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 statues 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. Date
New York, No. 080807

PARSONS

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.

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,

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

(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 17.11ft. 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

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	

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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		FD	
				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
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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:	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
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FORMER TEXACO RESEARCH CENTER
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				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
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				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	

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2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
ANALYTICAL SUMMARY TABLE
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				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-28		SWMW-44		SWMW-44		SWMW-44		SWMW-44		SWMW-44		SWMW-44	
				Field Sample ID:	SWMW-28-W-4.00-151112		CVX-0045-05		CVX-0045-09		CVX-0049-05		CVX-0060-03		CVX-0060-04		SWMW-44-W-15.00-151111	
				Date Sampled:	11/12/2015		03/20/2015		03/20/2015		06/17/2015		09/10/2015		09/10/2015		11/11/2015	
				SDG:	1609238		1547125		1547125		1570188		1592070		1592070		1608899	
				Sample Matrix:	WATER		WATER		WATER		WATER		WATER		WATER		WATER	
				Sample Purpose:	REG		FD		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	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	

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2015 QUARTERLY GROUNDWATER SAMPLING EVENTS
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FORMER TEXACO RESEARCH CENTER
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				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
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				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

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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-14		SWMW-14		SWMW-14		SWMW-15		SWMW-15		SWMW-15		SWMW-15		SWMW-41	
				Field Sample ID:	CVX-0049-10		CVX-0061-01		SWMW-14-W-26.00-151111		CVX-0044-02		CVX-0050-03		CVX-0061-02		SWMW-15-W-5.00-151112		CVX-0045-08	
				Date Sampled:	06/17/2015		09/11/2015		11/11/2015		03/19/2015		06/18/2015		09/11/2015		11/12/2015		03/20/2015	
				SDG:	1570188		1592327		1608899		1546899		1570520		1592327		1609238		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	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	

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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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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 $CaC0_3$/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 amendents.

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 (δ^{13} 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:

δ^{13} 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

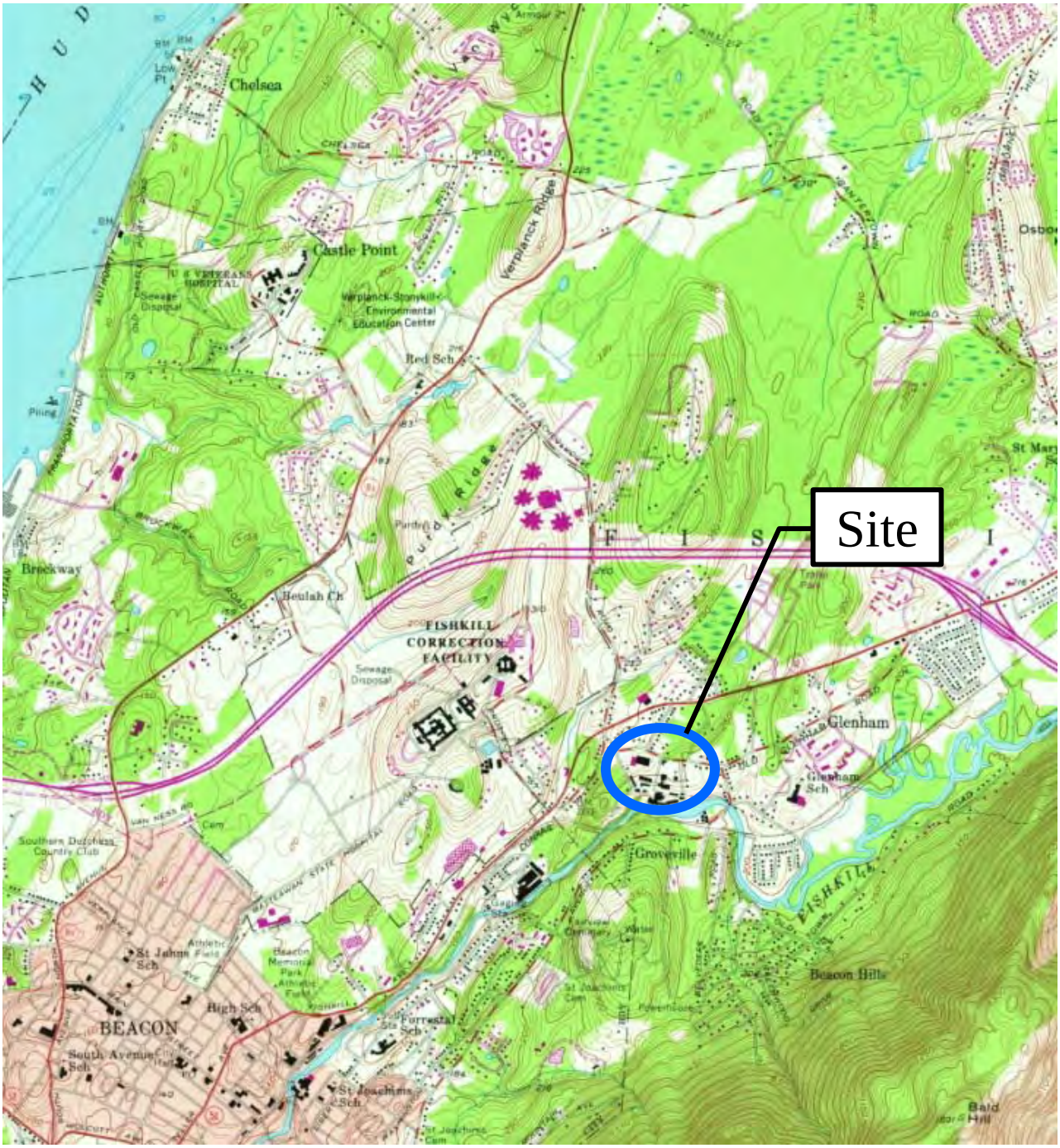
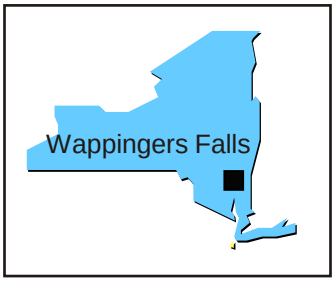


FIGURE 1



New York Quadrangle

N

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

Chevron

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

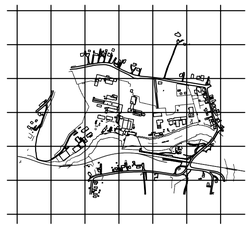
GROUNDWATER MONITORING WELL LOCATIONS:
- SWMW-**
- GT-**
- ITMW-**
- SB35-**
- BR-**
- TF-**
- UKW-**

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'D
A	–	1/12/15	JHG	EJA	EJA

DRAWN BY	JHG	DATE 1/12/15
CHECKED BY	EJA	DATE 1/12/15
APPROVED BY	EJA	DATE 1/12/15
PROJECT MGR.	CFB	DATE 1/12/15

SEAL

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

FILE NAME: P:\CHEVRON BEACON\2014\CAD-DWGS\BEACON GW MAP.DWG
PLOT DATE: 2/11/2016 2:32 PM PLOTTED BY: GOLDTHWAIT, JAMES

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
4800 Fourance Place, Room E5346
Bellaire, TX 77401

Prepared By:

PARSONS

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MAY 2015

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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

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		70.8		107		351		196		58.9	J+	131	
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	250	U	250	U	1200		2000		250	U	250	U	250	UJ	250	U
EPA 300.0	Sulfate	14808-79-8	N	mg/l	39		47.6		45.9		97.3		36.3		46.7		16.3		12.6	
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0	U	2.8	J	1.0	U	1.0	U	3.3	J	1.0	U	1.0	U	1.0	U
RSKSOP-175 modified	Ethene	74-85-1	N	ug/l	1.0	U	3.6	J	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	32		510		3.0	U	7.6		460	J	5	UJ	56		120	
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	275000		353000		418000		266000		262000		285000		142000		281000	
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l	170	J	920	J	60	J	51	J	100	J		R	110	J	28	J
SM 4500-S2 D-2000	Sulfide, Total	12597-04-5	N	ug/l	54	U	85	J	54	U	54	U	54	U	54	U	54	U	54	U
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.375		0.493		0.041		0.0971		0.221	J	0.253		0.523		0.326	
SW-846 8260C	Benzene	71-43-2	N	ug/l	1		1		0.5	U	0.5	U	2		0.5	U	0.5	U	0.6	J
SW-846 8260C	Chlorobenzene	108-90-7	N	ug/l	1	J	200		0.5	U	0.5	U	3		1		21		43	
SW-846 8260C	cis-1,2-Dichloroethene	156-59-2	N	ug/l	110		13		0.5	U	13		550		18		4		0.5	U
SW-846 8260C	Trichloroethene (Trichloroethylene)	79-01-6	N	ug/l	83		29		0.5	U	65		250		12		250		0.5	U
SW-846 8260C	Vinyl chloride (Chloroethene)	75-01-4	N	ug/l	1		4		0.5	U	0.5	U	12		0.5	U	0.6	J	0.5	U
SW8015D	CARBON DIOXIDE	124-38-9	N	ug/l	26000	J	39000	J	33000	J	34000	J	27000	J	29000	J	20000	J	36000	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		467		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		R	120	J	51	J		R	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	UGCACO3/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		59.3		26.9		27							
EPA 300.0	Nitrate as nitrogen	84145-82-4	N	ug/l	2100		1800		1100		250	U	250	U						
EPA 300.0	Sulfate	14808-79-8	N	mg/l	68.4		45.7		107		31.5		31.7							
RSKSOP-175 modified	Ethane	74-84-0	N	ug/l	1.0	U	1.0	U	1.0	U	3.0	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	1.0	U						
RSKSOP-175 modified	Methane	74-82-8	N	ug/l	3.5	J	3.0	U	3.0	U	3200	J	260	J						
SM 2320 B-1997	Alkalinity (Total)	ALK	N	UGCACO3/L	224000		262000		269000		310000		308000							
SM 3500-Fe B modified-1997	Ferrous Iron	15438-31-0	N	ug/l		R	14	J		R	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	54	U						
SW-846 6010C	Manganese	7439-96-5	N	mg/l	0.0263		0.505		0.0697		3.53		3.23							
SW-846 8260C	Benzene	71-43-2	N	ug/l	0.5	U	0.5	U	0.5	U	4	J	0.6	J	0.5	U	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	0.8	J	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	330		0.5	U	63		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	180		18		300		0.5	U	0.5	U	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	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		Unknov
				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-(
				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		WA
				Sample Purpose	TB		TB		TB		TB		TB		TB		REG		R
				Sample Type	BLKWATER		BLKWATER		BLKWATER		BLKWATER		BLKWATER		BLKWATER		GW		G
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	vn 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	ATER	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

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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

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		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

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 ±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	UGCACO3/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	UJ	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	UGCACO3/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	UGCACO3/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	UGCACO3/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	UGCACO3/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	UGCACO3/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	UGCACO3/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	UGCACO3/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

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	UGCACO3/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	UGCACO3/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	UGCACO3/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	UGCACO3/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	UGCACO3/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	UGCACO3/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

Samplers: E Paccia

Well ID: GT-2

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): 4.08

Depth to Well Bottom (ft): 7.75

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)

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

Manual Entry:

Well Diameter: 2 inches

Samplers: E Paccia

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): 9.18

Depth to Well Bottom (ft): 28.4

Date: 03/17/2015

Time: 16:20 *(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
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)

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

Samplers: A Kowalczk

Well ID: ITMW-6

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): 18.72

Depth to Well Bottom (ft): 46.44

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)

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

Samplers: A Kowalczk

Well ID: ITMW-13

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): 6.13

Depth to Well Bottom (ft): 19.9

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: ITMW-14

Manual Entry:

Samplers: E Paccia

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): 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: Disposable bailer & rope

Date: 03/24/2015

Time: *(HH:MM)* 10:45

Total Volume of Water Purged: 2 (gal)

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		

Comments:

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

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: Chevron TRC Beacon

Well ID: ITMW-24

Manual Entry:

Samplers: E Paccia

Well Diameter: 4 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): 6.41

Depth to Well Bottom (ft): 13.15

Date: 03/19/2015

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	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: Disposable bailer & rope

Date: 03/20/2015

Time: *(HH:MM)* 09:35

Total Volume of Water Purged: 15.5 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: ITMW-25

Manual Entry:

Well Diameter: 2 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): 10.79

Depth to Well Bottom (ft): 24.72

Date: 03/18/2015

Time: 16:20 *(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
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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: A Kowalczk

Well ID: ITMW-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): 6.8

Depth to Well Bottom (ft): 39.4

Date: 03/23/2015

Time: 08:55 *(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
09:00	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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: ITMW-31

Manual Entry:

Samplers: E Paccia

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): 6.35

Depth to Well Bottom (ft): 39.45

Date: 03/23/2015

Time: 09:15 *(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
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: Disposable bailer & rope

Date: 03/24/2015

Time: *(HH:MM)* 09:20$

Total Volume of Water Purged: 16.5 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C Huey

Well ID: SWMW-2

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): 4.81

Depth to Well Bottom (ft): 22.25

Date: 03/23/2015

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
10:45	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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-10

Manual Entry:

Samplers: A Kowalczk

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): 2.79

Depth to Well Bottom (ft): 7.55

Date: 03/18/2015

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	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: Disposable bailer & rope

Date: 03/20/2015

Time: *(HH:MM)* 10:20

Total Volume of Water Purged: 3 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: A Kowalczk

Well ID: SWMW-13

Manual Entry:

Well Diameter: 2 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): 46.55

Depth to Well Bottom (ft): 73.2

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: E Paccia

Well ID: SWMW-14

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): 8.96

Depth to Well Bottom (ft): 39.2

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: E Paccia

Well ID: SWMW-15

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): 12.76

Depth to Well Bottom (ft): 23.82

Date: 03/17/2015

Time: 16:15 *(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
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)

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

Manual Entry:

Well Diameter: 2 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): 5.98

Depth to Well Bottom (ft):

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-25

Manual Entry:

Well Diameter: 2 inches

Samplers: E Paccia

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): 3.49

Depth to Well Bottom (ft): 10.1

Date: 03/19/2015

Time: 14:25 *(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
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: Disposable bailer & rope

Date: 03/20/2015

Time: *(HH:MM)* 09:55

Total Volume of Water Purged: 4 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-28

Manual Entry:

Well Diameter: 2 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): 9.51

Depth to Well Bottom (ft): 15.6

Date: 03/18/2015

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	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

Method: Disposable bailer & rope

Date: 03/20/2015

Time: *(HH:MM)* 08:55

Total Volume of Water Purged: 3 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-30

Manual Entry:

Well Diameter: 2 inches

Samplers: E Paccia

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): 7.81

Depth to Well Bottom (ft): 14.5

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)

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-31

Manual Entry:

Well Diameter: 4 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): 6.17

Depth to Well Bottom (ft): 10.9

Date: 03/16/2015

Time: 15:45 *(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
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)

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: SWMW-41

Manual Entry:

Samplers: C Huey

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): 8.13

Depth to Well Bottom (ft): 43.55

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-44

Manual Entry:

Well Diameter: 2 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): 3.1

Depth to Well Bottom (ft): 29.05

Date: 03/18/2015

Time: 16:15 *(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
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: Disposable bailer & rope

Date: 03/20/2015

Time: *(HH:MM)* 10:00

Total Volume of Water Purged: 15 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-45

Manual Entry:

Samplers: E Paccia

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): 12.3

Depth to Well Bottom (ft): 30.25

Date: 03/23/2015

Time: 09:15 *(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
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)

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

Manual Entry:

Samplers: E Paccia

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): 6.11

Depth to Well Bottom (ft): 9.05

Date: 03/23/2015

Time: 08:10 *(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
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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-55

Manual Entry:

Samplers: E Paccia

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): 13.55

Depth to Well Bottom (ft): 19.23

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)

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: SWMW-56

Manual Entry:

Well Diameter: 2 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): 17.8

Depth to Well Bottom (ft): 54.8

Date: 03/17/2015

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	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)

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

Samplers: E Paccia

Well ID: SWMW-58

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): 12.33

Depth to Well Bottom (ft): 28.95

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C Huey

Well ID: SWMW-62

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): 7.97

Depth to Well Bottom (ft): 18.35

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-65

Manual Entry:

Samplers: E Paccia

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): 8.13

Depth to Well Bottom (ft): 15.55

Date: 03/18/2015

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	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: Disposable bailer & rope

Date: 03/20/2015

Time: *(HH:MM)* 08:50

Total Volume of Water Purged: 4.5 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C Huey

Well ID: SWMW-66

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): 18.43

Depth to Well Bottom (ft): 59.05

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)

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

Samplers: E paccia

Well ID: SWMW-67

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): 9.58

Depth to Well Bottom (ft): 29.4

Date: 03/18/2015

Time: 13:43 *(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
13:43	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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-68

Manual Entry:

Well Diameter: 2 inches

Samplers: C Huey

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): 20.68

Depth to Well Bottom (ft): 53.37

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)

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-103

Manual Entry:

Well Diameter: 2 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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: E Paccia

Well ID: SWMW-111

Manual Entry:

Well Diameter: 2 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): 18.15

Depth to Well Bottom (ft): 60.15

Date: 03/18/2015

Time: 14:41 *(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
14:41	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)

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

Manual Entry:

Samplers: E Paccia

Well Diameter: 2 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): 7.79

Depth to Well Bottom (ft): 63.9

Date: 03/17/2015

Time: 14:00 *(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
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)

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: Chevron TRC Beacon

Well ID: SWMW-113

Manual Entry:

Well Diameter: 2 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): 8.5

Depth to Well Bottom (ft): 30.5

Date: 03/17/2015

Time: 14:00 *(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
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: Disposable bailer & rope

Date: 03/18/2015

Time: *(HH:MM)* 09:10

Total Volume of Water Purged: 10.5 (gal)

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: Chevron TRC Beacon

Well ID: SWMW-114

Manual Entry:

Well Diameter: 2 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): 13.68

Depth to Well Bottom (ft): 48.2

Date: 03/23/2015

Time: 11:45 *(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
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: Disposable bailer & rope

Date: 03/24/2015

Time: *(HH:MM)* 11:10

Total Volume of Water Purged: 17.25 (gal)

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

Samplers: C Huey

Well ID: SWMW-123

Manual Entry:

Well Diameter: 2 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): 15.47

Depth to Well Bottom (ft): 79.3

Date: 03/23/2015

Time: 08:35 *(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
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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-125

Manual Entry:

Samplers: E Paccia

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): 11.01

Depth to Well Bottom (ft): 41.7

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	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: Disposable bailer & rope

Date: 03/24/2015

Time: *(HH:MM)* 11:00

Total Volume of Water Purged: 15 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: A Kowalczk

Well ID: SWMW-126

Manual Entry:

Well Diameter: 2 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): 7.53

Depth to Well Bottom (ft): 49.2

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C Huey

Well ID: Unknown Well 1

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): 3.73

Depth to Well Bottom (ft): 8.4

Date: 03/23/2015

Time: 10:55 *(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	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: Disposable bailer & rope

Date: 03/24/2015

Time: *(HH:MM)* 10:05

Total Volume of Water Purged: 2.25 (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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: E Paccia

Well ID: Unknown Well 2 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): 3.96

Depth to Well Bottom (ft): 7.62

Date: 03/23/2015

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	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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: E Paccia

Well ID: Unknown Well 3 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): 3.98

Depth to Well Bottom (ft): 7.1

Date: 03/23/2015

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
11:03	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)

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

Samplers: C huey

Well ID: Manual Entry: SWMW-27

Well Diameter: 2 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

Depth to Well Bottom (ft): 55.3

Date: 06/16/2015

Time: 11:30 *(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
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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: A Kowalczk

Well ID: GT-2

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): 4.88

Depth to Well Bottom (ft): 8.22

Date: 06/15/2015

Time: 10:20 *(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
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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C huey

Well ID: ITMW-6

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): 23.04

Depth to Well Bottom (ft): 48

Date: 06/17/2015

Time: 15:30 *(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
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: Disposable bailer & rope

Date: 06/18/2015

Time: *(HH:MM)* 13:05

Total Volume of Water Purged: 12 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C huey

Well ID: ITMW-13

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): 9.04

Depth to Well Bottom (ft): 20

Date: 06/15/2015

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	9.04	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: Disposable bailer & rope

Date: 06/15/2015

Time: *(HH:MM)* 14:10

Total Volume of Water Purged: 2.5 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C huey

Well ID: ITMW-14

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): 6.76

Depth to Well Bottom (ft):

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)

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)			

Comments:

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

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: Chevron TRC Beacon

Samplers: D douglass

Well ID: ITMW-25

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): 12.39

Depth to Well Bottom (ft): 24.8

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-2

Manual Entry:

Well Diameter: 2 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): 6.11

Depth to Well Bottom (ft): 23.6

Date: 06/15/2015

Time: 10:10 *(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
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: Disposable bailer & rope

Date: 06/15/2015

Time: *(HH:MM)* 14:30

Total Volume of Water Purged: 9 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-10

Manual Entry:

Samplers: A kowalczk

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): 4

Depth to Well Bottom (ft): 9

Date: 06/16/2015

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	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: Disposable bailer & rope

Date: 06/17/2015

Time: *(HH:MM)* 08:25

Total Volume of Water Purged: 3 (gal)

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

Samplers: D douglass

Well ID: SWMW-14

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): 9.61

Depth to Well Bottom (ft): 40

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C huey

Well ID: SWMW-15

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): 17.11

Depth to Well Bottom (ft): 25

Date: 06/17/2015

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	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)

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

Manual Entry:

Well Diameter: 2 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): 9.82

Depth to Well Bottom (ft): 16.5

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)

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: Chevron TRC Beacon

Well ID: SWMW-30

Manual Entry:

Well Diameter: 2 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): 8.83

Depth to Well Bottom (ft): 14.78

Date: 06/18/2015

Time: 09:00 *(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
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: Disposable bailer & rope

Date: 06/18/2015

Time: *(HH:MM)* 14:40

Total Volume of Water Purged: 3 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-31

Manual Entry:

Well Diameter: 4 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): 7.13

Depth to Well Bottom (ft): 11.2

Date: 06/18/2015

Time: 09:10 *(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
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: Disposable bailer & rope

Date: 06/18/2015

Time: *(HH:MM)* 14:50

Total Volume of Water Purged: 9 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: C huey

Well ID: SWMW-41

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): 10.84

Depth to Well Bottom (ft): 45

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-44

Manual Entry:

Well Diameter: 2 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): 4.3

Depth to Well Bottom (ft): 30

Date: 06/16/2015

Time: 10:20 *(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
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: Disposable bailer & rope

Date: 06/17/2015

Time: *(HH:MM)* 08:40

Total Volume of Water Purged: 13.5 (gal)

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: Chevron TRC Beacon

Well ID: SWMW-45

Manual Entry:

Well Diameter: 2 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): 14.39

Depth to Well Bottom (ft): 31

Date: 06/15/2015

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	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: Disposable bailer & rope

Date: 06/16/2015

Time: *(HH:MM)* 08:55

Total Volume of Water Purged: 8 (gal)

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

Samplers: C huey

Well ID: SWMW-45

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): 14.59

Depth to Well Bottom (ft): 31

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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-48

Manual Entry:

Well Diameter: 2 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): 6.24

Depth to Well Bottom (ft): 10

Date: 06/16/2015

Time: 10:05 *(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
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)

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

Samplers: C Huey

Well ID: SWMW-55

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): 15.98

Depth to Well Bottom (ft): 20

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)

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		

Comments:

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

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-55

Manual Entry:

Samplers: D douglass

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): 16.03

Depth to Well Bottom (ft): 20

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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-56

Manual Entry:

Well Diameter: 2 inches

Samplers: C huey

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): 22.77

Depth to Well Bottom (ft): 55

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)

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: Chevron TRC Beacon

Well ID: SWMW-58

Manual Entry:

Samplers: D douglass

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): 13.17

Depth to Well Bottom (ft): 30

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	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: Disposable bailer & rope

Date: 06/18/2015

Time: *(HH:MM)* 12:50

Total Volume of Water Purged: 9 (gal)

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

Samplers: D douglass

Well ID: SWMW-62

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): 9.19

Depth to Well Bottom (ft): 19

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-65

Manual Entry:

Well Diameter: 2 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): 9.06

Depth to Well Bottom (ft): 16

Date: 06/16/2015

Time: 11:35 *(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
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: Disposable bailer & rope

Date: 06/17/2015

Time: *(HH:MM)* 10:10

Total Volume of Water Purged: 3.5 (gal)

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

Samplers: A kowalczk

Well ID: SWMW-66

Manual Entry:

Well Diameter: 2 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): 21.09

Depth to Well Bottom (ft): 62

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	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: Disposable bailer & rope

Date: 06/18/2015

Time: *(HH:MM)* 12:35

Total Volume of Water Purged: 15 (gal)

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

Samplers: C huey

Well ID: SWMW-67

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): 16.06

Depth to Well Bottom (ft): 29.64

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)

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

Manual Entry:

Well Diameter: 2 inches

Samplers: D douglass

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

Depth to Well Bottom (ft): 53.62

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)

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

Samplers: A kowalczk

Well ID: SWMW-111

Manual Entry:

Well Diameter: 2 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): 21.56

Depth to Well Bottom (ft): 60.5

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)

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

Samplers: A kowalczk

Well ID: SWMW-112

Manual Entry:

Well Diameter: 2 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): 9.89

Depth to Well Bottom (ft): 64.4

Date: 06/16/2015

Time: 13:50 *(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
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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-113

Manual Entry:

Samplers: D douglass

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): 9.74

Depth to Well Bottom (ft): 30.9

Date: 06/16/2015

Time: 13:50 *(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
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: Disposable bailer & rope

Date: 06/17/2015

Time: *(HH:MM)* 11:10

Total Volume of Water Purged: 10.5 (gal)

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

Manual Entry:

Samplers: C huey

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): 16.22

Depth to Well Bottom (ft): 40

Date: 06/15/2015

Time: 11:15 *(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
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)

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

Samplers: A kowalczk

Well ID: SWMW-123

Manual Entry:

Well Diameter: 2 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): 17.95

Depth to Well Bottom (ft): 79.25

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)

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

Manual Entry:

Samplers: D Douglass

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): 13.48

Depth to Well Bottom (ft): 41.8

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: A kowalczk

Well ID: SWMW-126

Manual Entry:

Well Diameter: 2 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): 9.88

Depth to Well Bottom (ft): 49.5

Date: 06/16/2015

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
13:40	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)

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: Chevron TRC Beacon

Well ID: Unknown Well 1

Manual Entry:

Samplers: C Huey

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): 6.53

Depth to Well Bottom (ft): 8.65

Date: 06/15/2015

Time: 15:15 *(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
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: Disposable bailer & rope

Date: 06/16/2015

Time: *(HH:MM)* 08:25

Total Volume of Water Purged: 1.5 (gal)

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

Samplers: C huey

Well ID: Unknown Well 1

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): 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)

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

Samplers: D douglass

Well ID: Unknown Well 2

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): 6.7

Depth to Well Bottom (ft): 8

Date: 06/15/2015

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	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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers:

Well ID: Unknown Well 2

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): 6.9

Depth to Well Bottom (ft): 8

Date: 06/18/2015

Time: 10:20 *(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
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: Disposable bailer & rope

Date: 06/18/2015

Time: *(HH:MM)* 15:40

Total Volume of Water Purged: 0.5 (gal)

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		

Comments:

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

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

Samplers: D douglass

Well ID: Unknown Well 3 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): 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: Disposable bailer & rope

Date: 06/16/2015

Time: *(HH:MM)* 08:10

Total Volume of Water Purged: 0.5 (gal)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers:

Well ID: Unknown Well 3

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): 6.49

Depth to Well Bottom (ft): 7.35

Date: 06/18/2015

Time: 10:20 *(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
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: Disposable bailer & rope

Date: 06/18/2015

Time: *(HH:MM)* 15:50

Total Volume of Water Purged: 0.5 (gal)

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		

Comments:

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

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: Chevron TRC Beacon

Samplers: Chris Watson

Well ID: GT-2

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): 5

Depth to Well Bottom (ft): 8.23

Date: 09/14/2015

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	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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 10:40

Total Volume of Water Purged: 1.5 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Chris Watson

Well ID: ITMW-13

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): 7

Depth to Well Bottom (ft): 20

Date: 09/14/2015

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	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: 09/15/2015

Time: *(HH:MM)* 10:00

Total Volume of Water Purged: 2.5 (gal)

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

Samplers: Chris Watson

Well ID: ITMW-25

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): 13.47

Depth to Well Bottom (ft): 24.8

Date: 09/09/2015

Time: 10:25 *(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
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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Chris Watson

Well ID: ITMW-6

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): 23.32

Depth to Well Bottom (ft): 48

Date: 09/14/2015

Time: 08:55 *(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
08:55	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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 09:00

Total Volume of Water Purged: 12.0 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Cheryl Huey

Well ID: SWMW-10

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): 6.56

Depth to Well Bottom (ft): 9

Date: 09/09/2015

Time: 10:00 *(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
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)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.93	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.53	Methyl alkalinity (mg/L)	400
Turbidity (NTU)	278	Ferrous Iron (mg/L)	0.6
DO (mg/L)	2.29		
Temp.(°C)	21.82		
ORP (mv)	-60		

Comments:

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-111

Manual Entry:

Well Diameter: 2 inches

Samplers: Chris Watson

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): 22.42

Depth to Well Bottom (ft): 60.5

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)

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

Manual Entry:

Samplers: CHris Watson

Well Diameter: 2 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): 11.62

Depth to Well Bottom (ft): 64.4

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-113

Manual Entry:

Well Diameter: 2 inches

Samplers: CHris Watson

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): 10.44

Depth to Well Bottom (ft): 30.9

Date: 09/09/2015

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
13:40	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: Disposable bailer & rope

Date: 09/10/2015

Time: *(HH:MM)* 10:40

Total Volume of Water Purged: 10.5 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-114

Manual Entry:

Samplers: Cheryl Huey

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): 15.95

Depth to Well Bottom (ft): 40

Date: 09/14/2015

Time: 11:15 *(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
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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 09:50

Total Volume of Water Purged: 12.0 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Chris Watson

Well ID: SWMW-123

Manual Entry:

Well Diameter: 2 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): 18.26

Depth to Well Bottom (ft): 79.25

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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-125

Manual Entry:

Samplers: Chris Watson

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): 13.2

Depth to Well Bottom (ft): 41.8

Date: 09/14/2015

Time: 11:10 *(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
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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 09:45

Total Volume of Water Purged: 15.0 (gal)

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: Chevron TRC Beacon

Well ID: SWMW-126

Manual Entry:

Samplers: CW

Well Diameter: 2 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): 10.17

Depth to Well Bottom (ft): 49.5

Date: 09/09/2015

Time: 13:30 *(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
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: Disposable bailer & rope

Date: 09/10/2015

Time: *(HH:MM)* 10:10

Total Volume of Water Purged: 19.5 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Chris Watson

Well ID: SWMW-15

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): 20.76

Depth to Well Bottom (ft): 25

Date: 09/10/2015

Time: 15:30 *(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
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: Disposable bailer & rope

Date: 09/11/2015

Time: *(HH:MM)* 09:15

Total Volume of Water Purged: 0.3 (gal)

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		

Comments:

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

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Cheryl Huey

Well ID: SWMW-21

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): 9.13

Depth to Well Bottom (ft): 12

Date: 09/15/2015

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

Sampling Data

Method: Disposable bailer & rope

Date: 09/16/2015

Time: *(HH:MM)* 09:00

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)			

Comments:

DTP 8.98
PID 175.3
NAPL thickness = 0.15 feet
No hach kit/parameter readings due to NAPL

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: Chevron TRC Beacon

Samplers: Cheryl Huey

Well ID: SWMW-2

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): 6.08

Depth to Well Bottom (ft): 23.6

Date: 09/14/2015

Time: 14:50 *(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
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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 10:30

Total Volume of Water Purged: 3.0 (gal)

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: Chevron TRC Beacon

Samplers: Chris Watson

Well ID: SWMW-28

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): 9.93

Depth to Well Bottom (ft): 16.5

Date: 09/14/2015

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	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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 11:00

Total Volume of Water Purged: 0.3 (gal)

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: Chevron TRC Beacon

Well ID: SWMW-30

Manual Entry:

Well Diameter: 2 inches

Samplers: Chris Watson

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): 9.23

Depth to Well Bottom (ft): 14.78

Date: 09/15/2015

Time: 14:35 *(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
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: Disposable bailer & rope

Date: 09/16/2015

Time: *(HH:MM)* 09:30

Total Volume of Water Purged: 3.0 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Chris Watson

Well ID: SWMW-31

Manual Entry:

Well Diameter: 4 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): 7.54

Depth to Well Bottom (ft): 11.2

Date: 09/15/2015

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	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: Disposable bailer & rope

Date: 09/16/2015

Time: *(HH:MM)* 09:45

Total Volume of Water Purged: 7.5 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-41

Manual Entry:

Well Diameter: 2 inches

Samplers: CHeryl 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): 11.99

Depth to Well Bottom (ft): 60.5

Date: 09/09/2015

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	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: Disposable bailer & rope

Date: 09/10/2015

Time: *(HH:MM)* 11:15

Total Volume of Water Purged: 15.0 (gal)

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

Samplers: CHris Watson

Well ID: SWMW-44

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): 6.73

Depth to Well Bottom (ft): 30

Date: 09/09/2015

Time: 10:05 *(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
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)

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: Chevron TRC Beacon

Well ID: SWMW-45

Manual Entry:

Well Diameter: 2 inches

Samplers: Cheryl 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): 14.83

Depth to Well Bottom (ft): 31

Date: 09/14/2015

Time: 10:20 *(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
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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 09:40

Total Volume of Water Purged: 3.0 (gal)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: CHris Watson

Well ID: SWMW-48

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): 7.63

Depth to Well Bottom (ft): 10

Date: 09/09/2015

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	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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Chris Watson

Well ID: SWMW-55

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): 15.62

Depth to Well Bottom (ft): 20

Date: 09/14/2015

Time: 10:10 *(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
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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 09:30

Total Volume of Water Purged: 0.5 (gal)

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		

Comments:

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-56

Manual Entry:

Samplers: Chris Watson

Well Diameter: 2 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

Depth to Well Bottom (ft): 55

Date: 09/10/2015

Time: 15:40 *(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
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)

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

Manual Entry:

Samplers: Jayme Lynch

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): 21.75

Depth to Well Bottom (ft): 62

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)

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

Samplers: CHris Watson

Well ID: SWMW-62

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): 10.03

Depth to Well Bottom (ft): 19

Date: 09/09/2015

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	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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-65

Manual Entry:

Samplers: Cheryl Huey

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): 8.6

Depth to Well Bottom (ft): 16

Date: 09/14/2015

Time: 15:45 *(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
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: Disposable bailer & rope

Date: 09/15/2015

Time: *(HH:MM)* 10:50

Total Volume of Water Purged: 4.5 (gal)

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: SWMW-66

Manual Entry:

Samplers: Cheryl Huey

Well Diameter: 2 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): 21.75

Depth to Well Bottom (ft): 62

Date: 09/11/2015

Time: 08:05 *(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
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)

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: Chevron TRC Beacon

Samplers: Cheryl Huey

Well ID: SWMW-67

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): 18.38

Depth to Well Bottom (ft): 29.64

Date: 09/10/2015

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	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: Disposable bailer & rope

Date: 09/11/2015

Time: *(HH:MM)* 09:00

Total Volume of Water Purged: 2.0 (gal)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-68

Manual Entry:

Samplers: Cheryl Huey

Well Diameter: 2 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): 28.69

Depth to Well Bottom (ft): 53.62

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)

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

Samplers: Chris Watson

Well ID: Unknown Well 1

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): 7.25

Depth to Well Bottom (ft): 8.65

Date: 09/14/2015

Time: 14:00 *(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
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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Cheryl Huey

Well ID: Unknown Well 3 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): 6.19

Depth to Well Bottom (ft): 7.35

Date: 09/14/2015 Time: 14:15 *(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
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)

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

PARSONS

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: GT-2

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): 5.68

Depth to Well Bottom (ft): 8.22

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
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)

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

Samplers: Ch/dd/bs

Well ID: ITMW-13

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): 6.02

Depth to Well Bottom (ft): 20

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
13:35	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: 11/10/2015

Time: (HH:MM) 09:40

Total Volume of Water Purged: 2.2 (gal)

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		

Comments:

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

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: ITMW-25

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): 12.11

Depth to Well Bottom (ft): 24.8

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	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: 11/11/2015

Time: (HH:MM) 09:05

Total Volume of Water Purged: 2.5 (gal)

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: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: ITMW-6

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): 21.63

Depth to Well Bottom (ft): 48

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	0.81	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: Disposable bailer & rope

Date: 11/12/2015

Time: (HH:MM) 11:55

Total Volume of Water Purged: 12.5 (gal)

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

Samplers: Ch/dd/bs

Well ID: SWMW-10

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): 4.85

Depth to Well Bottom (ft): 9

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
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)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.8	Phenol alkalinity (mg/L)	0
Spec. Cond. (mS/cm)	1.34	Methyl alkalinity (mg/L)	360
Turbidity (NTU)	29.4	Ferrous Iron (mg/L)	0.6
DO (mg/L)	1.15		
Temp.(°C)	15.66		
ORP (mv)	0.2		

Comments:

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

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-111

Manual Entry:

Well Diameter: 2 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): 21.57

Depth to Well Bottom (ft): 60.5

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)

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-112

Manual Entry:

Well Diameter: 2 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

Depth to Well Bottom (ft): 64.4

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	0.96	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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-113

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): 10.12

Depth to Well Bottom (ft): 30.9

Date: 11/11/2015

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
14:25	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: Disposable bailer & rope

Date: 11/12/2015

Time: (HH:MM) 11:00

Total Volume of Water Purged: 9.6 (gal)

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: Chevron TRC Beacon

Well ID: SWMW-114

Manual Entry:

Samplers: Ch/dd/bs

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): 17.85

Depth to Well Bottom (ft): 40

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
13:30	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: Disposable bailer & rope

Date: 11/10/2015

Time: (HH:MM) 09:15

Total Volume of Water Purged: 12 (gal)

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: Chevron TRC Beacon

Well ID: SWMW-123

Manual Entry:

Samplers: Ch/dd/bs

Well Diameter: 2 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): 18.72

Depth to Well Bottom (ft): 79.25

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	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: Disposable bailer & rope

Date: 11/13/2015

Time: (HH:MM) 11:50

Total Volume of Water Purged: 25 (gal)

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: Chevron TRC Beacon

Samplers: Ch/dg/bs

Well ID: SWMW-125

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): 15.72

Depth to Well Bottom (ft): 41.8

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
13:25	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: Disposable bailer & rope

Date: 11/09/2015

Time: (HH:MM) 13:25

Total Volume of Water Purged: 2 (gal)

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

Samplers: Ch/dd/bs

Well ID: SWMW-126

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): 10.31

Depth to Well Bottom (ft): 49.5

Date: 11/11/2015

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	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)

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-14

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): 24.51

Depth to Well Bottom (ft): 40

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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-15

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): 7.75

Depth to Well Bottom (ft): 25

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	0.5	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: Disposable bailer & rope

Date: 11/12/2015

Time: (HH:MM) 12:05

Total Volume of Water Purged: 2.8 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-21

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): 8.33

Depth to Well Bottom (ft): 12

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
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: 11/12/2015

Time: (HH:MM) 12:45

Total Volume of Water Purged: 3 (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)			

Comments:

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

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-2

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): 6.97

Depth to Well Bottom (ft): 23.6

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
13:55	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)

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

Samplers: Ch/dd/bs

Well ID: SWMW-28

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): 10.01

Depth to Well Bottom (ft): 16.5

Date: 11/11/2015

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
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)

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-30

Manual Entry:

Well Diameter: 2 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): 8.81

Depth to Well Bottom (ft): 14.78

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	0.88	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)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-31

Manual Entry:

Well Diameter: 4 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): 7.14

Depth to Well Bottom (ft): 11.2

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)

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-41

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): 9.97

Depth to Well Bottom (ft): 45

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
16:10	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: Disposable bailer & rope

Date: 11/11/2015

Time: (HH:MM) 09:55

Total Volume of Water Purged: 12.2 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-44

Manual Entry:

Well Diameter: 2 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): 4.89

Depth to Well Bottom (ft): 30

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
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: Disposable bailer & rope

Date: 11/11/2015

Time: (HH:MM) 09:25

Total Volume of Water Purged: 12 (gal)

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: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-45

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): 15.56

Depth to Well Bottom (ft): 31

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
14:15	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: Disposable bailer & rope

Date: 11/11/2015

Time: (HH:MM) 08:30

Total Volume of Water Purged: 2.5 (gal)

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

Samplers: Ch/dd/bs

Well ID: SWMW-48

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): 6.51

Depth to Well Bottom (ft): 10

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)

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: SWMW-55

Manual Entry:

Well Diameter: 2 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): 17.03

Depth to Well Bottom (ft): 20

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
14:15	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)

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

Samplers: Ch/dd/bs

Well ID: SWMW-56

Manual Entry:

Well Diameter: 2 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): 23.3

Depth to Well Bottom (ft): 55

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: Disposable bailer & rope

Date: 11/13/2015

Time: (HH:MM) 11:00

Total Volume of Water Purged: 9.2 (gal)

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-58

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): 13.79

Depth to Well Bottom (ft): 30

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	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)

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: Chevron TRC Beacon

Well ID: SWMW-62

Manual Entry:

Samplers: Ch/dd/bs

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): 9.79

Depth to Well Bottom (ft): 19

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
16:00	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: Disposable bailer & rope

Date: 11/11/2015

Time: (HH:MM) 09:50

Total Volume of Water Purged: 2 (gal)

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

Samplers: Ch/dd/bs

Well ID: SWMW-65

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): 8.15

Depth to Well Bottom (ft): 16.5

Date: 11/11/2015

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
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

Method: Disposable bailer & rope

Date: 11/12/2015

Time: (HH:MM) 11:25

Total Volume of Water Purged: 4.2 (gal)

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

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)	2.49
Temp.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-66

Manual Entry:

Well Diameter: 2 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

Depth to Well Bottom (ft): 62

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)

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: SWMW-67

Manual Entry:

Well Diameter: 2 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

Depth to Well Bottom (ft): 29.64

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)

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.(^{o}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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Well ID: SWMW-68

Manual Entry:

Well Diameter: 2 inches

Samplers: Ch/dd/bs

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): 26.83

Depth to Well Bottom (ft): 53.62

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	0.69	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: Disposable bailer & rope

Date: 11/13/2015

Time: (HH:MM) 11:20

Total Volume of Water Purged: 5.2 (gal)

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

Samplers: Ch/dd/bs

Well ID: Unknown Well 1

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): 7.28

Depth to Well Bottom (ft): 8.65

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)

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		

Comments:

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

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

WELL SAMPLING RECORD

Site Name: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: Unknown Well 2

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): 7.43

Depth to Well Bottom (ft): 8

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
13:45	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)

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)			

Comments:

Initial bz PID 0
Could only extract 2 40ml vials from well
Not sampled

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: Chevron TRC Beacon

Samplers: Ch/dd/bs

Well ID: Unknown Well 3

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): 0

Depth to Well Bottom (ft): 7.35

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
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)			

Comments:

Initial bz PID 0
No sample collected. Well dry

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

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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

N

SWMW-44
1

SWMW-13
0.5

SWMW-68
0.5

ITMW-6
1

SWMW-56
1

SWMW-111
0.5

SWMW-103
0.5

(1)

SWMW-66
0.5

SWMW-45
0.5

ITMW-31
1

ITMW-30
0.5

SWMW-55
1

SWMW-123
0.6

SWMW-14
0.5

10

SWMW-112
2

SWMW-126
2

SWMW-41
14

SWMW-125
4

ITMW-14
1

SWMW-2
0.7

1

2

ITMW-13
0.5

SWMW-114
0.5

Bedrock Groundwater Benzene Samples 2015 (Q1)

SWMW-13
0.5
Sample Location with Concentration

1
Benzene 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.

0 125 250 500 750
Feet

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Figure D.1.B.A

Bedrock Benzene (Q1 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/27/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\BENZ_BR_Q1.mxd

N

(1)

SWMW-44
1

SWMW-56
1

ITMW-6
1

SWMW-66
0.6

SWMW-68
0.5

SWMW-27
6

SWMW-111
0.5

SWMW-45
0.5

SWMW-112
2

SWMW-14
0.5

SWMW-126
2

SWMW-55
3

SWMW-123
0.5

SWMW-41
12

SWMW-2
0.9

SWMW-125
4

ITMW-13
0.5

SWMW-114
0.5

Bedrock Groundwater Benzene Samples 2015 (Q2)

SWMW-56
1
Sample Location with Concentration

Benzene Isocontours (2015(Q2))

Bedrock Benzene (ppb=ug/L)

12 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.

0 125 250 500 750 Feet

PARSONS

Figure D.1.B.B

Bedrock Benzene (Q2 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/27/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\BENZ_BR_Q2.mxd

N

(1)

SWMW-44
0.9

SWMW-56
1

SWMW-68
0.5

SWMW-66
0.8

ITMW-6
1

1

SWMW-111
0.5

SWMW-112
2

SWMW-45
0.5

1

10

SWMW-14
0.5

10

SWMW-126
2

SWMW-41
19

SWMW-55
14

SWMW-123
0.7

SWMW-2
0.5

1

2

SWMW-125
4

ITMW-13
0.5

SWMW-114
0.5

Bedrock Groundwater Benzene Samples 2015 (Q3)

SWMW-56
1

Sample Location with Concentration

1 Benzene Isocontours (2015 (Q3))

Bedrock Benzene (ppb=ug/L)

19 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.

0 125 250 500 750 Feet

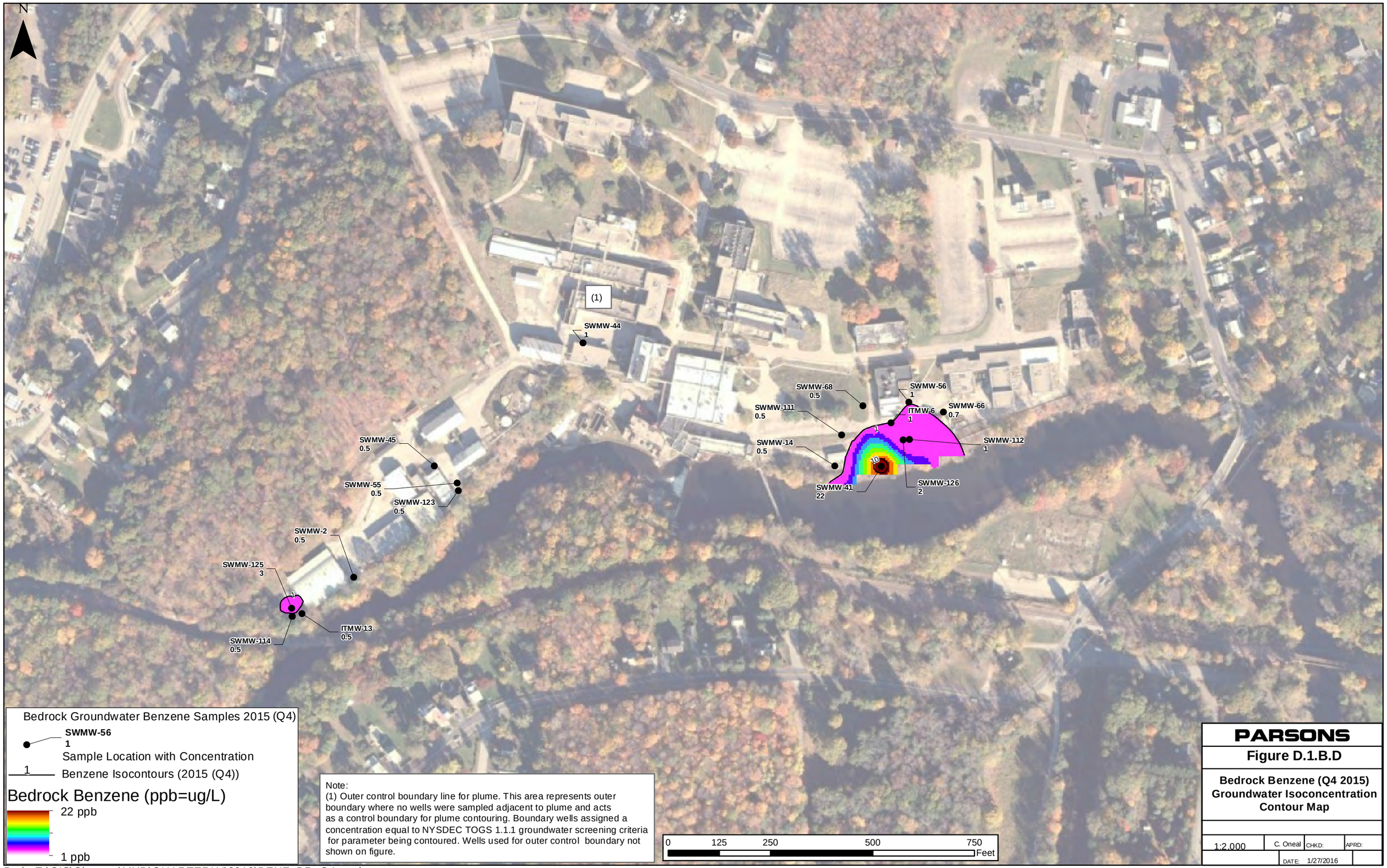
PARSONS

Figure D.1.B.C

Bedrock Benzene (Q3 2015) Groundwater Isoconcentration Contour Map

1:2,000 | C. Oneal | CHKD: | APRD: | DATE: 1/27/2016

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\BENZ_BR_Q3.mxd



Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\BENZ_BR_Q4.mxd

N

ITMW-24
0.5

SWMW-25
0.5

SWMW-10
1

ITMW-25
0.5

SWMW-48
0.5

1

SWMW-65
0.5

SWMW-28
9

(1)

GT-2
89

1

50

Unknown
Well 1
0.8

Unknown
Well 3
0.5

Unknown
Well 2
1

SWMW-15
80

SWMW-67
0.5

SWMW-58
0.5

50

ITMW-5
0.5

1

SWMW-62
0.5

SWMW-113
0.5

SWMW-31
12

SWMW-30
8

SWMW-71
0.6

SWMW-21
200

100

Overburden Groundwater Benzene Samples 2015 (Q1)

SWMW-113
0.5

Sample Location with Concentration

1 Benzene Isocontours (2015 (Q1))

Overburden Benzene (ppb=ug/L)

200 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.

0 125 250 500 750
Feet

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Figure D.1.O.A

Overburden Benzene (Q1 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/27/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\BENZ_OB_Q1.mxd

N

SWMW-10
0.5

SWMW-48
0.5

ITMW-25
270

200

1

SWMW-65
0.5

SWMW-28
2

SWMW-67
0.5

1

SWMW-15
8

SWMW-58
0.5

SWMW-113
0.5

SWMW-62
0.5

SWMW-31
13

SWMW-30
8

1

SWMW-21
450

200

1

(1)

Unknown
Well 1
0.5

Unknown
Well 2
0.5

Unknown
Well 3
0.5

GT-2
120

7

100

1

Overburden Groundwater Benzene Samples 2015(Q2)

SWMW-113
0.5

Sample Location with Concentration

1 Benzene Isocontours (2015 (Q2))

Overburden Benzene (ppb=ug/L)

450 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.

0 125 250 500 750 Feet

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Figure D.1.O.B

Overburden Benzene (Q2 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/27/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\BENZ_OB_Q2.mxd

N

SWMW-10
1

ITMW-25
160

SWMW-48
0.5

100

SWMW-15
10

1

SWMW-67
0.5

SWMW-58
0.5

SWMW-28
3

1

1

SWMW-65
0.5

SWMW-62
0.5

SWMW-113
0.5

GT-2
120

1

Unknown
Well 1
0.5

(1)

100

SWMW-31
25

1

SWMW-30
15

SWMW-21
250

200

Unknown
Well 3
0.5

Overburden Groundwater Benzene Samples 2015 (Q3)

SWMW-113
0.5
Sample Location with Concentration

1
Benzene Isocontours (2015 (Q3))

Overburden Benzene (ppb=ug/L)

250 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.

0 125 250 500 750
Feet

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Figure D.1.O.C

Overburden Benzene (Q3 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/27/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\BENZ_OB_Q3.mxd

N

SWMW-10
1

SWMW-48
0.5

ITMW-25
340

200

SWMW-65
0.5

1

1

SWMW-28
3

SWMW-67
0.5

SWMW-15
51

SWMW-58
0.5

1

SWMW-62
0.5

SWMW-113
0.5

GT-2
100

1

50

(1)

Unknown
Well 1
0.5

Unknown
Well 2
0.5

SWMW-31
21

1

SWMW-30
10

SWMW-21
350

200

1

Overburden Groundwater Benzene Samples 2015 (Q4)

GT-2
160
Sample Location with Concentration

1
Benzene Isocontours (2015 (Q4))

Overburden Benzene (ppb=ug/L)

350 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.

0 125 250 500 750 Feet

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Figure D.1.O.D

Overburden Benzene (Q4 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/28/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\BENZ_OB_Q4.mxd

N

SWMW-44
200

100

5

SWMW-13
0.5

SWMW-68
0.5

ITMW-6
1

SWMW-56
1

SWMW-66
0.6

SWMW-11
0.5

SWMW-112
3

SWMW-103
0.5

SWMW-14
0.5

SWMW-126
2

SWMW-41
2

SWMW-45
39

ITMW-31
0.5

ITMW-30
2

SWMW-123
43

800

SWMW-55
860

ITMW-14
62

(1)

SWMW-125
310

SWMW-2
92

50

5

300

50

SWMW-114
21

5

ITMW-13
31

Bedrock Groundwater Chlorobenzene Samples 2015(Q1)

ITMW-31
0.5
Sample Location with Concentration

5 Chlorobenzene Isocontours (2015 (Q1))

Bedrock Chlorobenzene (ppb=ug/L)

860 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.

