG 58-83-26 (Plume2). This might be expected since the plume also has a higher concentration of 1,2-DCB. Degradation of DCB will suppress the positive isotopic shift in ^{13}C for CB. This can be seen at another location where data for ^{13}C is available for both CB and 1,2-DCB. At SWMW-44, while CB degradation and therefore ^{13}C enrichment in CB may be occurring, the DCB degradation to CB may deplete ^{13}C suppressing any positive shift in isotope signature for CB. In general, the isotopic shifts in $\delta^{13}\text{C}$ for CB may be suppressed by the presence and degradation of DCB as briefly discussed below.

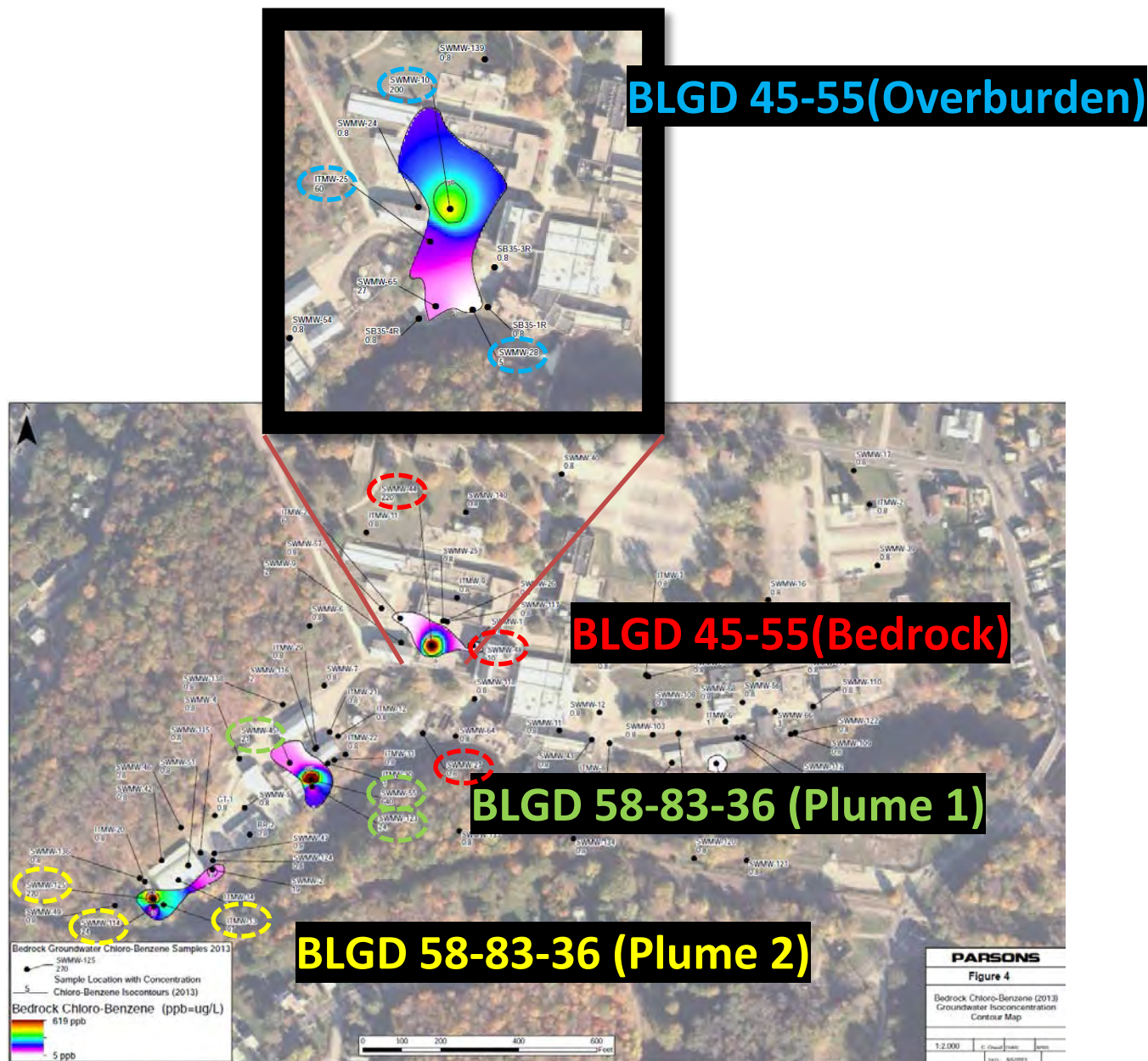


Figure 1: Illustration of the four chlorobenzene plumes 1) BLDG 45-55 (Overburden), 2) BLDG 45-55 (Bedrock), 3) BLDG 58-83-36 (Plume1), and 4) BLDG 58-83-36 (Plume2).