0 125 250 500 750 Feet

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Figure D.2.B.A

Bedrock Chlorobenzene (Q1 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/3/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\CB_BR_Q1.mxd

N

5
SWMW-44
220
100

ITMW-6
1
SWMW-68
0.5
SWMW-56
0.8
SWMW-111
0.5
SWMW-66
0.8
SWMW-112
3
SWMW-14
0.5
SWMW-126
2
SWMW-41
2

SWMW-45
75
50
1000
5
SWMW-55
2000
SWMW-123
34

(1)
SWMW-125
330
SWMW-114
9
SWMW-2
120
100
5
300
5
ITMW-13
16

Bedrock Groundwater Chlorobenzene Samples 2015 (Q2)

ITMW-6
1
Sample Location with Concentration

5 Chlorobenzene Isocontours (2015 (Q2))

Bedrock Chlorobenzene (ppb=ug/L)

2000 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.

0 125 250 500 750 Feet

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Figure D.2.B.B

Bedrock Chlorobenzene (Q2 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/2/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\CB_BR_Q2.mxd

N

SWMW-44
200
100
5

SWMW-45
60
50
SWMW-55
1400
1000
5
SWMW-123
52
5

SWMW-2
42
(1)
20
5

SWMW-125
320
300
5
SWMW-114
11
ITMW-13
20

ITMW-6
0.5
SWMW-68
0.5
SWMW-56
0.7
SWMW-66
0.9
SWMW-111
0.5
SWMW-112
2
SWMW-14
0.5
SWMW-126
2
SWMW-41
3

Bedrock Groundwater Chlorobenzene Samples 2015 (Q3)

ITMW-6
0.5
Sample Location with Concentration

5 Chlorobenzene Isocontours (2015 (Q3))

Bedrock Chlorobenzene (ppb=ug/L)

1400 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.

0 125 250 500 750 Feet

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Figure D.2.B.C

Bedrock Chlorobenzene (Q3 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
		DATE: 2/2/2016	

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\CB_BR_Q3.mxd

N

SWMW-44
220
200
5

ITMW-6
0.5
SWMW-68
0.5
SWMW-56
0.6
SWMW-66
0.8
SWMW-111
0.5
SWMW-112
2
SWMW-14
0.5
SWMW-126
2
SWMW-41
1

SWMW-45
12
5
SWMW-55
0.5
5
SWMW-123
27

(1)

SWMW-2
9
5
SWMW-125
300
200
ITMW-13
11
SWMW-114
13

Bedrock Groundwater Chlororbenzene Samples 2015 (Q4)

ITMW-6
0.5
Sample Location with Concentration

5
Chlorobenzene Isocontours (2015 (Q4))

Bedrock Chlorobenzene (ppb=ug/L)

300 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.

0 125 250 500 750
Feet

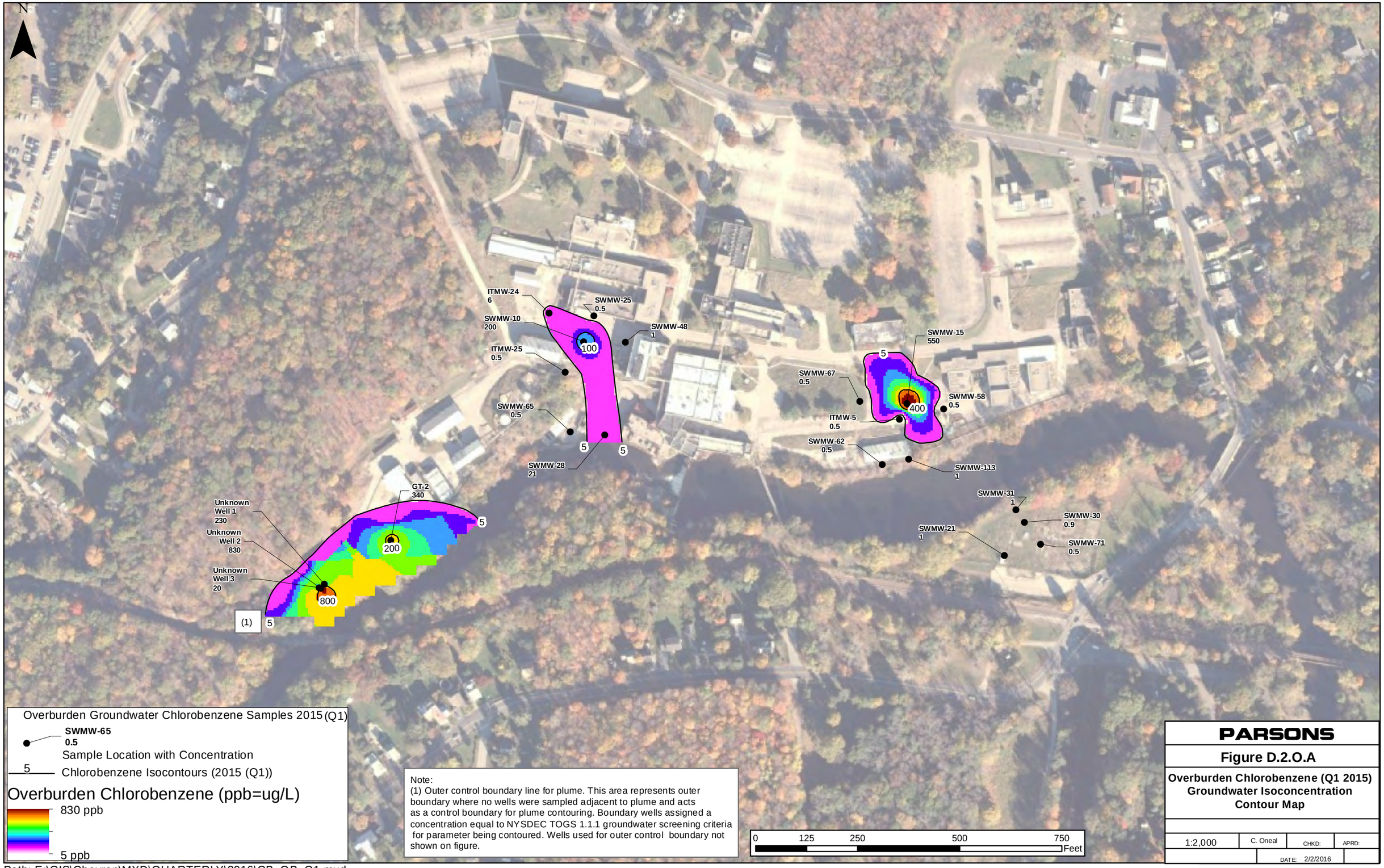
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Figure D.2.B.D

Bedrock Chlorobenzene (Q4 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/28/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\CB_BR_Q4.mxd



Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\CB_OB_Q1.mxd

N

SWMW-10
82

SWMW-48
0.5

ITMW-25
70

SWMW-65
0.5

SWMW-28
17

50
50
5
5

SWMW-15
100

SWMW-67
0.5

SWMW-58
0.5

50

SWMW-62
0.5

SWMW-113
3

5

(1)

GT-2
360

Unknown
Well 1
73

Unknown
Well 3
9

Unknown
Well 2
69

300
50

5

SWMW-31
3

SWMW-30
0.9

SWMW-21
1

Overburden Groundwater Chlorobenzene Samples 2015(Q2)

SWMW-65
0.5
Sample Location with Concentration

5 Chlorobenzene Isocontours (2015 (Q2))

Overburden Chlorobenzene (ppb=ug/L)

360 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.

0 125 250 500 750 Feet

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Figure D.2.O.B

Overburden Chlorobenzene (Q2 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/2/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\CB_OB_Q2.mxd

N

SWMW-10
220

SWMW-48
0.5

ITMW-25
49

100

SWMW-65
6

SWMW-28
24

5

5

SWMW-67
0.5

SWMW-15
46

SWMW-58
0.5

20

5

SWMW-62
0.5

SWMW-113
3

GT-2
220

5

Unknown
Well 1
47

Unknown
Well 3
9

100

(1)

20

5

SWMW-31
3

SWMW-30
1

SWMW-21
1

Overburden Groundwater Chlorobenzene Samples 2015(Q3)

SWMW-65
6
Sample Location with Concentration

5
Chlorobenzene Isocontours (2015 (Q3))

Overburden Chlorobenzene (ppb=ug/L)

220 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.

0 125 250 500 750
Feet

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Figure D.2.O.C

Overburden Chlorobenzene (Q3 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/2/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\CB_OB_Q3.mxd

N

SWMW-10
140

SWMW-48
0.5

ITMW-25
57

100

20

SWMW-65
0.5

SWMW-28
17

5

5

SWMW-67
0.5

SWMW-15
270

SWMW-58
0.5

200

5

SWMW-62
0.5

SWMW-113
3

Unknown
Well 1
120

Unknown
Well 2
0.5

GT-2
270

5

200

100

5

(1)

SWMW-31
2

SWMW-30
0.8

SWMW-21
1

Overburden Groundwater Chlorobenzene Samples 2015 (Q4)

SWMW-65
0.5

Sample Location with Concentration

5 Chlorobenzene Isocontours (2015 (Q4))

Overburden Chlorobenzene (ppb=ug/L)

270 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.

0 125 250 500 750 Feet

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Figure D.2.O.D

Overburden Chlorobenzene (Q4 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/2/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\CB_OB_Q4.mxd

N

SWMW-44
260

SWMW-13
14

SWMW-68
300

ITMW-6
83

SWMW-103
0.5

SWMW-111
65

SWMW-14
18

SWMW-41
200

SWMW-56
310

SWMW-56
310

SWMW-66
180

SWMW-112
250

SWMW-126
260

(1)

ITMW-30
0.5

ITMW-31
0.5

SWMW-45
0.5

SWMW-55
0.5

SWMW-123
0.5

SWMW-125
250

SWMW-114
250

ITMW-14
1

SWMW-2
1

ITMW-13
0.5

Bedrock Groundwater TCE Samples 2015 (Q1)

SWMW-2
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.

0 125 250 500 750 Feet

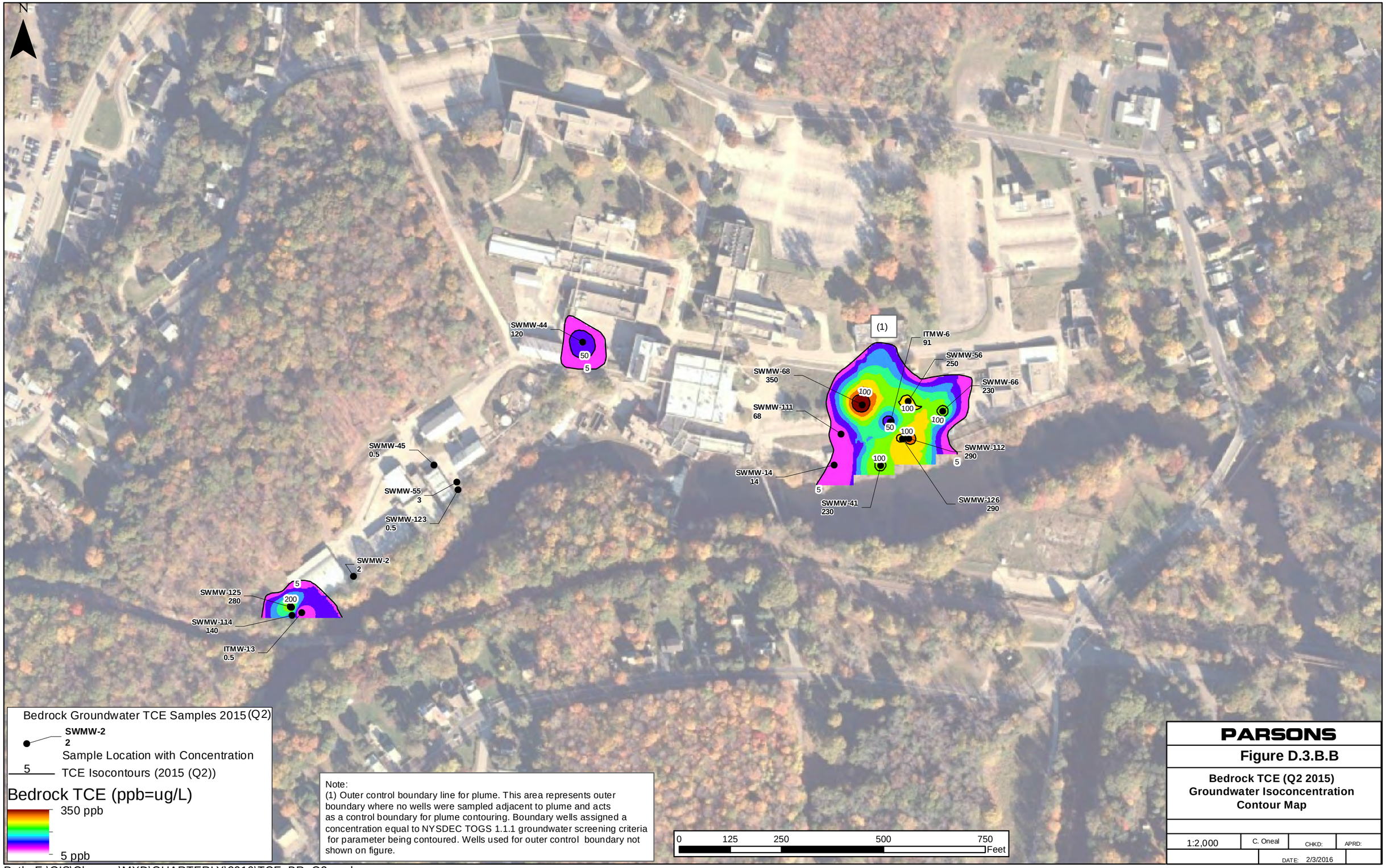
PARSONS

Figure D.3.B.A

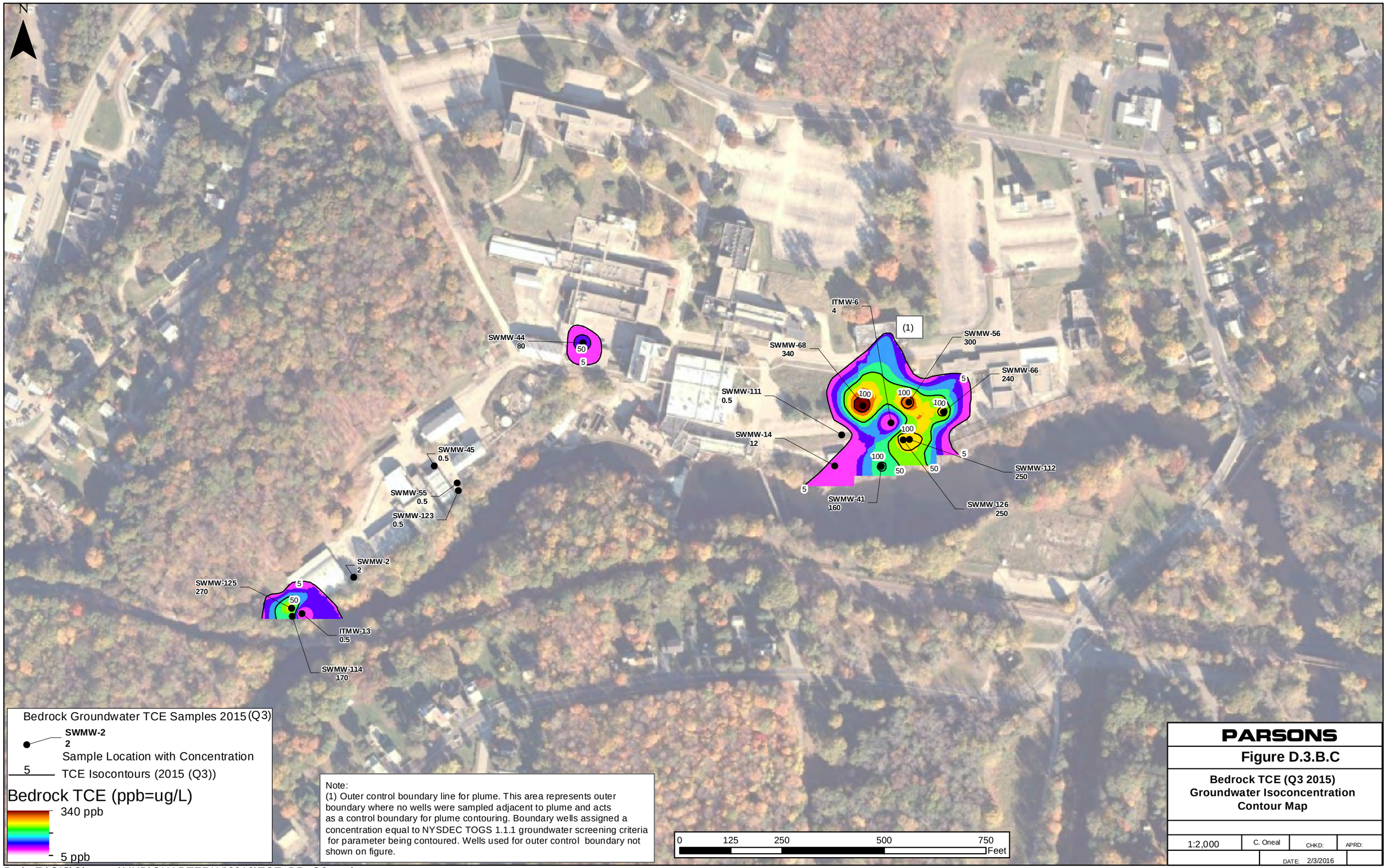
Bedrock TCE (Q1 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/29/2016		

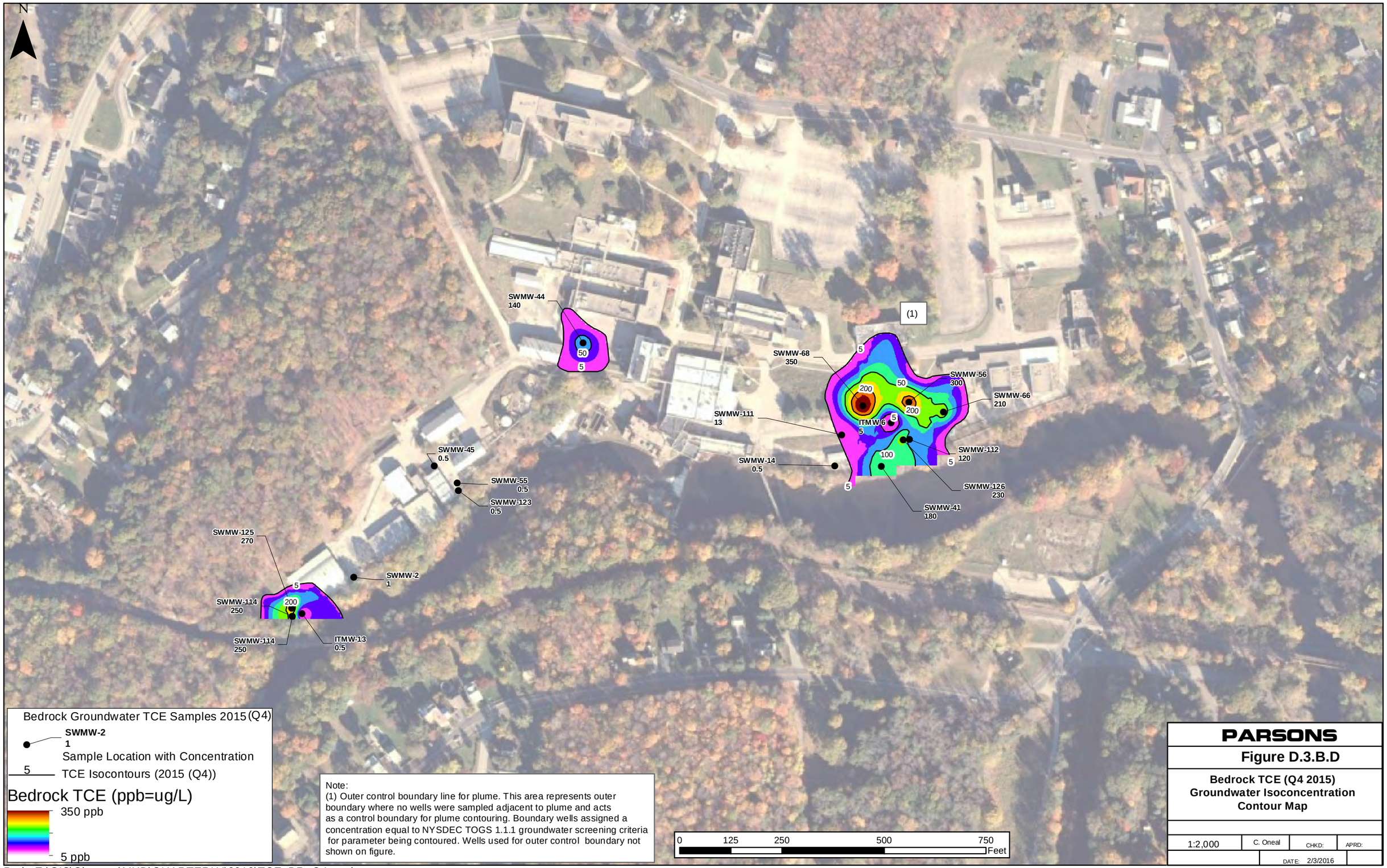
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Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\TCE_BR_Q2.mxd



Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\TCE_BR_Q3.mxd



Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\TCE_BR_Q4.mxd

N

ITMW-24
0.5

SWMW-10
29

SWMW-25
0.5

SWMW-48
0.5

(1)

ITMW-25
0.5

20

5

SWMW-65
0.5

SWMW-28
0.5

SWMW-67
18

SWMW-15
3

ITMW-15
6

10

30

SWMW-58
32

SWMW-62
8

5

SWMW-113
12

SWMW-31
0.5

SWMW-30
0.5

SWMW-71
0.5

SWMW-21
1

GT-2
0.5

Unknown
Well 2
0.5

Unknown
Well 3
0.5

Unknown
Well 1
0.7

Overburden Groundwater TCE Samples 2015 (Q1)

SWMW-65
0.5

Sample Location with Concentration

5 TCE Isocontours (2015 (Q1))

Overburden TCE (ppb=ug/L)

32 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.

0 125 250 500 750 Feet

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		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\TCE_OB_Q1.mxd

N

SWMW-10
0.7

SWMW-48
0.5

ITMW-25
0.5

SWMW-65
0.5

SWMW-28
0.5

(1)

SWMW-67
83

80

SWMW-15
4

SWMW-58
29

20

SWMW-113
12

SWMW-62
5

5

SWMW-31
0.5

SWMW-30
0.5

SWMW-21
0.5

GT-2
0.5

Unknown
Well 1
0.6

Unknown
Well 2
0.5

Unknown
Well 3
0.5

Overburden Groundwater TCE Samples 2015 (Q2)

SWMW-65
0.5

Sample Location with Concentration

5 TCE Isocontours (2015 (Q2))

Overburden TCE (ppb=ug/L)

83 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.

0 125 250 500 750 Feet

PARSONS

Figure D.3.O.B

Overburden TCE (Q1 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/3/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\TCE_OB_Q2.mxd

N

SWMW-10
0.5

SWMW-48
0.5

ITMW-25
0.5

SWMW-65
0.6

SWMW-28
0.5

GT-2
0.5

Unknown
Well 3
0.5

Unknown
Well 1
0.5

(1)

SWMW-67
77

70

SWMW-15
1

SWMW-58
9

5

SWMW-113
12

SWMW-62
7

SWMW-31
0.5

SWMW-30
0.5

SWMW-21
1

Overburden Groundwater TCE Samples 2015 (Q3)

SWMW-65
0.6

Sample Location with Concentration

5 TCE Isocontours (2015 (Q3))

Overburden TCE (ppb=ug/L)

77 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.

0 125 250 500 750 Feet

PARSONS

Figure D.3.O.C

Overburden TCE (Q3 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/3/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\TCE_OB_Q3.mxd

N

SWMW-10
0.5

SWMW-48
0.5

ITMW-25
0.5

SWMW-65
0.5

SWMW-28
0.5

(1)

SWMW-67
62

50

SWMW-15
3

SWMW-58
31

30

SWMW-62
4

5

SWMW-113
7

SWMW-31
0.5

SWMW-30
0.5

SWMW-21
0.5

GT-2
1

Unknown
Well 2
0.5

Unknown
Well 1
0.5

Overburden Groundwater TCE Samples 2015 (Q4)

SWMW-65
0.5
Sample Location with Concentration

5
TCE Isocontours (2015 (Q4))

Overburden TCE (ppb=ug/L)

62 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.

0 125 250 500 750 Feet

PARSONS

Figure D.3.O.D

Overburden TCE (Q4 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/3/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\TCE_OB_Q4.mxd

N

SWMW-44
15
10
2
ITMW-6
1
SWMW-13
0.5
(1)
SWMW-56
3
SWMW-68
1
SWMW-66
6
SWMW-55
0.5
SWMW-45
0.5
ITMW-31
0.5
ITMW-30
0.5
SWMW-123
0.5
SWMW-103
0.5
SWMW-111
0.5
SWMW-14
0.5
2
10
2
SWMW-112
12
SWMW-41
19
SWMW-126
6
ITMW-14
1
SWMW-2
1
SWMW-125
7
2
ITMW-13
0.5
SWMW-114
0.6
SWMW-125
7

Bedrock Groundwater Vinyl Chloride Samples 2015 (Q1)

SWMW-123
0.5
Sample Location with Concentration

2
Vinyl Chloride Isocontours (2015 (Q1))

Bedrock Vinyl Chloride (ppb=ug/L)

19 ppb

2 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.

0 125 250 500 750 Feet

PARSONS

Figure D.4.B.A

Bedrock Vinyl Chloride (Q1 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/3/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\VC_BR_Q1.mxd

N

SWMW-44
9
2

ITMW-6
0.9

(1)

SWMW-68
3

SWMW-56
3

SWMW-66
12

SWMW-111
0.5

SWMW-14
0.5

SWMW-45
0.5

SWMW-55
3

SWMW-123
0.5

SWMW-41
25

SWMW-126
7

SWMW-112
12

SWMW-125
5

SWMW-125
5

SWMW-114
0.5

ITMW-13
0.5

SWMW-2
4

Bedrock Groundwater Vinyl Chloride Samples 2015 (Q2)

SWMW-123
0.5
Sample Location with Concentration

2
Vinyl Chloride Isocontours (2015 (Q2))

Bedrock Vinyl Chloride (ppb=ug/L)

54 ppb

2 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.

0 125 250 500 750 Feet

PARSONS

Figure D.4.B.B

Bedrock Vinyl Chloride (Q2 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/1/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\VC_BR_Q2.mxd

N

SWMW-44
6

2

SWMW-45
0.5

SWMW-55
0.5

SWMW-123
0.5

SWMW-2
3

2

SWMW-125
7

ITMW-13
0.5

SWMW-114
0.5

ITMW-6
1

SWMW-56
2

SWMW-66
14

SWMW-68
0.9

(1)

10

SWMW-111
0.5

10

2

SWMW-112
9

SWMW-14
0.5

2

SWMW-126
4

SWMW-41
14

Bedrock Groundwater Vinyl Chloride Samples 2015 (Q3)

SWMW-123
0.5

Sample Location with Concentration

2 Vinyl Chloride Isocontours (2015 (Q3))

Bedrock Vinyl Chloride (ppb=ug/L)

14 ppb

2 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.

0 125 250 500 750 Feet

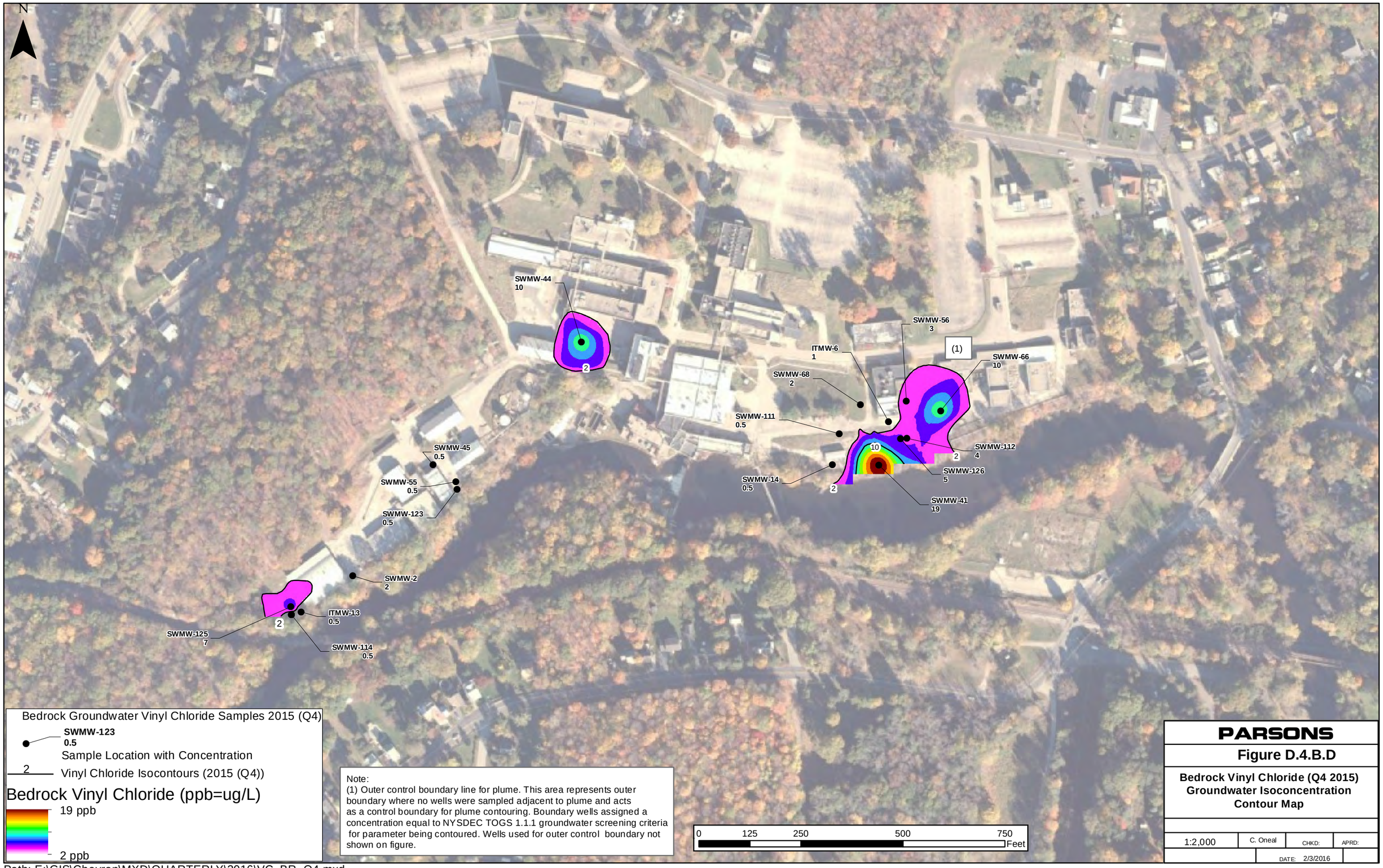
PARSONS

Figure D.4.B.C

Bedrock Vinyl Chloride (Q3 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 2/3/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\VC_BR_Q3.mxd



Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\VC_BR_Q4.mxd

N

SWMW-25
0.5

ITMW-24
0.5

SWMW-10
4

SWMW-48
0.5

ITMW-25
0.5

SWMW-15
2

SWMW-67
0.5

SWMW-58
0.5

SWMW-65
0.5

SWMW-28
0.5

ITMW-5
0.5

SWMW-113
0.5

SWMW-62
0.5

SWMW-31
0.5

SWMW-30
0.5

SWMW-71
0.5

GT-2
0.5

SWMW-21
1

Unknown
Well 3
0.5

Unknown
Well 1
0.5

Unknown
Well 2
0.5

Overburden Groundwater Vinyl Chloride Samples 2015 (Q1)

SWMW-65
0.5

Sample Location with Concentration

NOTE: The higest Vinyl Chloride concentrations values (2 ppb and 4 ppb) TOGS criteria occurs in only two samples SWMW-15 and SWMW-10. The spatially disjunct nature of these samples does not warrant interpolation, therefore, no isocontours are shown.

0 100 200 400 600
Feet

PARSONS

Figure D.4.O.A

Overburden Vinyl Chloride (Q1 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/29/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\VC_OB_Q1.mxd



Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\VC_OB_Q2.mxd

N

SWMW-10
0.5

SWMW-48
0.5

ITMW-25
0.5

SWMW-67
0.5

SWMW-15
0.5

SWMW-58
0.5

SWMW-65
0.5

SWMW-28
0.5

SWMW-62
0.5

SWMW-113
0.5

SWMW-31
0.5

SWMW-30
0.5

SWMW-21
1

GT-2
0.5

Unknown
Well 1
0.5

Unknown
Well 3
0.5

Overburden Groundwater Vinyl Chloride Samples 2015 (Q3)

SWMW-65
0.5

Sample Location with Concentration

NOTE: The higest Vinyl Chloride concentration value (1 ppb) TOGS criteria occurs in only one sample SWMW-21, and does not warrant interpolation, therefore, no isocontours are shown.

0 100 200 400 600
Feet

PARSONS

Figure D.4.O.C

Overburden Vinyl Chloride (Q3 2015) Groundwater Isoconcentration Contour Map

1:2,000	C. Oneal	CHKD:	APRD:
	DATE: 1/29/2016		

Path: E:\GIS\Chevron\MXD\QUARTERLY\2016\VC_OB_Q3.mxd

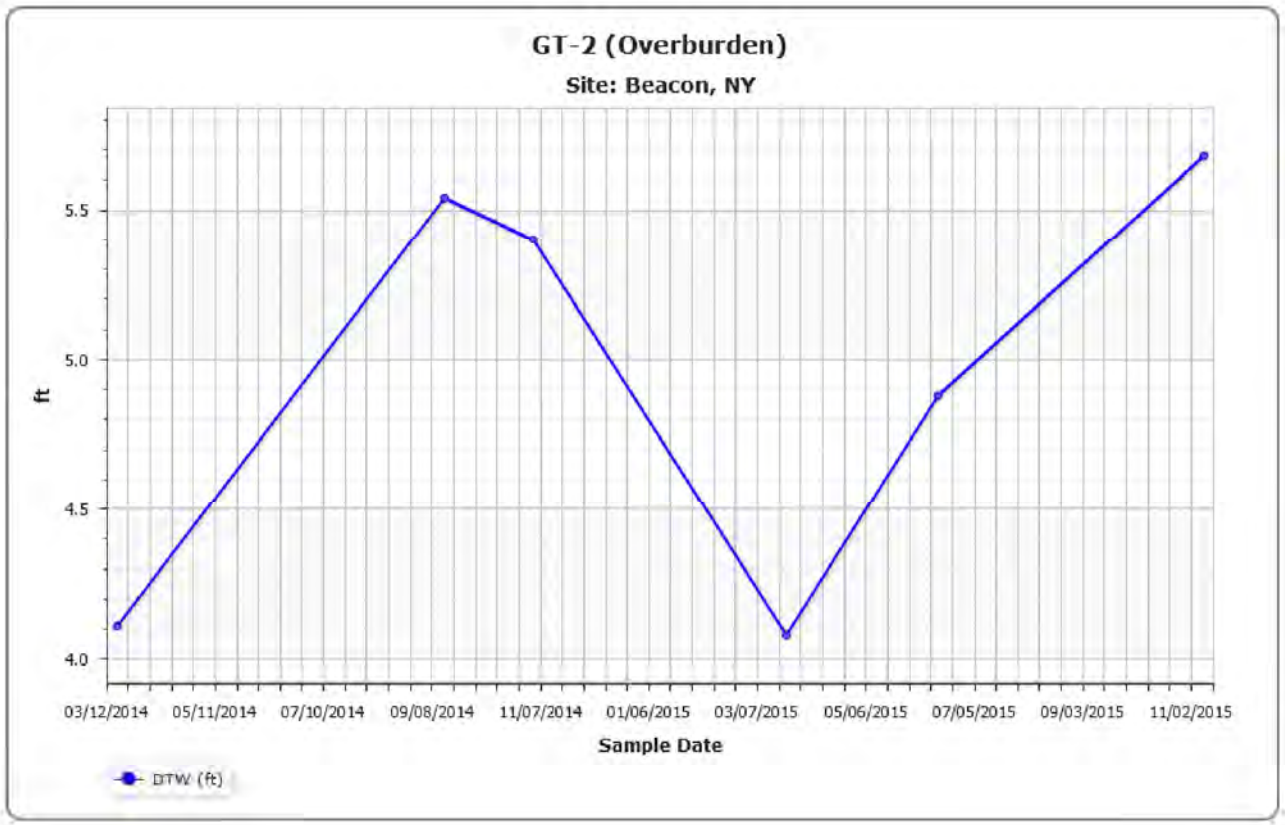


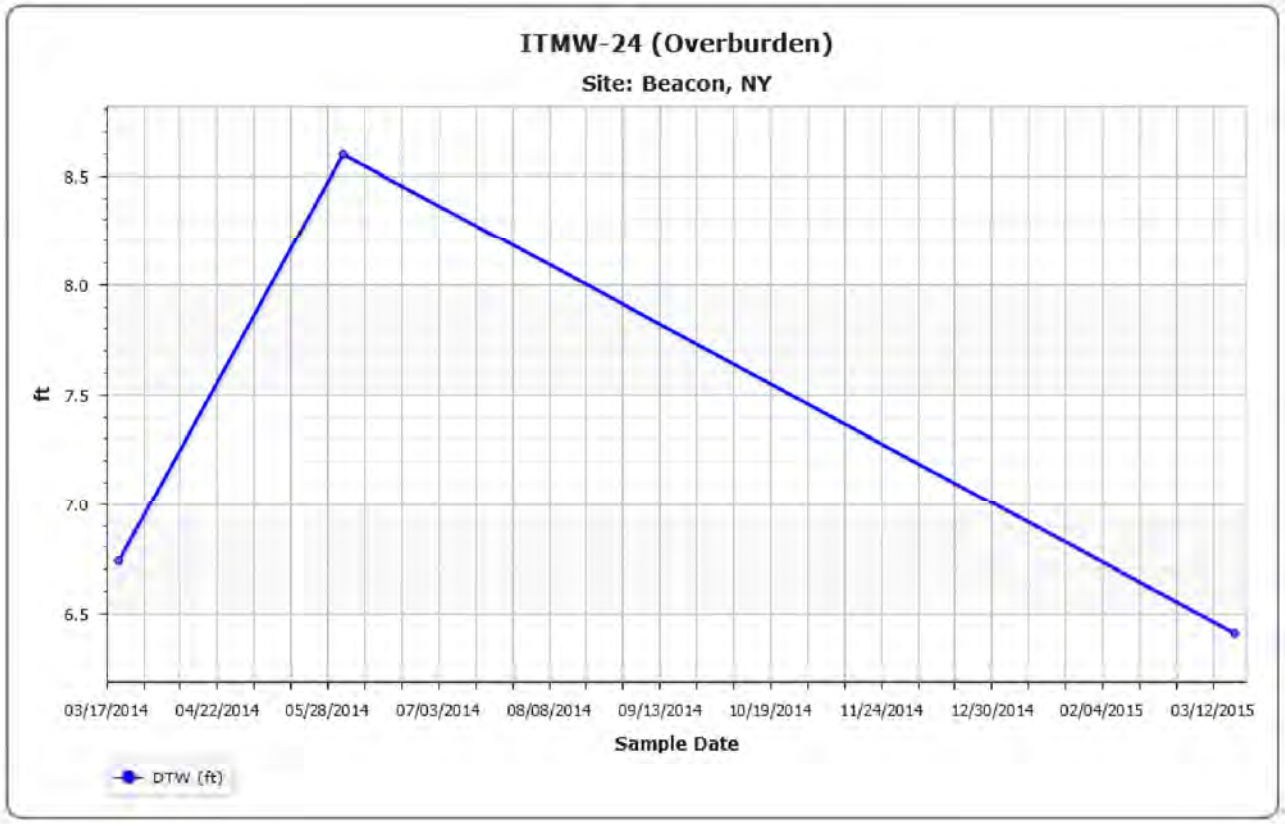
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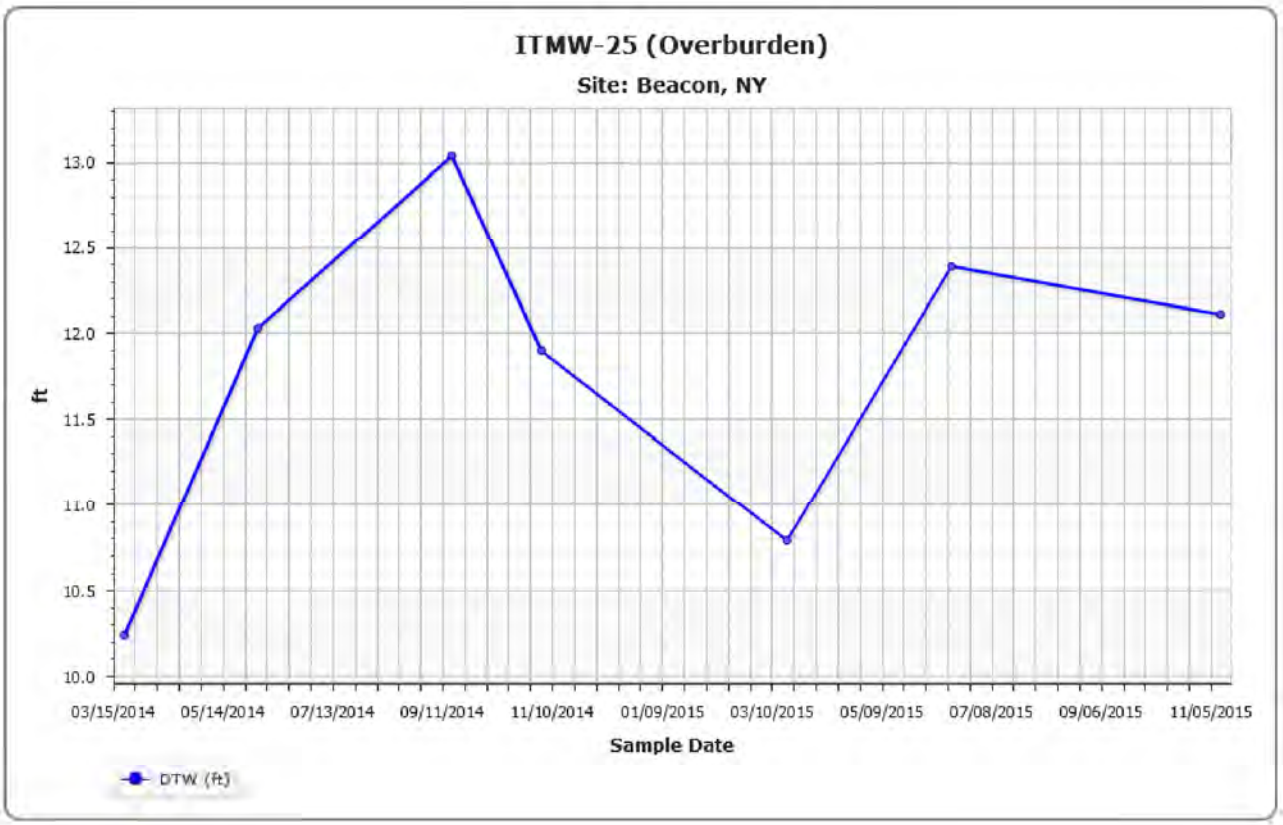
APPENDIX E

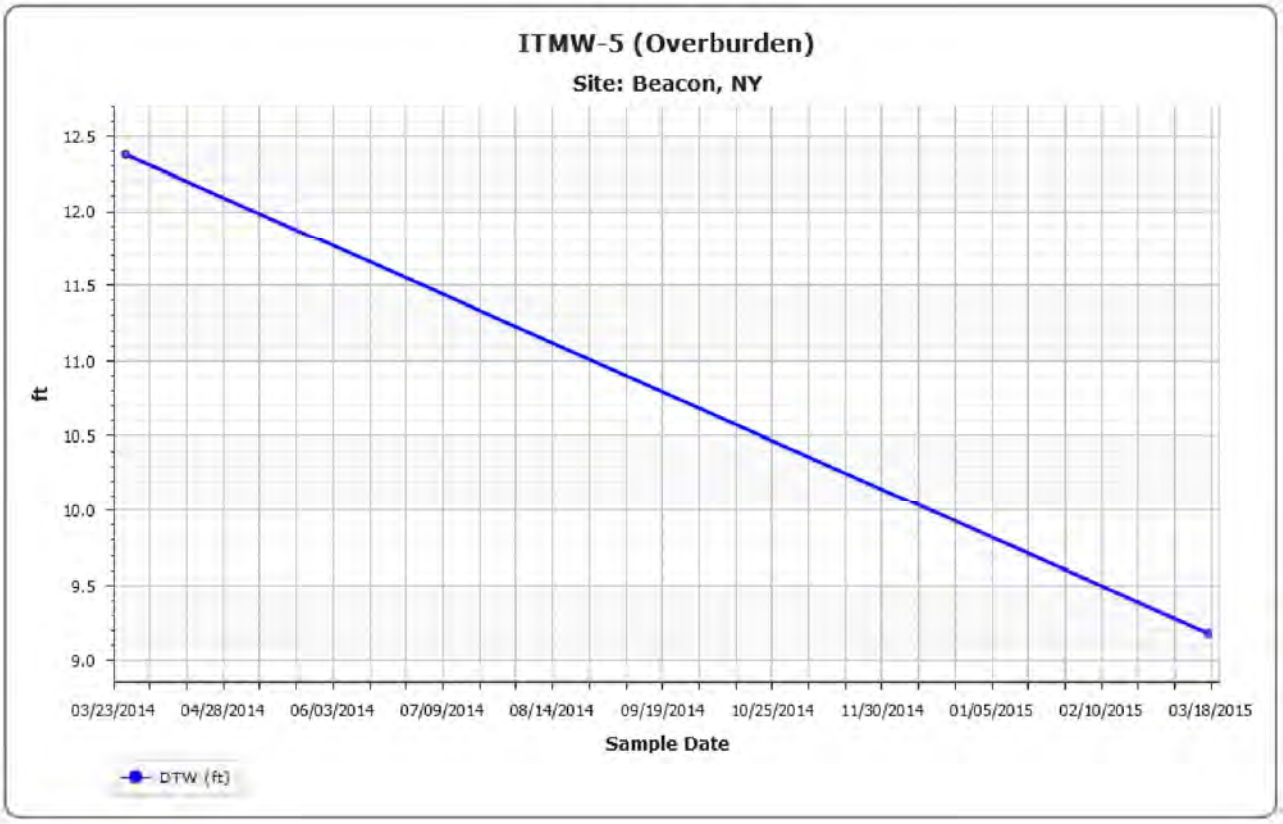
2014 THROUGH 2015 GRAPHS (DEPTH TO WATER, PRE/POST SAMPLING DISSOLVED AND REDOX POTENTIAL, VOC CONCENTRATIONS, AND NATURAL ATTENUATION PARAMETERS)

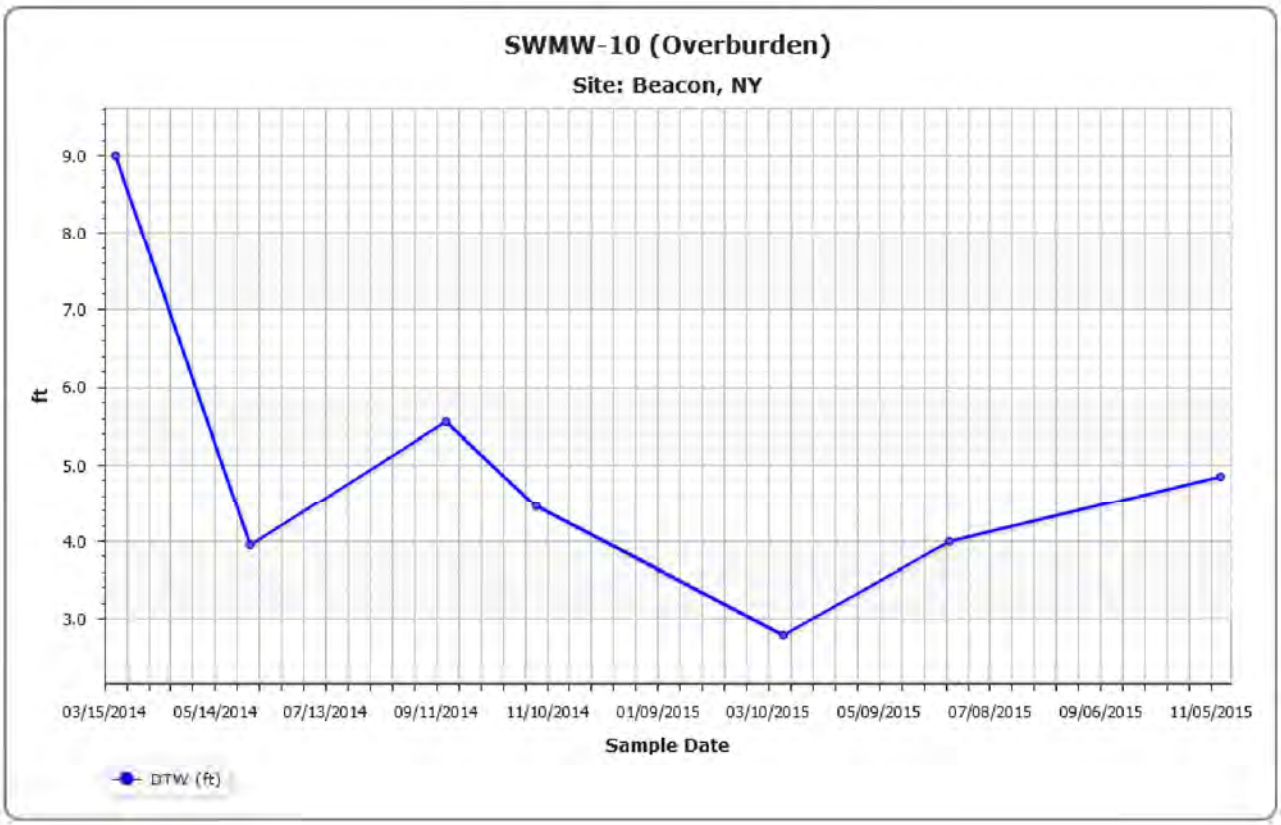
2014 THROUGH 2015 DTW OVERBURDEN WELLS SUMMARY GRAPHS

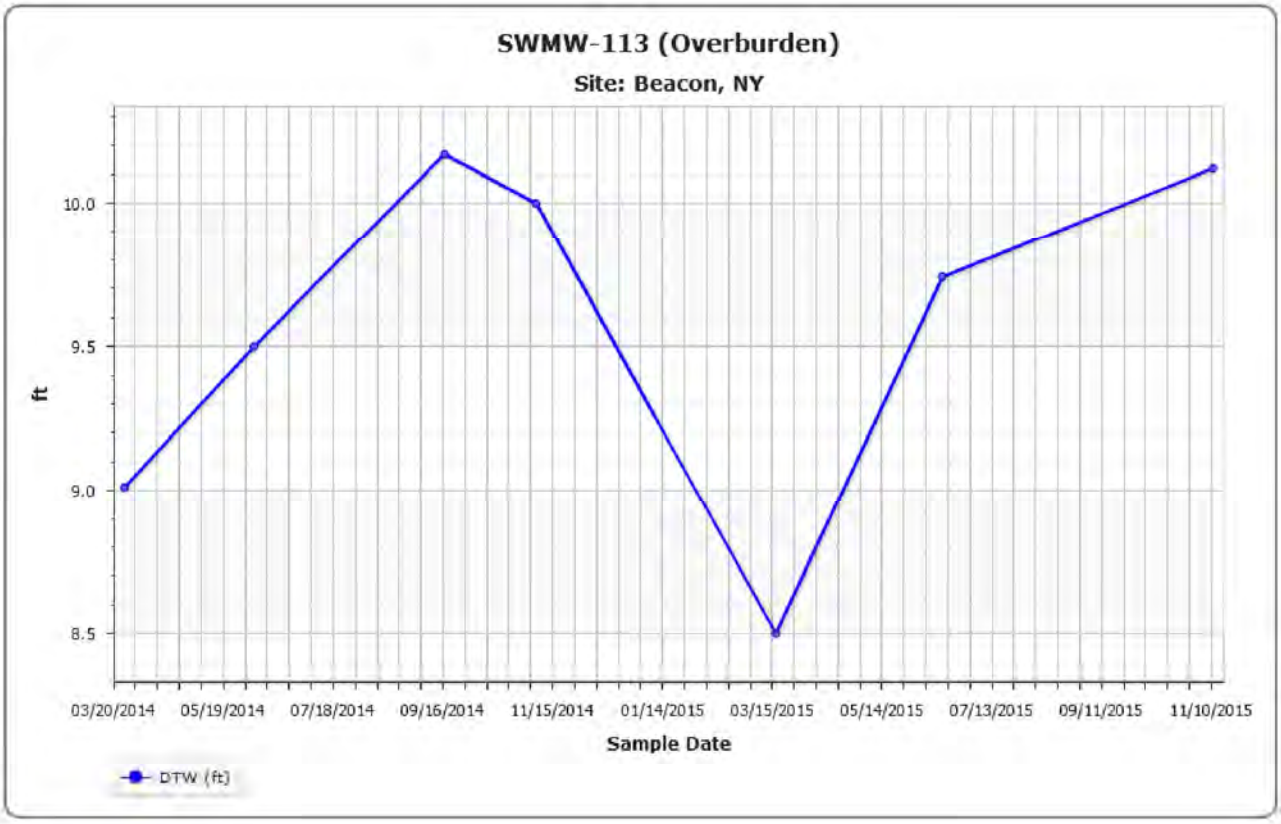

GT-2 (Overburden)
Site: Beacon, NY
5.5
5.0
4.5
4.0
ft
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DTW (ft)

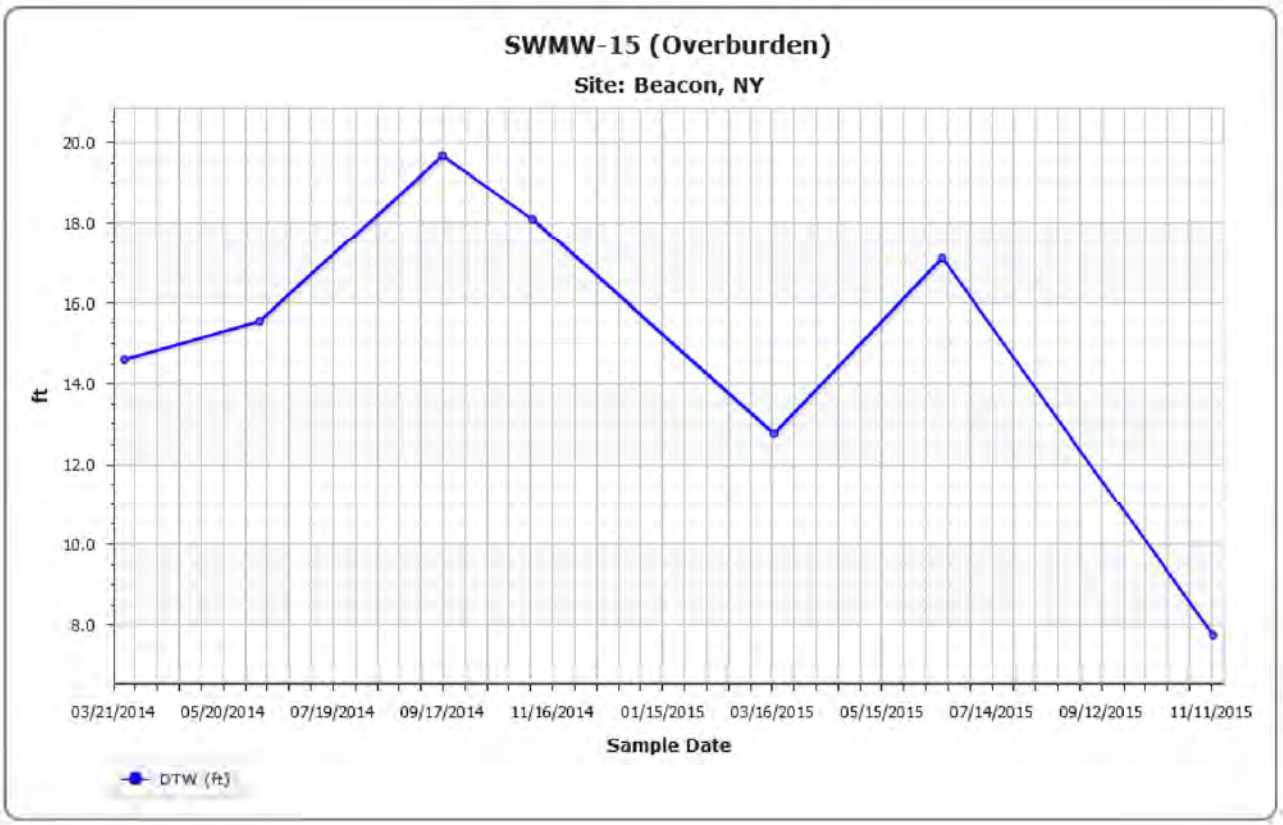

ITMW-24 (Overburden)
Site: Beacon, NY
8.5
8.0
7.5
7.0
6.5
ft
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
DTW (ft)

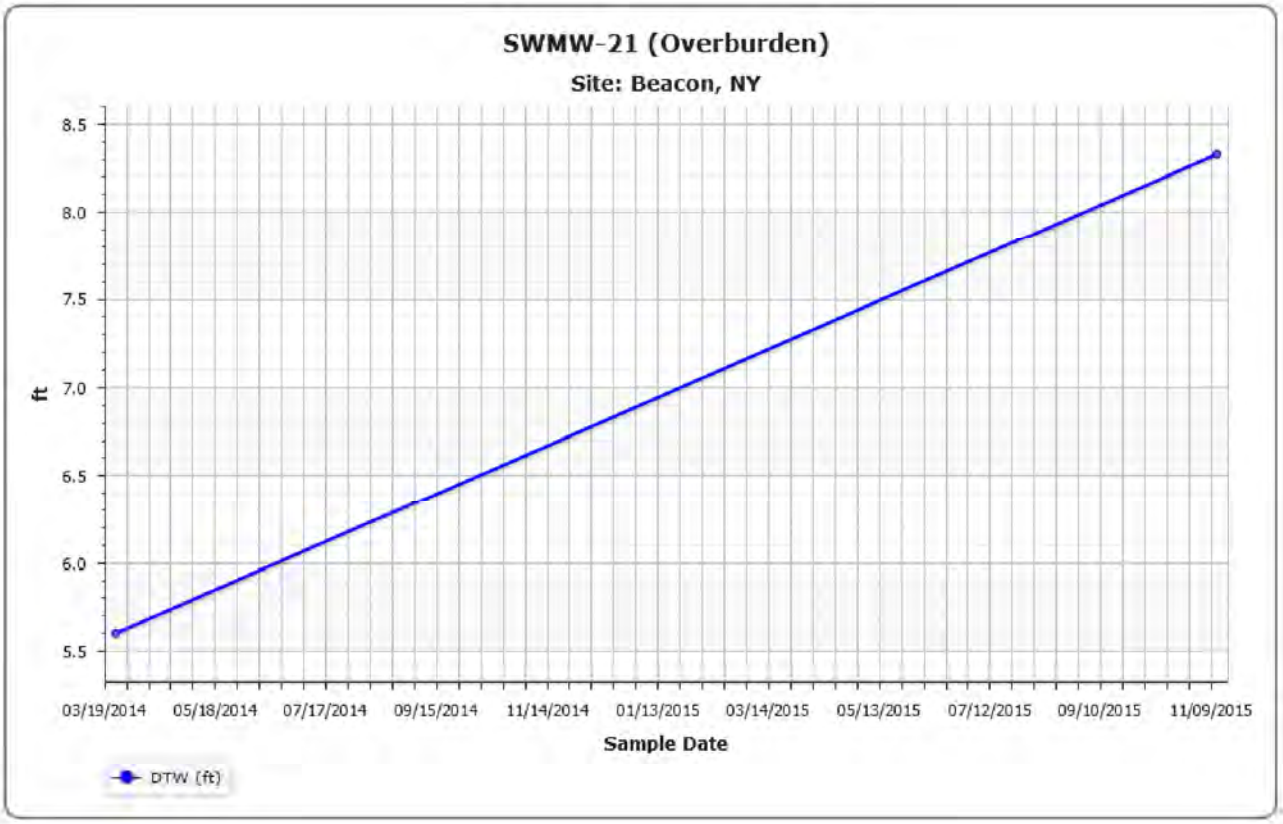

ITMW-25 (Overburden)
Site: Beacon, NY
13.0
12.5
12.0
11.5
11.0
10.5
10.0
ft
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DTW (ft)

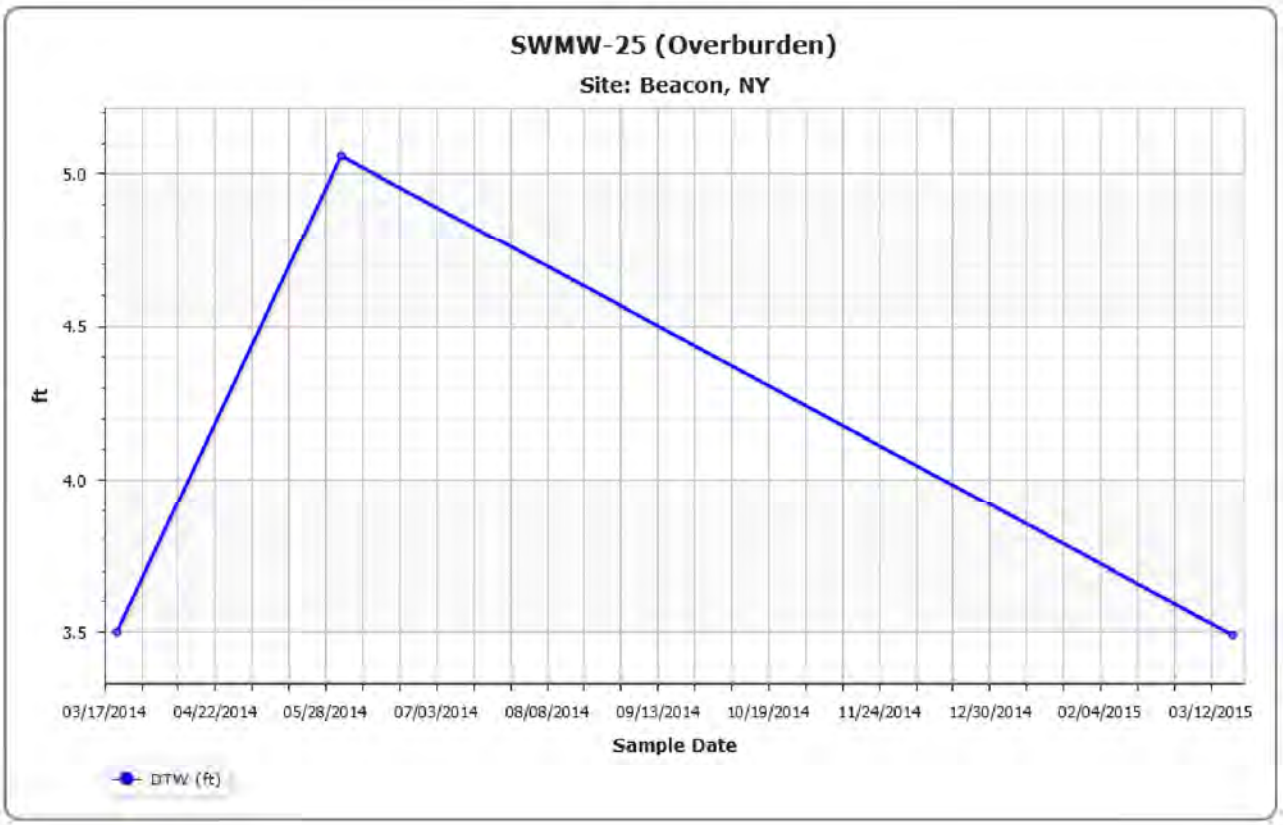

ITMW-5 (Overburden)
Site: Beacon, NY
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
ft
03/23/2014
04/28/2014
06/03/2014
07/09/2014
08/14/2014
09/19/2014
10/25/2014
11/30/2014
01/05/2015
02/10/2015
03/18/2015
Sample Date
DTW (ft)

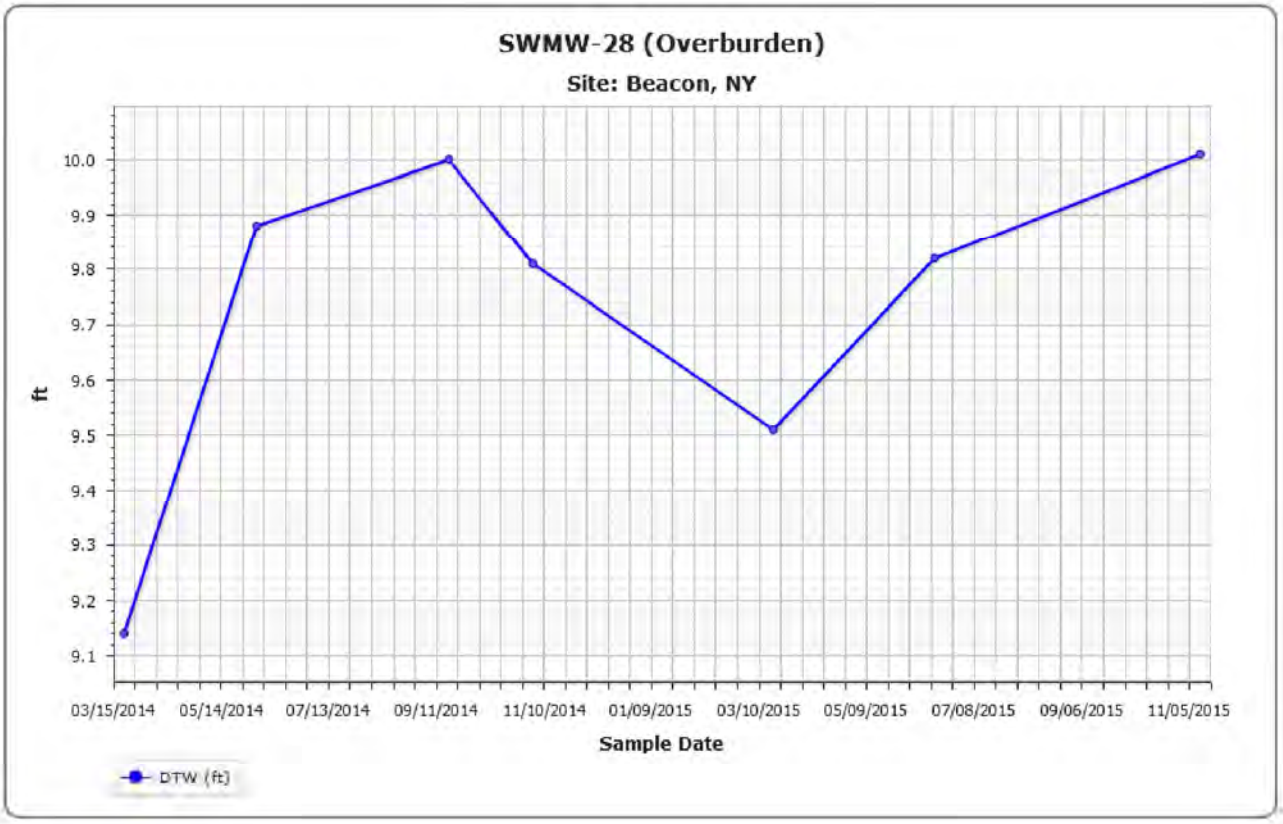

SWMW-10 (Overburden)
Site: Beacon, NY
9.0
8.0
7.0
6.0
5.0
4.0
3.0
ft
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DTW (ft)

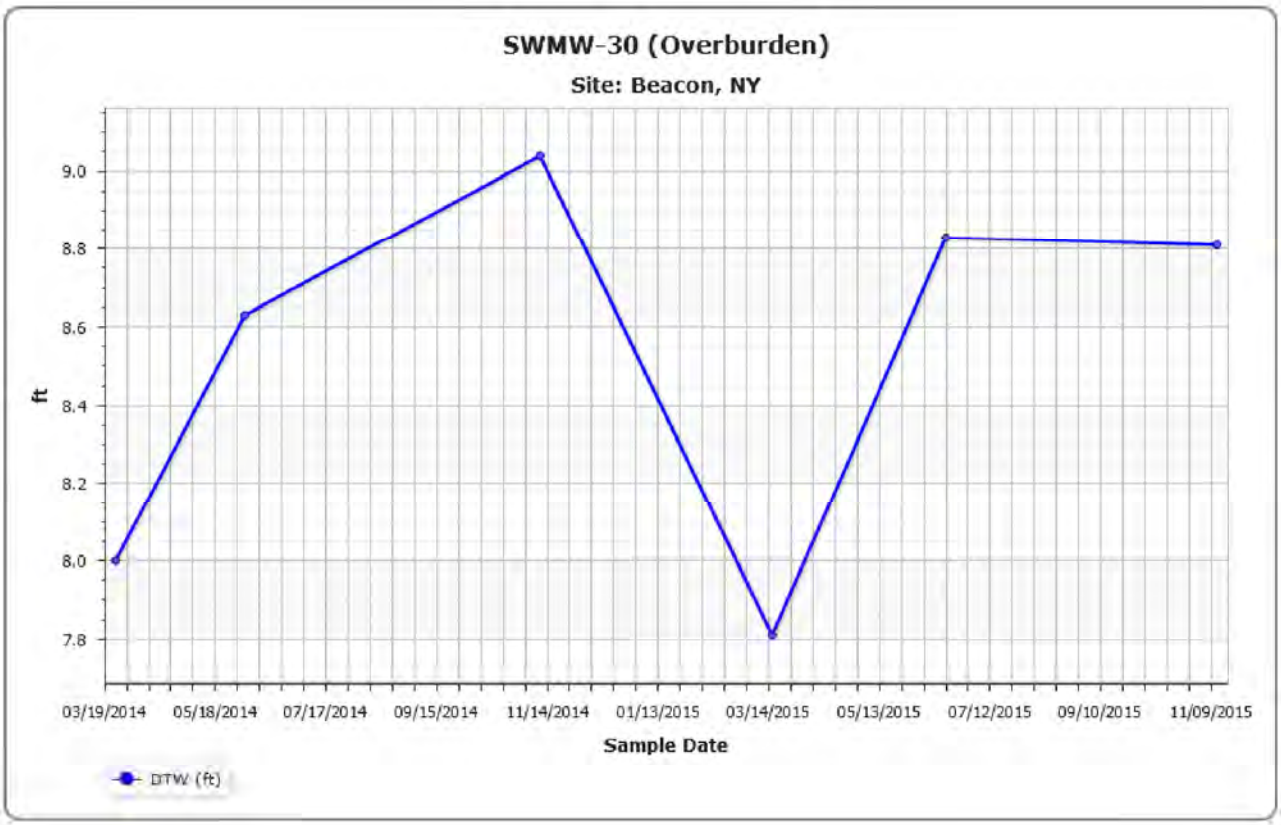

SWMW-113 (Overburden)
Site: Beacon, NY
10.0
9.5
9.0
8.5
ft
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DTW (ft)

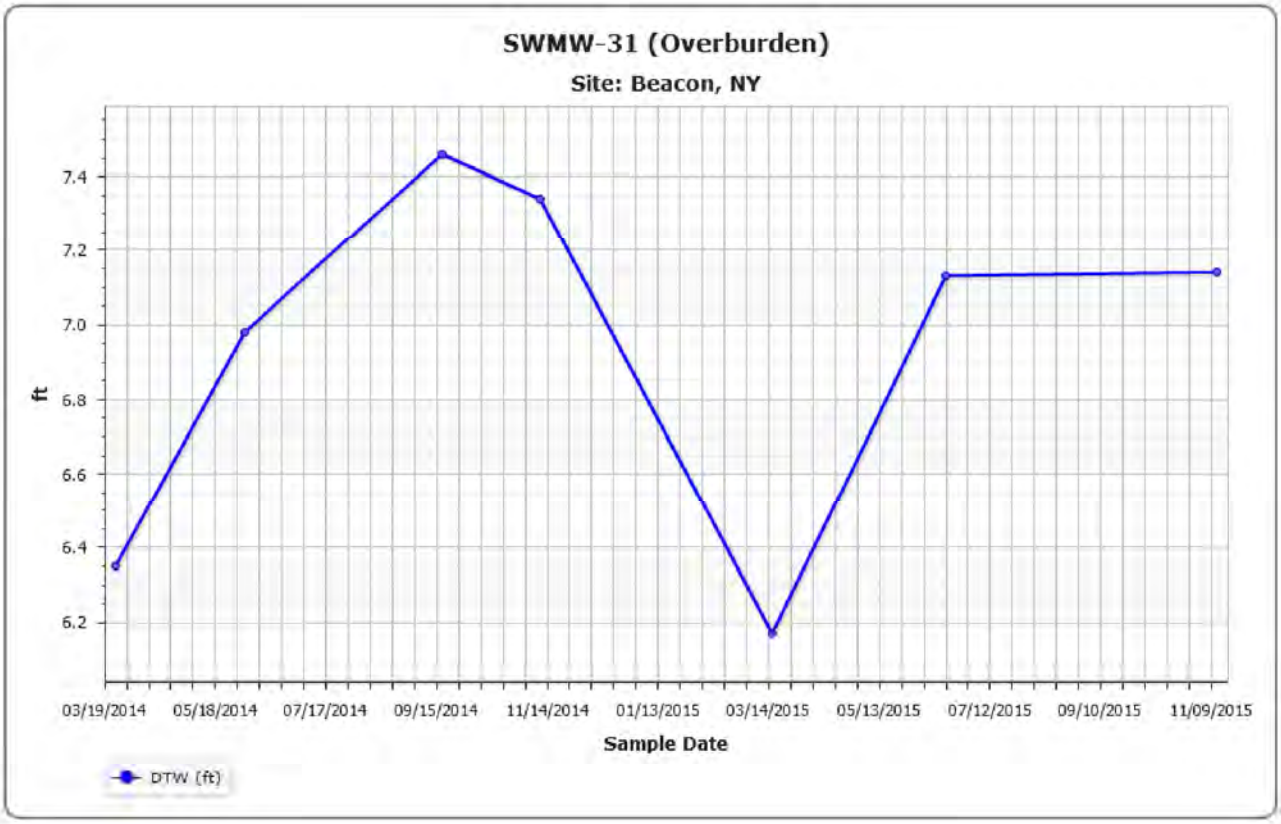

SWMW-15 (Overburden)
Site: Beacon, NY
20.0
18.0
16.0
14.0
12.0
10.0
8.0
ft
03/21/2014
05/20/2014
07/19/2014
09/17/2014
11/16/2014
01/15/2015
03/16/2015
05/15/2015
07/14/2015
09/12/2015
11/11/2015
Sample Date
DTW (ft)

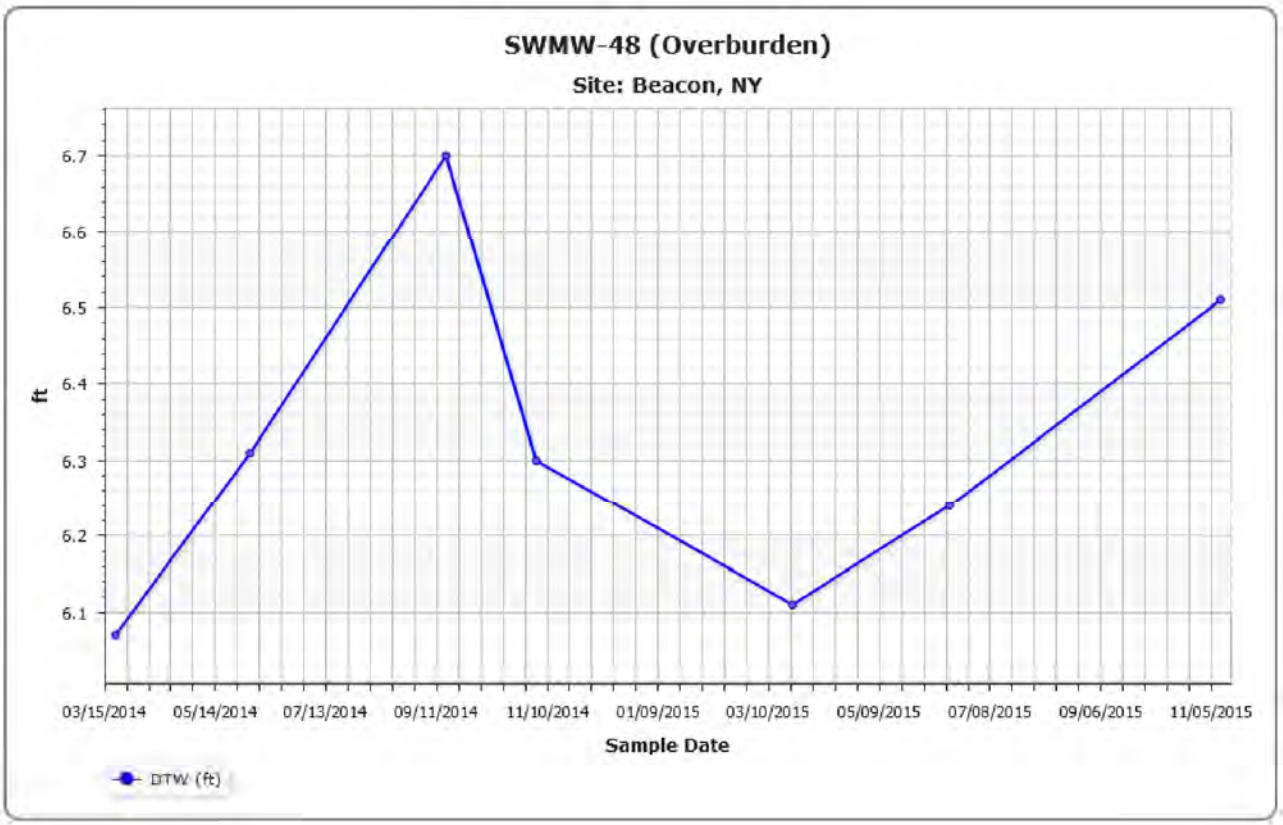

SWMW-21 (Overburden)
Site: Beacon, NY
8.5
8.0
7.5
7.0
6.5
6.0
5.5
ft
03/19/2014
05/18/2014
07/17/2014
09/15/2014
11/14/2014
01/13/2015
03/14/2015
05/13/2015
07/12/2015
09/10/2015
11/09/2015
Sample Date
DTW (ft)

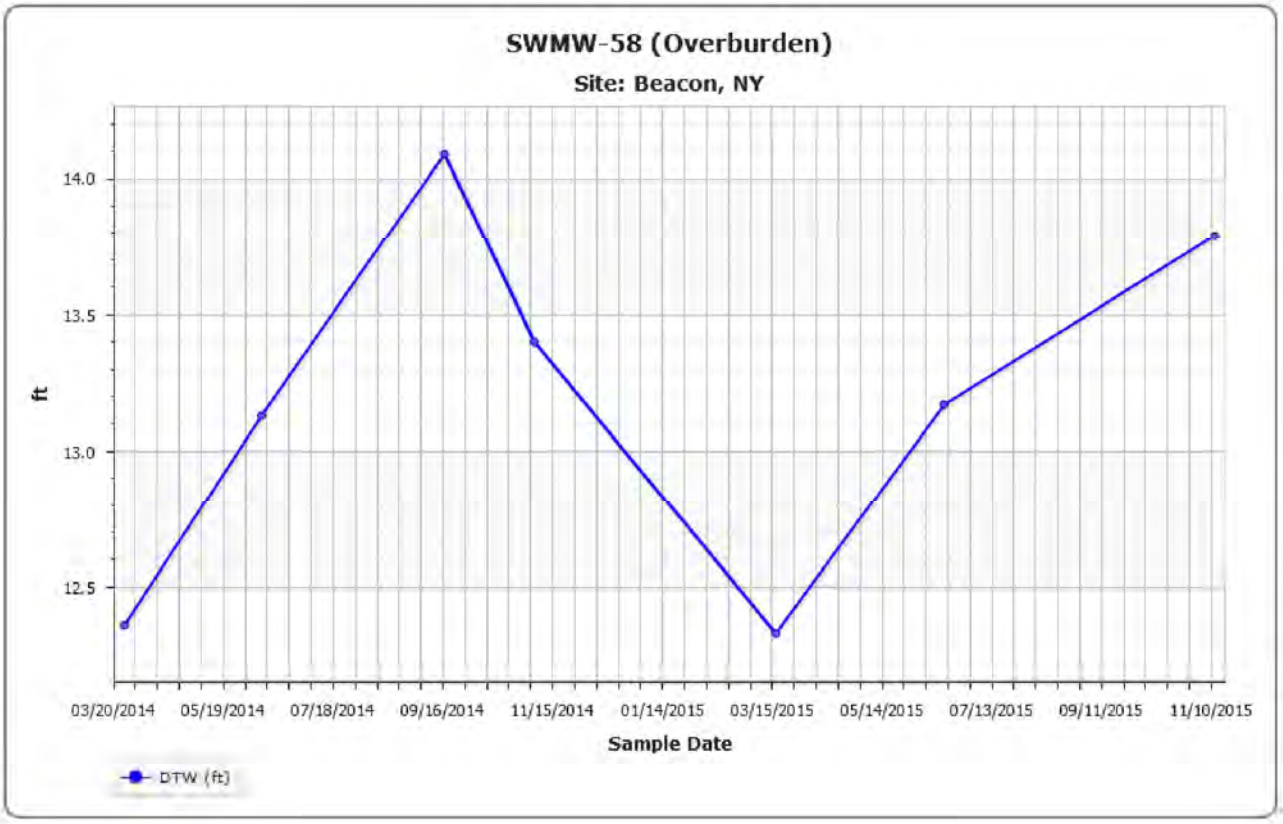

SWMW-25 (Overburden)
Site: Beacon, NY
5.0
4.5
4.0
3.5
ft
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
DTW (ft)

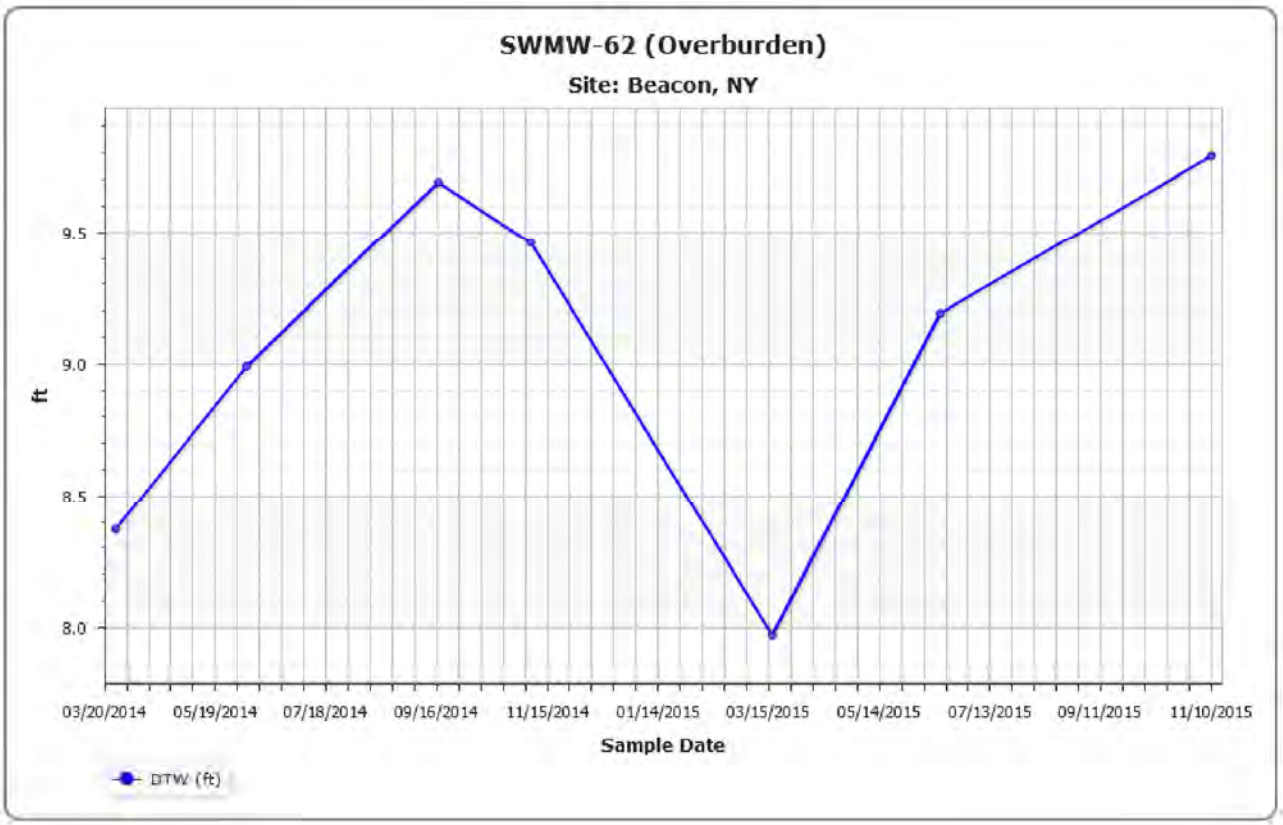

SWMW-28 (Overburden)
Site: Beacon, NY
10.0
9.9
9.8
9.7
9.6
9.5
9.4
9.3
9.2
9.1
ft
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DTW (ft)

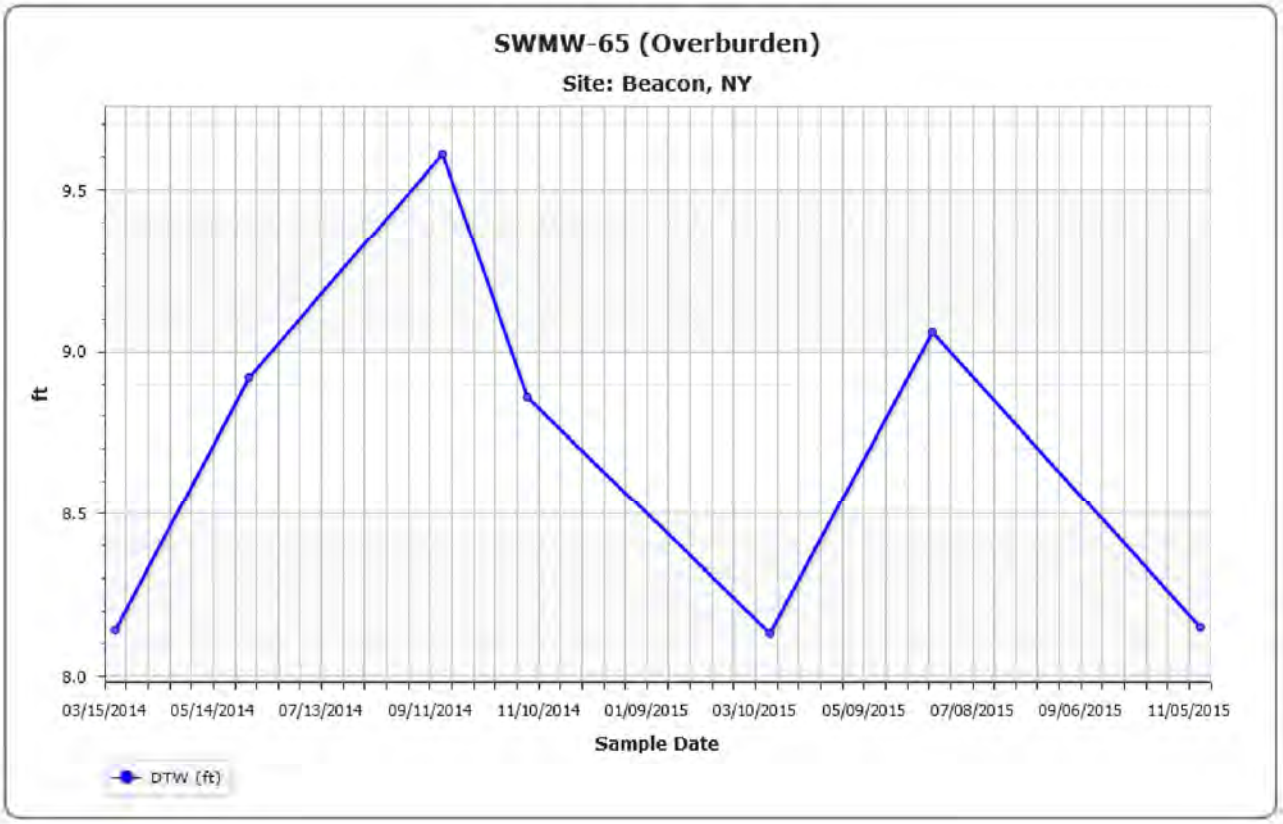

SWMW-30 (Overburden)
Site: Beacon, NY
ft
9.0
8.8
8.6
8.4
8.2
8.0
7.8
03/19/2014
05/18/2014
07/17/2014
09/15/2014
11/14/2014
01/13/2015
03/14/2015
05/13/2015
07/12/2015
09/10/2015
11/09/2015
Sample Date
DTW (ft)

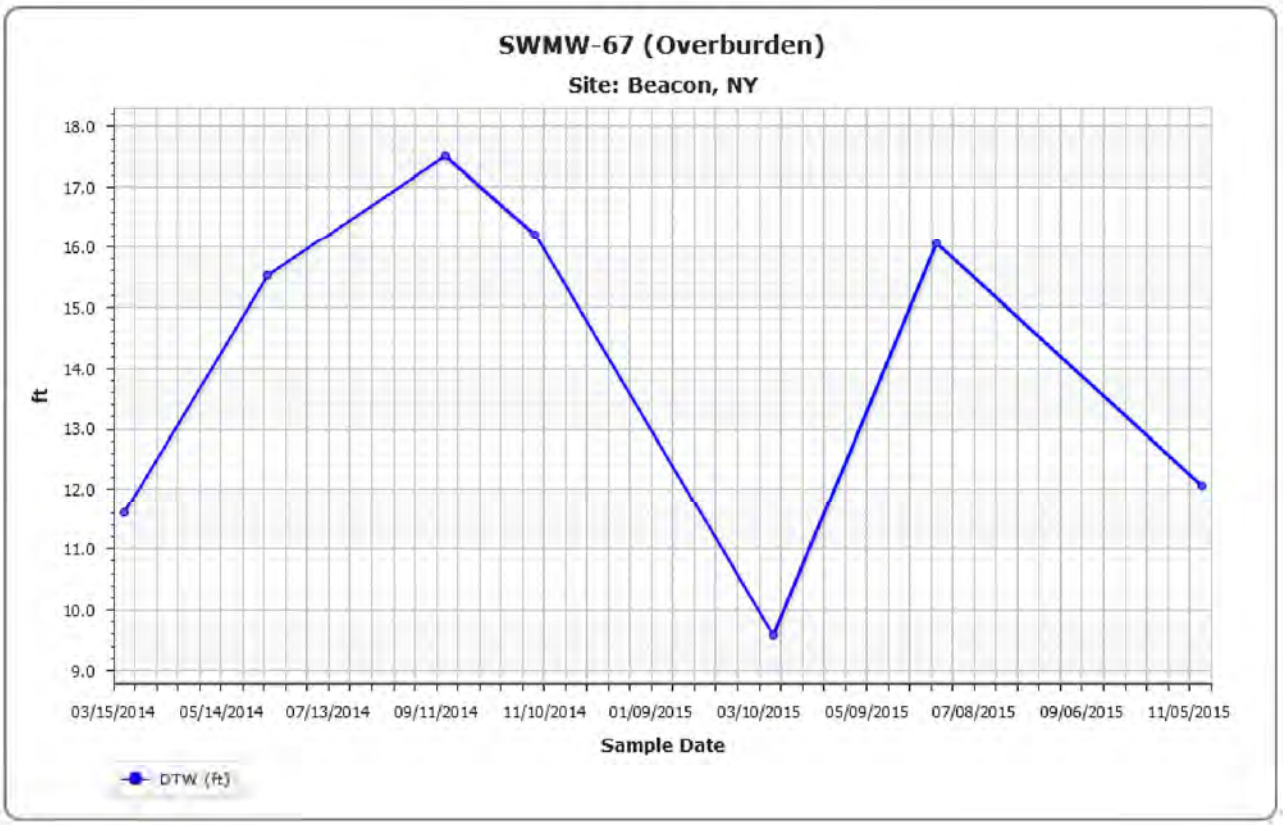

SWMW-31 (Overburden)
Site: Beacon, NY
ft
7.4
7.2
7.0
6.8
6.6
6.4
6.2
03/19/2014
05/18/2014
07/17/2014
09/15/2014
11/14/2014
01/13/2015
03/14/2015
05/13/2015
07/12/2015
09/10/2015
11/09/2015
Sample Date
DTW (ft)

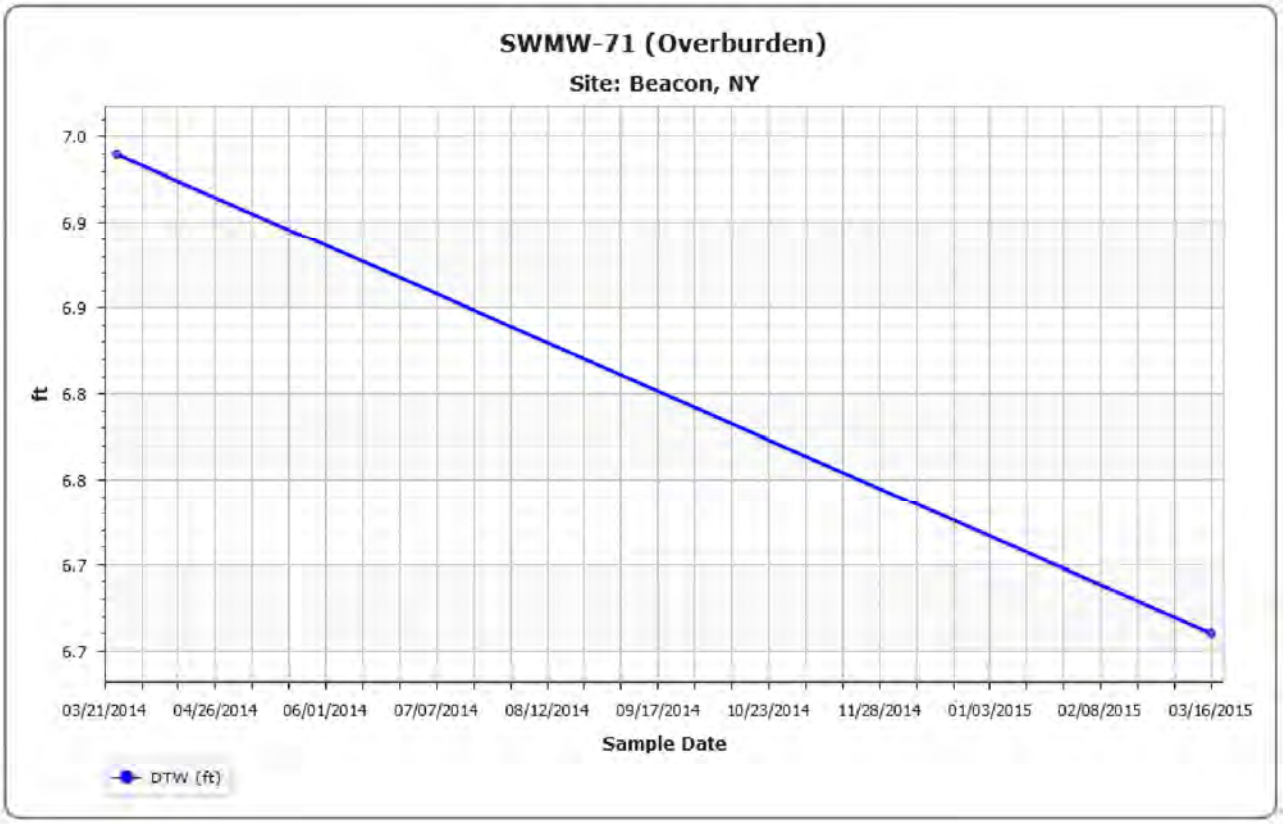

SWMW-48 (Overburden)
Site: Beacon, NY
6.7
6.6
6.5
6.4
6.3
6.2
6.1
ft
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DTW (ft)

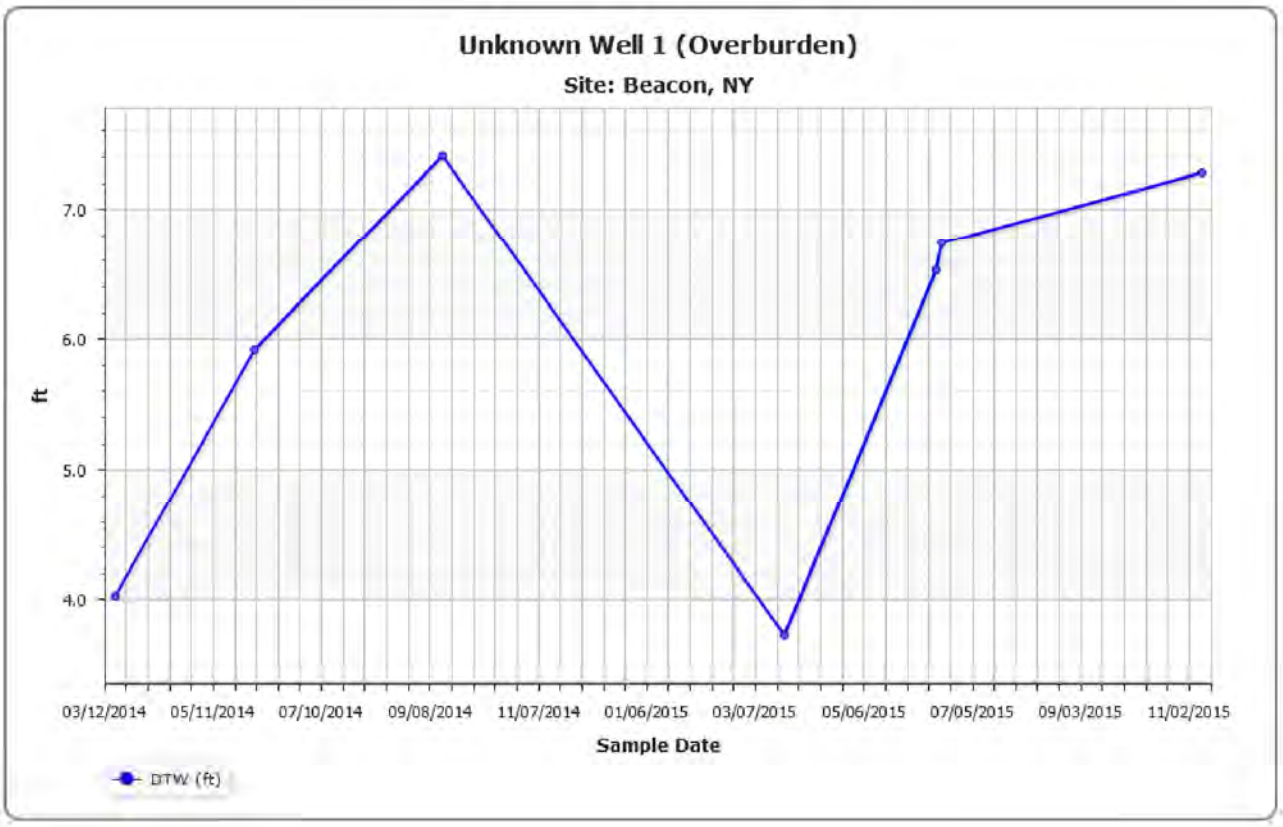

SWMW-58 (Overburden)
Site: Beacon, NY
14.0
13.5
13.0
12.5
ft
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DTW (ft)

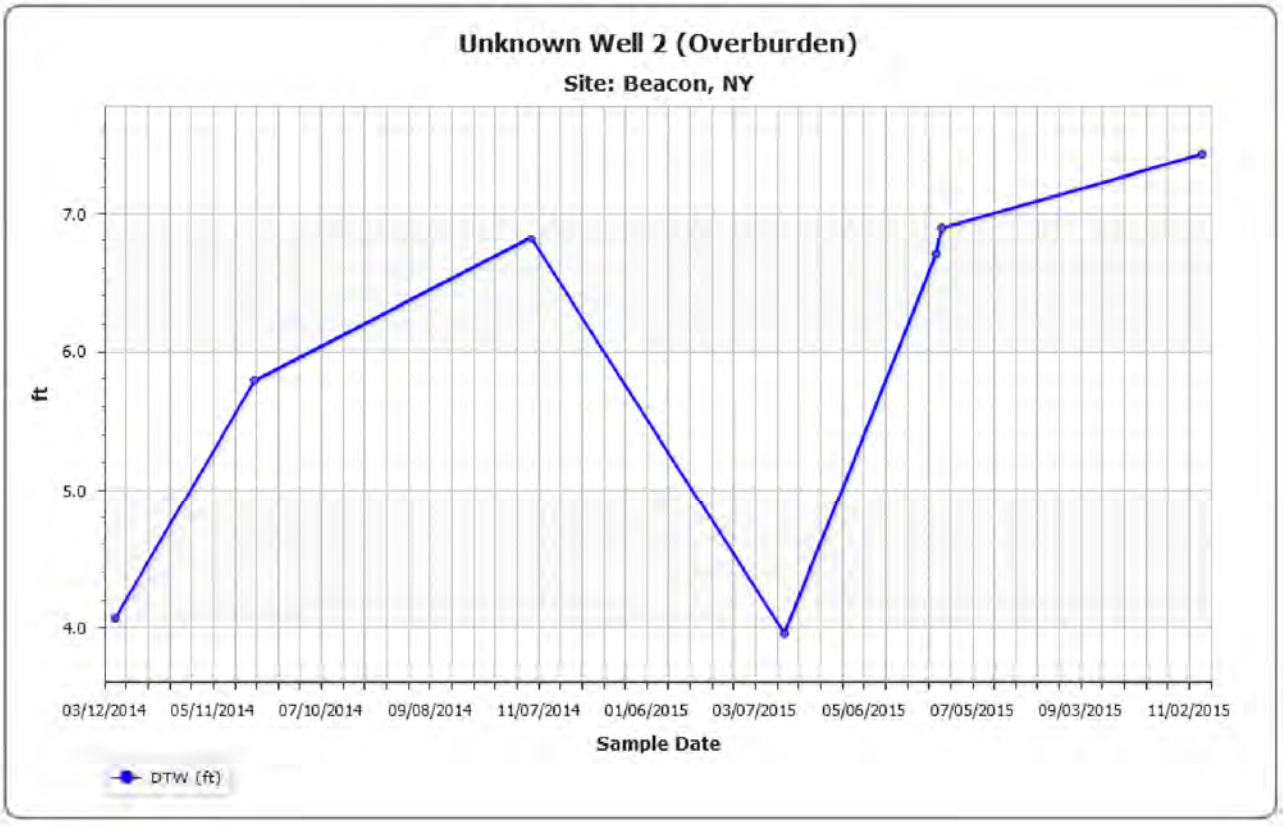

SWMW-62 (Overburden)
Site: Beacon, NY
9.5
9.0
8.5
8.0
ft
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DTW (ft)

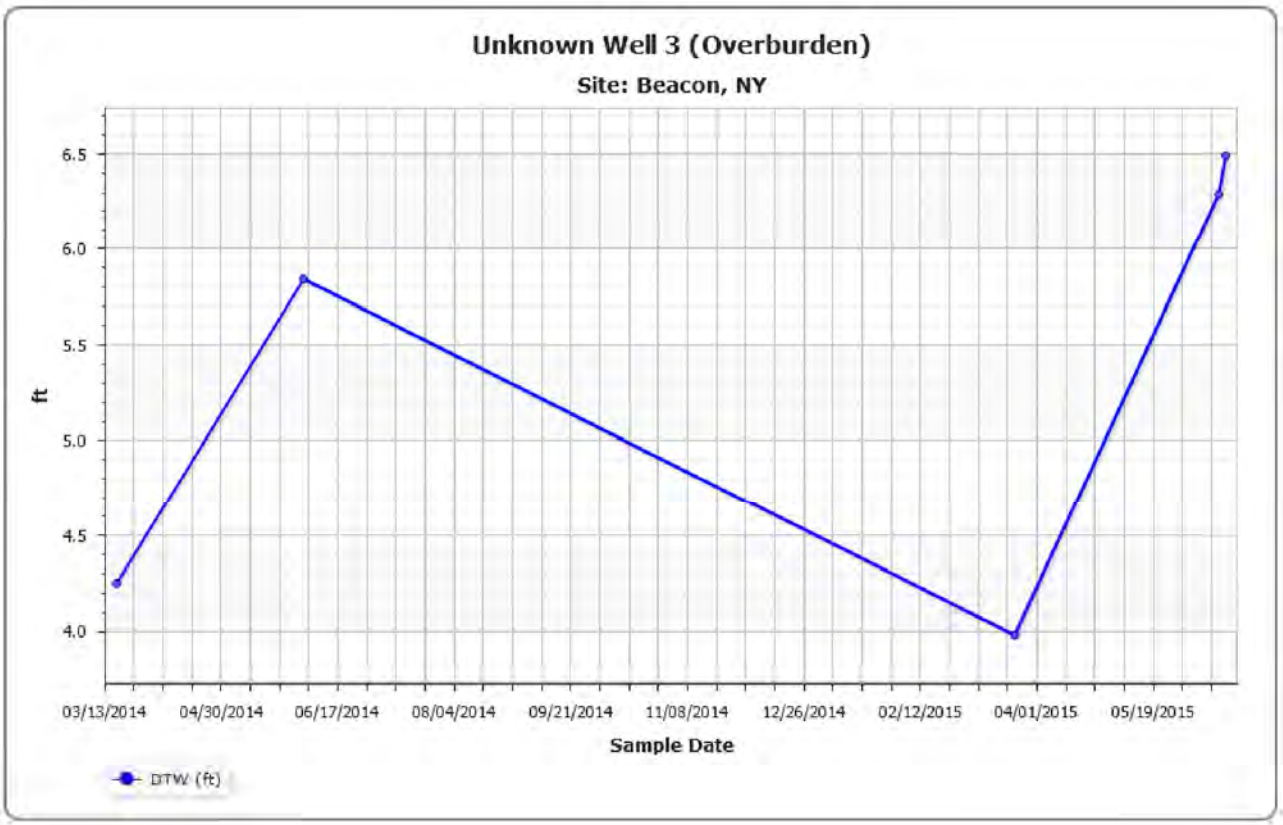

SWMW-65 (Overburden)
Site: Beacon, NY
9.5
9.0
8.5
8.0
ft
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DTW (ft)


SWMW-67 (Overburden)
Site: Beacon, NY
18.0
17.0
16.0
15.0
14.0
13.0
12.0
11.0
10.0
9.0
ft
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DTW (ft)