Table 1: Summary of concentration and isotopic data for CB

Location	Sample ID	Concentration ($\mu\text{g/L}$)	Isotope Results ($\delta^{13}\text{C}$, ‰)	Remarks
		CB	CB	
BLDG 45-55 (Overburden)	SWMW-10	82	ND	CB peak not resolved by GC.
	ITMW-25	70	-27.9	-
	SWMW-28	17	-26.3	-
BLDG 45-55 (Bedrock)	SWMW-44	220	-28.5	-
	SWMW-48	ND	ND	CB below detection limit.
	SWMW-27	27	-27.0	-
BLDG 58-83-36 (Plume1)	SWMW-45	75	-28.0	-
	SWMW-55	2000	-26.8	-
	SWMW-123	34	-26.4	-
BLDG 58-83-36 (Plume2)	SWMW-125	330 (320)	-28.2 (-28.2)	Values in bracket for field duplicate
	SWMW-114	9	-28.2	-
	ITMW-13	16	-28.3	-

CSIA for DCB

The relative concentrations of DCB and CB present an opportunity to understand the relative position of the groundwater sample along the degradation of DCB and CB spectrum. For instance, a high ratio of DCB to CB implies that the plume is rich in DCB and would be closer to the source signature for ^{13}C . A moderate DCB to CB ratio would imply that DCB has degraded into CB and the groundwater is relatively downgradient of the source area. At such a DCB to CB ratio, the isotopic signature for ^{13}C in DCB would be expected to be more enriched relative to the high DCB to CB ratio groundwater. For a low DCB to CB ratio, DCB would have almost completely degraded and consequently be further enriched in ^{13}C .

Data for 1,2-DCB isotope results (Table 2) is looked at separately to try and understand the confounding effect from competing processes. Of the four samples analyzed for DCB, isotopic results for two of the samples were not resolved due to issues with low level detection of DCB. For the two samples for which results were obtained, the following points are noteworthy:

- Sample for SWMW-125, which appears to have a relatively high DCB to CB ratio and a high DCB concentration (implying that it is likely in the vicinity of the DCB source area), has an isotopic signature $\delta^{13}\text{C}$ of -27.2. This value is enriched with respect to $\delta^{13}\text{C}$ for CB (-28.2) which is not unexpected as CB signature shows depletion as it is produced upon DCB degradation.
- Sample for SWMW-44, which has a medium DCB to CB ratio and DCB and CB relatively depleted, has an isotopic signature of -25.8. This is relatively much more enriched than SWMW-125 which may be in the vicinity of the DCB source area and has a higher DCB concentration. This indicates that as DCB/CB ratio decreases (i.e., as DCB degrades and CB is produced) the isotopic signature for ^{13}C gets enriched. Similar to SWMW-125, the DCB signature is also much more enriched than that for CB suggesting that as significant DCB degradation occurs, CB isotopic signature gets depleted. It lends support to assertion above that the presence and degradation of DCB is likely to suppress the positive shift in $\delta^{13}\text{C}$ for CB.
- Generally, enrichment of ^{13}C is noted in DCB as concentration of DCB decreases with respect to CB.

Table 2: Summary of concentration and isotopic data for DCB

Location	Sample ID	Concentration ($\mu\text{g/L}$)		Ratio	Isotope Results ($\delta^{13}\text{C}$, ‰)		Remarks
		CB	1,2-DCB		CB	1,2-DCB	
BLDG 45-55 (Overburden)	ITMW-25	70	ND	-	-27.9	ND	1,2-DCB peak not resolved
BLDG 45-55 (Bedrock)	SWMW-44	220	47	0.21	-28.5	-25.8	-
	SWMW-123	34	ND	-	-26.4	ND	1,2-DCB peak not resolved
BLDG 58-83-36 (Plume2)	SWMW-125	330 (320)	360 (350)	1.09 (1.09)	-28.2 (-28.2)	-27.2	Values in bracket for field duplicate