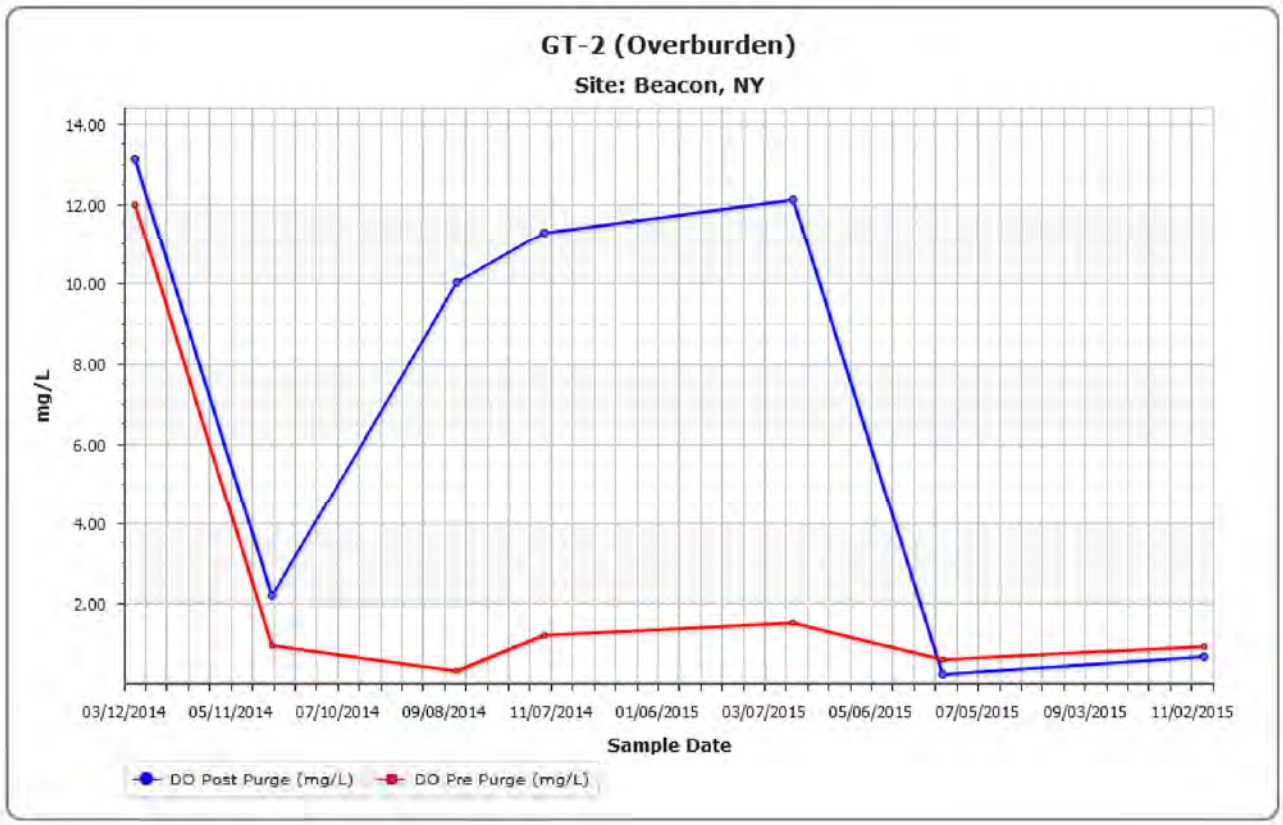

SWMW-71 (Overburden)
Site: Beacon, NY
7.0
6.9
6.9
6.8
6.8
6.7
6.7
ft
03/21/2014
04/26/2014
06/01/2014
07/07/2014
08/12/2014
09/17/2014
10/23/2014
11/28/2014
01/03/2015
02/08/2015
03/16/2015
Sample Date
DTW (ft)

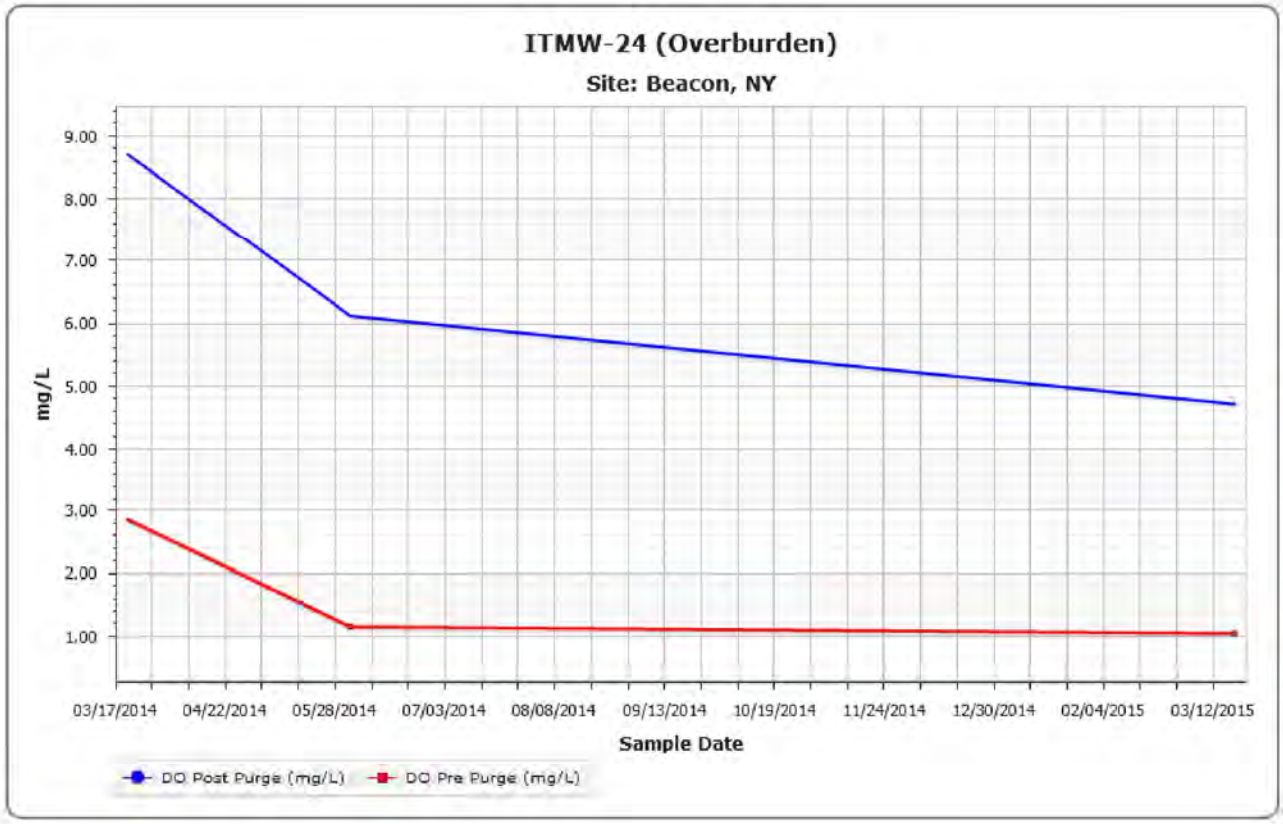

Unknown Well 1 (Overburden)
Site: Beacon, NY
7.0
6.0
5.0
4.0
ft
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DTW (ft)

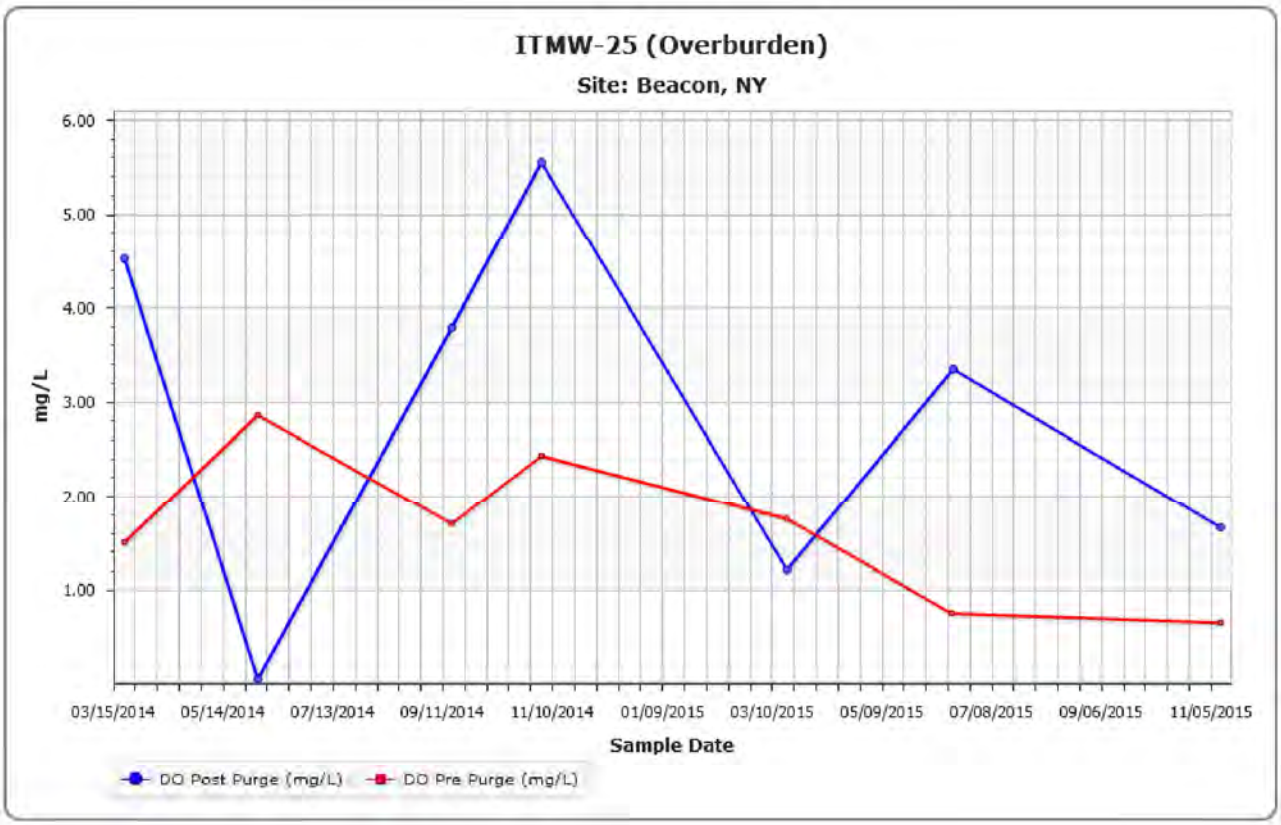

Unknown Well 2 (Overburden)
Site: Beacon, NY
7.0
6.0
5.0
4.0
ft
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DTW (ft)

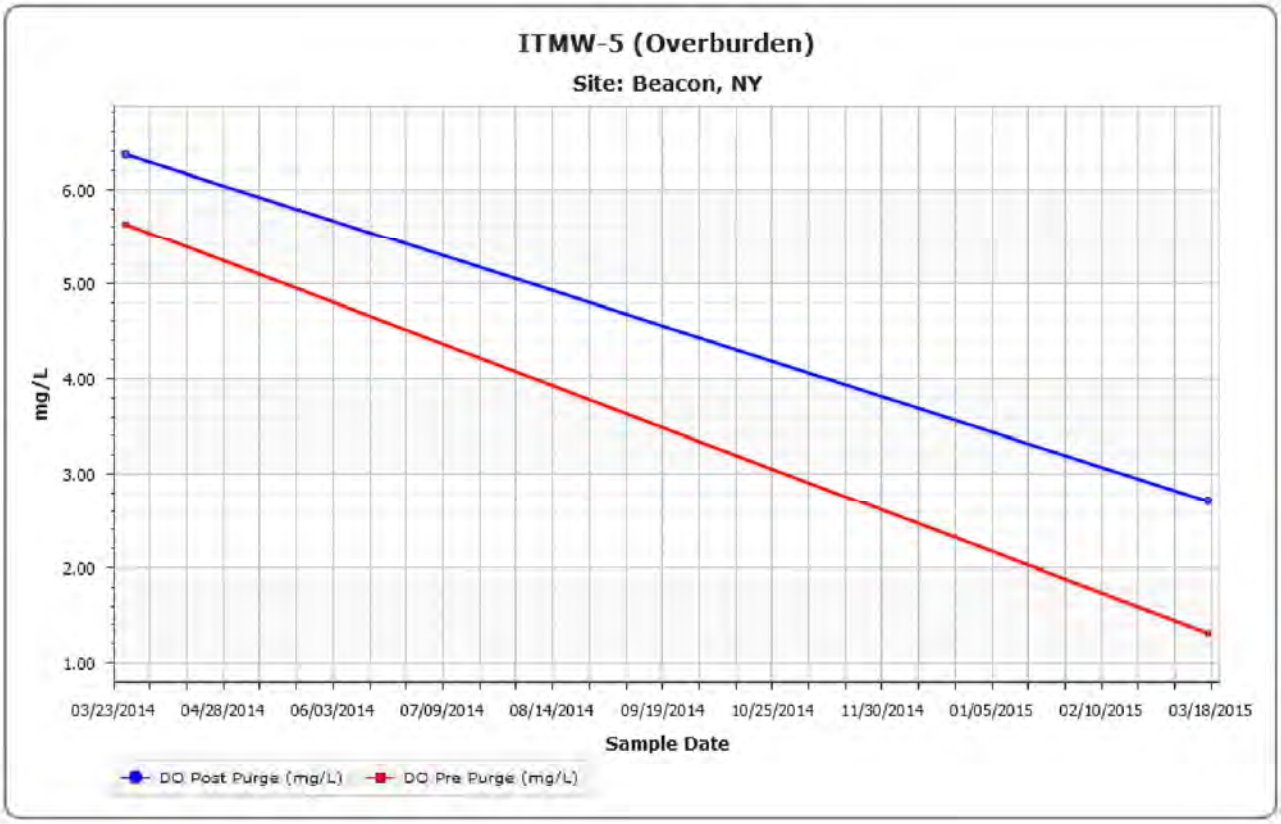

Unknown Well 3 (Overburden)
Site: Beacon, NY
6.5
6.0
5.5
5.0
4.5
4.0
ft
03/13/2014
04/30/2014
06/17/2014
08/04/2014
09/21/2014
11/08/2014
12/26/2014
02/12/2015
04/01/2015
05/19/2015
Sample Date
DTW (ft)

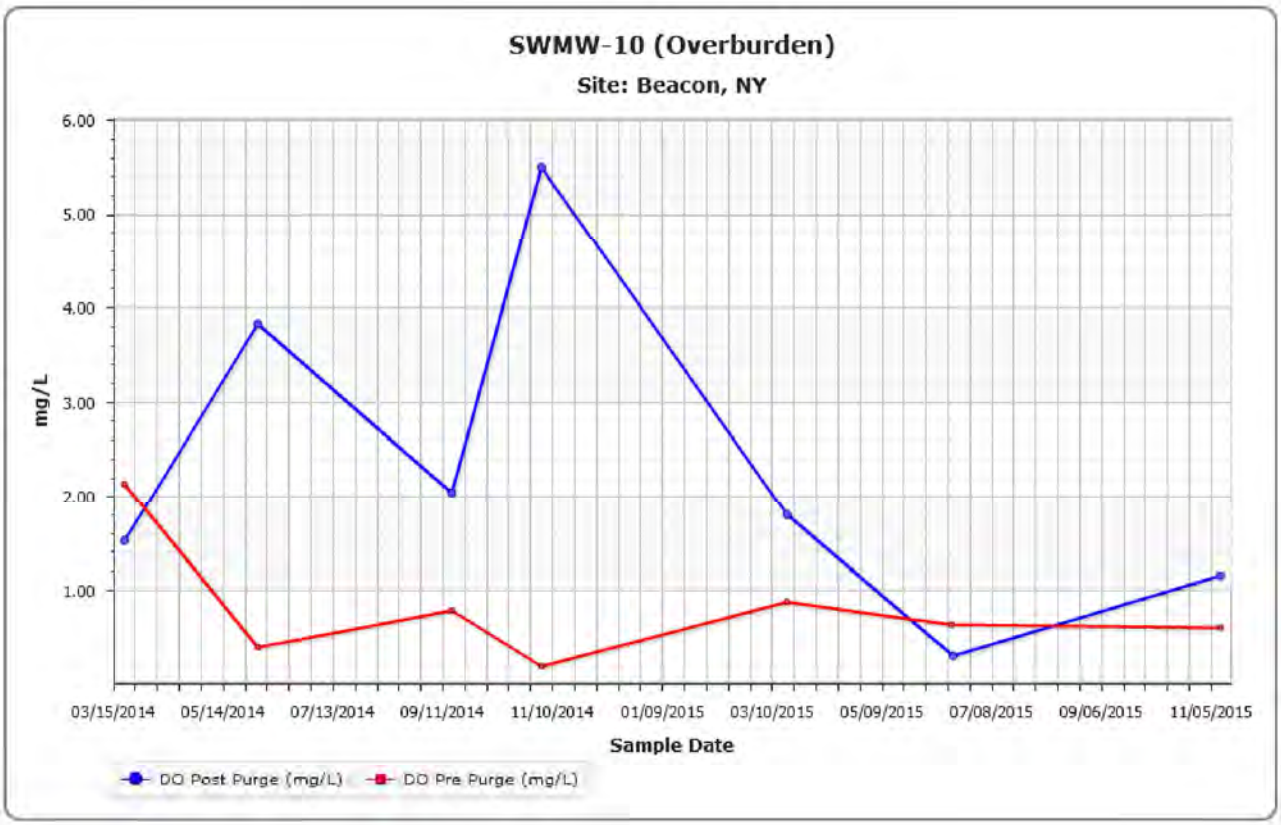
2014 THROUGH 2015 DO OVERBURDEN WELLS SUMMARY GRAPHS

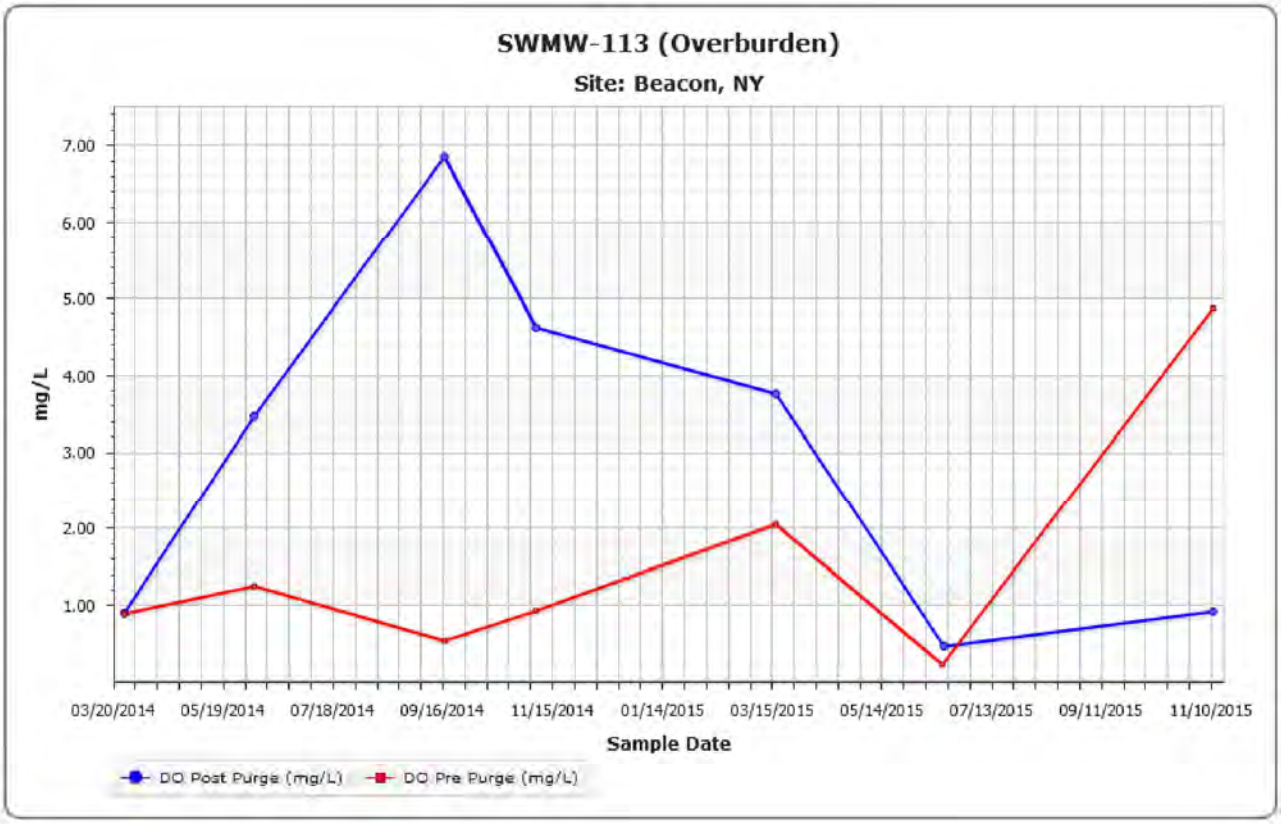

GT-2 (Overburden)
Site: Beacon, NY
14.00
12.00
10.00
8.00
6.00
4.00
2.00
mg/L
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

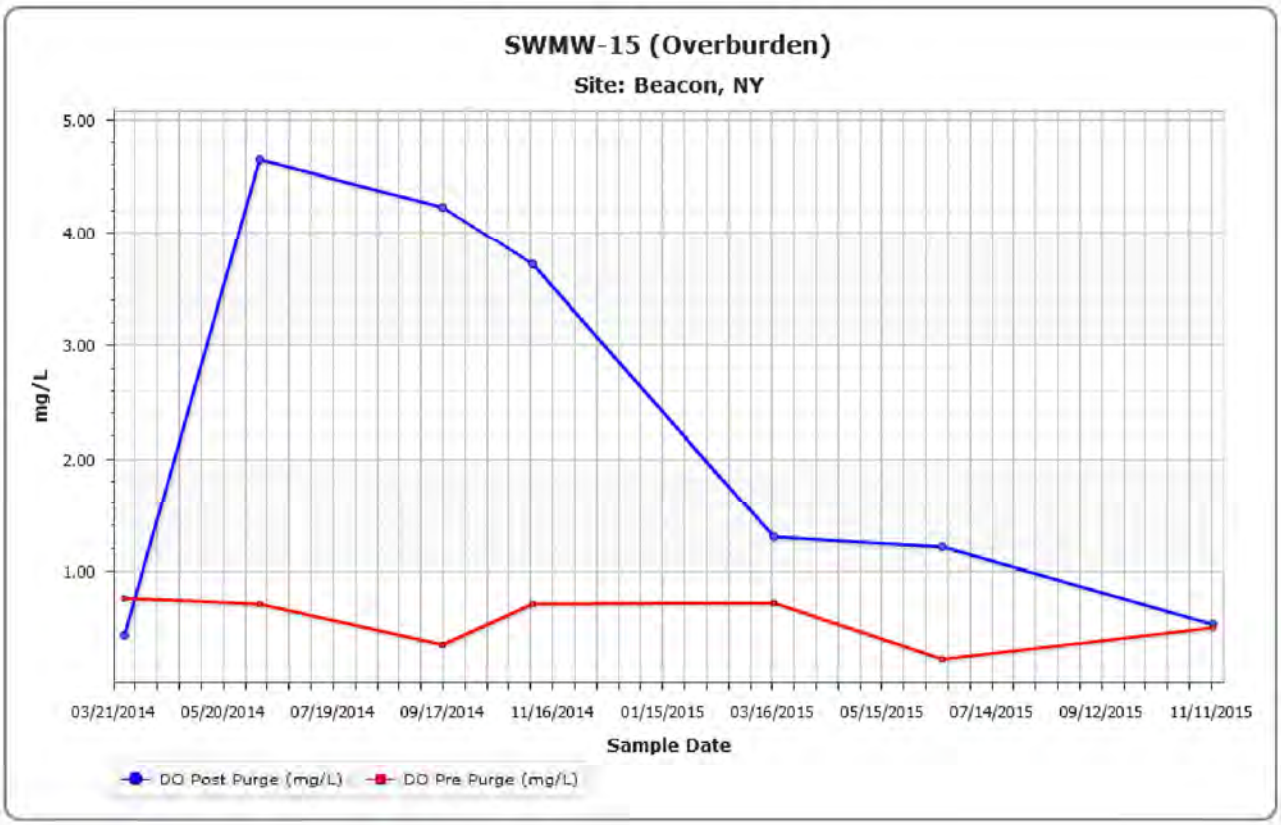

ITMW-24 (Overburden)
Site: Beacon, NY
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

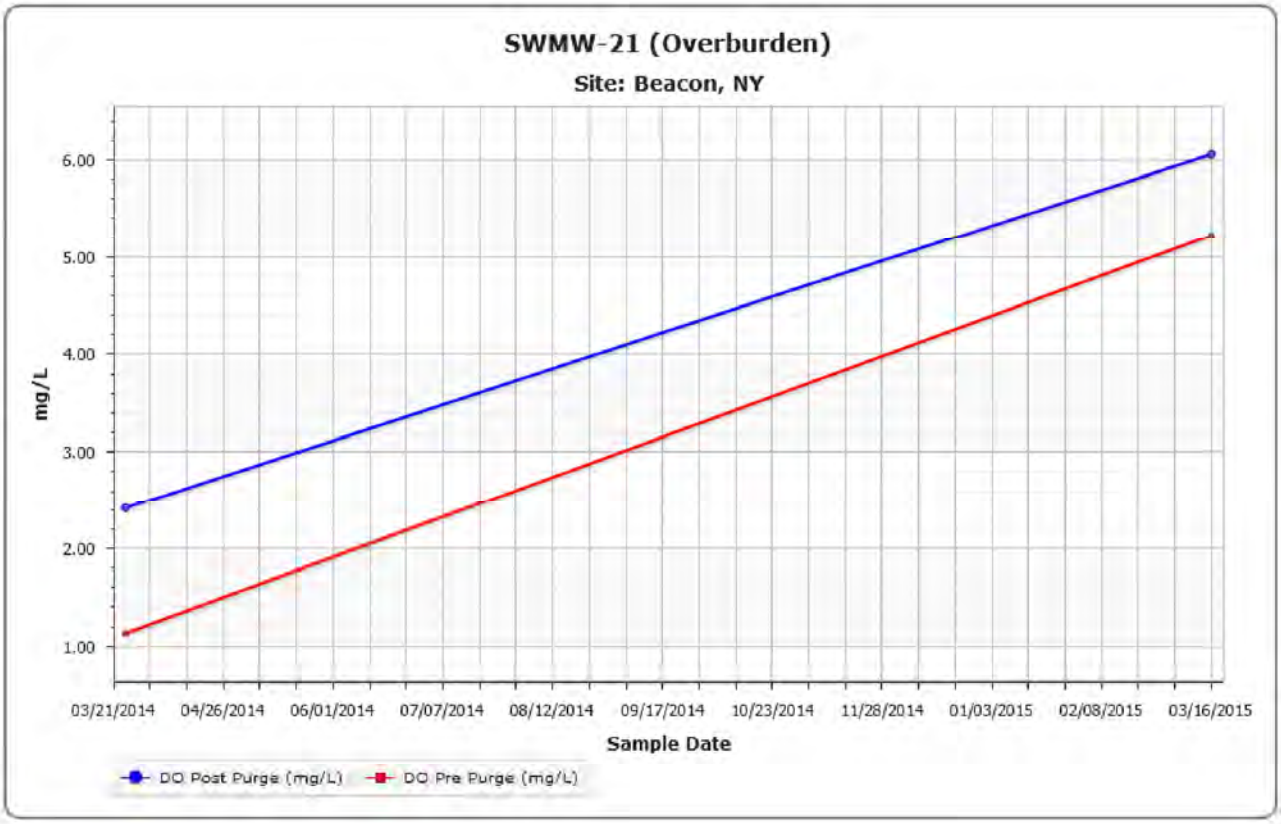

ITMW-25 (Overburden)
Site: Beacon, NY
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

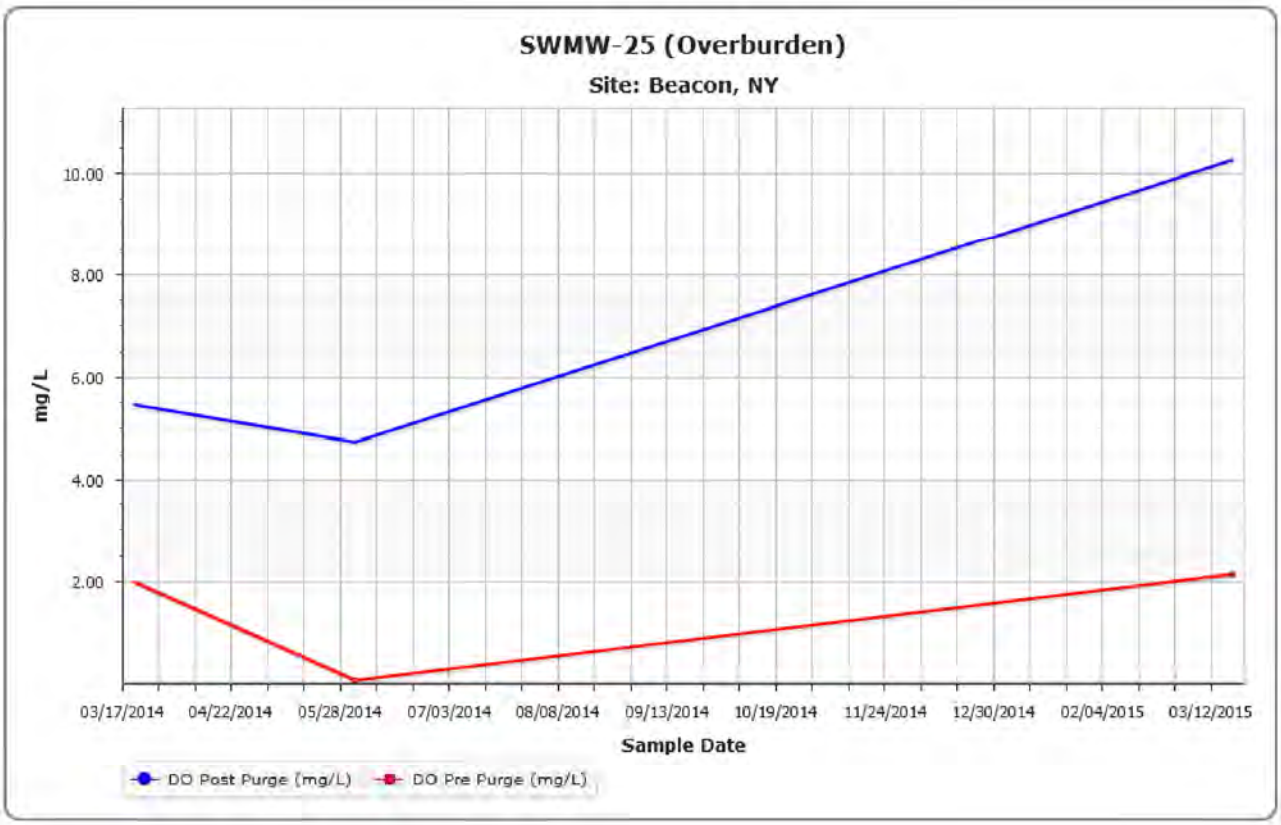

ITMW-5 (Overburden)
Site: Beacon, NY
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/23/2014
04/28/2014
06/03/2014
07/09/2014
08/14/2014
09/19/2014
10/25/2014
11/30/2014
01/05/2015
02/10/2015
03/18/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

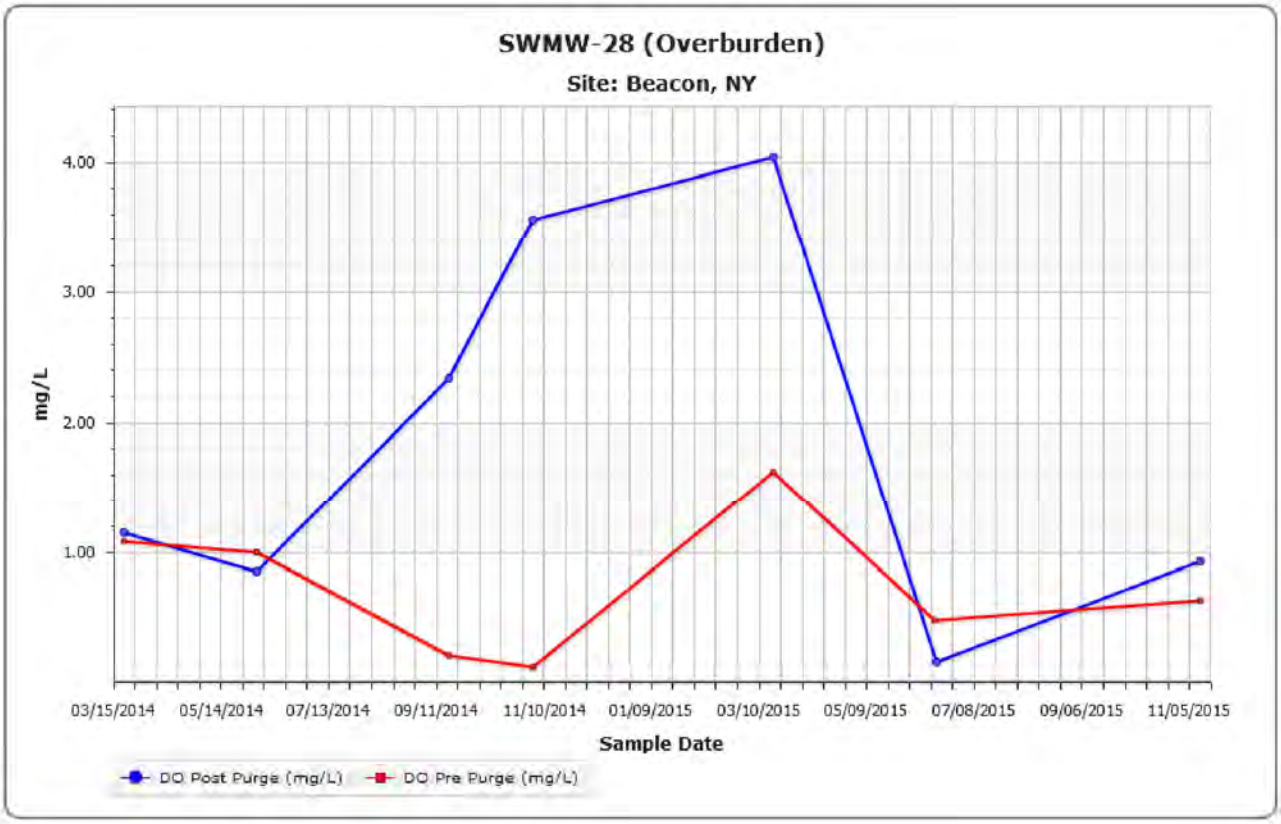

SWMW-10 (Overburden)
Site: Beacon, NY
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

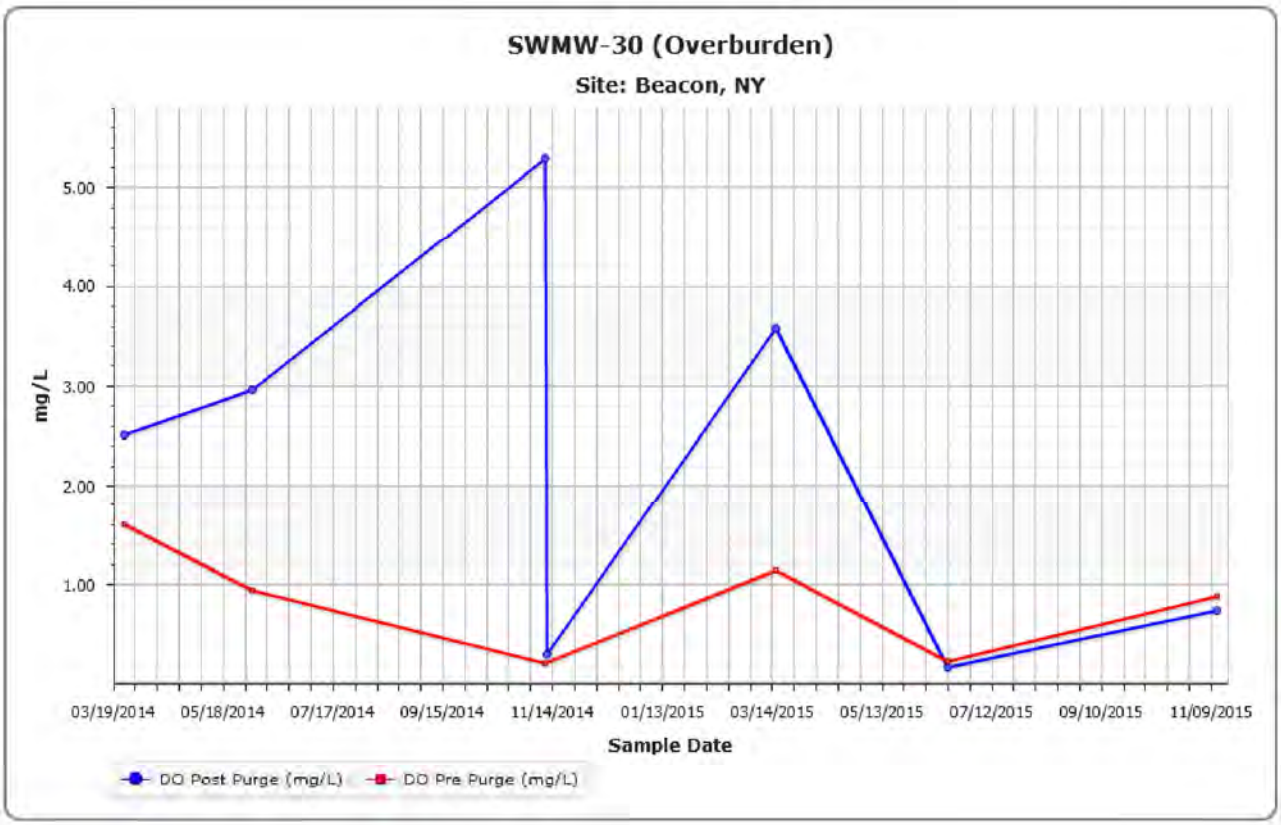

SWMW-113 (Overburden)
Site: Beacon, NY
7.00
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

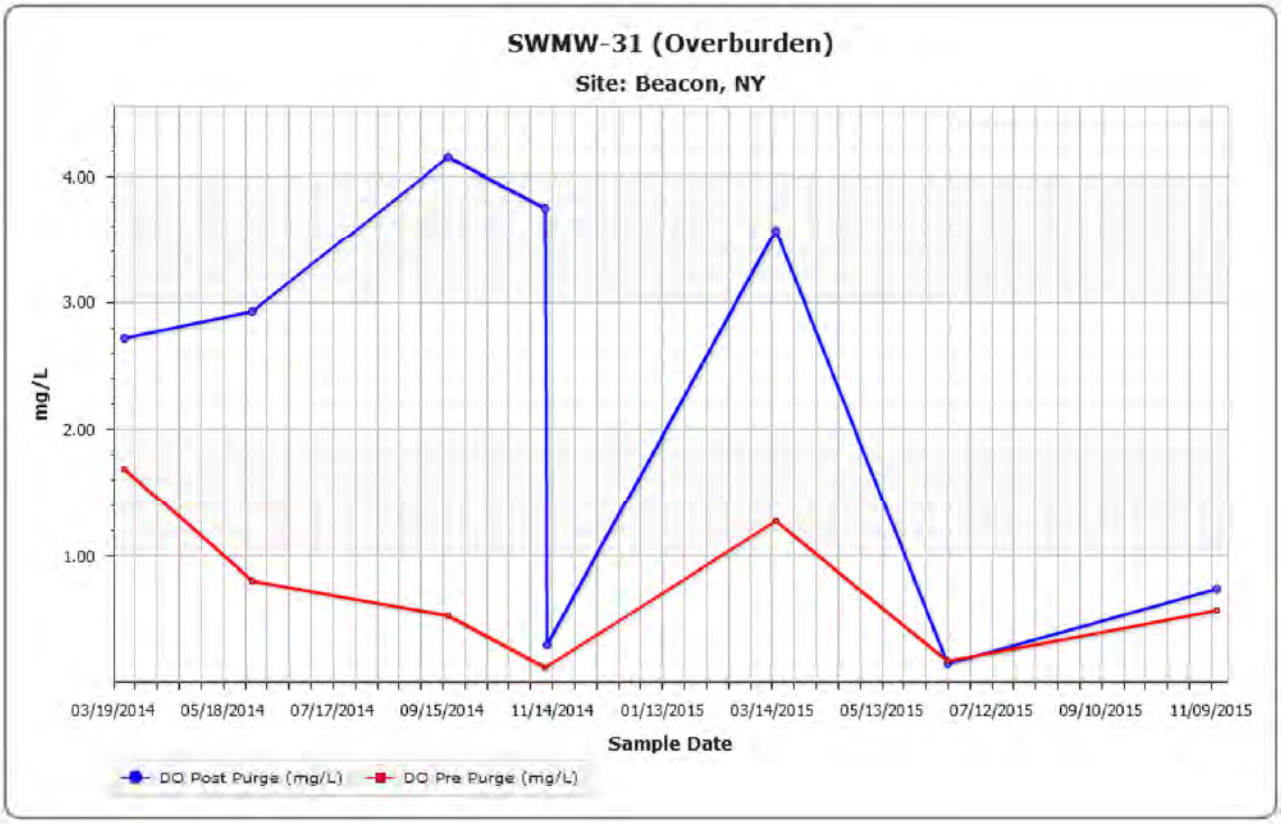

SWMW-15 (Overburden)
Site: Beacon, NY
5.00
4.00
3.00
2.00
1.00
mg/L
03/21/2014
05/20/2014
07/19/2014
09/17/2014
11/16/2014
01/15/2015
03/16/2015
05/15/2015
07/14/2015
09/12/2015
11/11/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

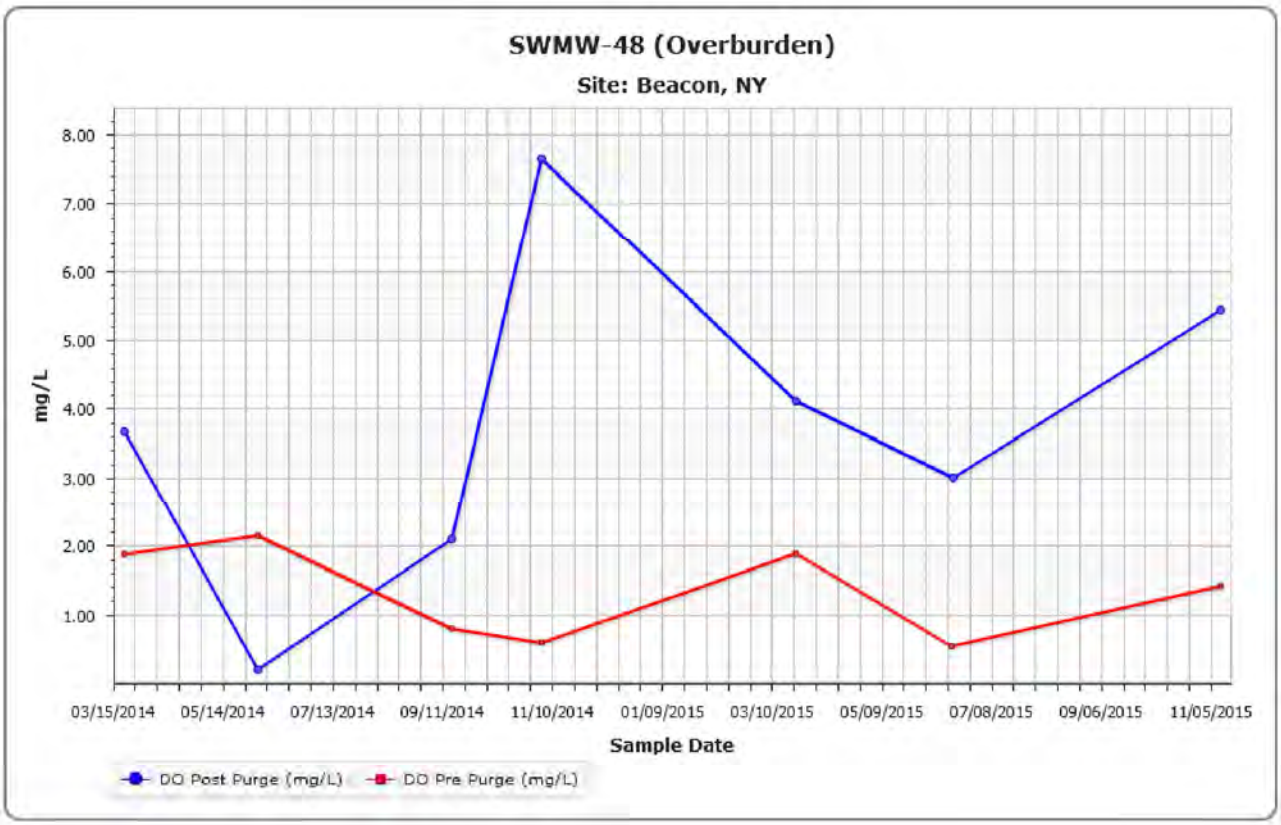

SWMW-21 (Overburden)
Site: Beacon, NY
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/21/2014
04/26/2014
06/01/2014
07/07/2014
08/12/2014
09/17/2014
10/23/2014
11/28/2014
01/03/2015
02/08/2015
03/16/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

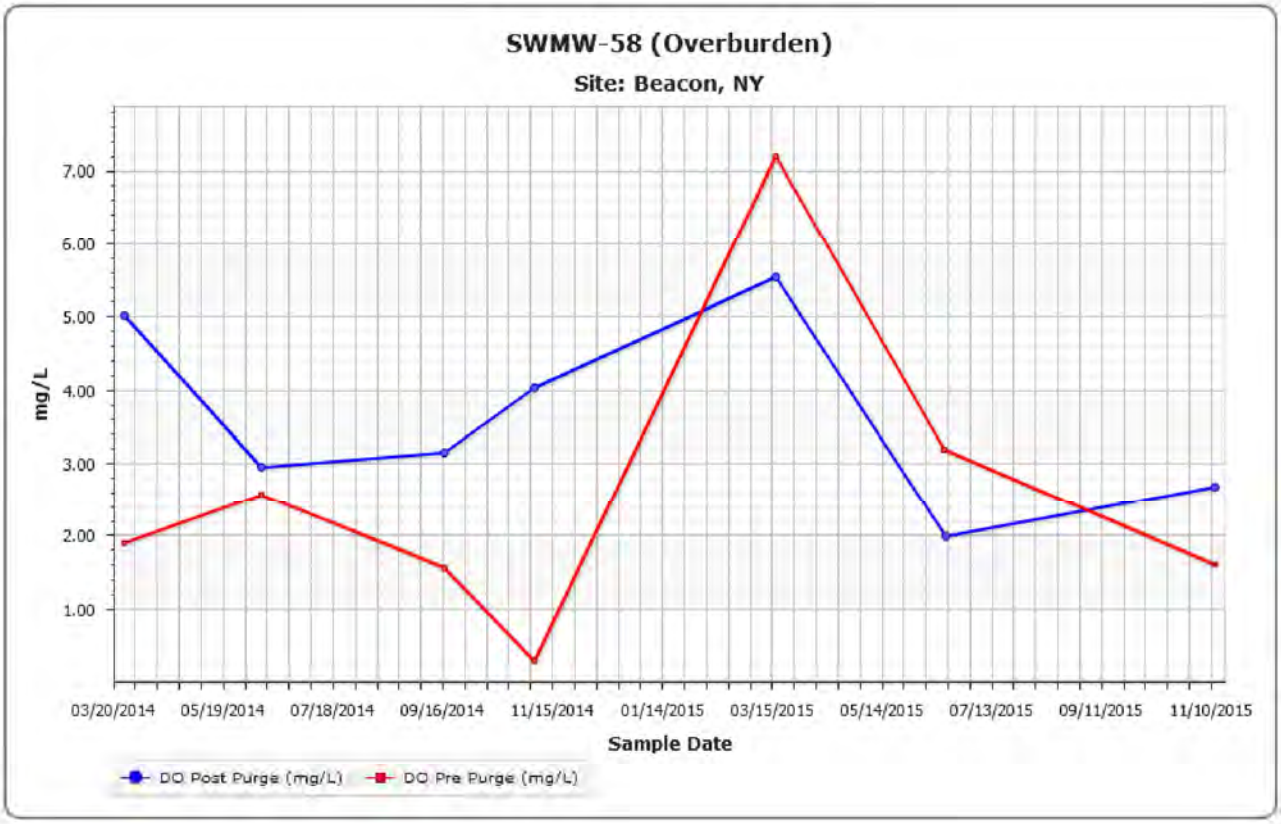

SWMW-25 (Overburden)
Site: Beacon, NY
10.00
8.00
6.00
4.00
2.00
mg/L
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

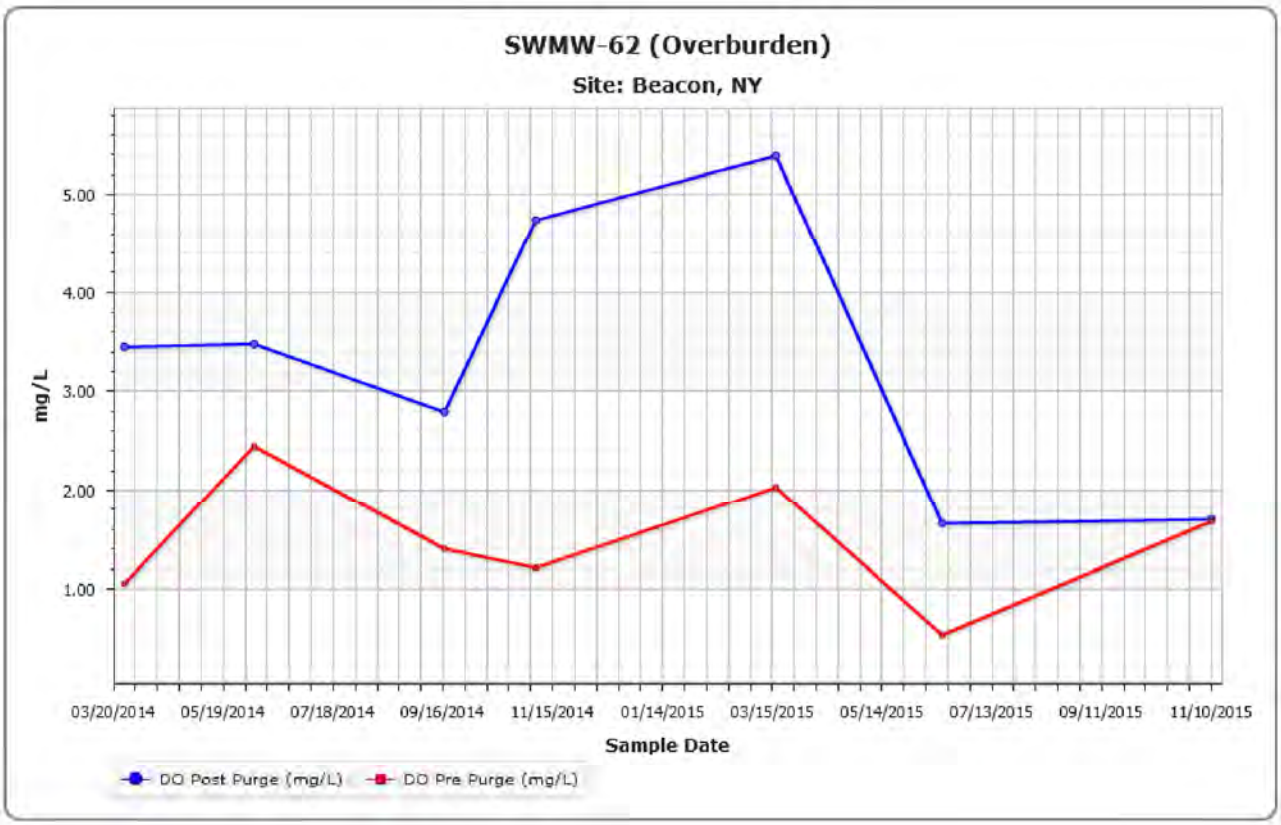

SWMW-28 (Overburden)
Site: Beacon, NY
4.00
3.00
2.00
1.00
mg/L
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

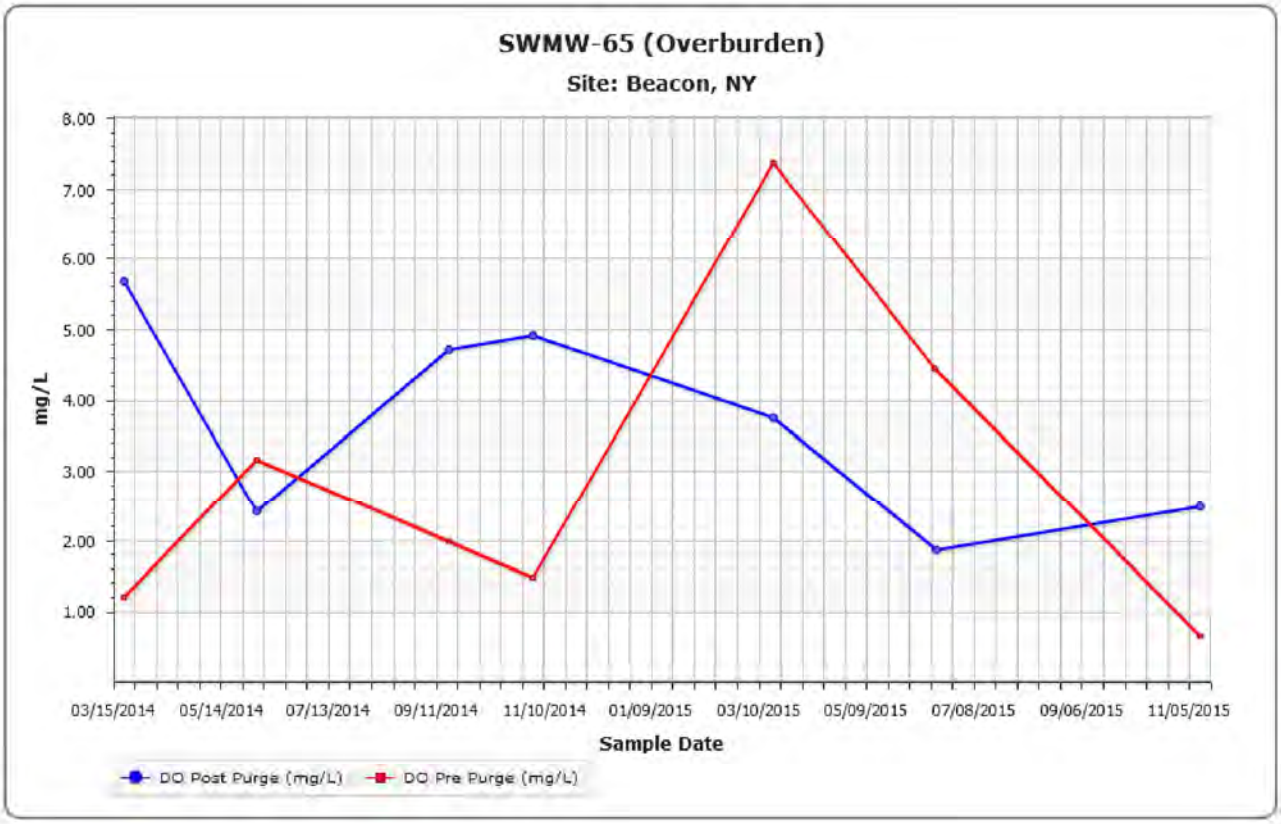

SWMW-30 (Overburden)
Site: Beacon, NY
mg/L
5.00
4.00
3.00
2.00
1.00
03/19/2014
05/18/2014
07/17/2014
09/15/2014
11/14/2014
01/13/2015
03/14/2015
05/13/2015
07/12/2015
09/10/2015
11/09/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

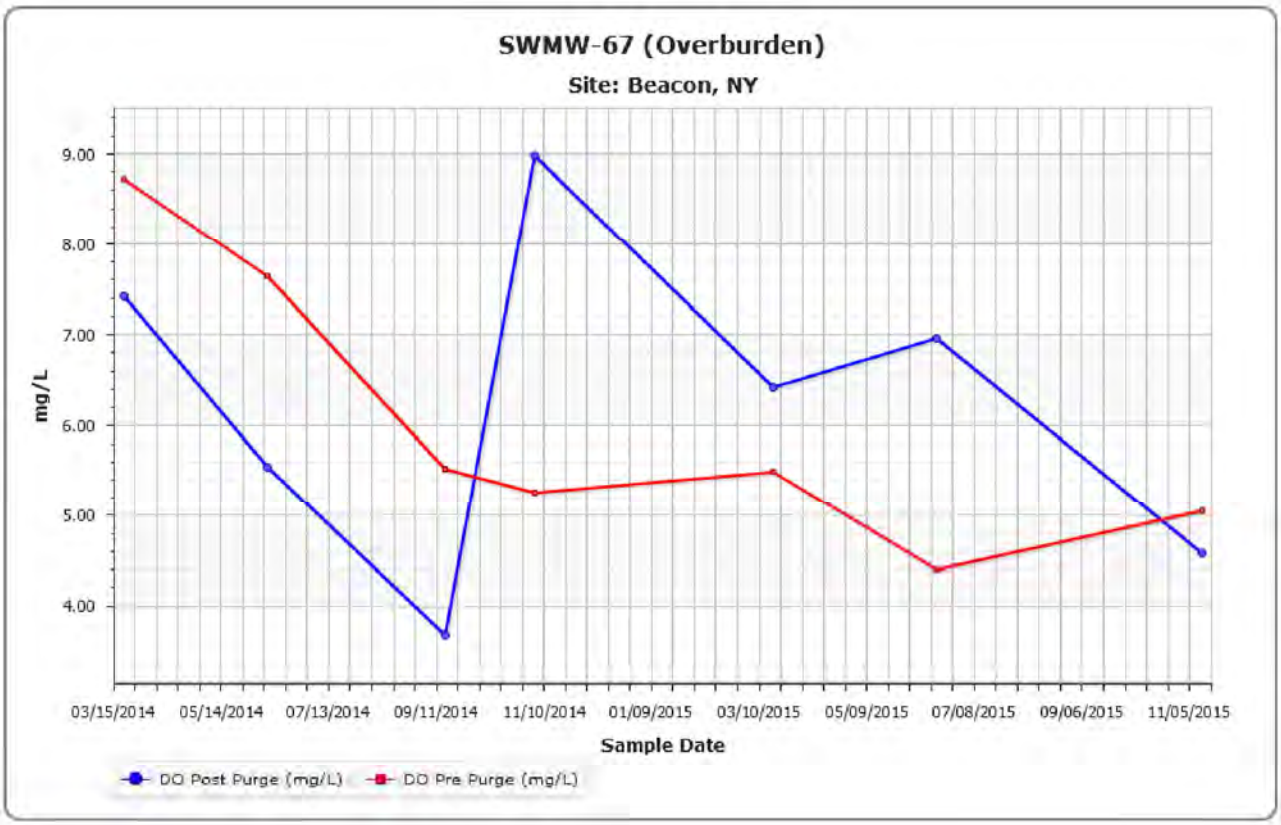

SWMW-31 (Overburden)
Site: Beacon, NY
mg/L
4.00
3.00
2.00
1.00
03/19/2014
05/18/2014
07/17/2014
09/15/2014
11/14/2014
01/13/2015
03/14/2015
05/13/2015
07/12/2015
09/10/2015
11/09/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

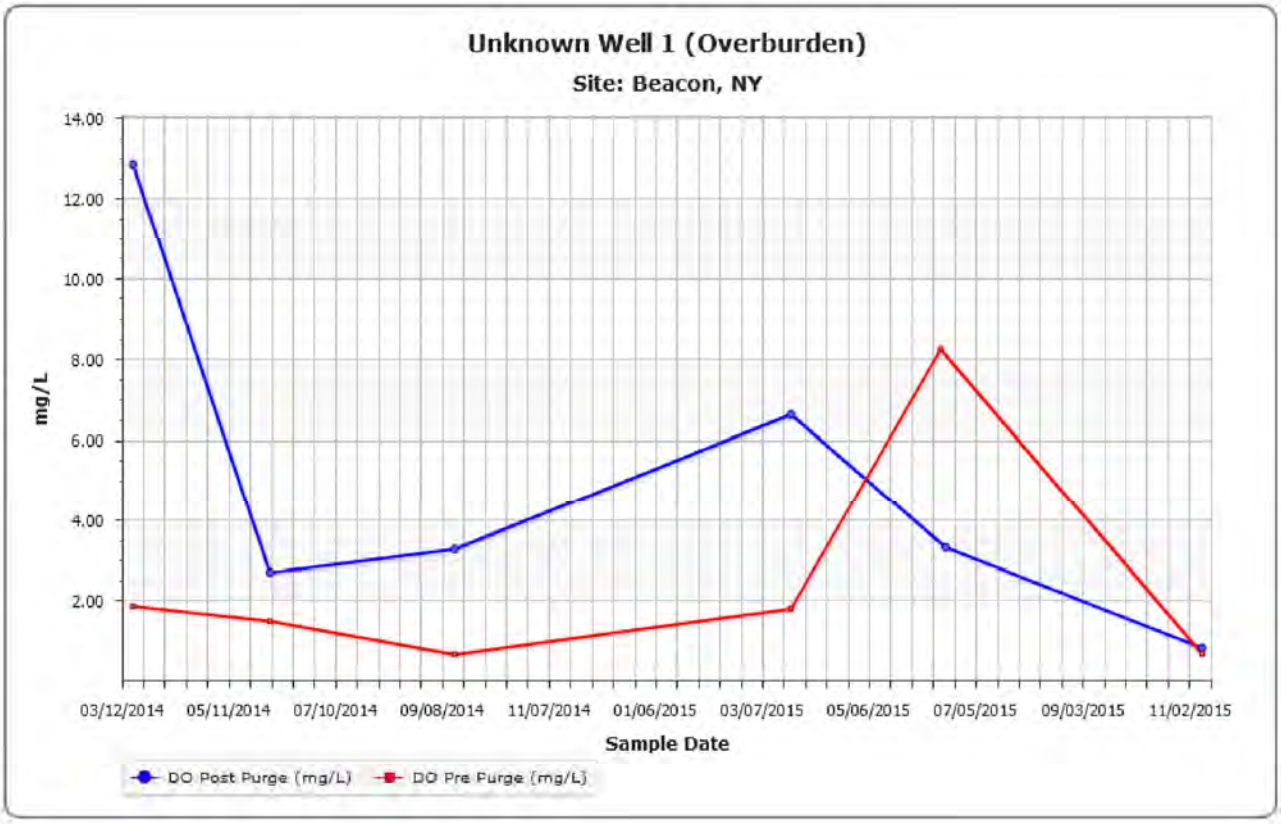

SWMW-48 (Overburden)
Site: Beacon, NY
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

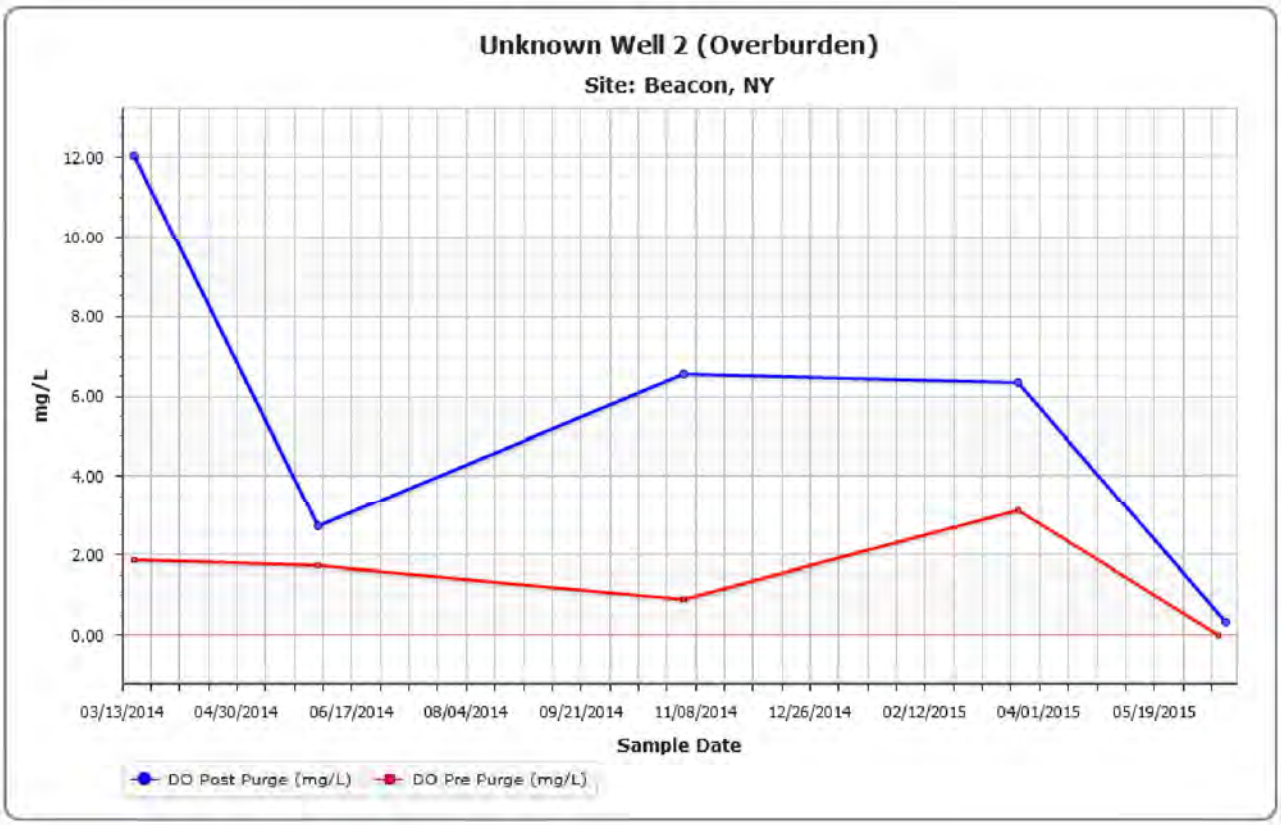

SWMW-58 (Overburden)
Site: Beacon, NY
7.00
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

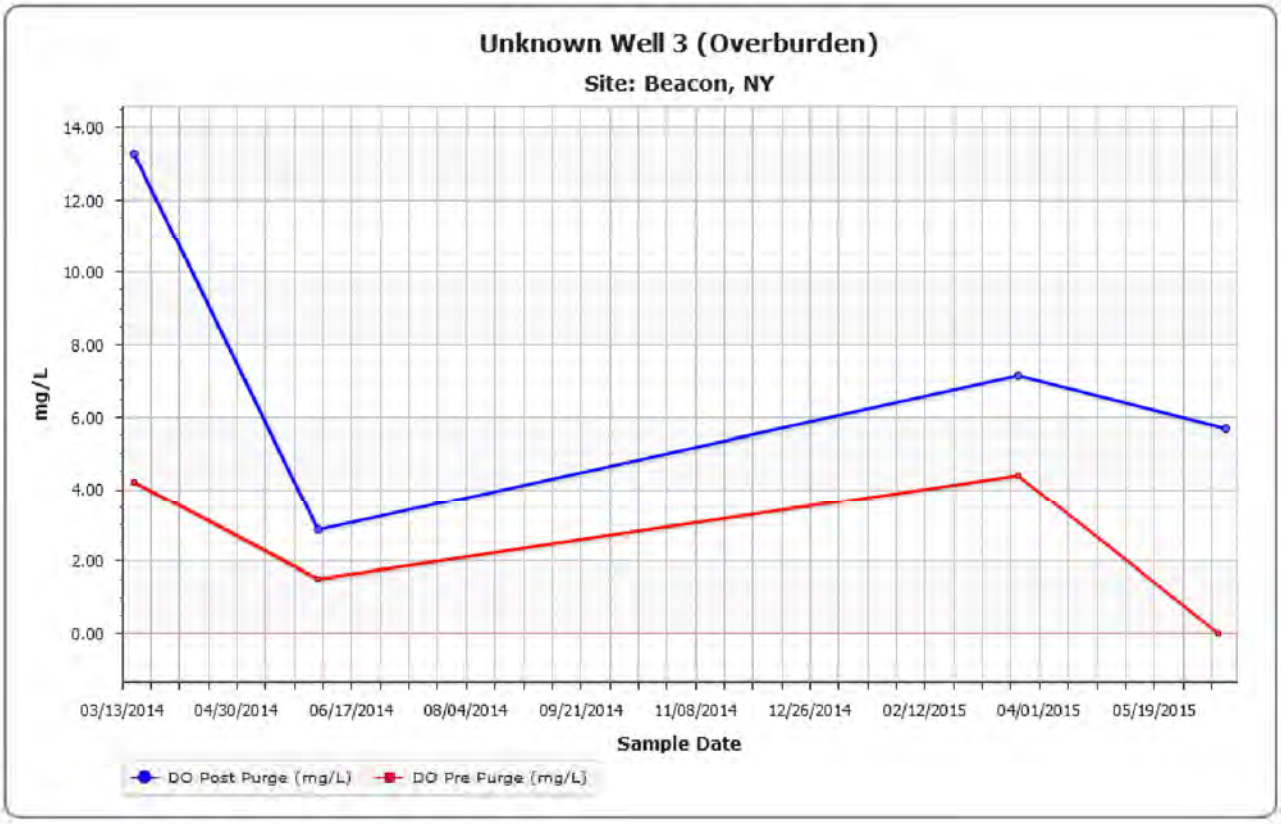

SWMW-62 (Overburden)
Site: Beacon, NY
mg/L
5.00
4.00
3.00
2.00
1.00
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)


SWMW-65 (Overburden)
Site: Beacon, NY
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

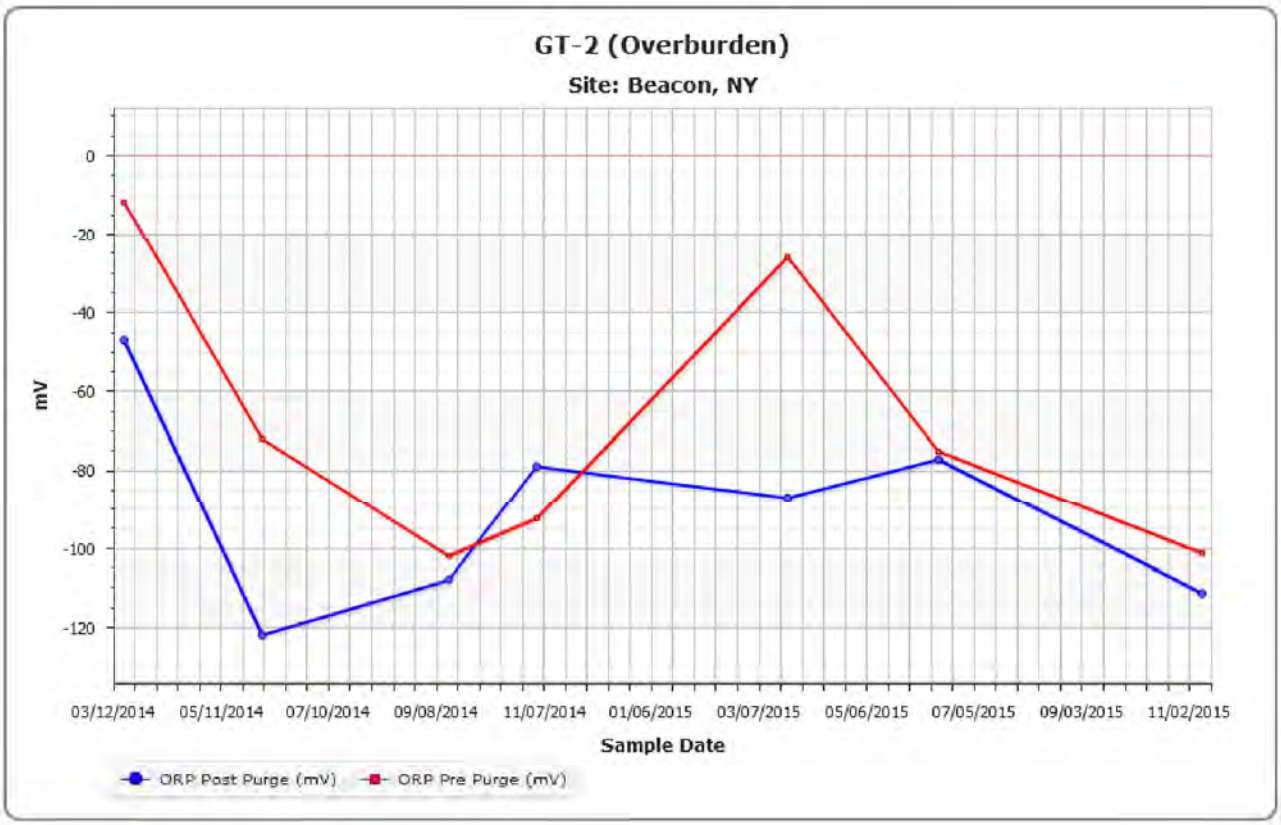

SWMW-67 (Overburden)
Site: Beacon, NY
9.00
8.00
7.00
6.00
5.00
4.00
mg/L
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

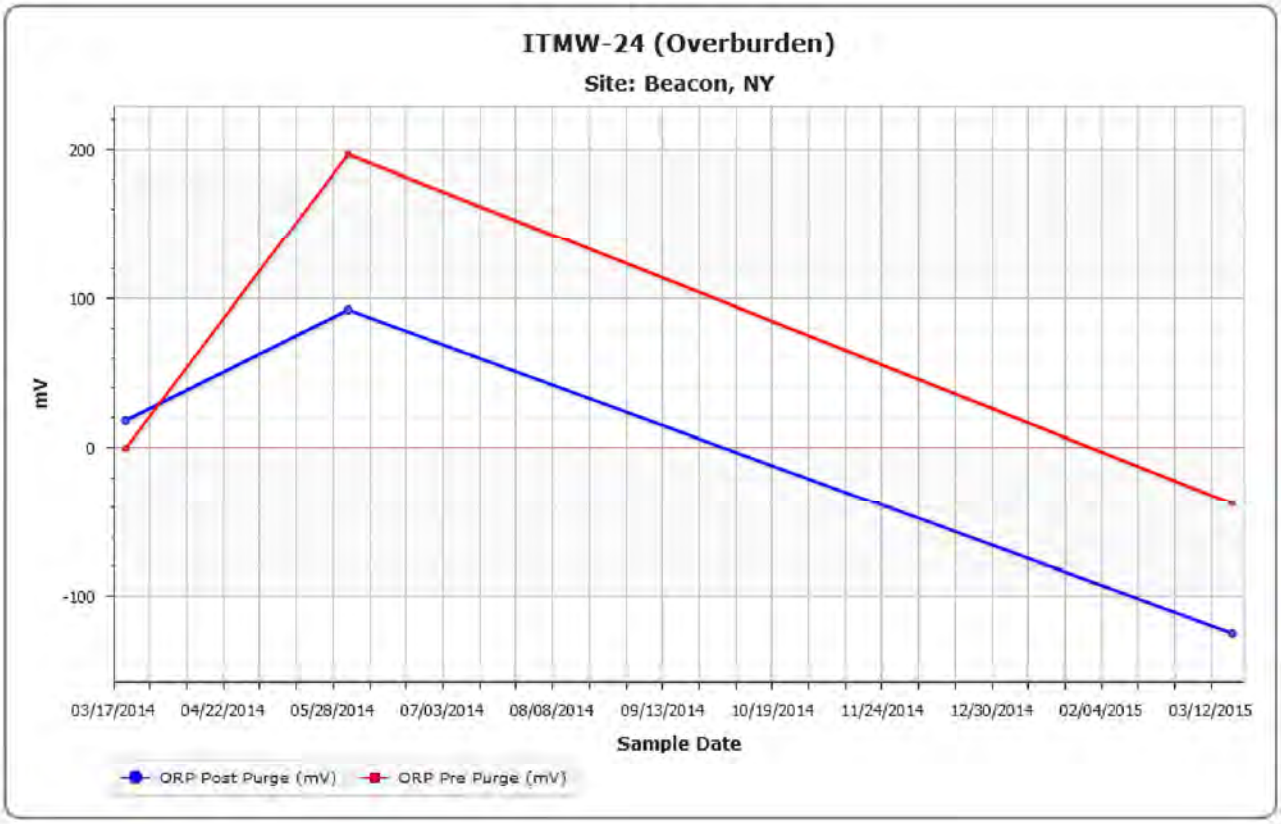

Unknown Well 1 (Overburden)
Site: Beacon, NY
14.00
12.00
10.00
8.00
6.00
4.00
2.00
mg/L
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

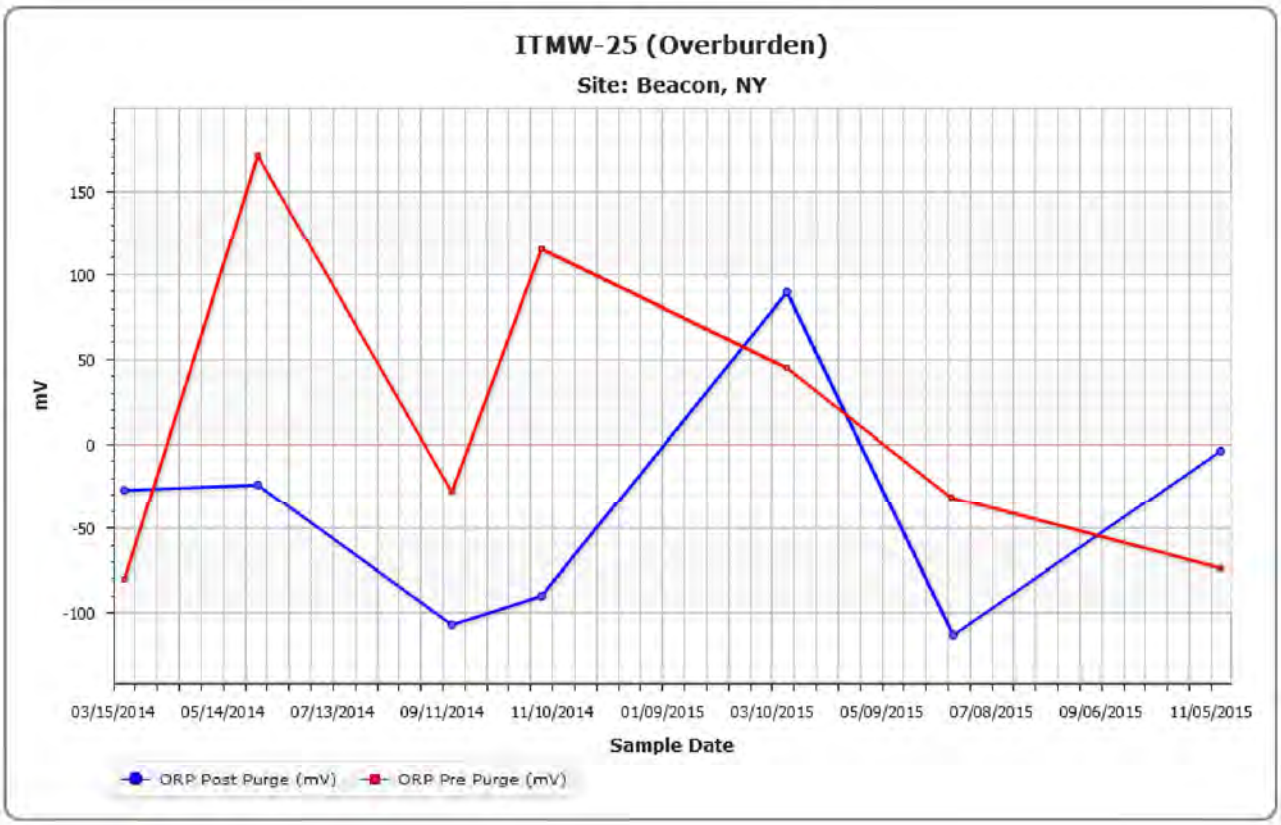

Unknown Well 2 (Overburden)
Site: Beacon, NY
mg/L
12.00
10.00
8.00
6.00
4.00
2.00
0.00
03/13/2014
04/30/2014
06/17/2014
08/04/2014
09/21/2014
11/08/2014
12/26/2014
02/12/2015
04/01/2015
05/19/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)


Unknown Well 3 (Overburden)
Site: Beacon, NY
mg/L
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
03/13/2014
04/30/2014
06/17/2014
08/04/2014
09/21/2014
11/08/2014
12/26/2014
02/12/2015
04/01/2015
05/19/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

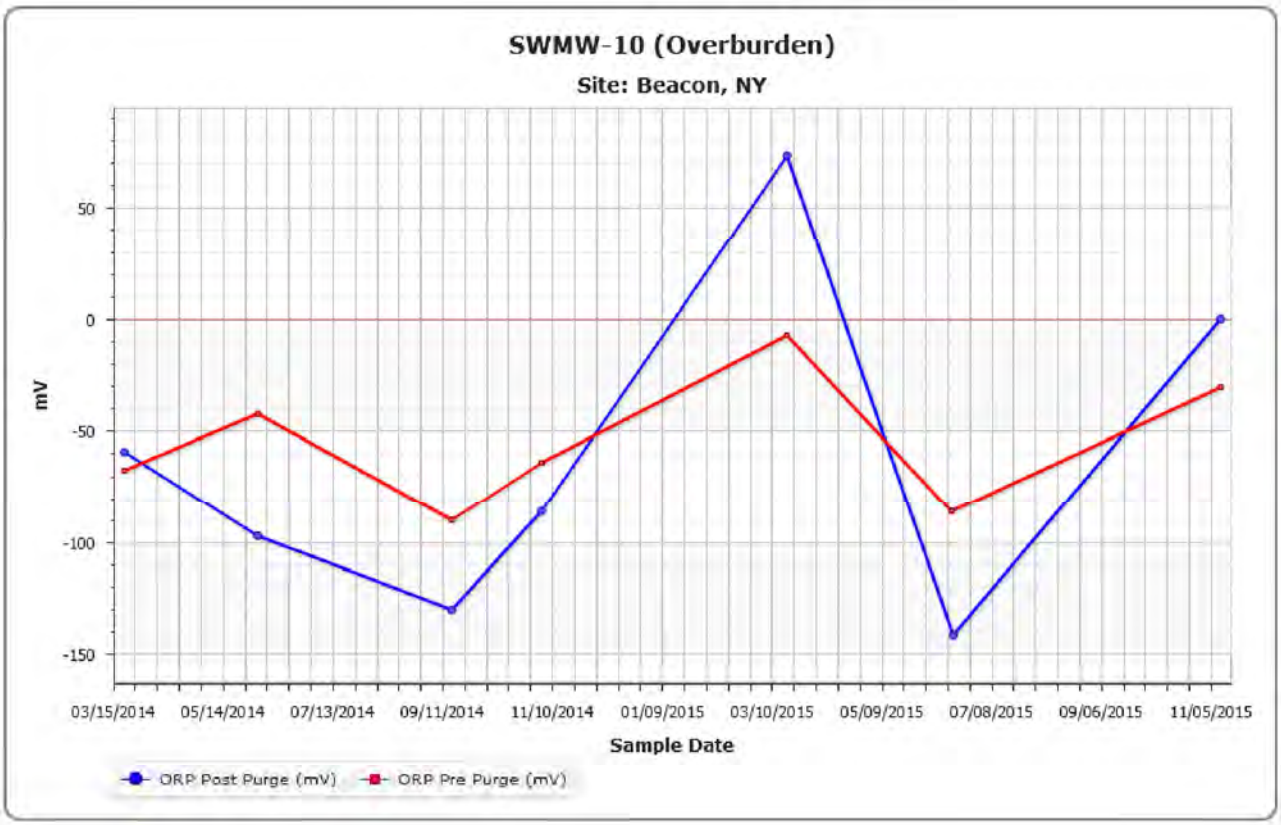
2014 THROUGH 2015 ORP OVERBURDEN WELLS
SUMMARY GRAPHS

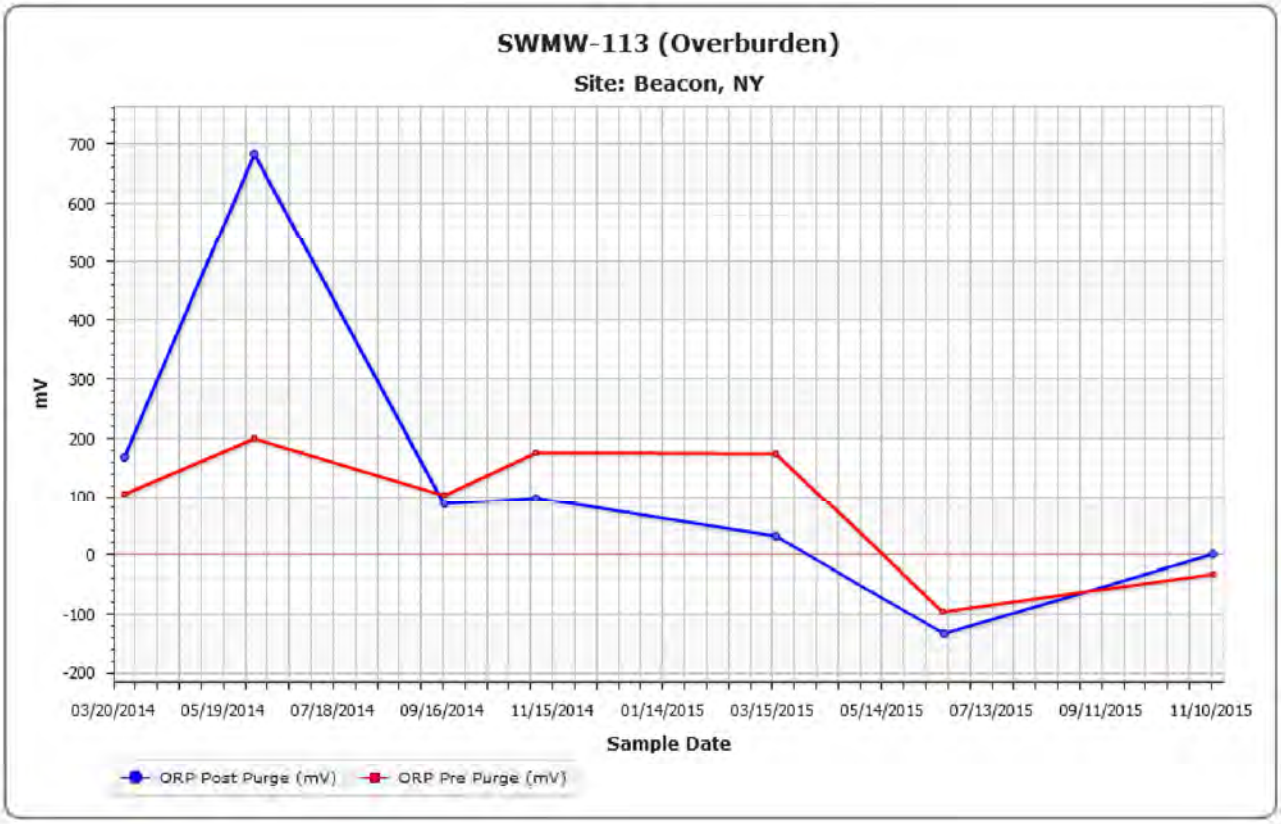

GT-2 (Overburden)
Site: Beacon, NY
0
-20
-40
-60
-80
-100
-120
mV
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

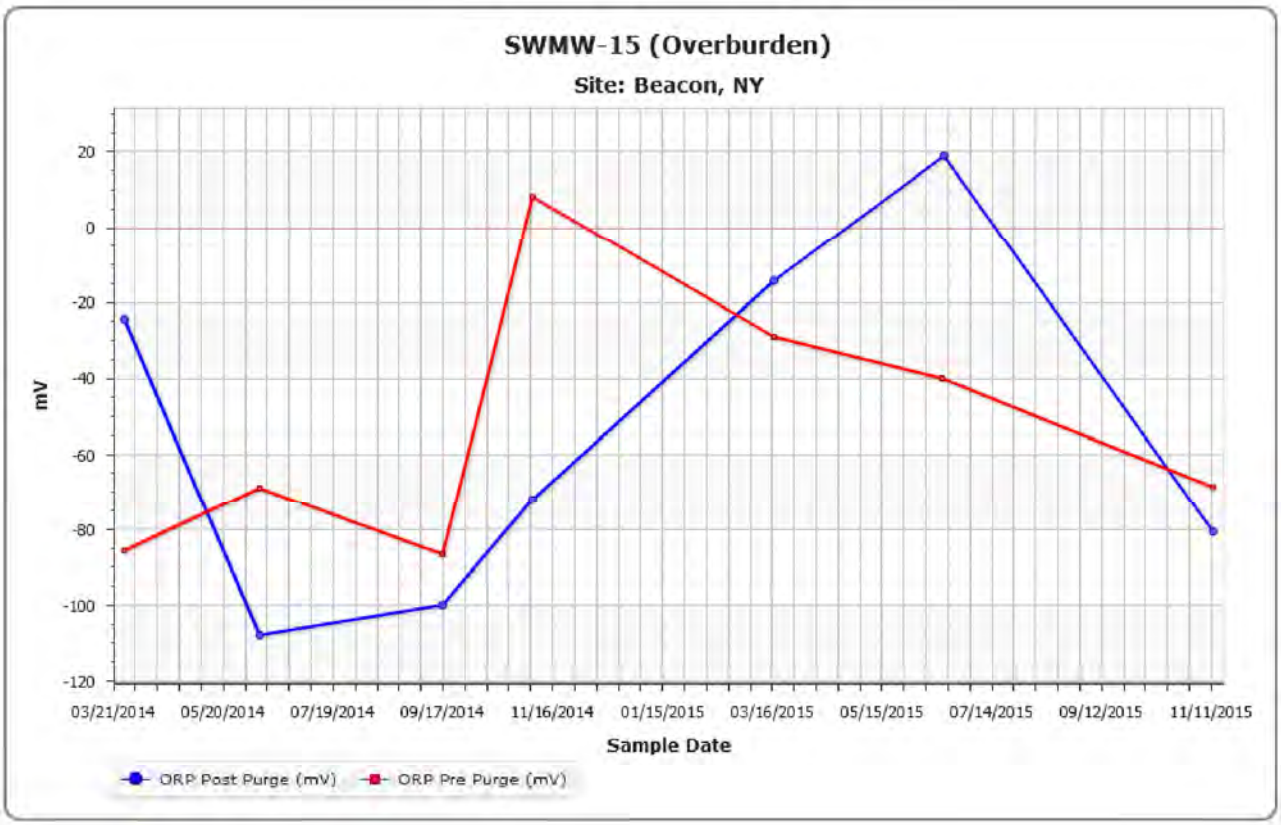

ITMW-24 (Overburden)
Site: Beacon, NY
200
100
0
-100
mV
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

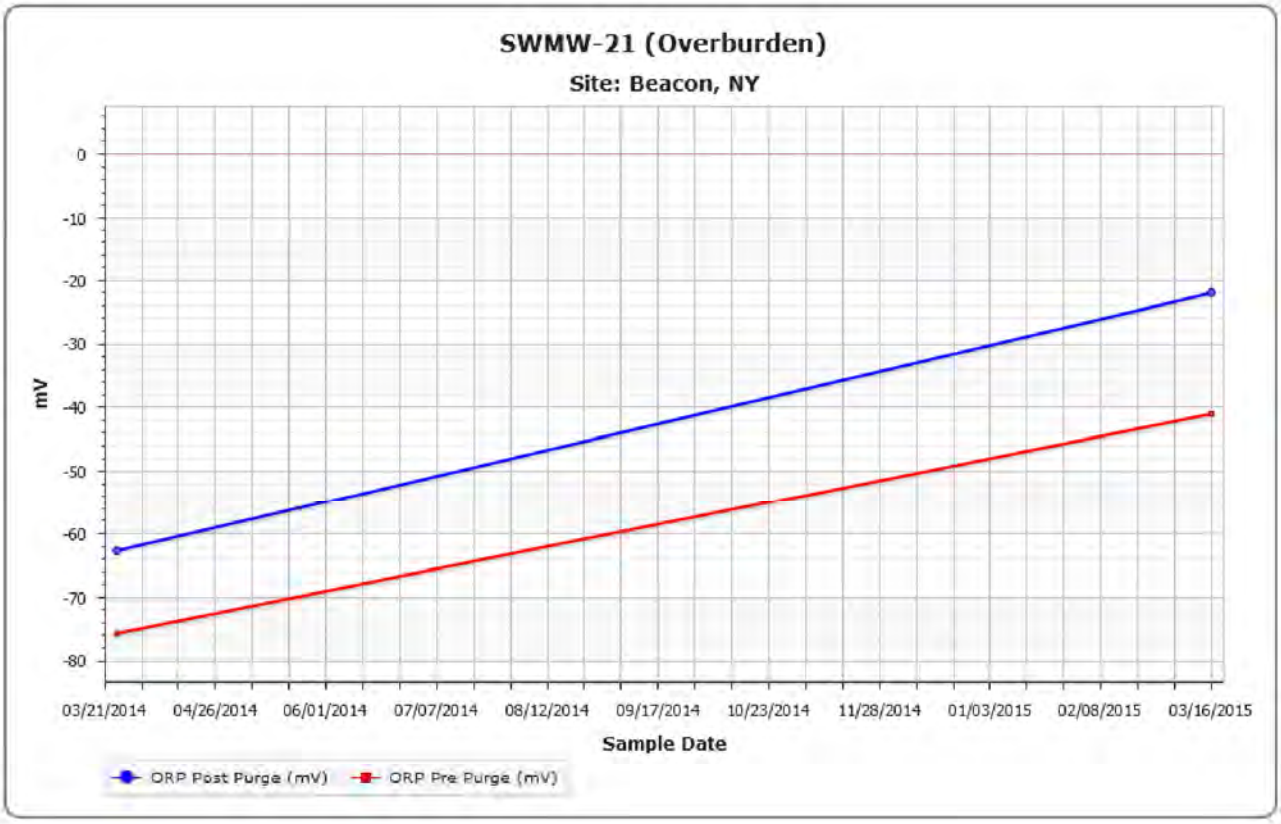

ITMW-25 (Overburden)
Site: Beacon, NY
150
100
50
0
-50
-100
mV
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

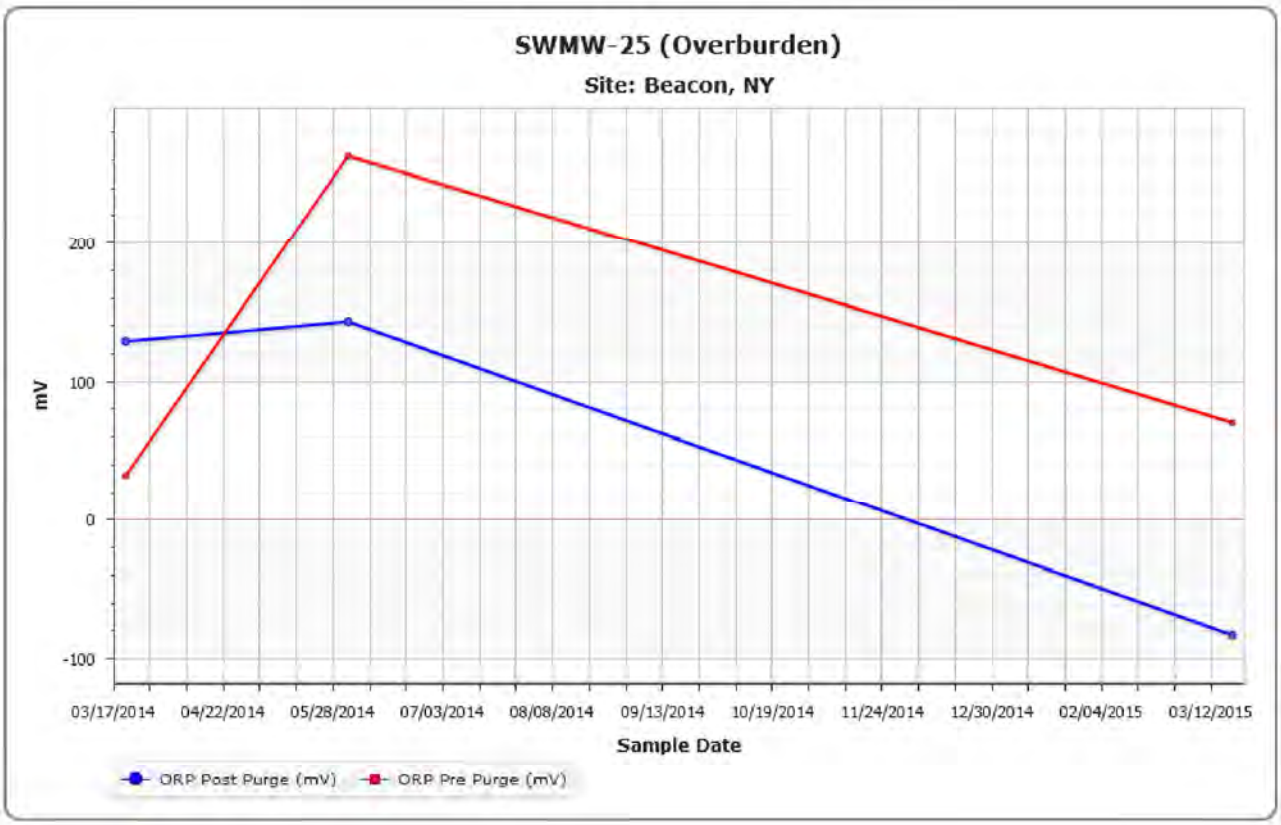

ITMW-5 (Overburden)
Site: Beacon, NY
150
100
50
0
mV
03/23/2014
04/28/2014
06/03/2014
07/09/2014
08/14/2014
09/19/2014
10/25/2014
11/30/2014
01/05/2015
02/10/2015
03/18/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

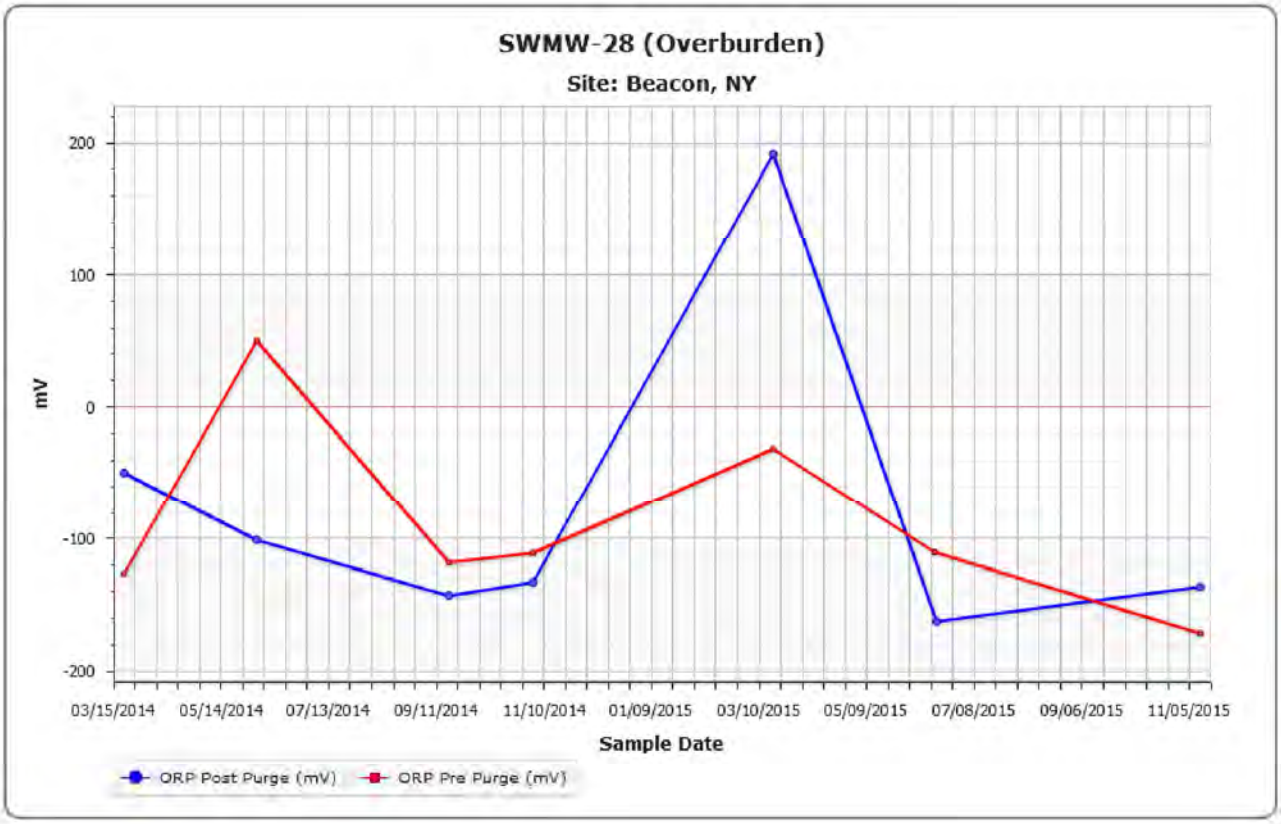

SWMW-10 (Overburden)
Site: Beacon, NY
mV
50
0
-50
-100
-150
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

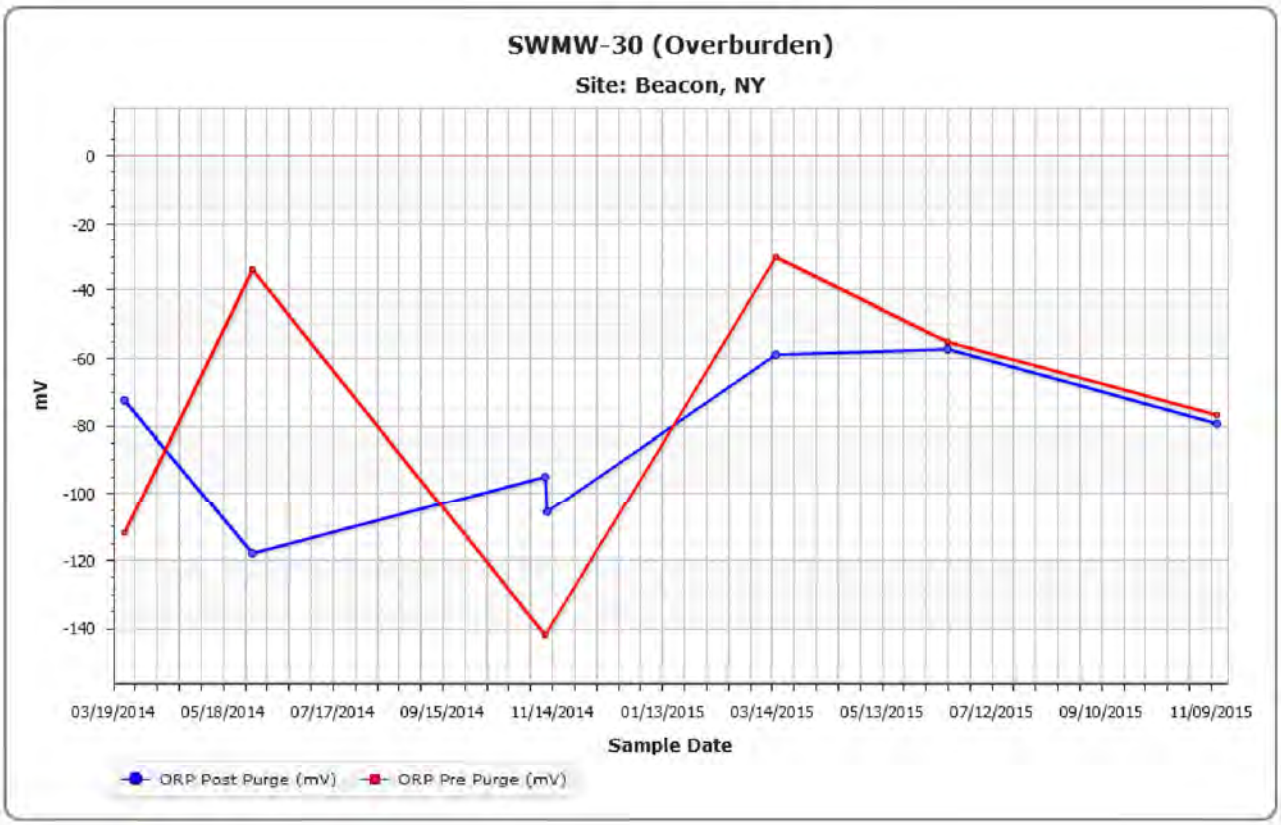

SWMW-113 (Overburden)
Site: Beacon, NY
mV
700
600
500
400
300
200
100
0
-100
-200
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

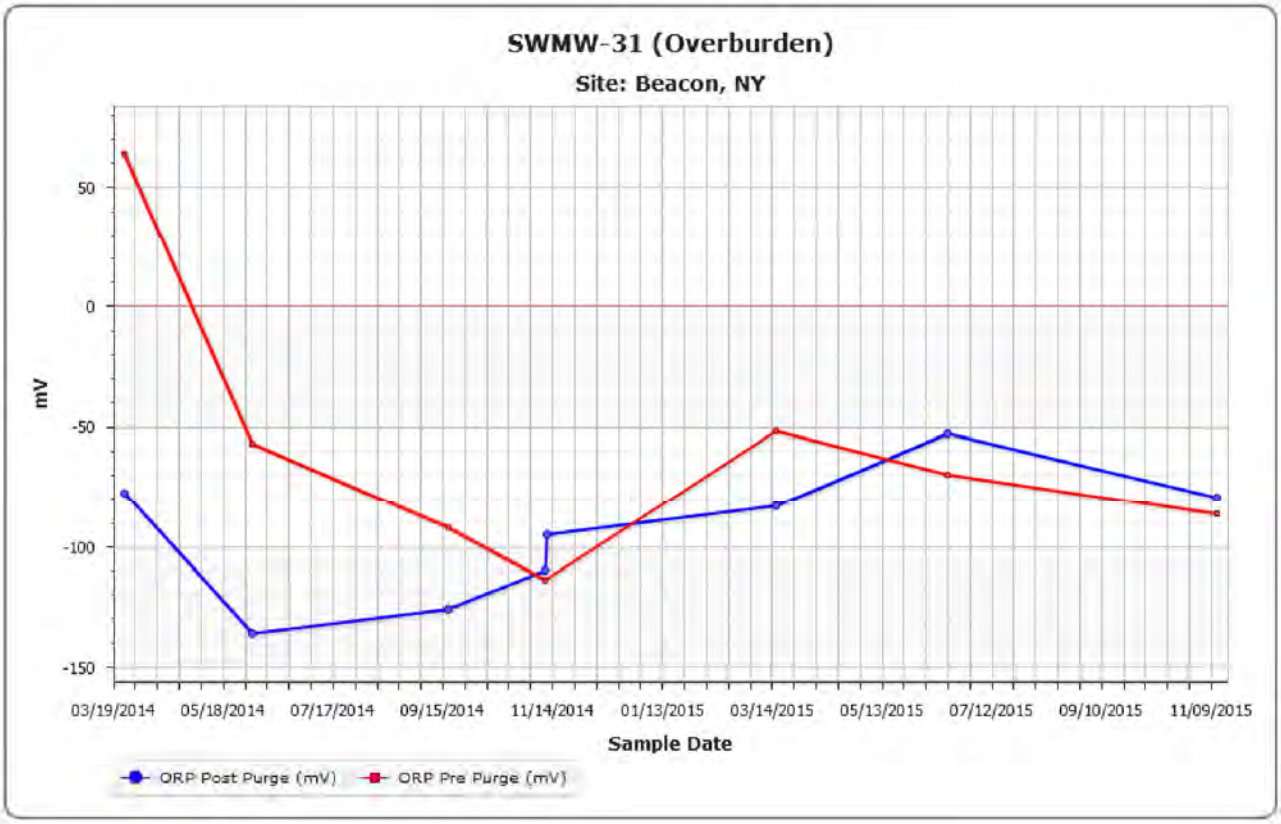

SWMW-15 (Overburden)
Site: Beacon, NY
mV
20
0
-20
-40
-60
-80
-100
-120
03/21/2014
05/20/2014
07/19/2014
09/17/2014
11/16/2014
01/15/2015
03/16/2015
05/15/2015
07/14/2015
09/12/2015
11/11/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

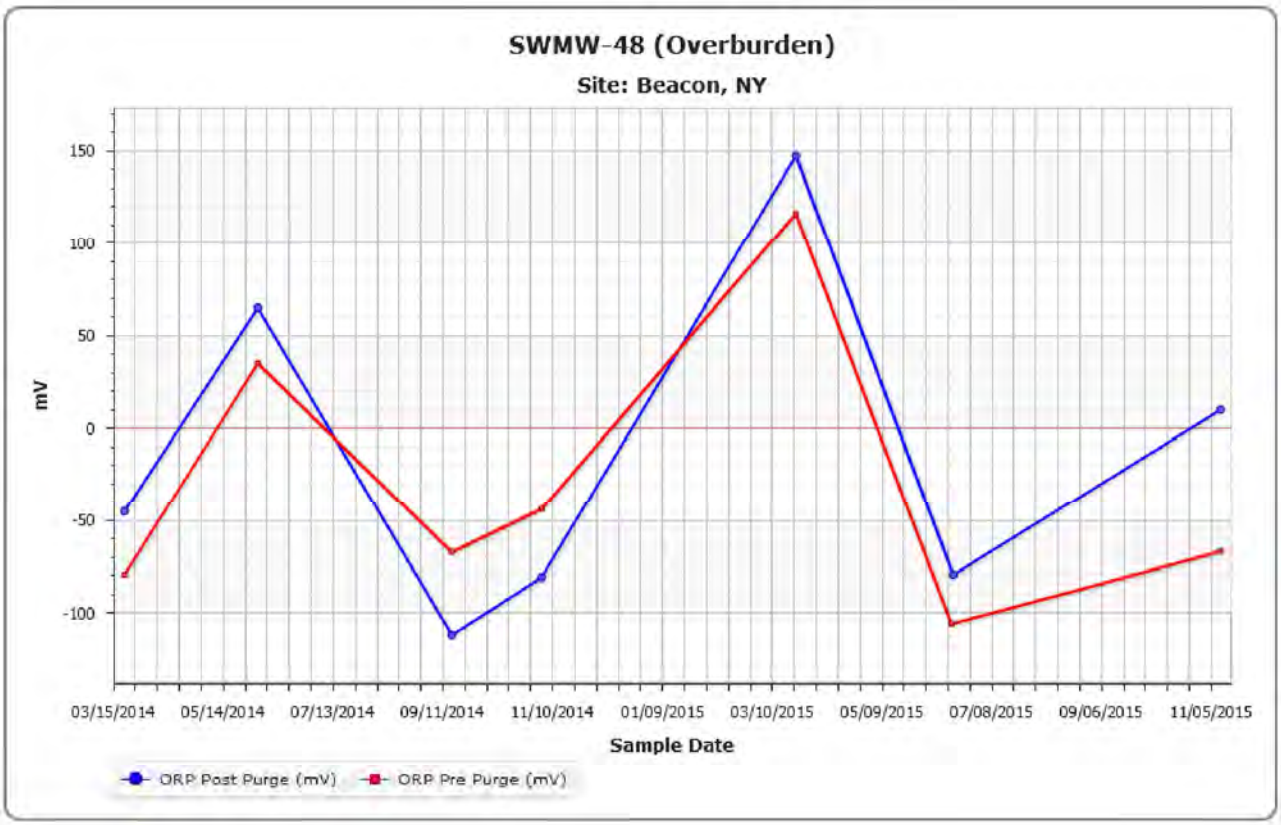

SWMW-21 (Overburden)
Site: Beacon, NY
mV
0
-10
-20
-30
-40
-50
-60
-70
-80
03/21/2014
04/26/2014
06/01/2014
07/07/2014
08/12/2014
09/17/2014
10/23/2014
11/28/2014
01/03/2015
02/08/2015
03/16/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

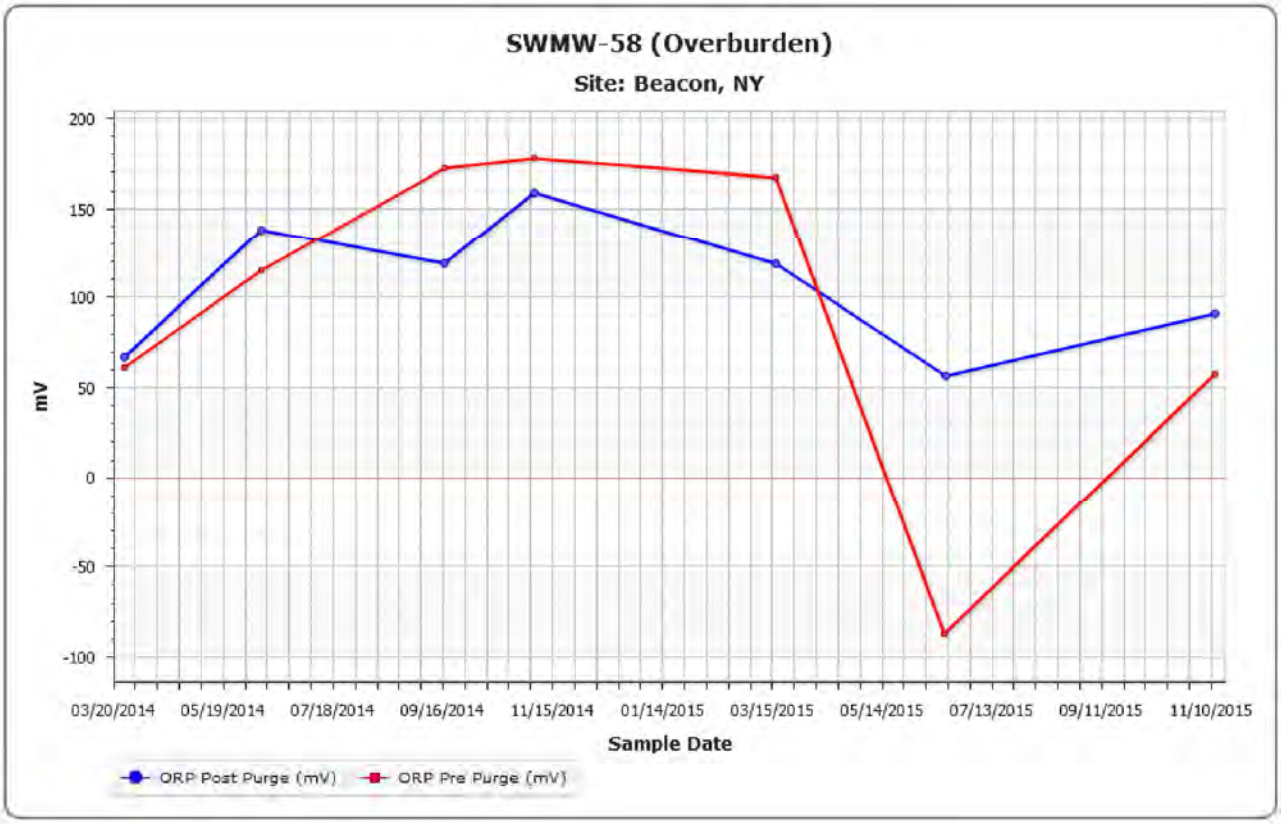

SWMW-25 (Overburden)
Site: Beacon, NY
mV
200
100
0
-100
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

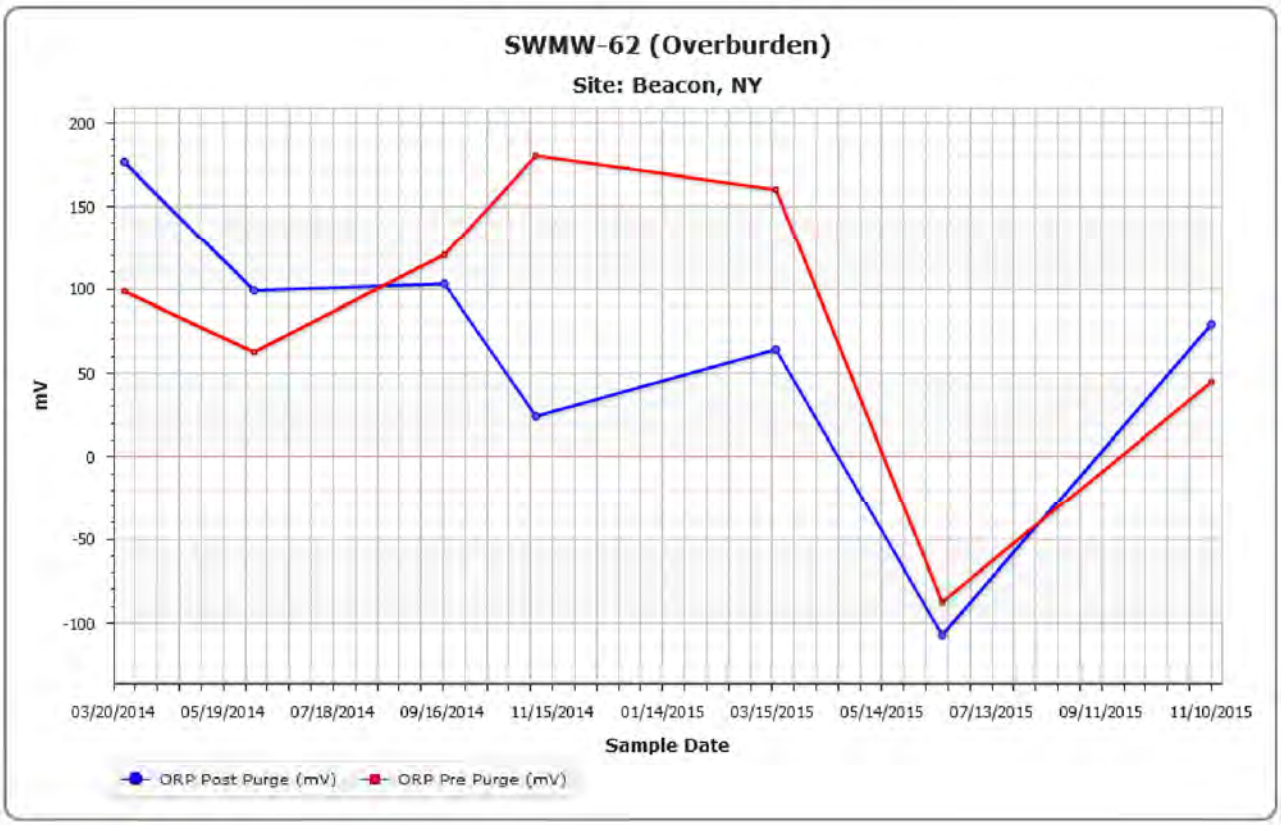

SWMW-28 (Overburden)
Site: Beacon, NY
mV
200
100
0
-100
-200
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

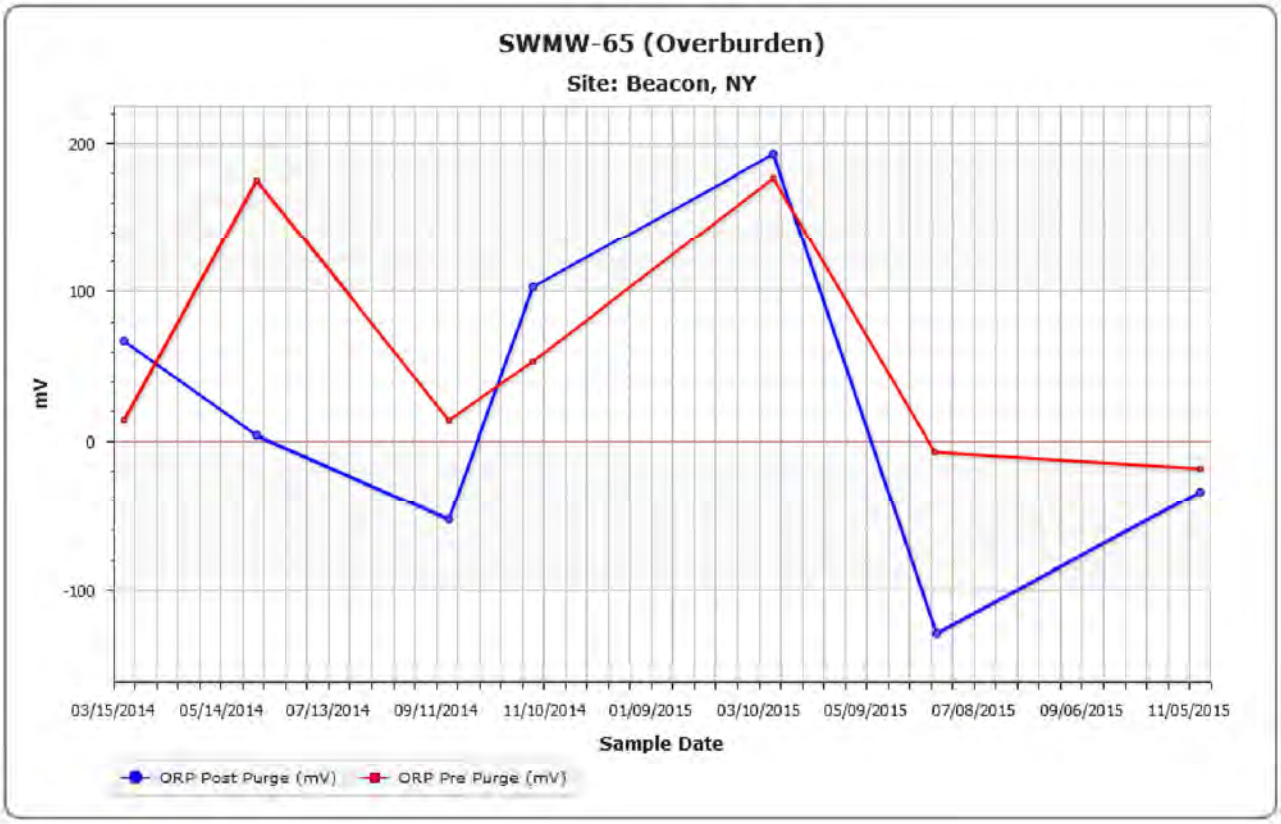

SWMW-30 (Overburden)
Site: Beacon, NY
mV
0
-20
-40
-60
-80
-100
-120
-140
03/19/2014
05/18/2014
07/17/2014
09/15/2014
11/14/2014
01/13/2015
03/14/2015
05/13/2015
07/12/2015
09/10/2015
11/09/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

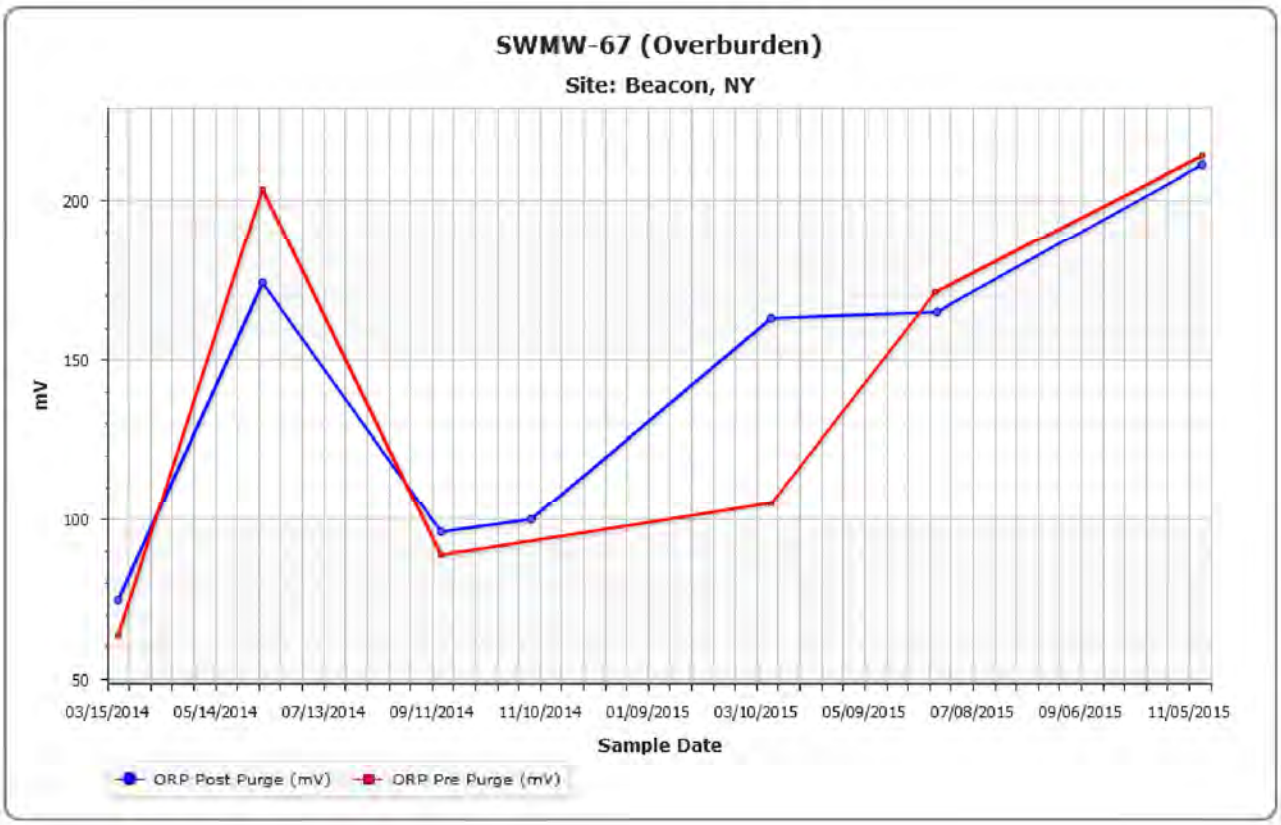

SWMW-31 (Overburden)
Site: Beacon, NY
mV
50
0
-50
-100
-150
03/19/2014
05/18/2014
07/17/2014
09/15/2014
11/14/2014
01/13/2015
03/14/2015
05/13/2015
07/12/2015
09/10/2015
11/09/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

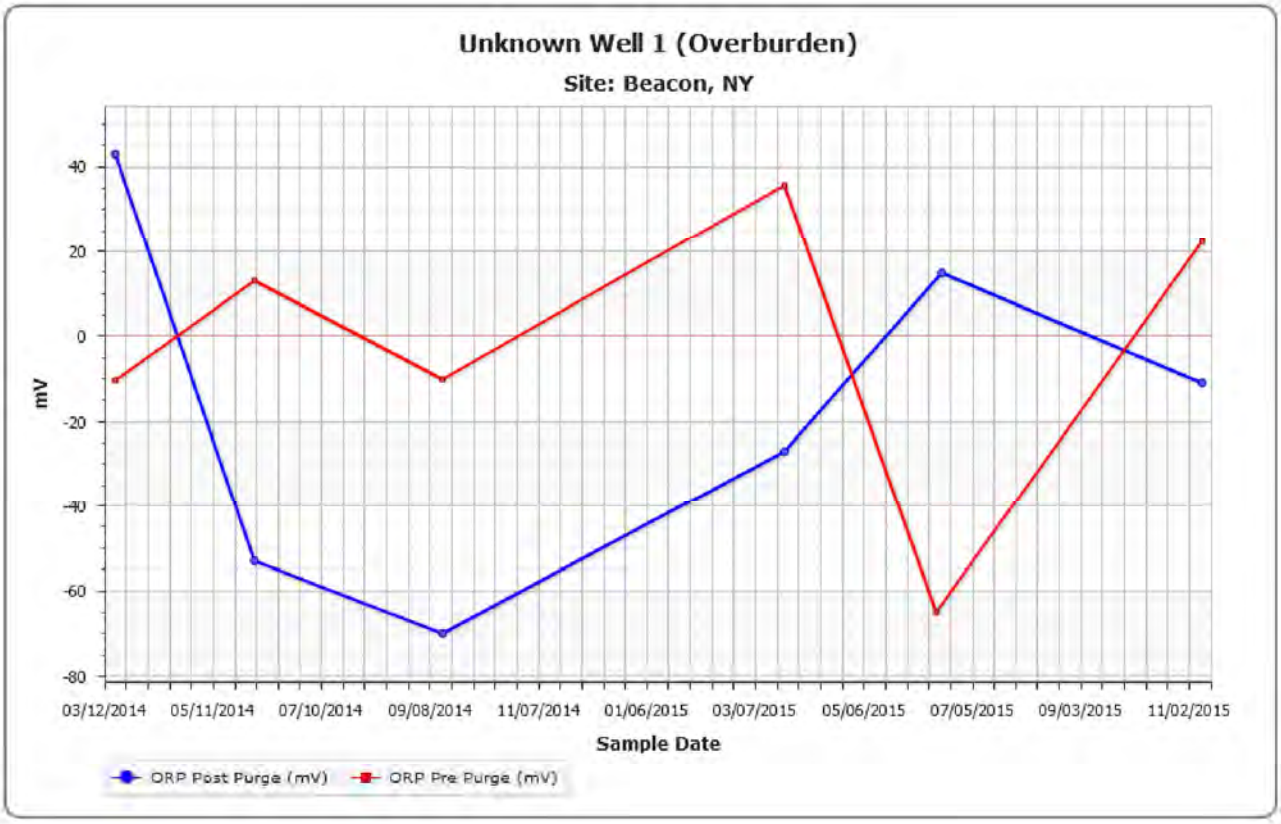

SWMW-48 (Overburden)
Site: Beacon, NY
mV
150
100
50
0
-50
-100
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

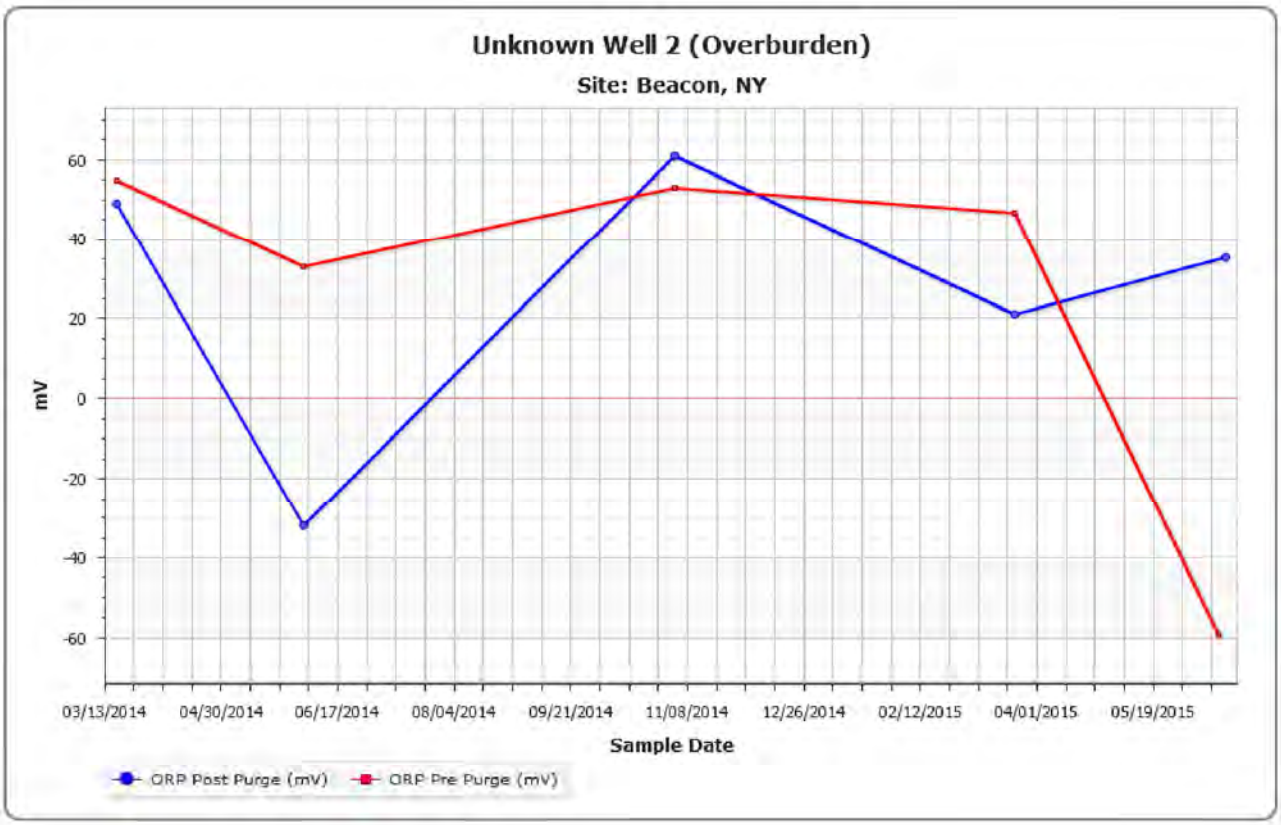

SWMW-58 (Overburden)
Site: Beacon, NY
mV
200
150
100
50
0
-50
-100
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

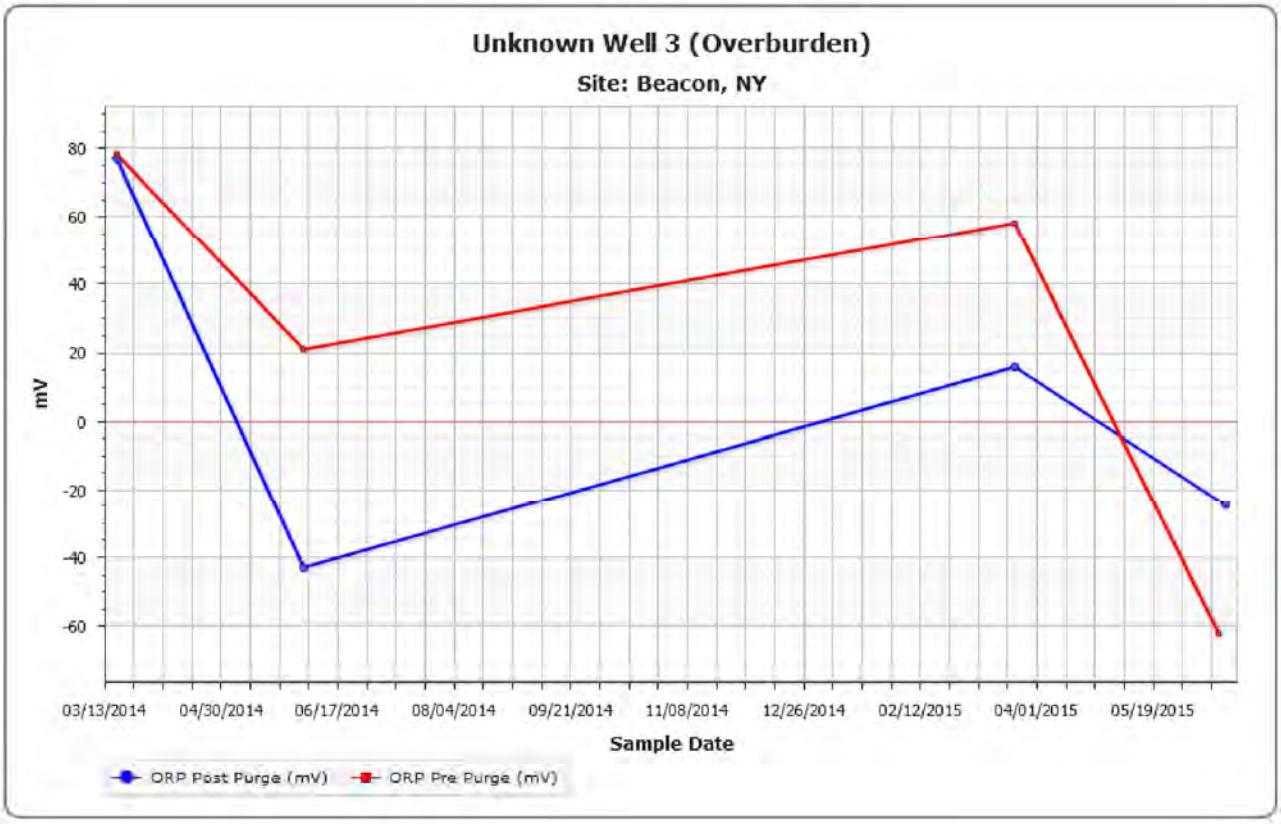

SWMW-62 (Overburden)
Site: Beacon, NY
200
150
100
50
0
-50
-100
mV
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)


SWMW-65 (Overburden)
Site: Beacon, NY
200
100
0
-100
mV
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

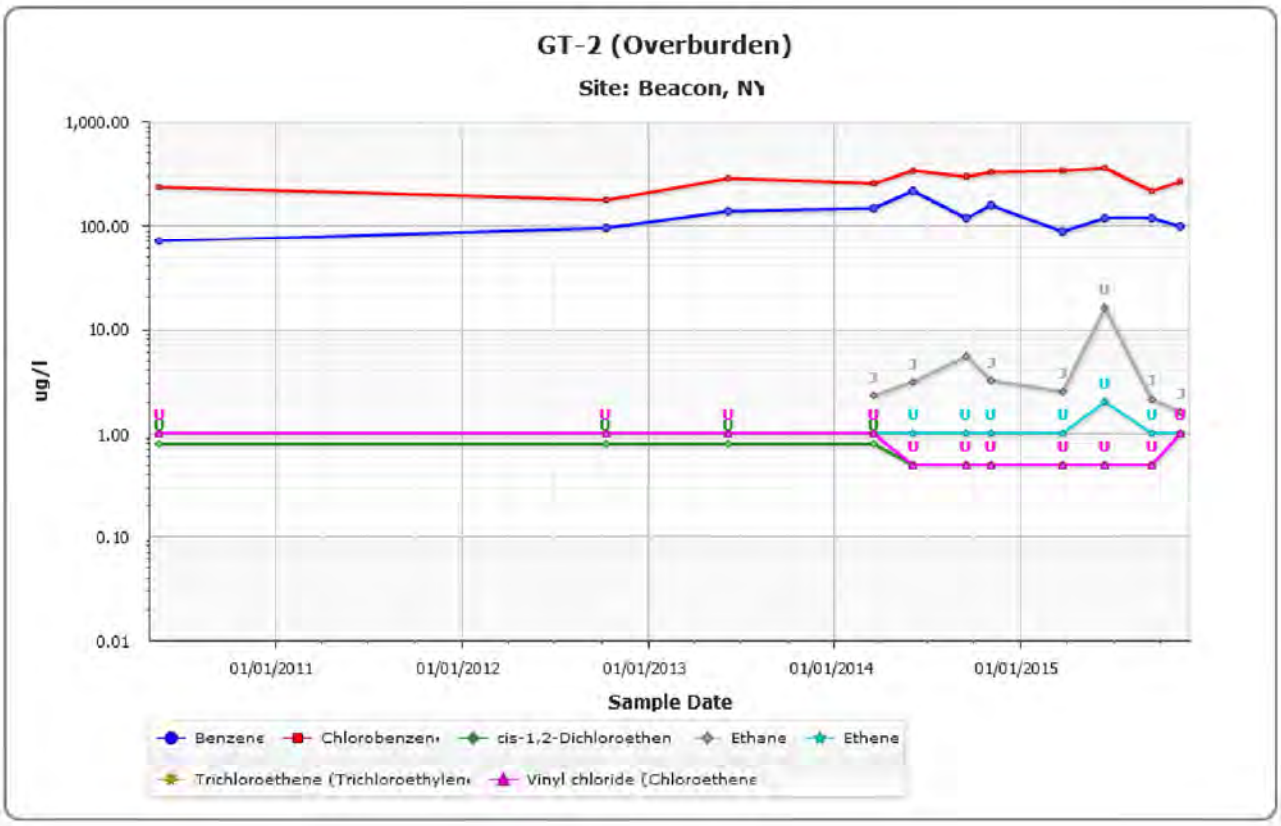

SWMW-67 (Overburden)
Site: Beacon, NY
200
150
100
50
mV
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

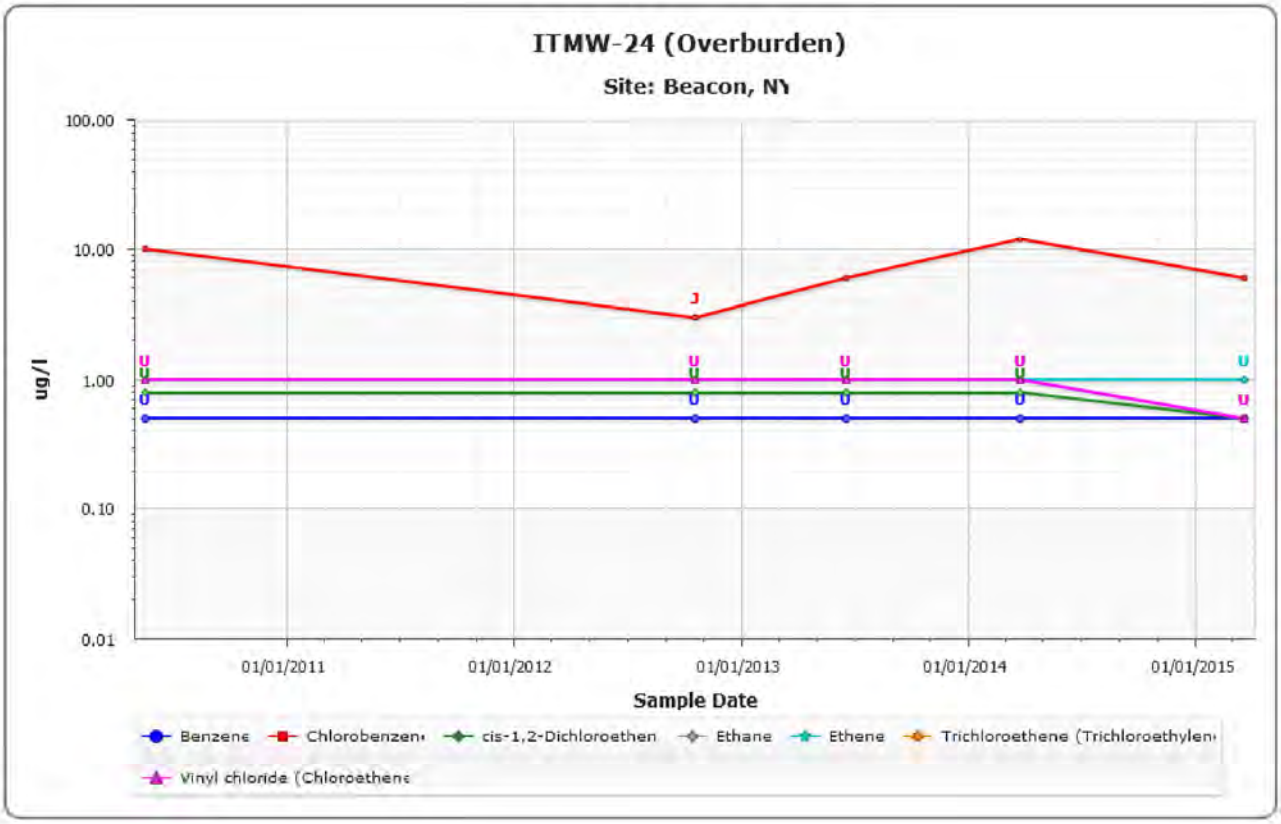

Unknown Well 1 (Overburden)
Site: Beacon, NY
40
20
0
-20
-40
-60
-80
mV
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

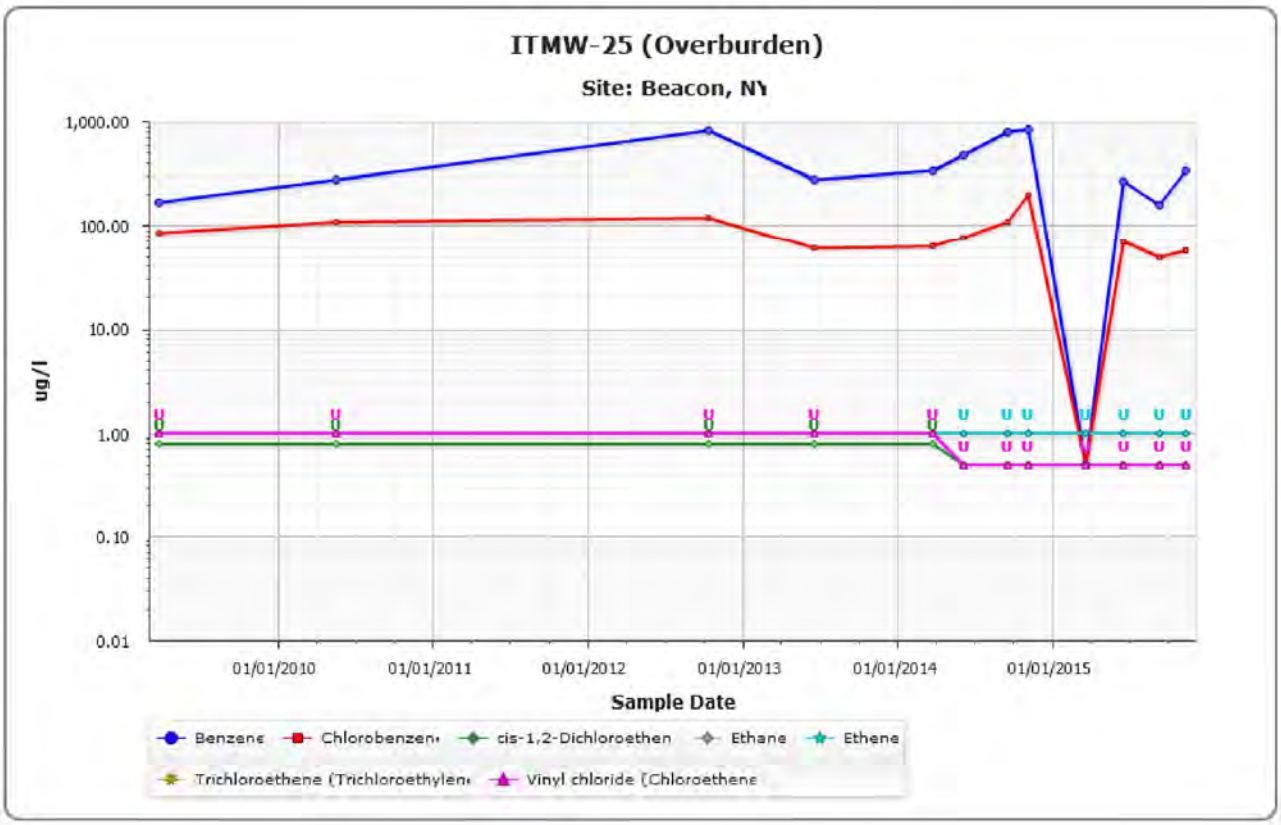

Unknown Well 2 (Overburden)
Site: Beacon, NY
mV
60
40
20
0
-20
-40
-60
03/13/2014
04/30/2014
06/17/2014
08/04/2014
09/21/2014
11/08/2014
12/26/2014
02/12/2015
04/01/2015
05/19/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

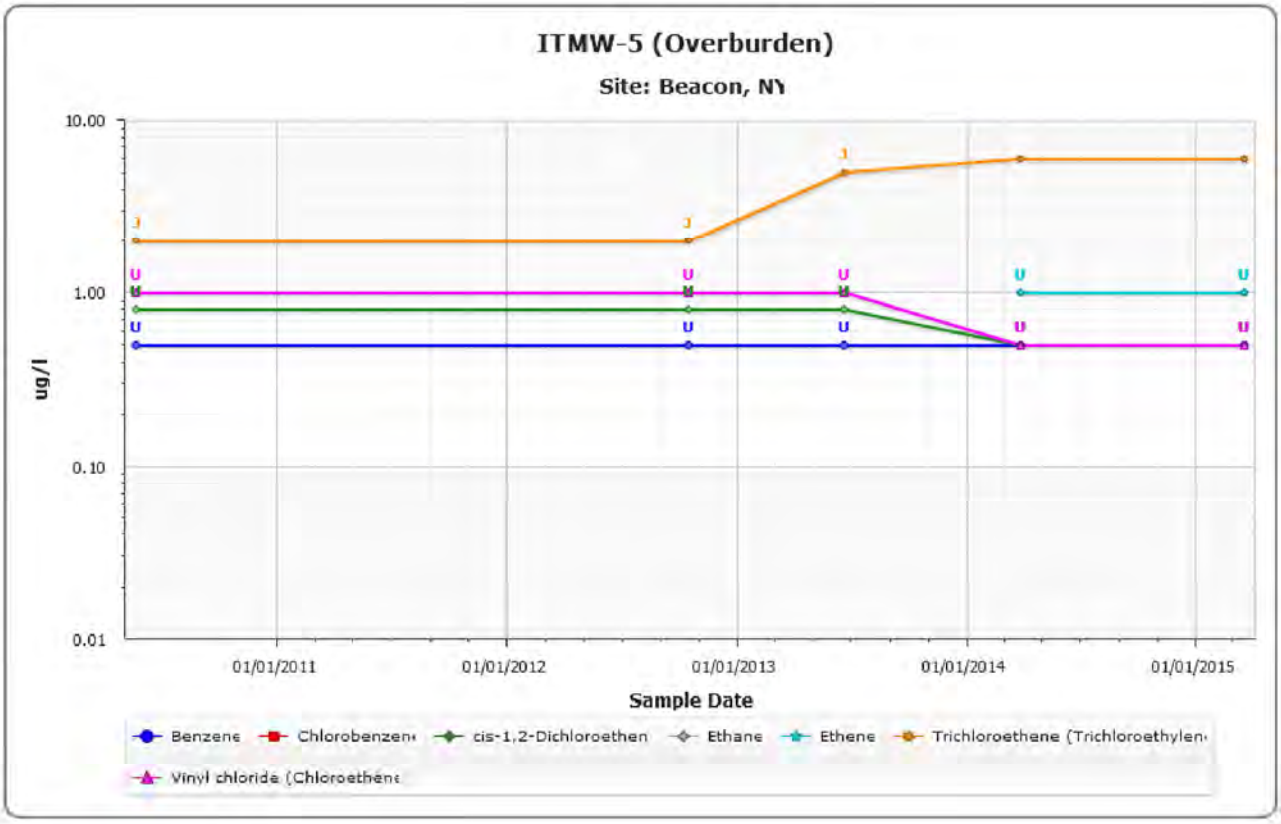

Unknown Well 3 (Overburden)
Site: Beacon, NY
mV
80
60
40
20
0
-20
-40
-60
03/13/2014
04/30/2014
06/17/2014
08/04/2014
09/21/2014
11/08/2014
12/26/2014
02/12/2015
04/01/2015
05/19/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

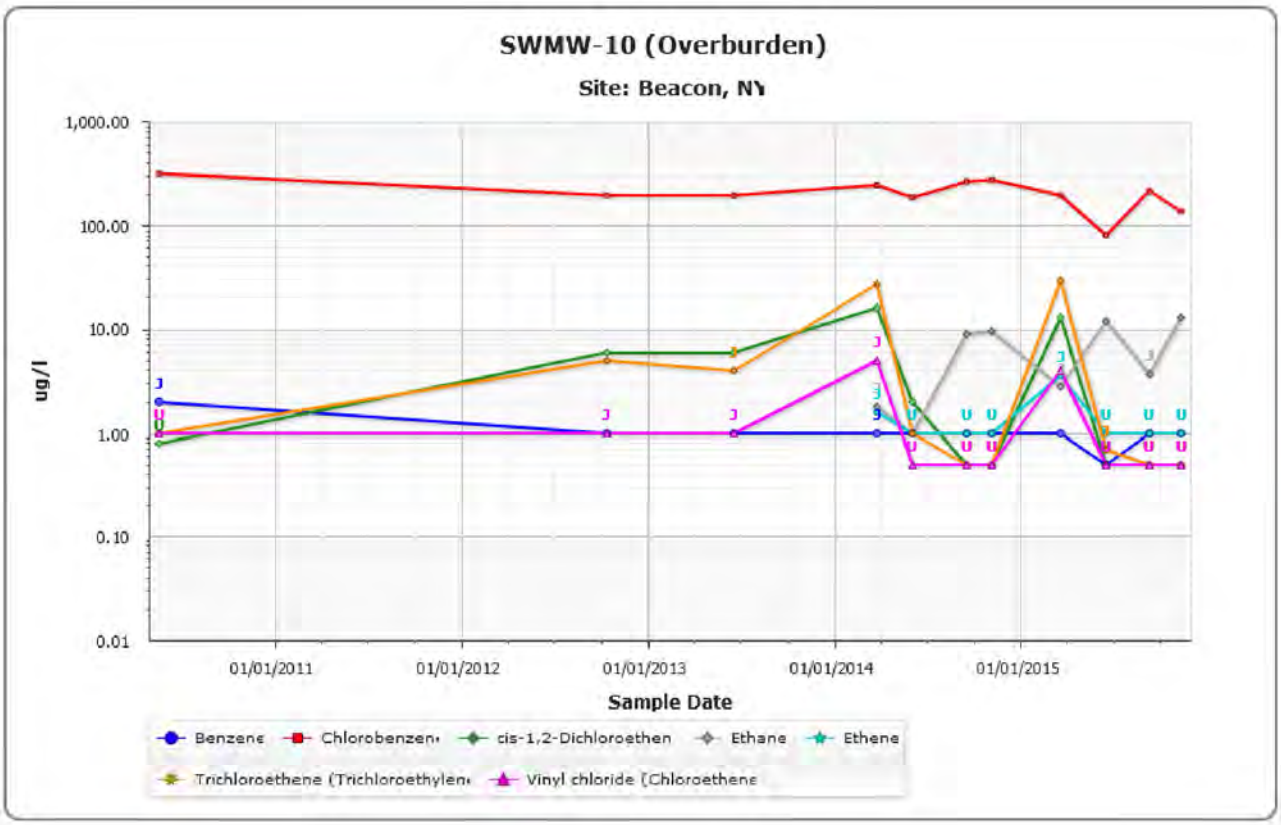
2014 THROUGH 2015 VOC OVERBURDEN WELLS SUMMARY GRAPHS

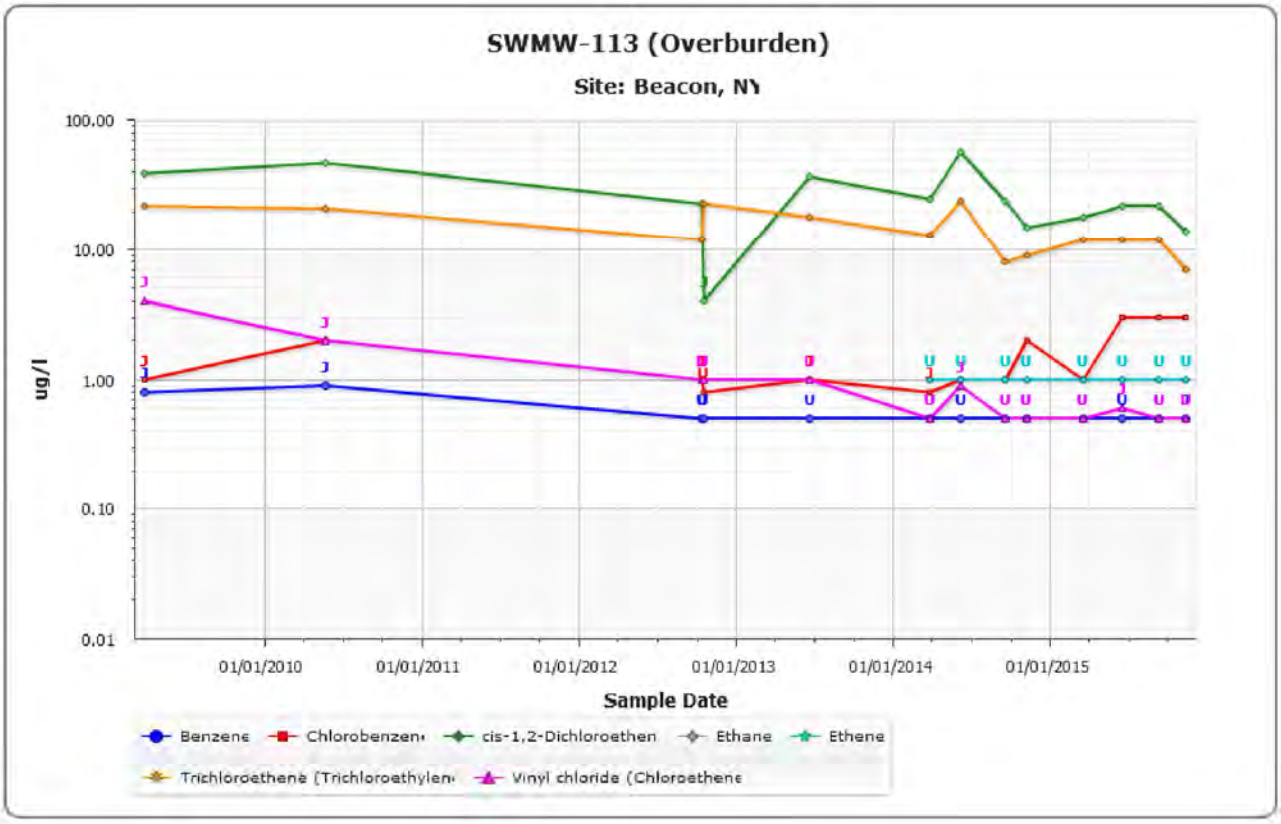

GT-2 (Overburden)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

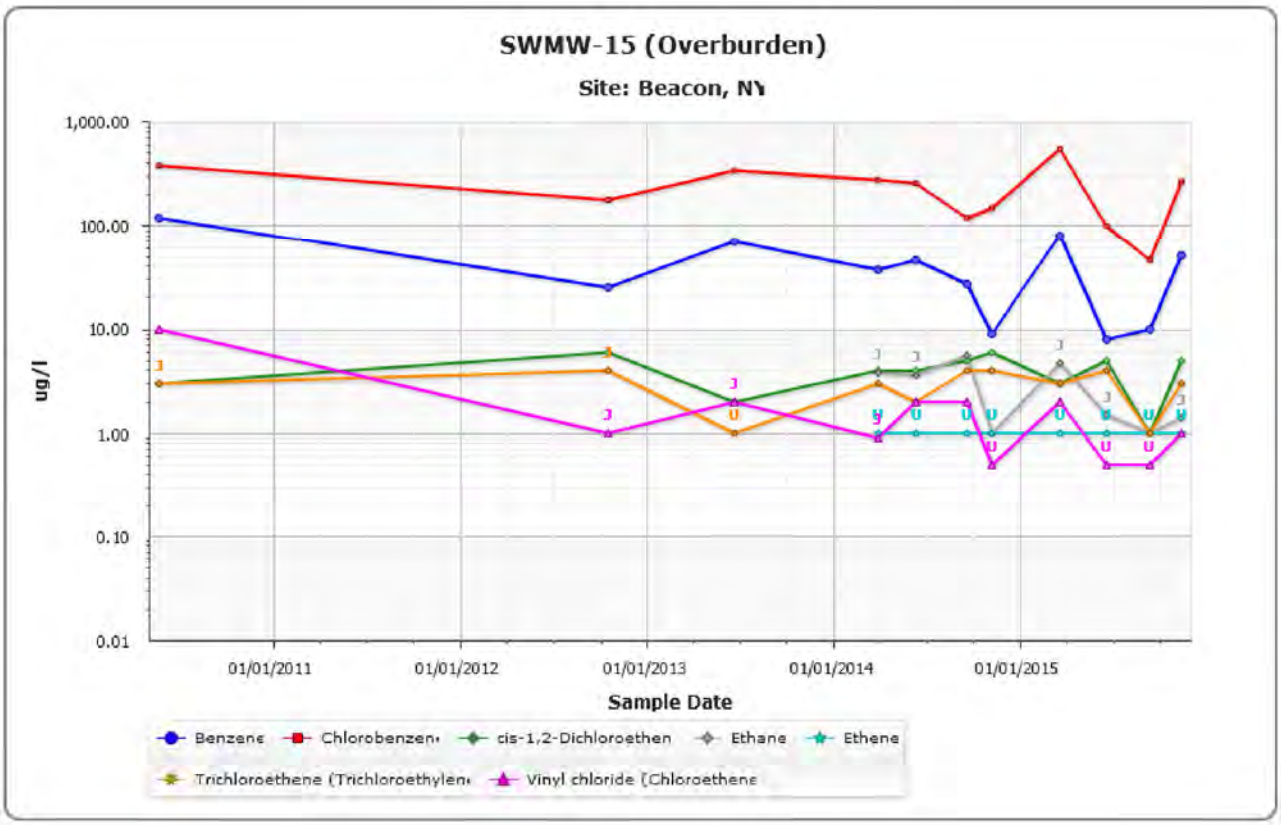

ITMW-24 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

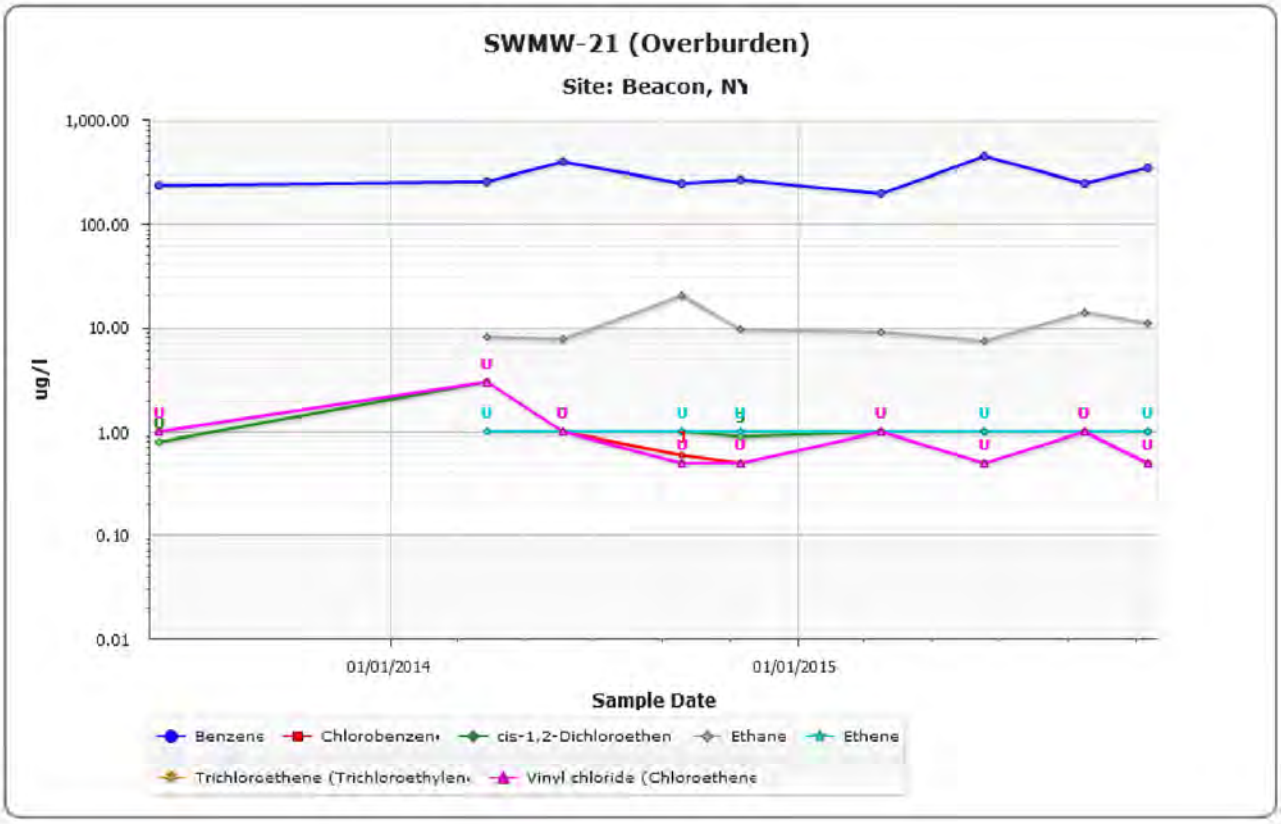

ITMW-25 (Overburden)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

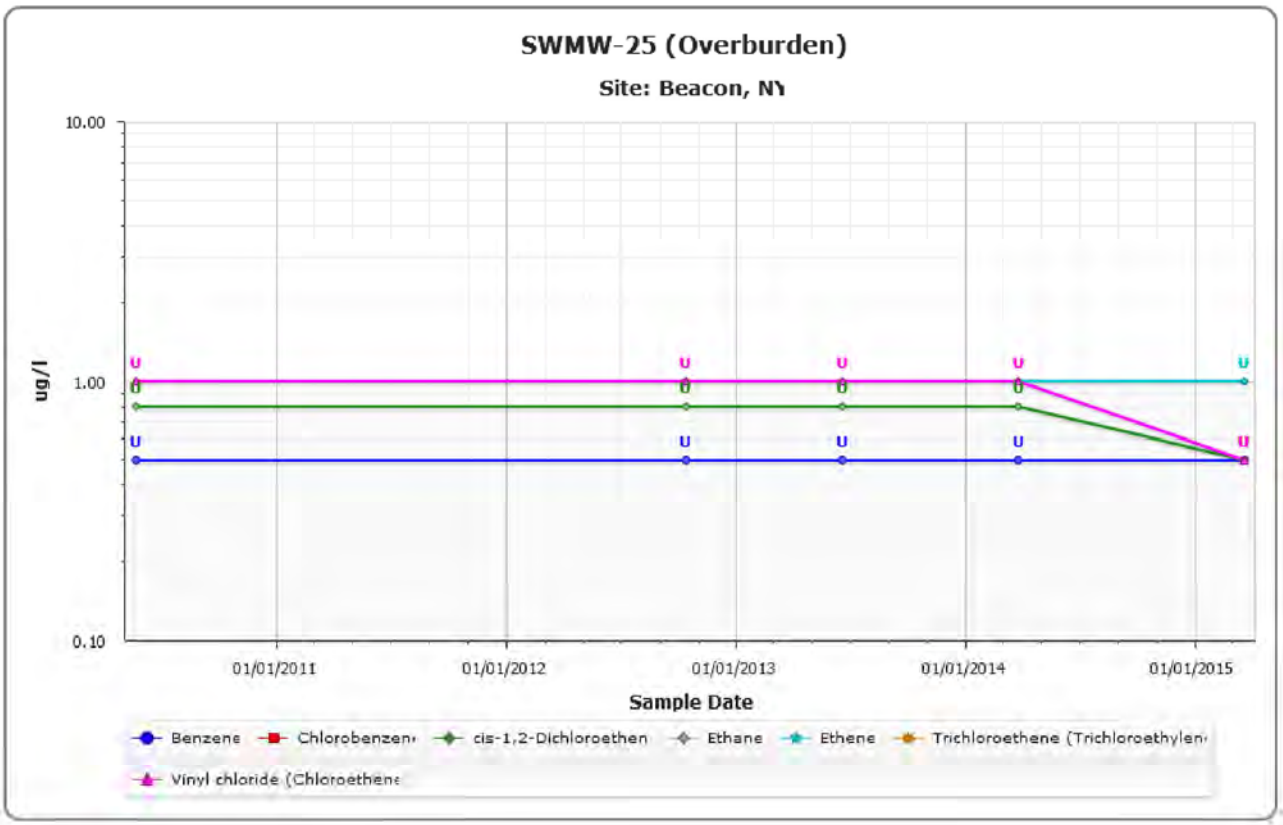

ITMW-5 (Overburden)
Site: Beacon, NY
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

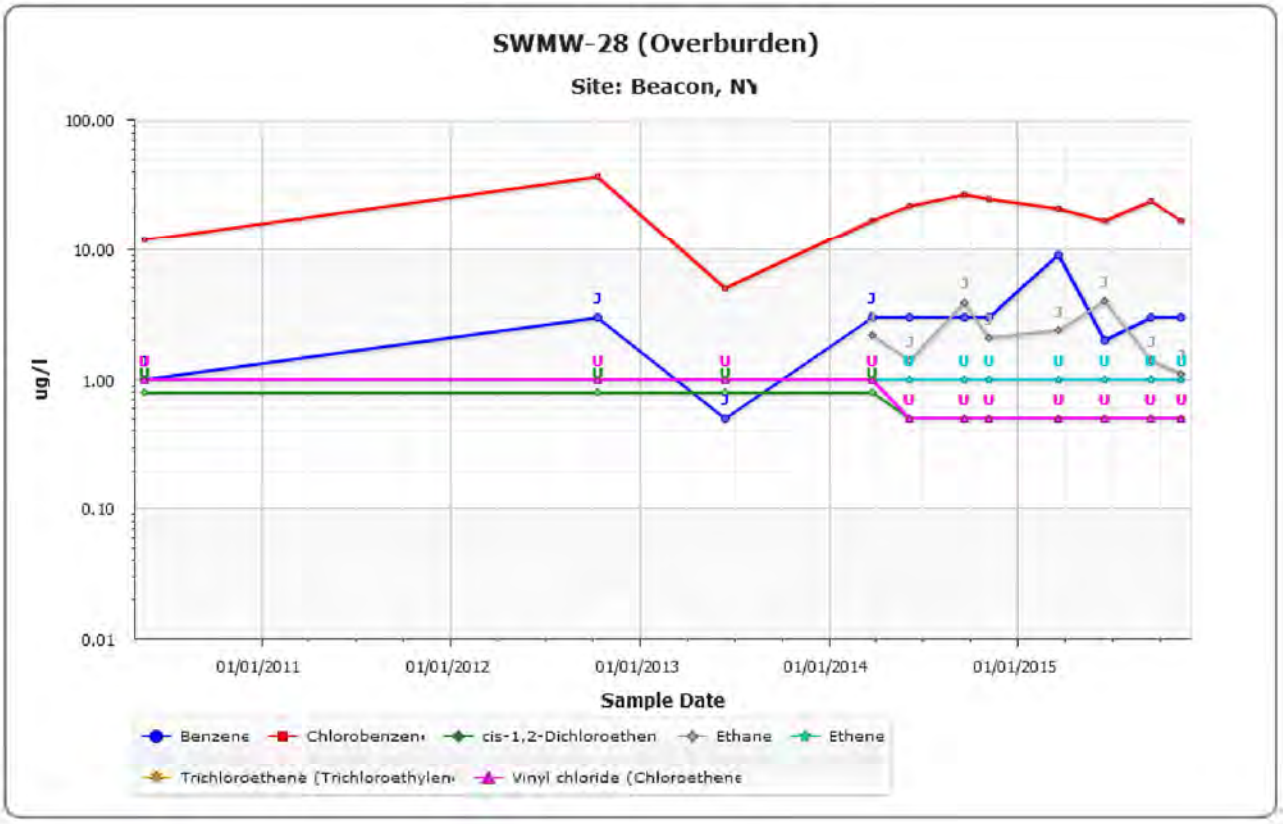

SWMW-10 (Overburden)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

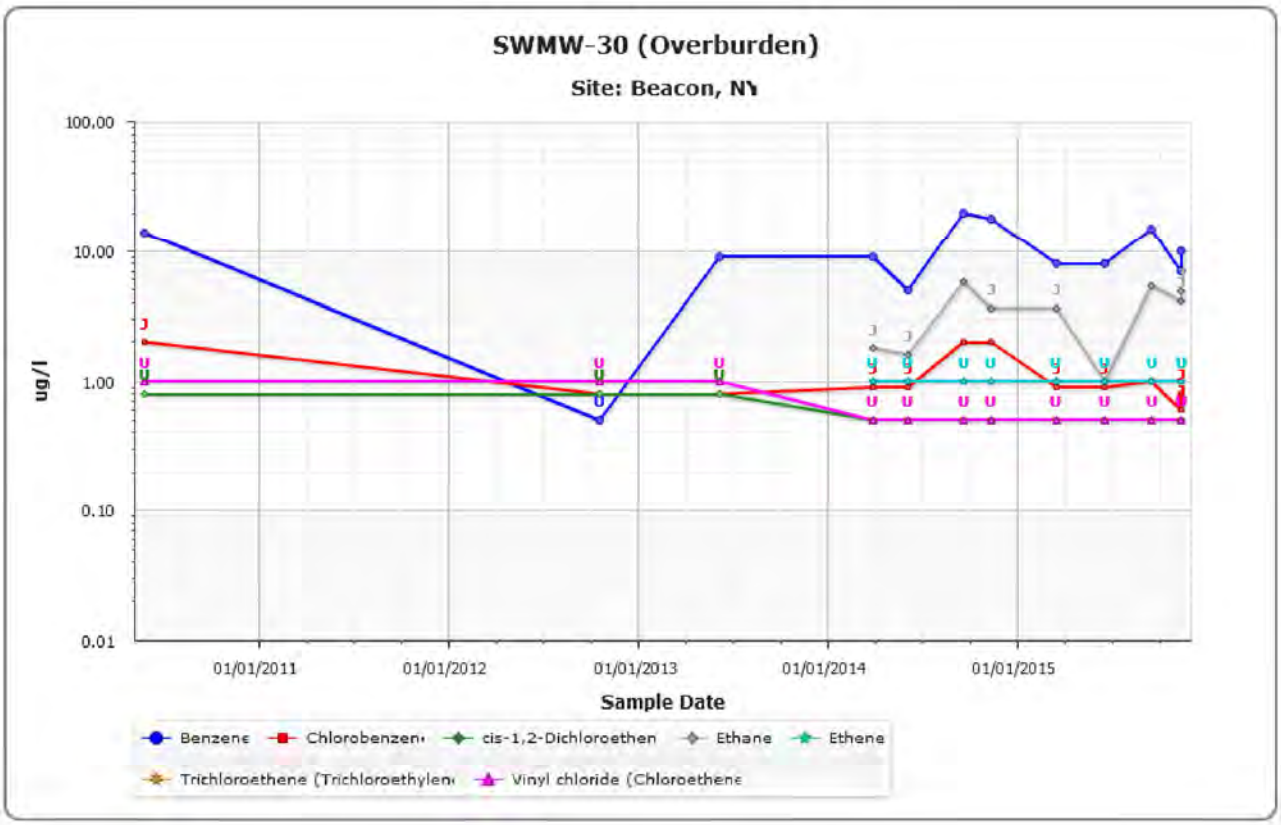

SWMW-113 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

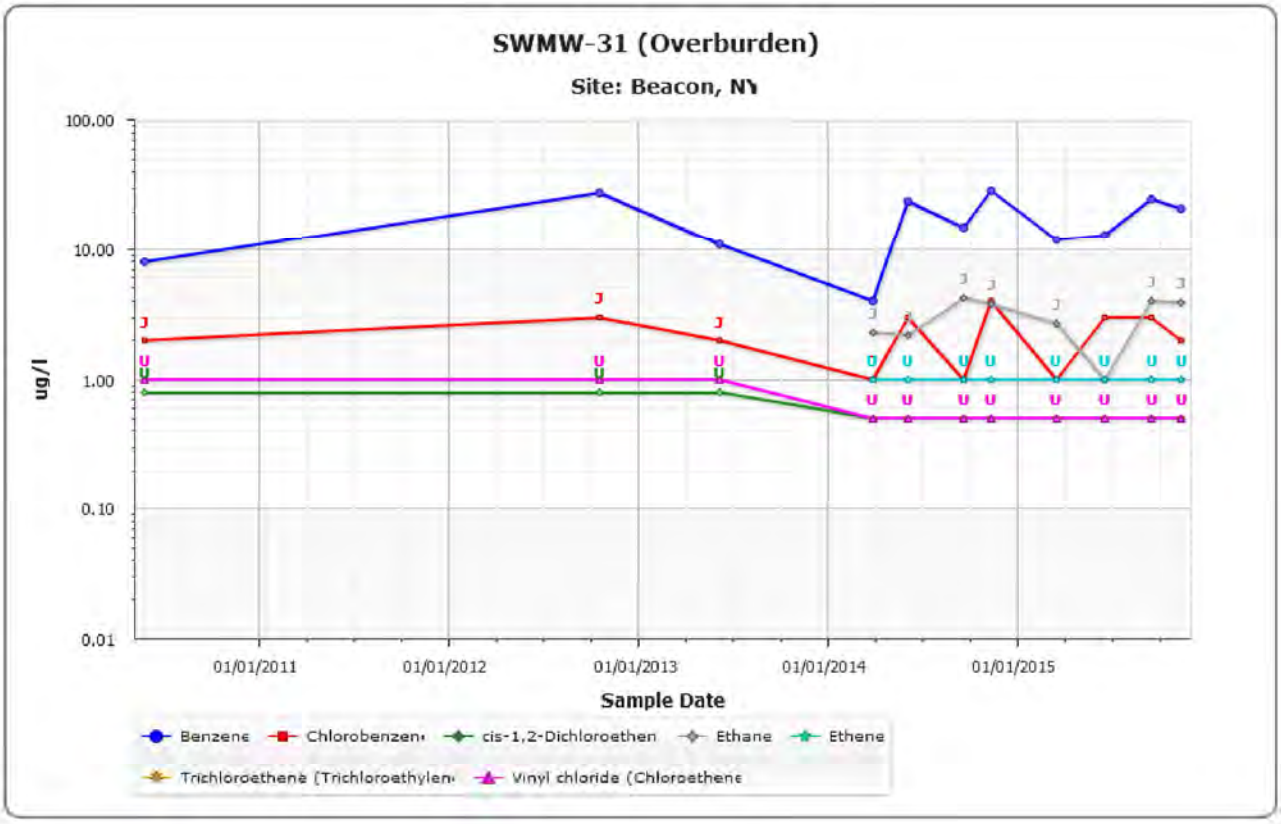

SWMW-15 (Overburden)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

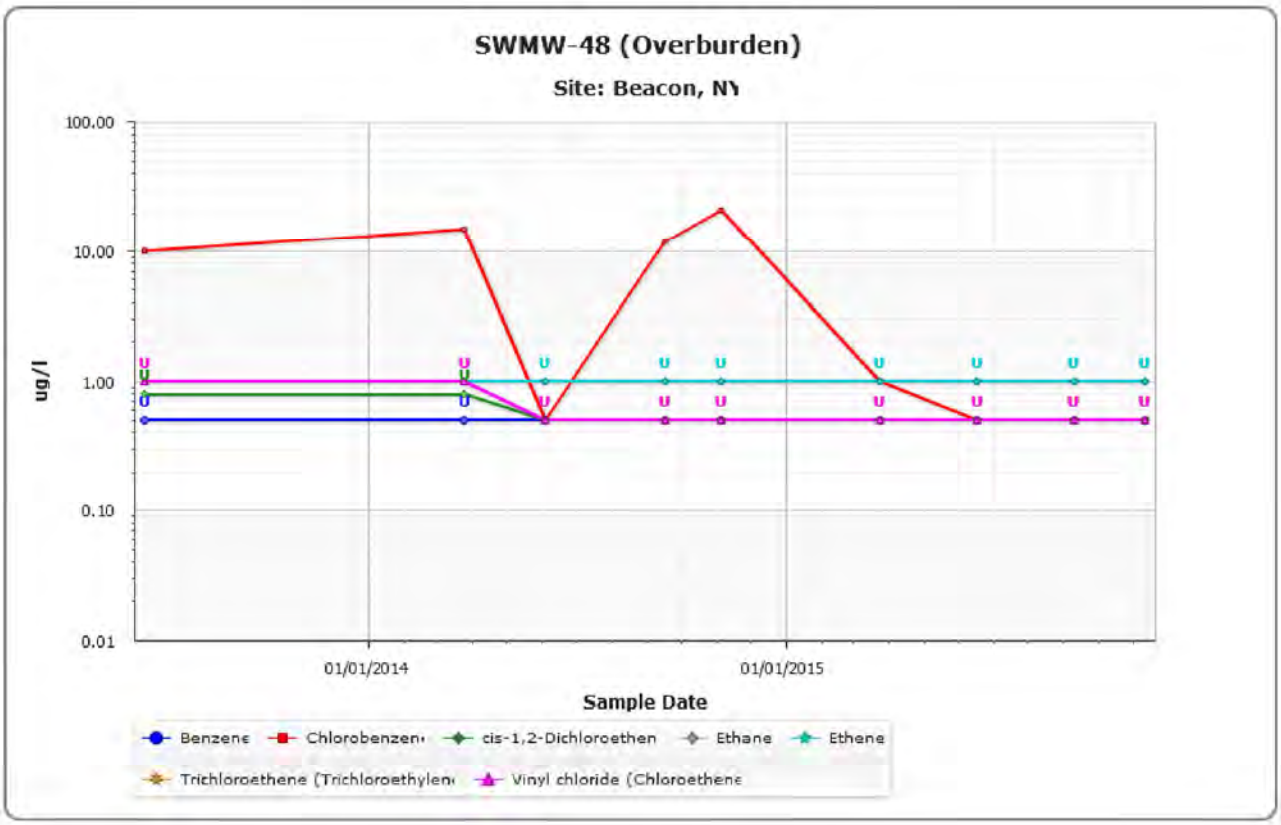

SWMW-21 (Overburden)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

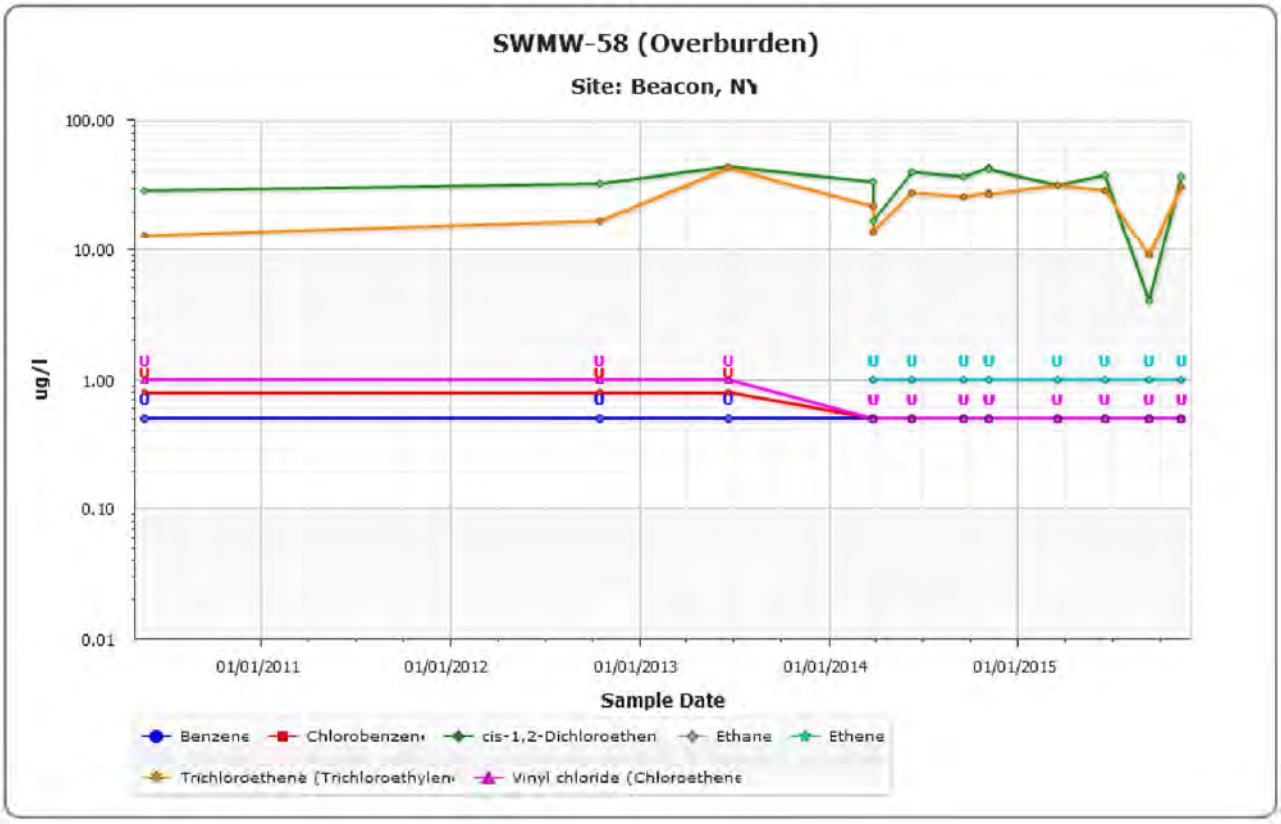

SWMW-25 (Overburden)
Site: Beacon, NY
10.00
1.00
0.10
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

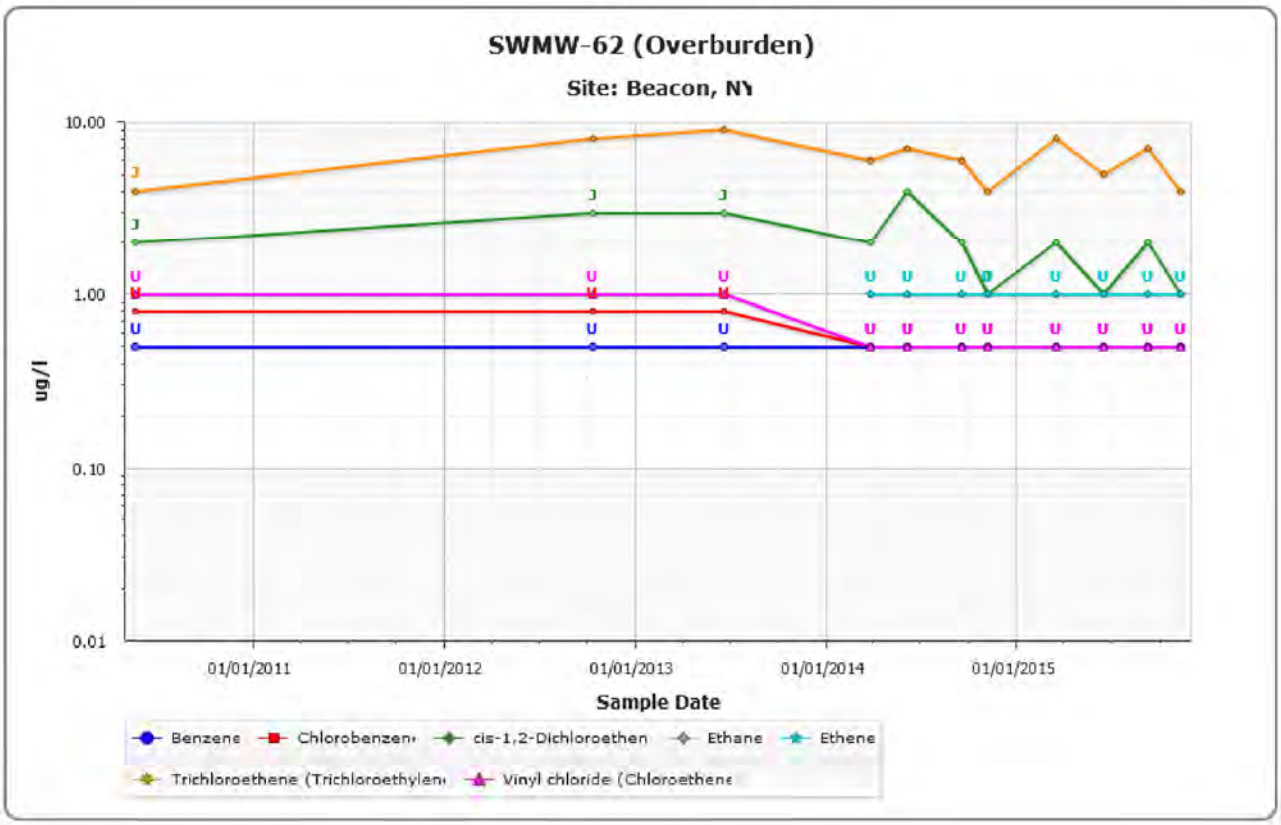

SWMW-28 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

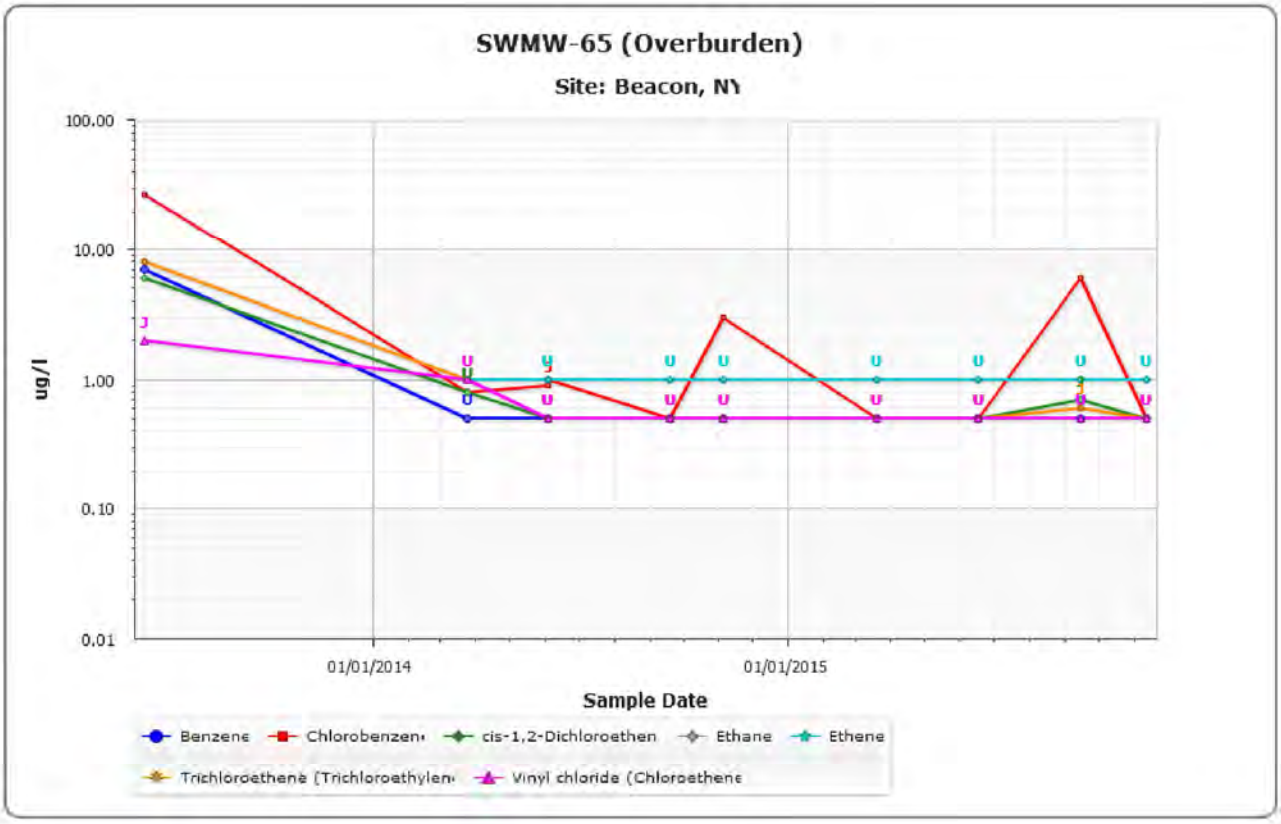

SWMW-30 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

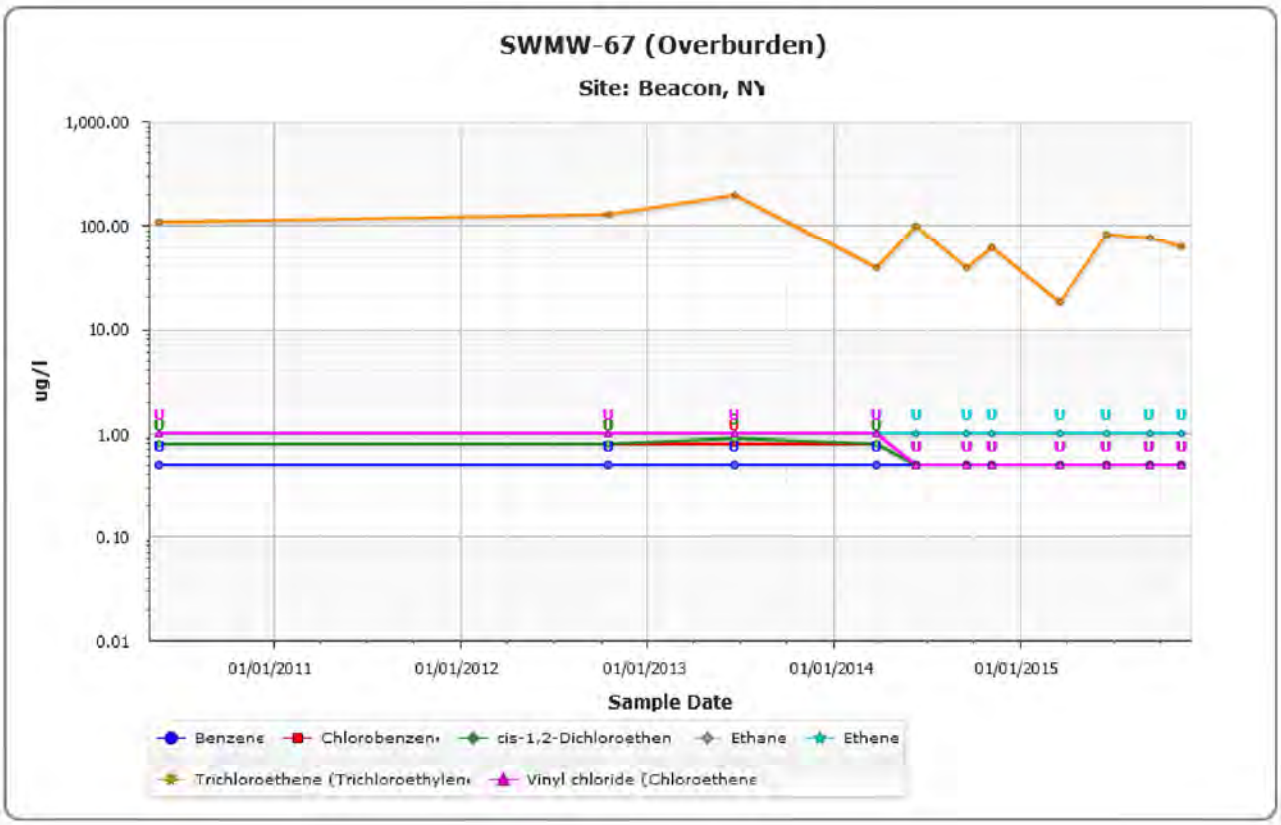

SWMW-31 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

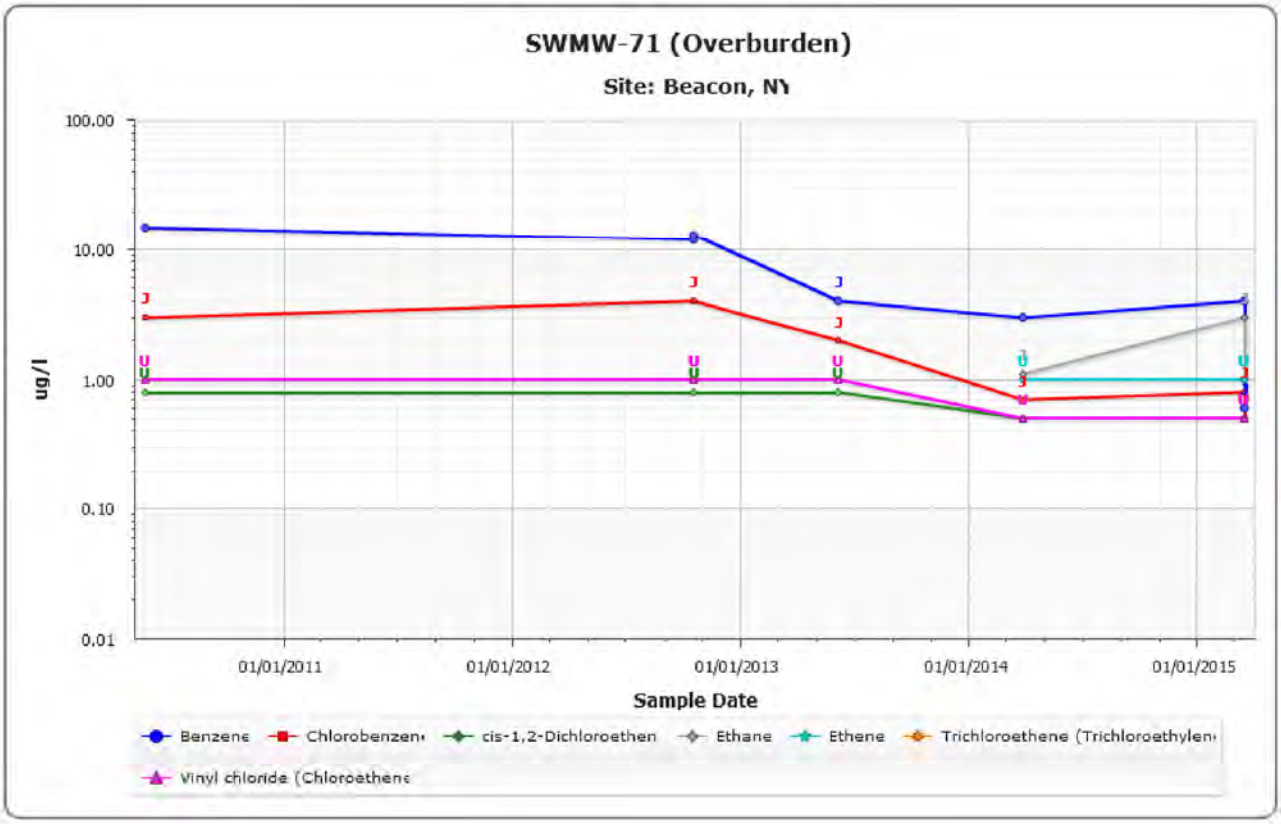

SWMW-48 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

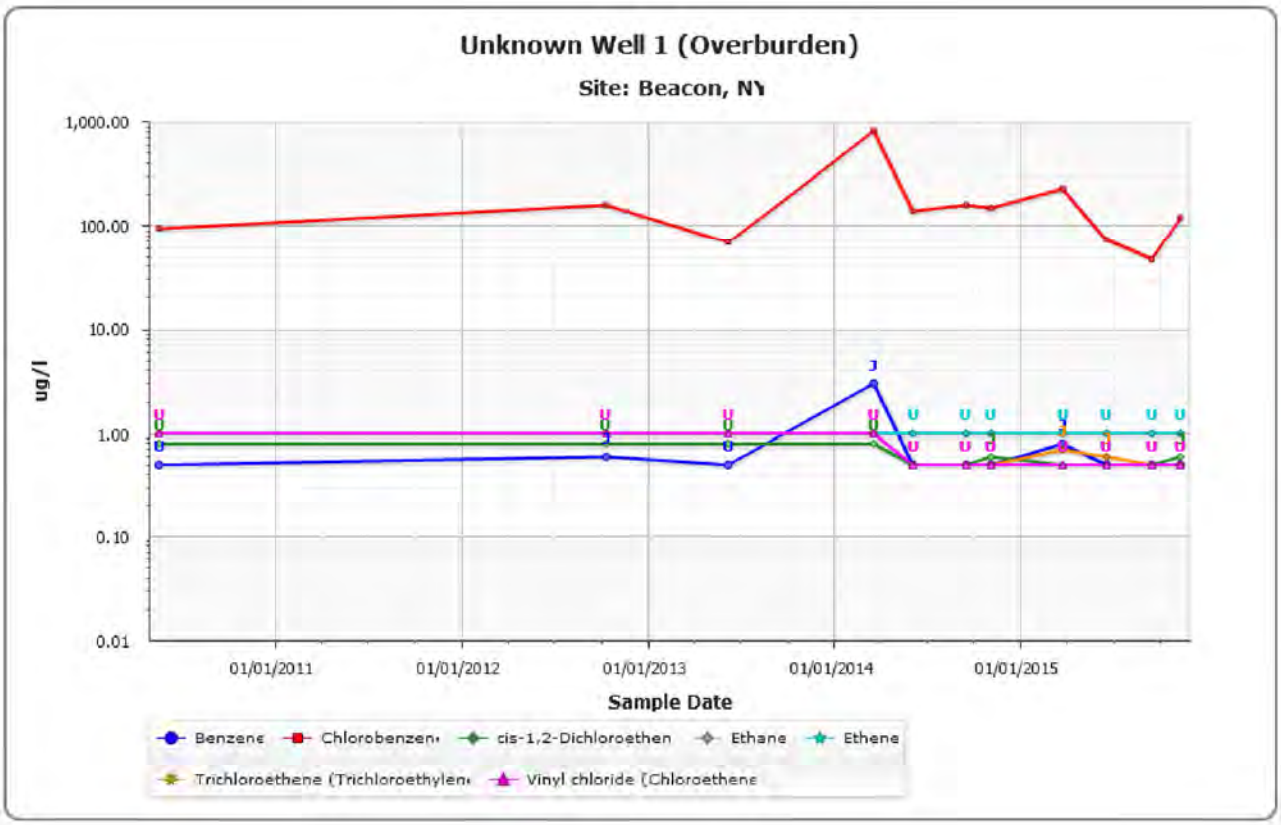

SWMW-58 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

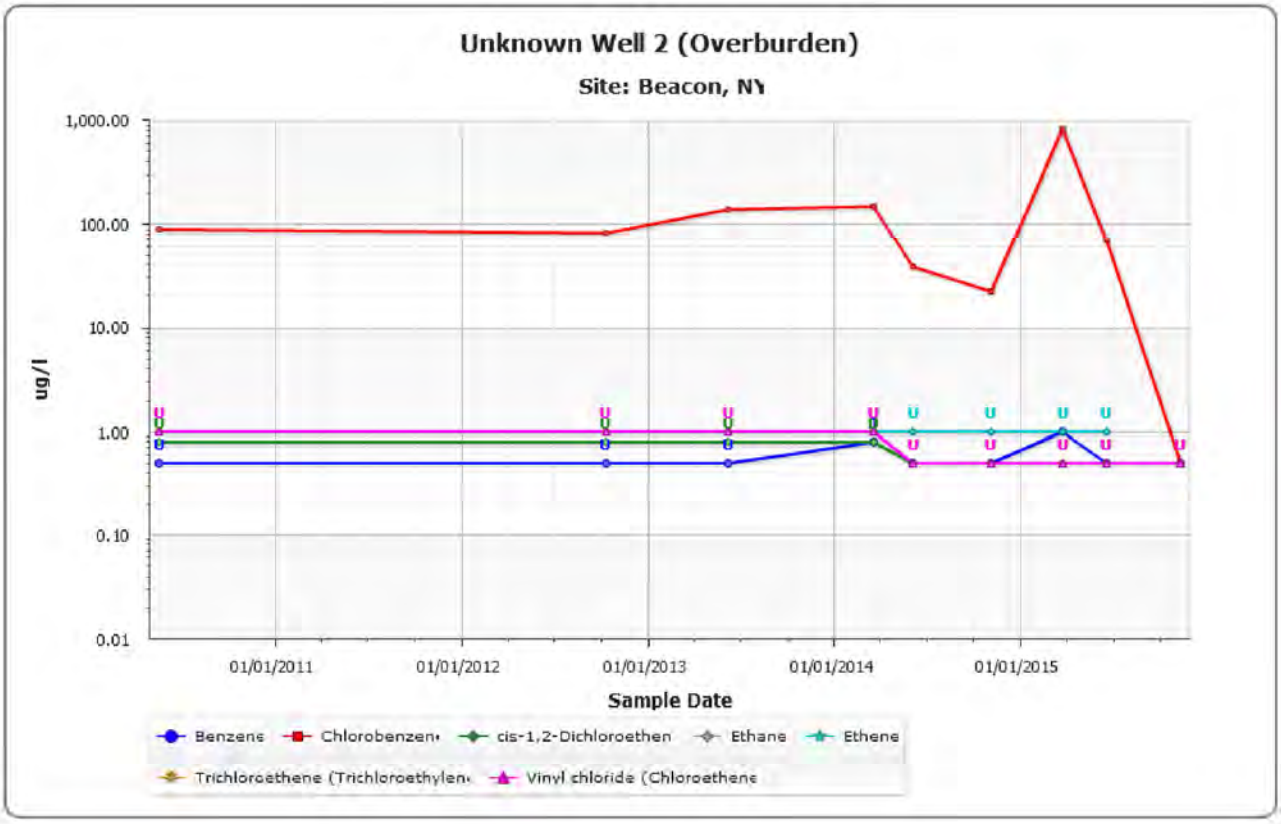

SWMW-62 (Overburden)
Site: Beacon, NY
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

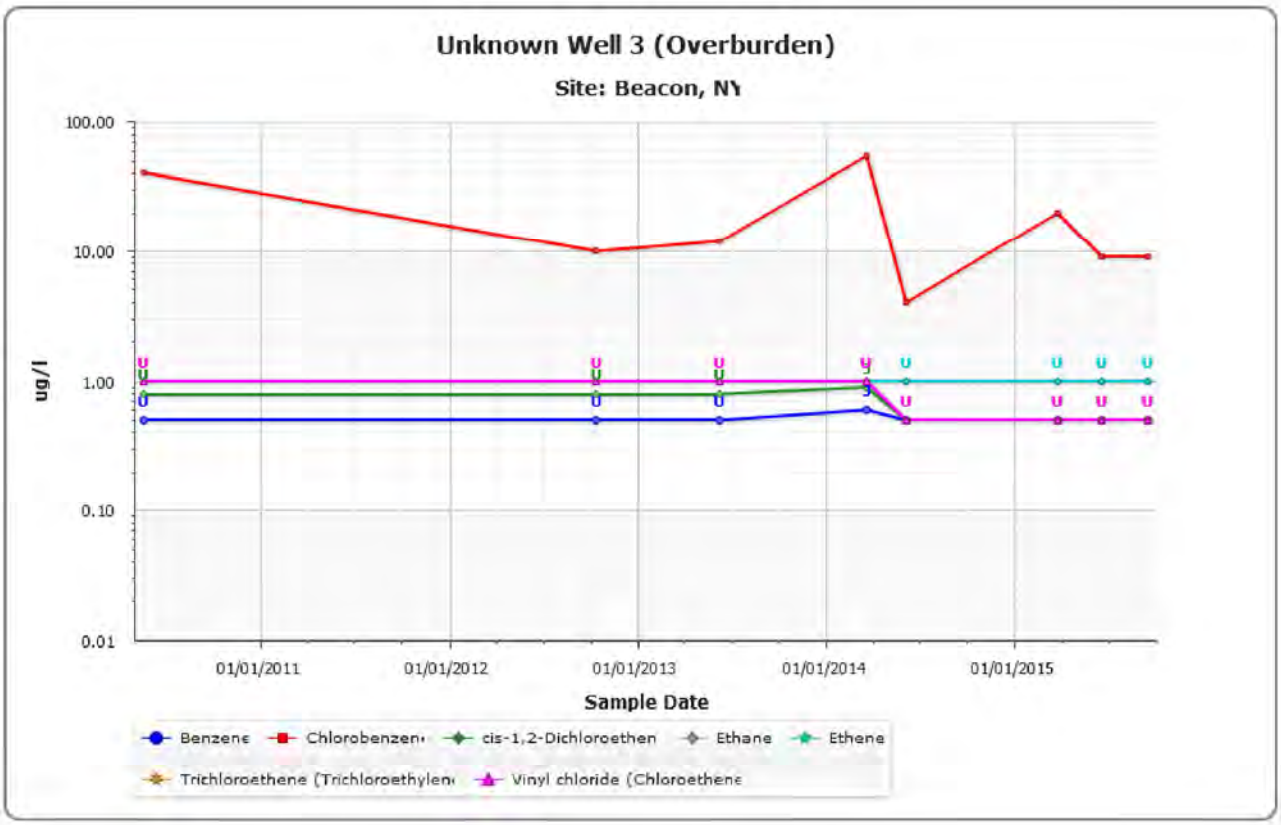

SWMW-65 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene


SWMW-67 (Overburden)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

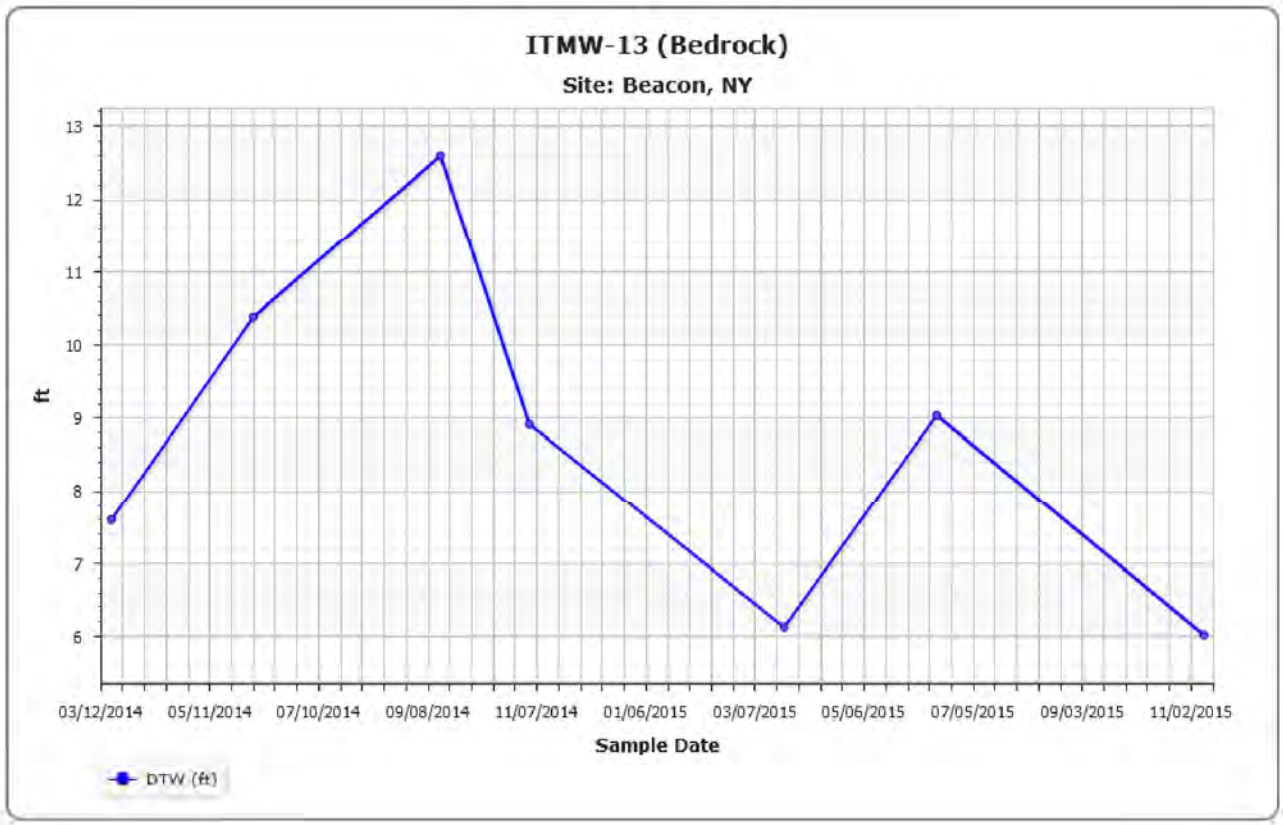

SWMW-71 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

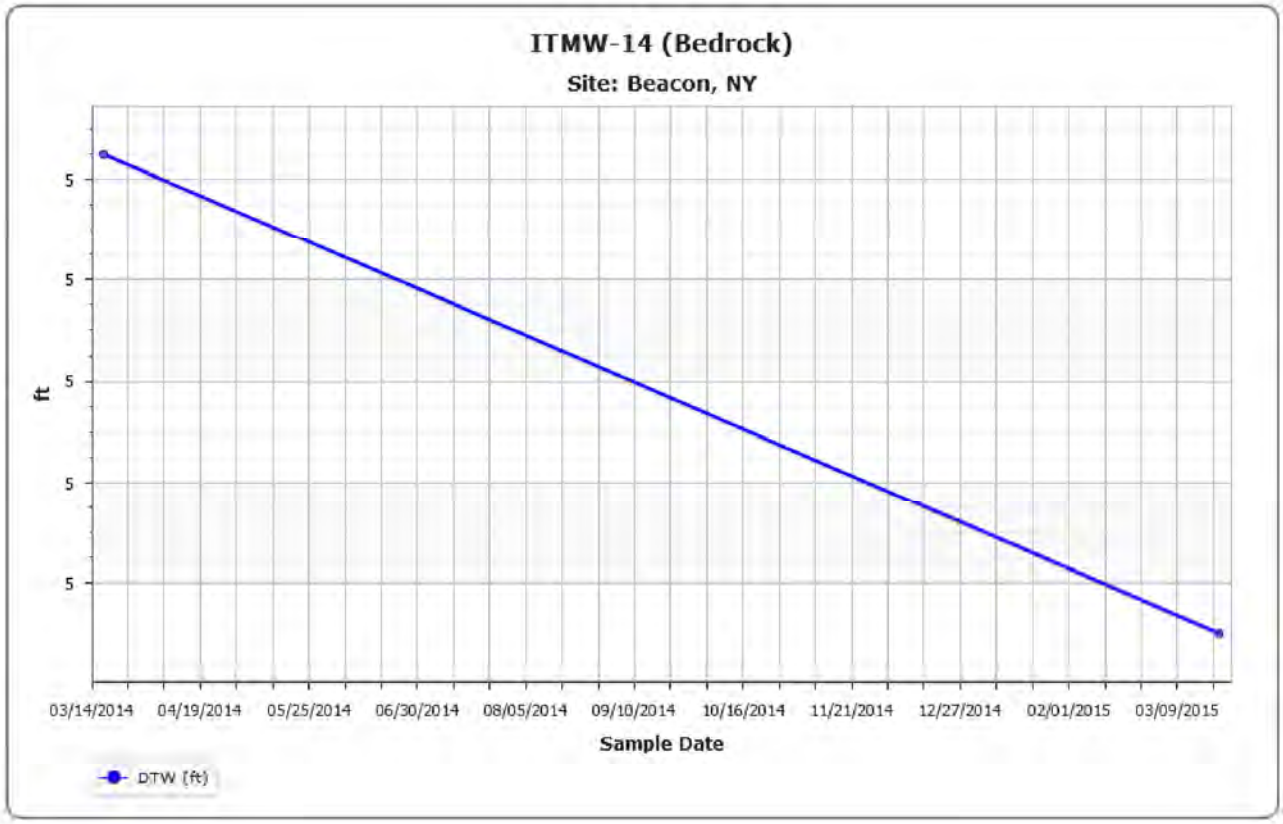

Unknown Well 1 (Overburden)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

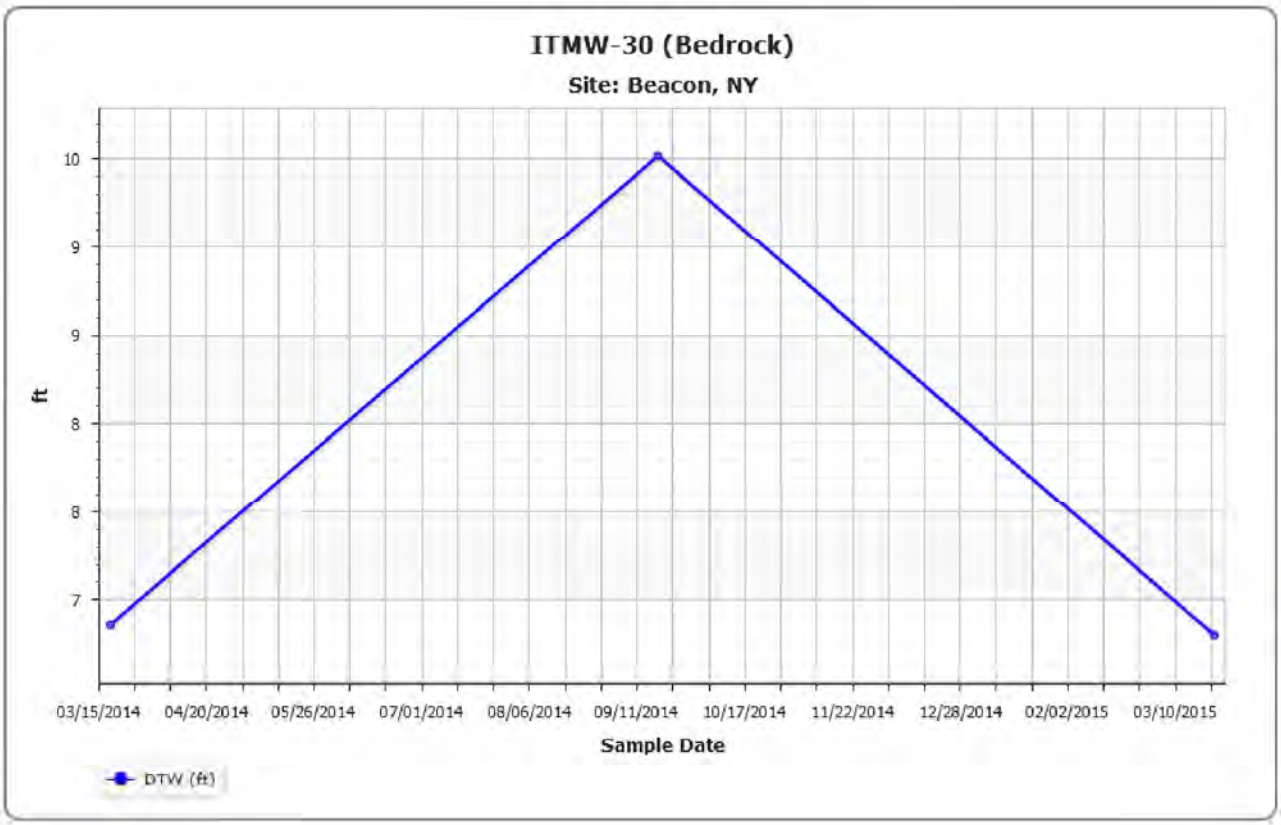

Unknown Well 2 (Overburden)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

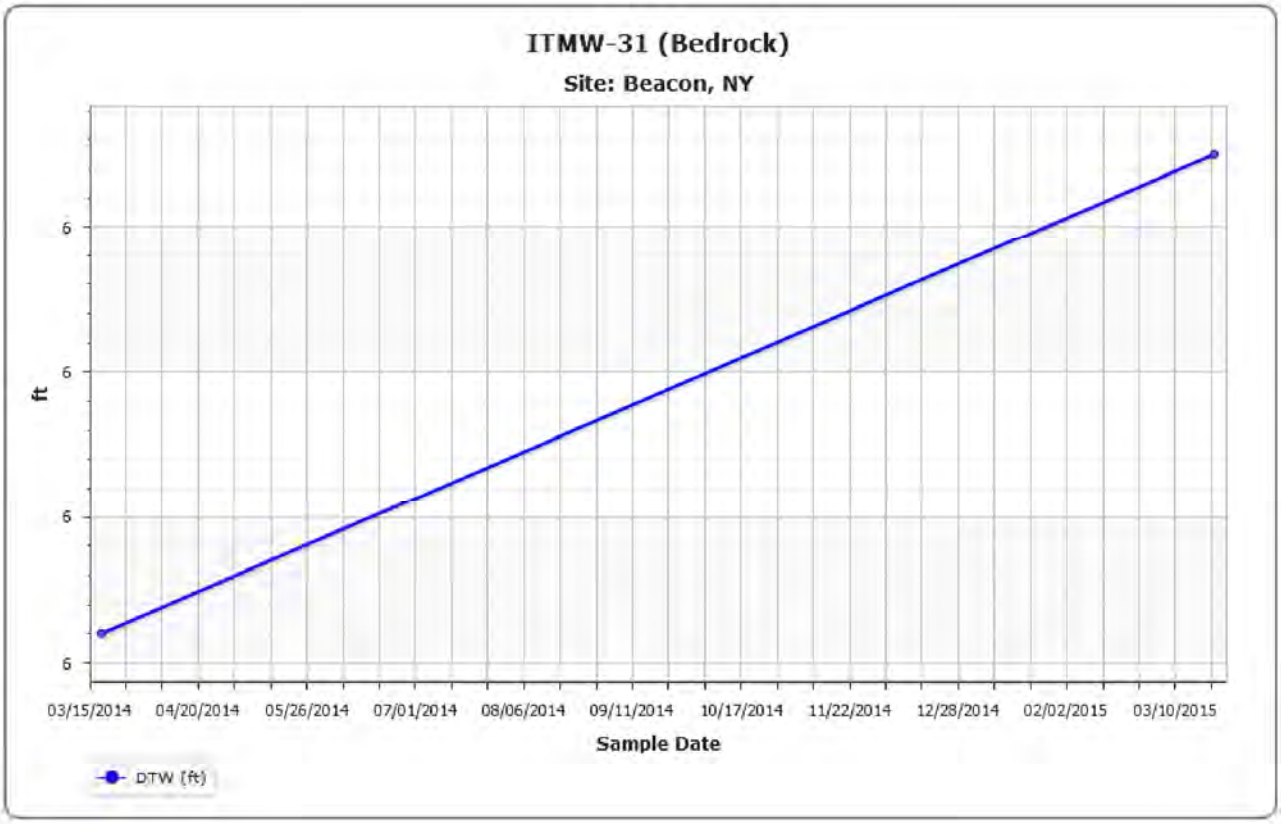

Unknown Well 3 (Overburden)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

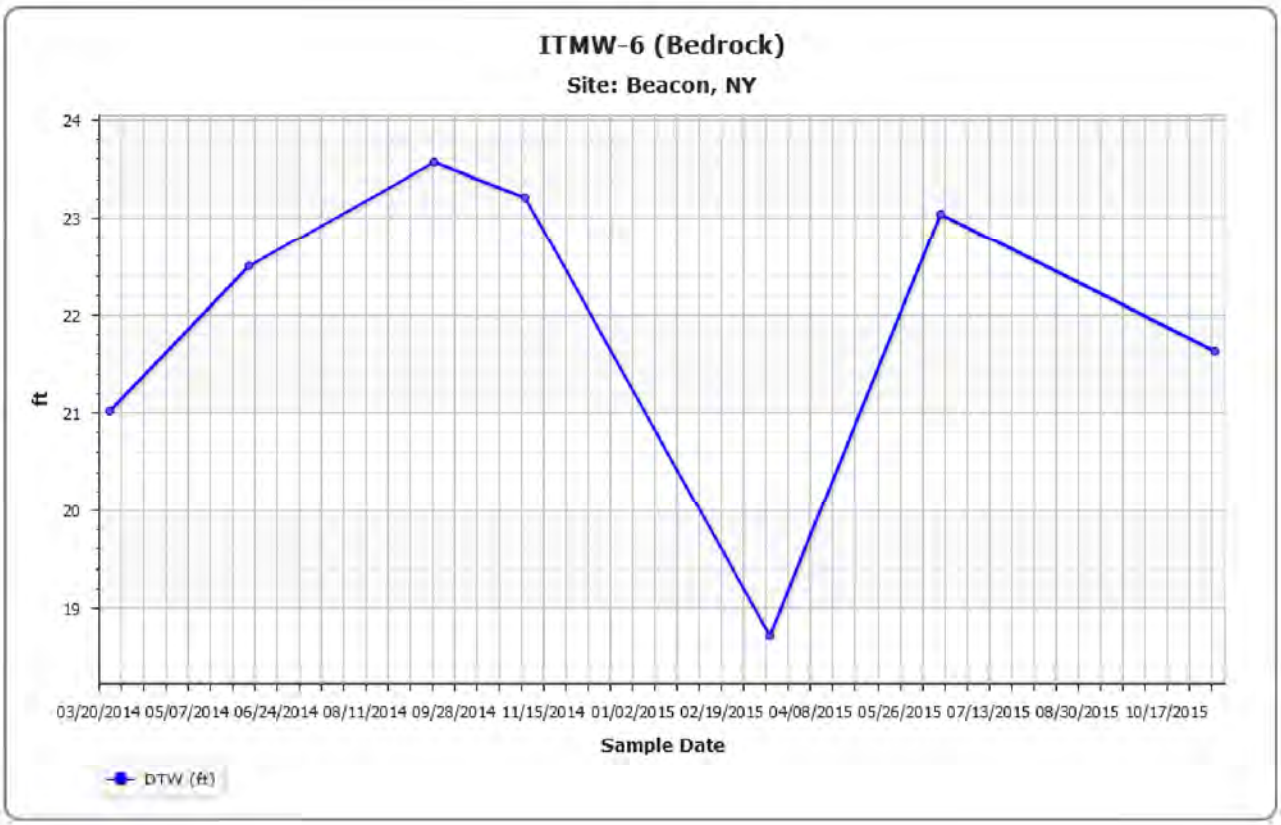
2014 THROUGH 2015 DTW BEDROCK WELLS
SUMMARY GRAPHS

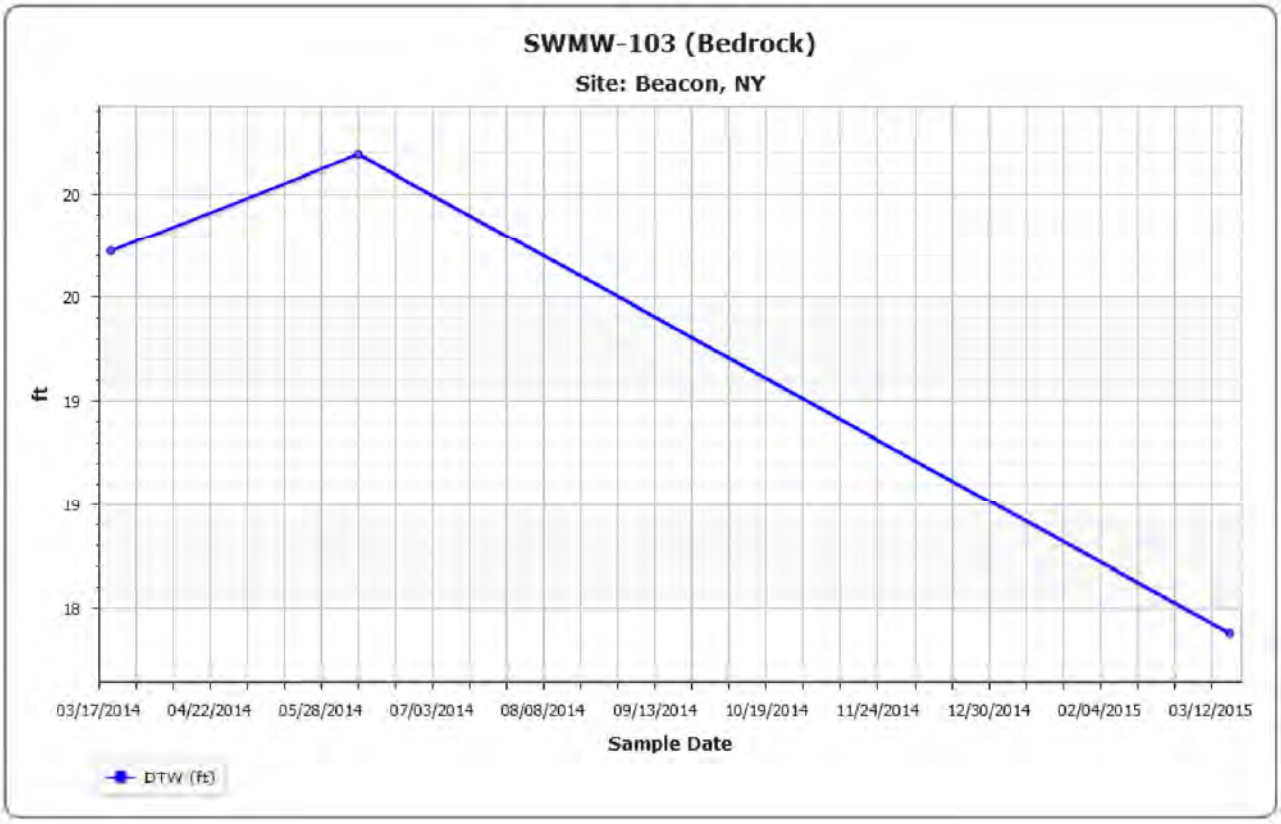

ITMW-13 (Bedrock)
Site: Beacon, NY
13
12
11
10
9
8
7
6
ft
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DTW (ft)

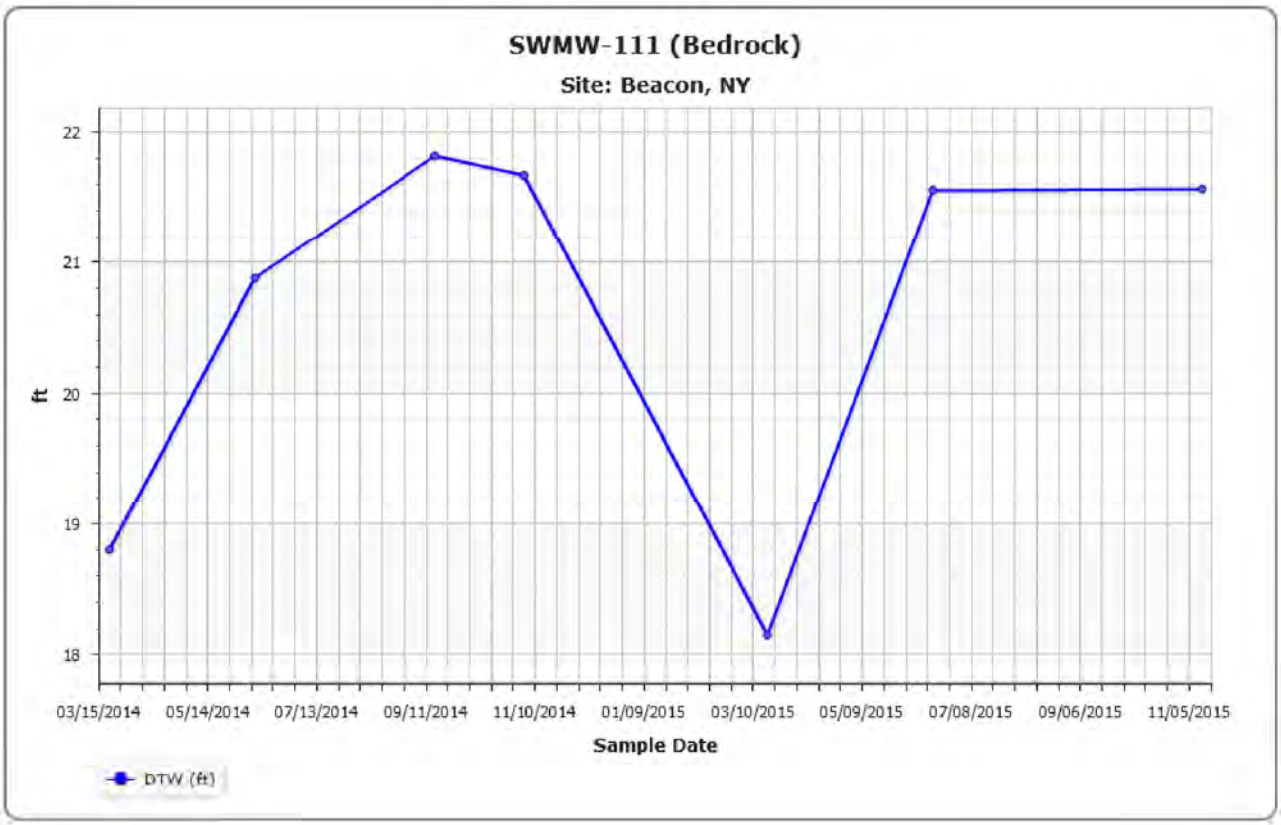

ITMW-14 (Bedrock)
Site: Beacon, NY
5
5
5
5
5
ft
03/14/2014
04/19/2014
05/25/2014
06/30/2014
08/05/2014
09/10/2014
10/16/2014
11/21/2014
12/27/2014
02/01/2015
03/09/2015
Sample Date
DTW (ft)

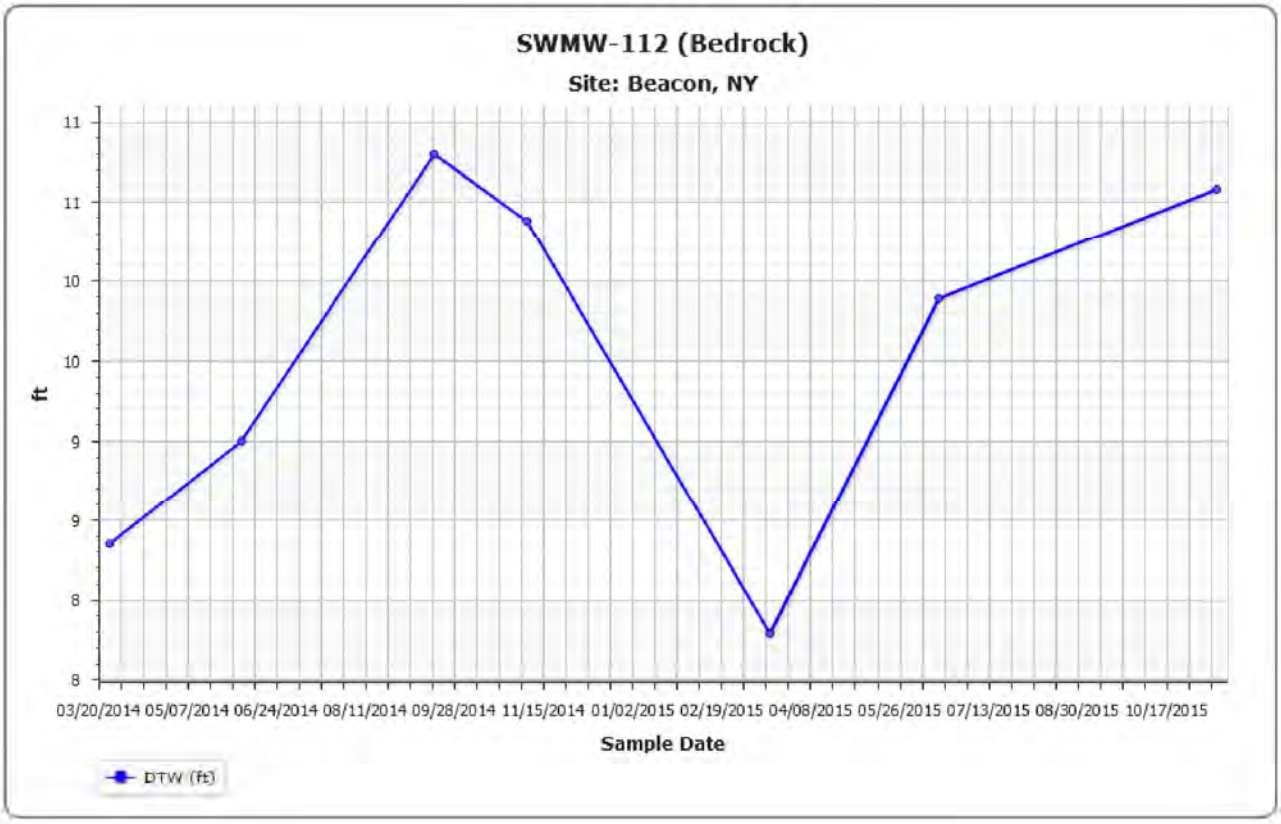

ITMW-30 (Bedrock)
Site: Beacon, NY
ft
10
9
9
8
8
7
03/15/2014
04/20/2014
05/26/2014
07/01/2014
08/06/2014
09/11/2014
10/17/2014
11/22/2014
12/28/2014
02/02/2015
03/10/2015
Sample Date
DTW (ft)

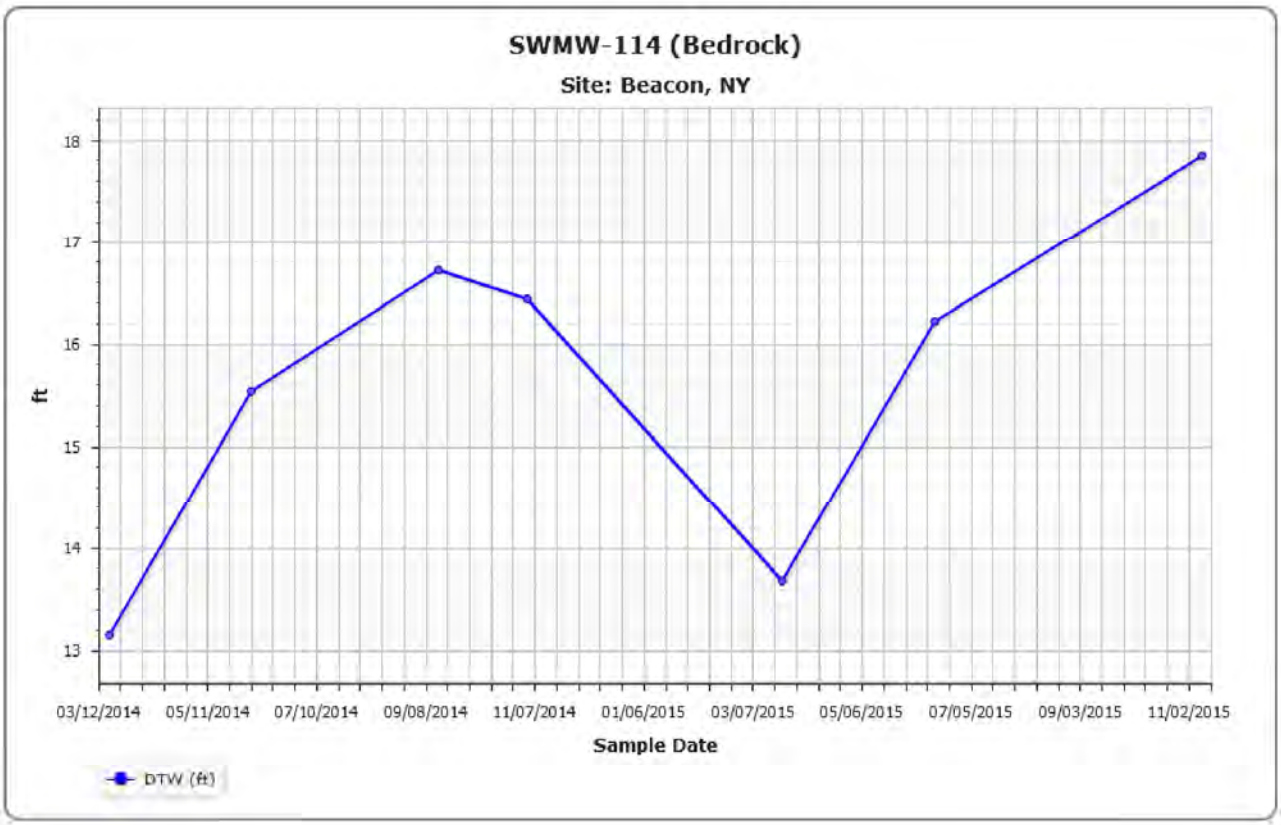

ITMW-31 (Bedrock)
Site: Beacon, NY
ft
6
6
6
6
03/15/2014
04/20/2014
05/26/2014
07/01/2014
08/06/2014
09/11/2014
10/17/2014
11/22/2014
12/28/2014
02/02/2015
03/10/2015
Sample Date
DTW (ft)

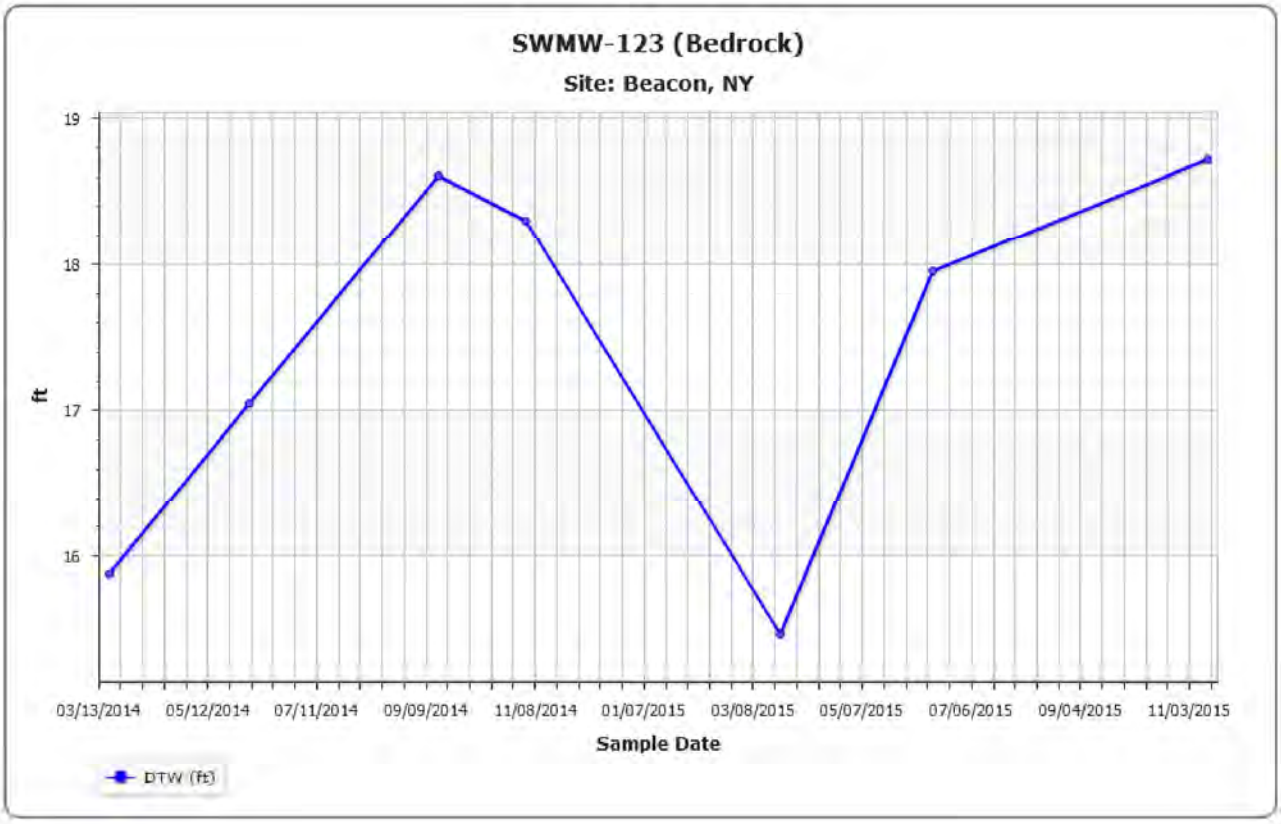

ITMW-6 (Bedrock)
Site: Beacon, NY
24
23
22
21
20
19
ft
03/20/2014 05/07/2014 06/24/2014 08/11/2014 09/28/2014 11/15/2014 01/02/2015 02/19/2015 04/08/2015 05/26/2015 07/13/2015 08/30/2015 10/17/2015
Sample Date
DTW (ft)

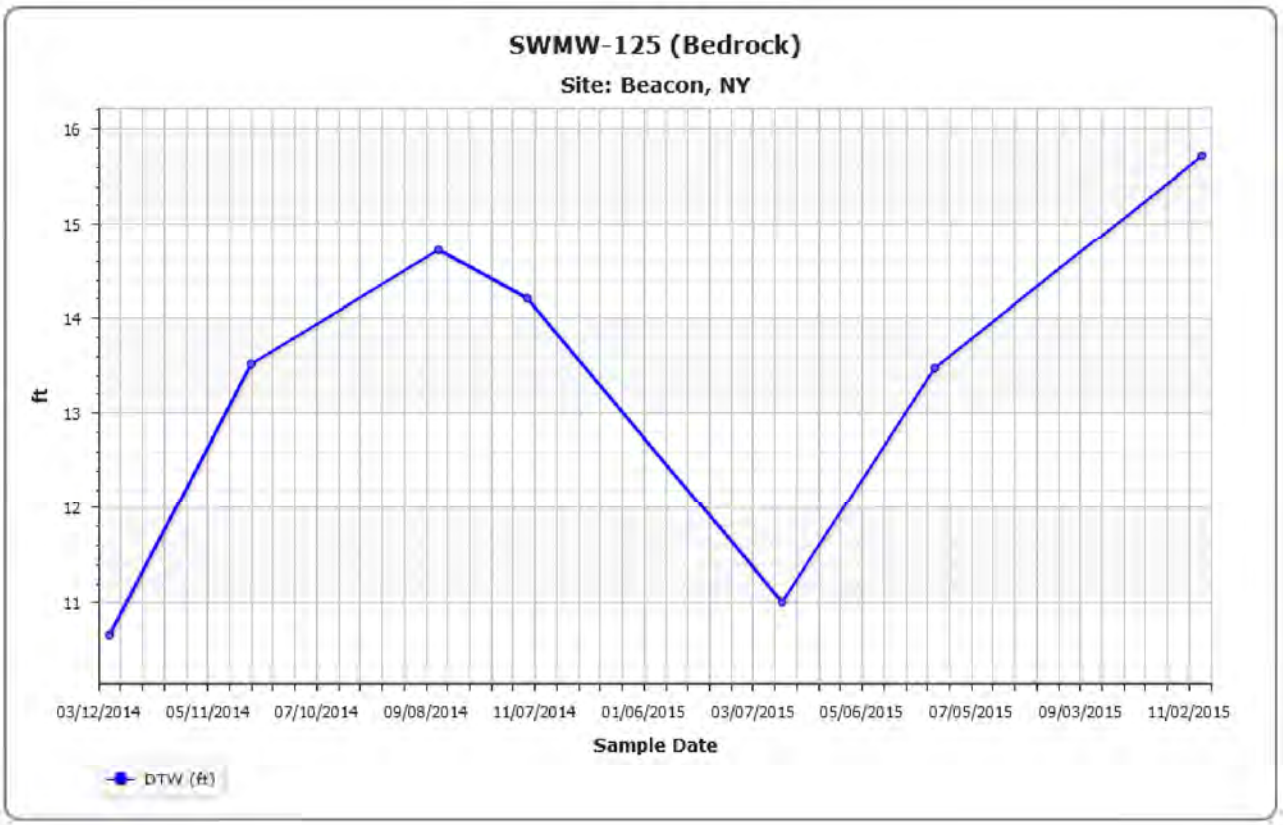

SWMW-103 (Bedrock)
Site: Beacon, NY
20
20
19
19
18
ft
03/17/2014 04/22/2014 05/28/2014 07/03/2014 08/08/2014 09/13/2014 10/19/2014 11/24/2014 12/30/2014 02/04/2015 03/12/2015
Sample Date
DTW (ft)

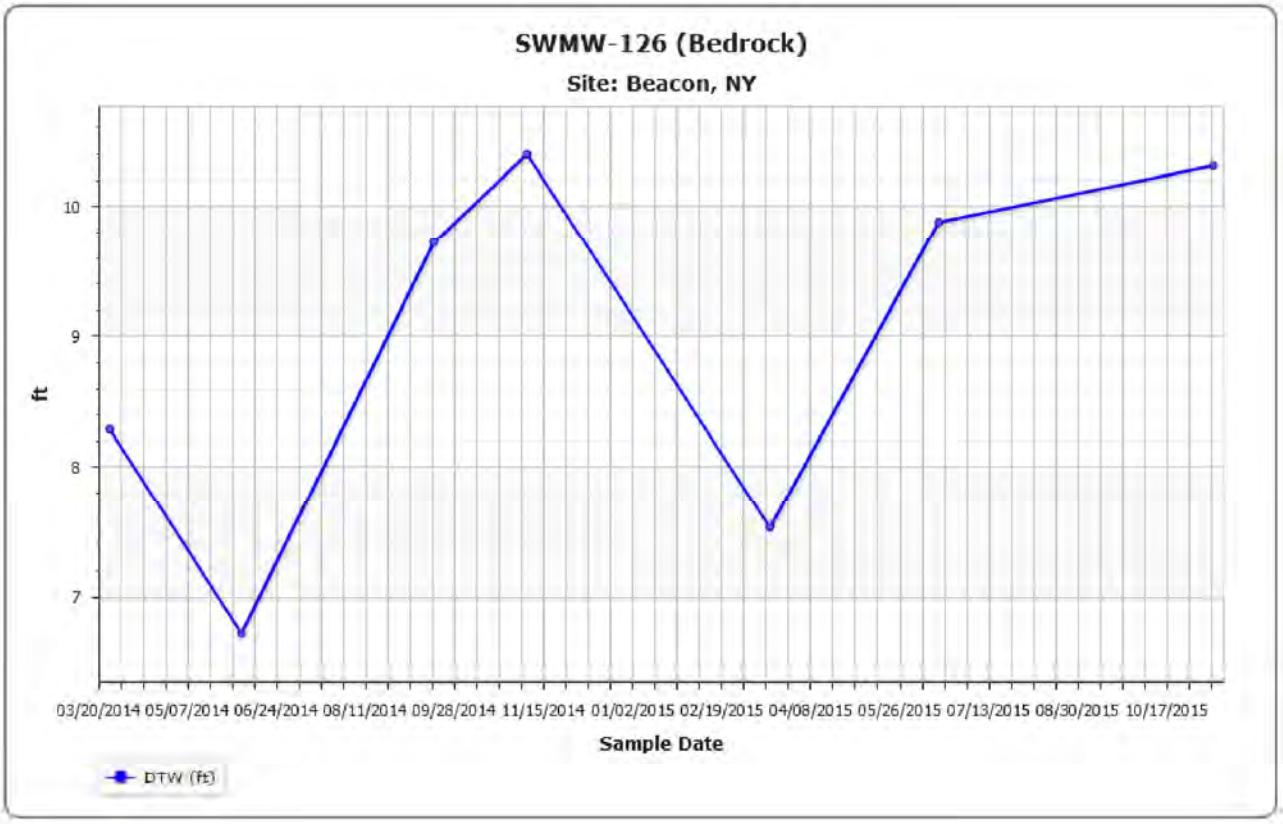

SWMW-111 (Bedrock)
Site: Beacon, NY
22
21
20
19
18
ft
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DTW (ft)

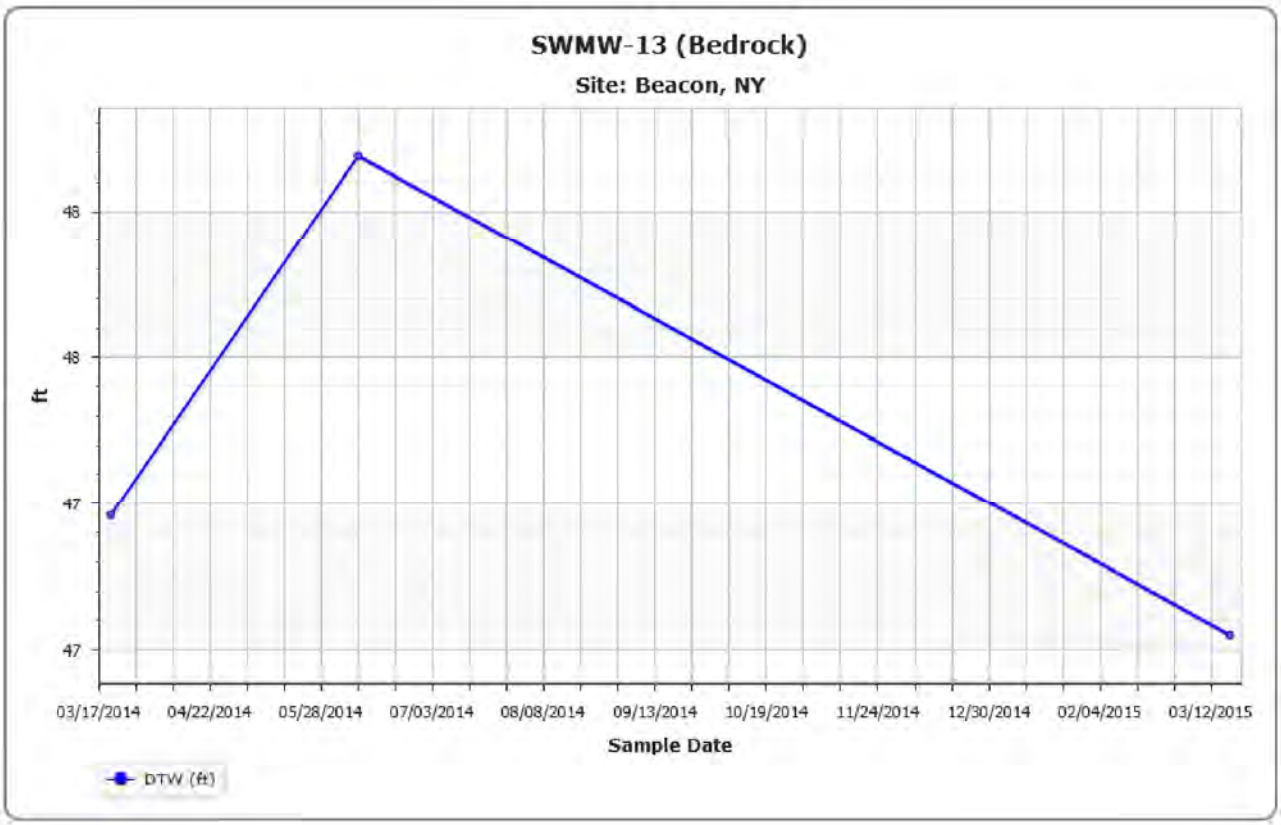

SWMW-112 (Bedrock)
Site: Beacon, NY
11
11
10
10
9
9
8
8
ft
03/20/2014
05/07/2014
06/24/2014
08/11/2014
09/28/2014
11/15/2014
01/02/2015
02/19/2015
04/08/2015
05/26/2015
07/13/2015
08/30/2015
10/17/2015
Sample Date
DTW (ft)

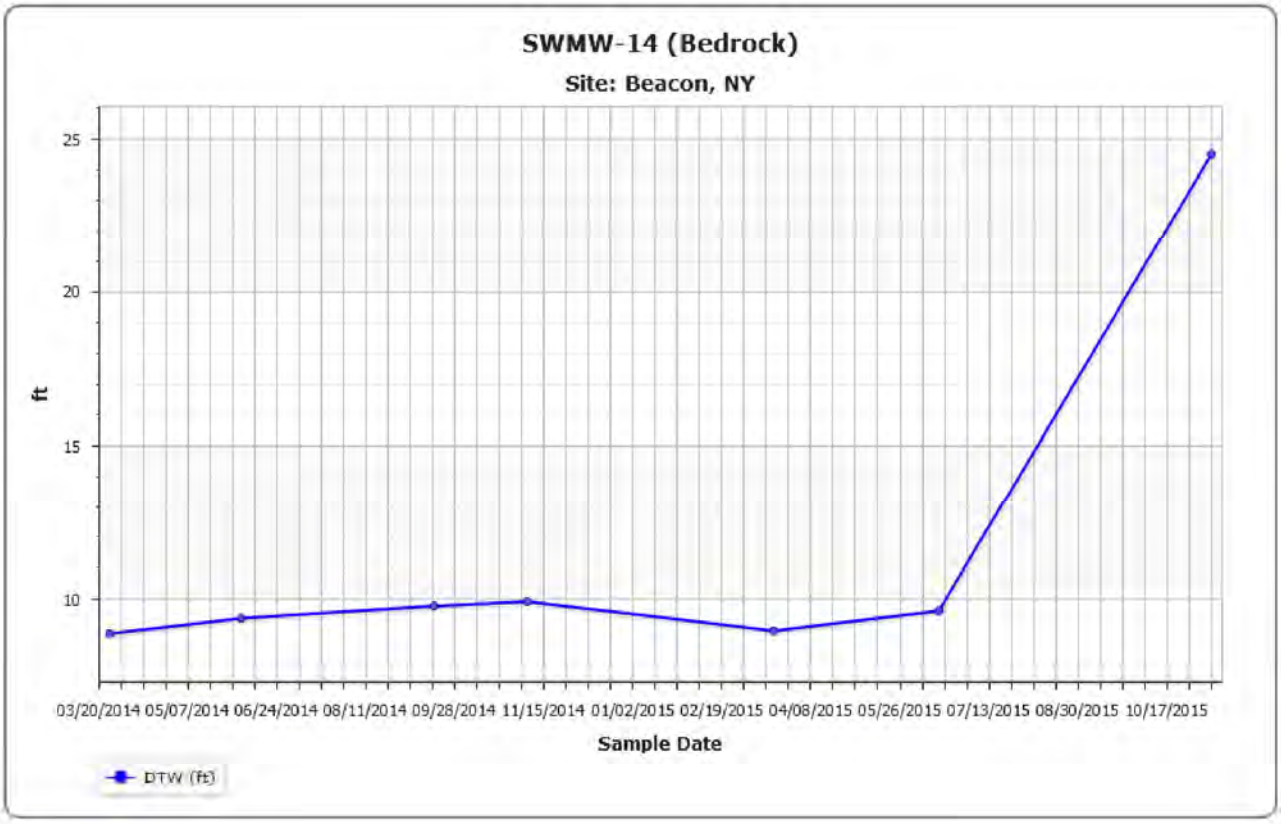

SWMW-114 (Bedrock)
Site: Beacon, NY
18
17
16
15
14
13
ft
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DTW (ft)

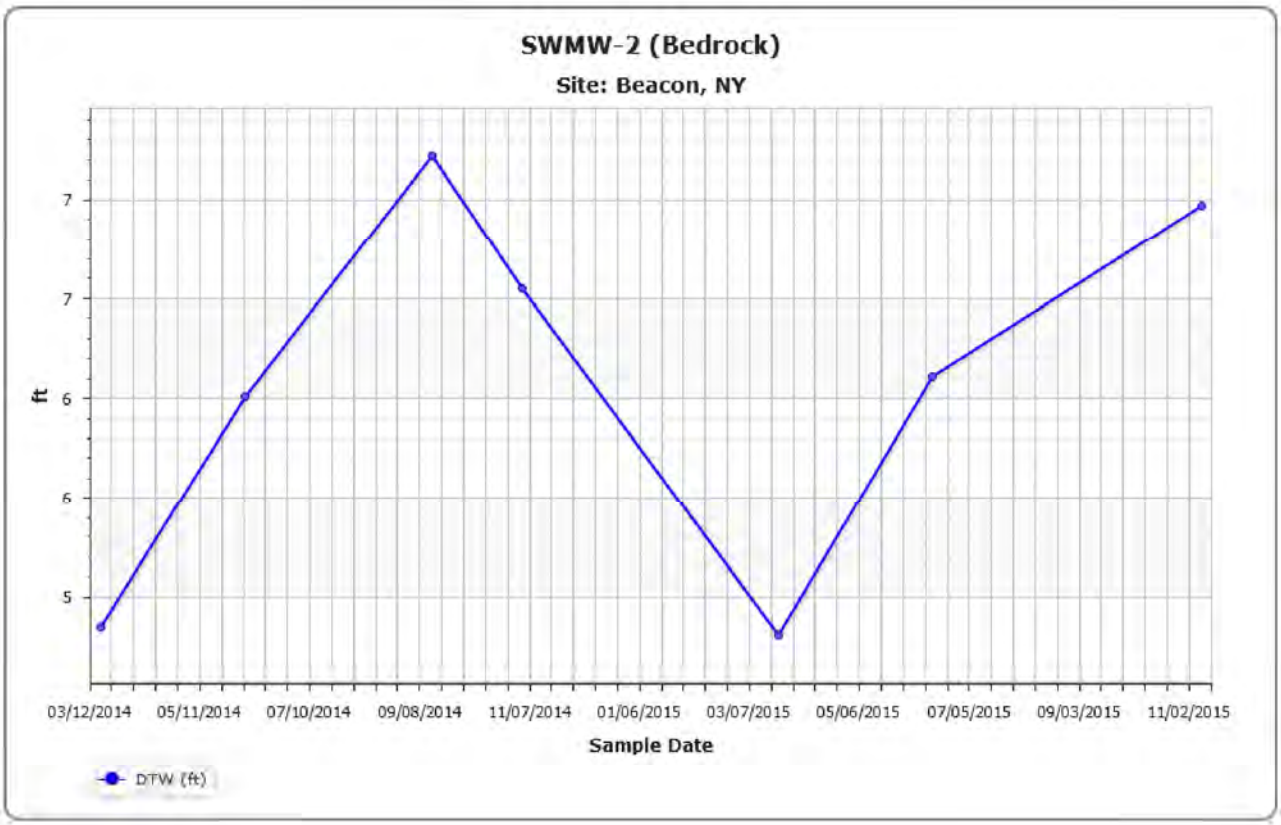

SWMW-123 (Bedrock)
Site: Beacon, NY
19
18
17
16
ft
03/13/2014
05/12/2014
07/11/2014
09/09/2014
11/08/2014
01/07/2015
03/08/2015
05/07/2015
07/06/2015
09/04/2015
11/03/2015
Sample Date
DTW (ft)

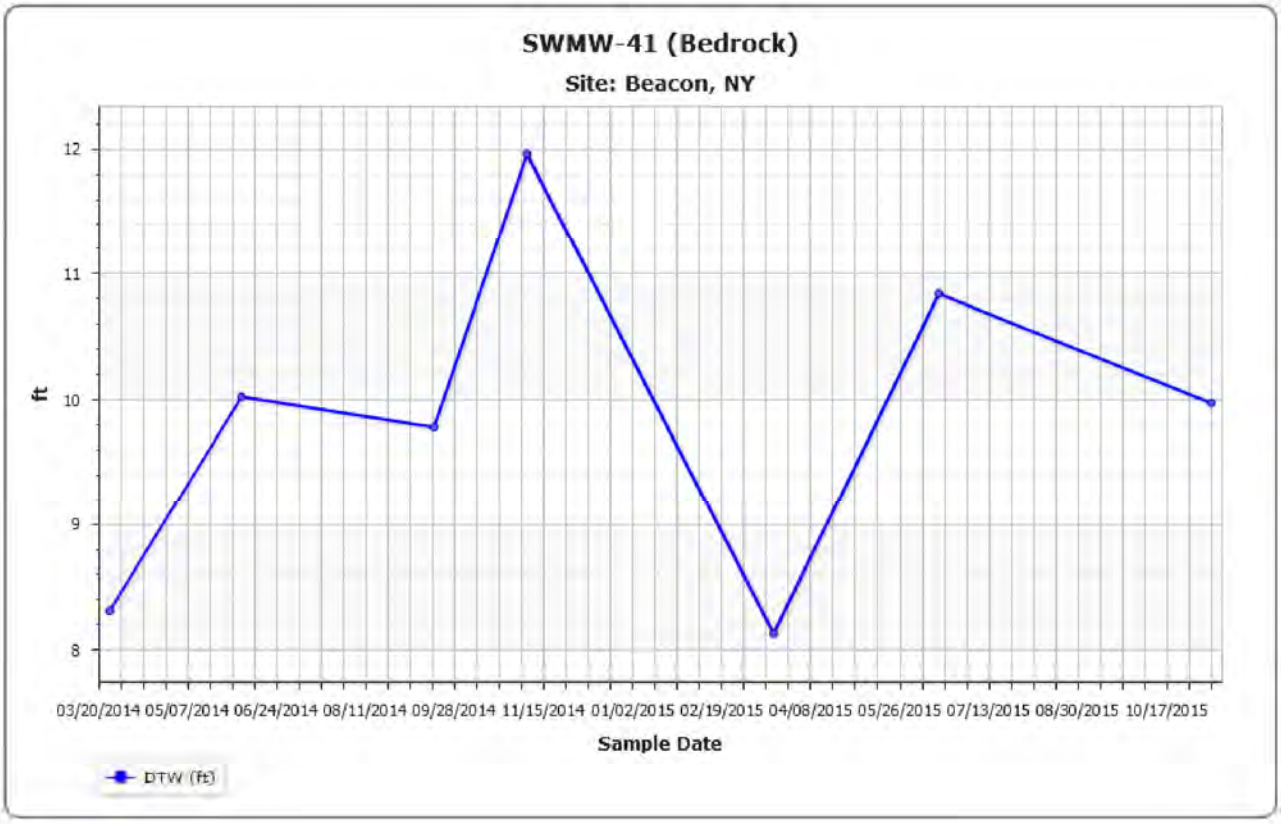

SWMW-125 (Bedrock)
Site: Beacon, NY
16
15
14
13
12
11
ft
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DTW (ft)

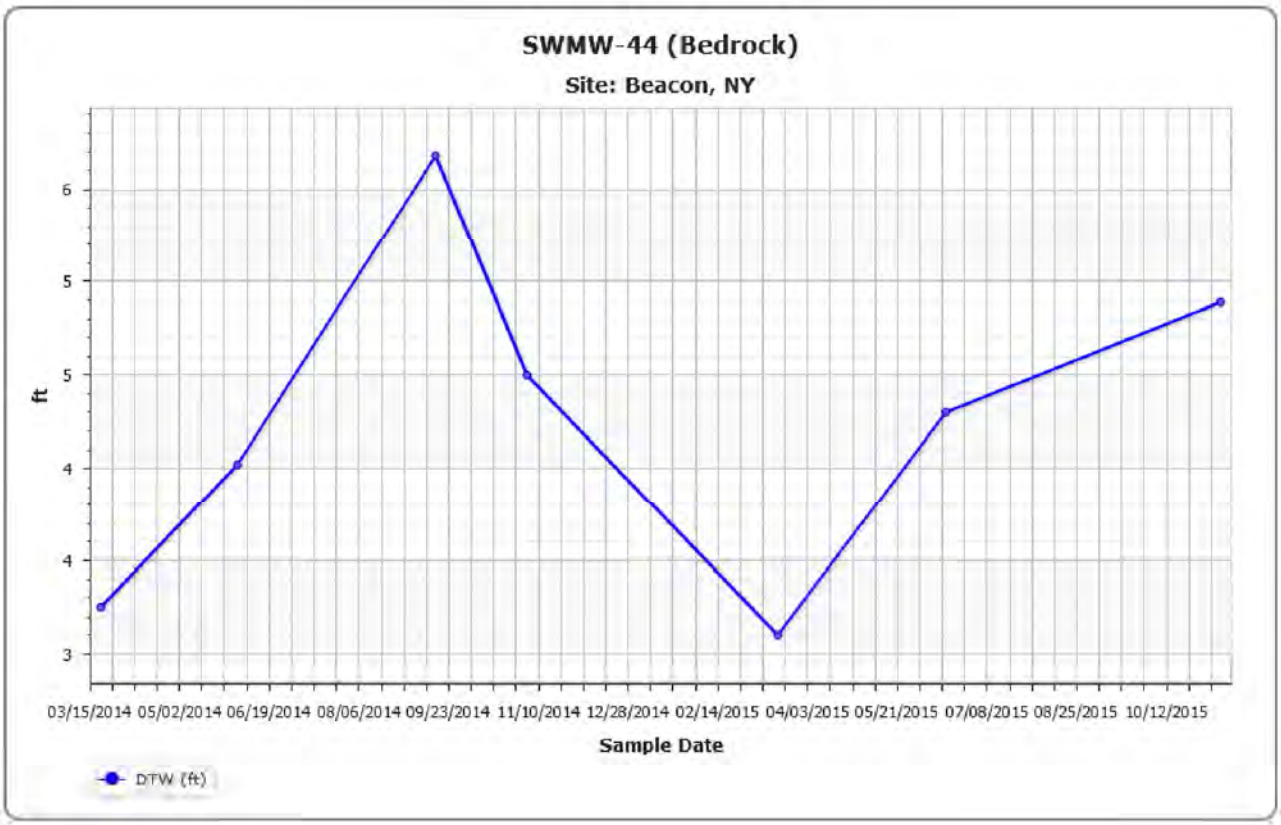

SWMW-126 (Bedrock)
Site: Beacon, NY
10
9
8
7
ft
03/20/2014
05/07/2014
06/24/2014
08/11/2014
09/28/2014
11/15/2014
01/02/2015
02/19/2015
04/08/2015
05/26/2015
07/13/2015
08/30/2015
10/17/2015
Sample Date
DTW (ft)

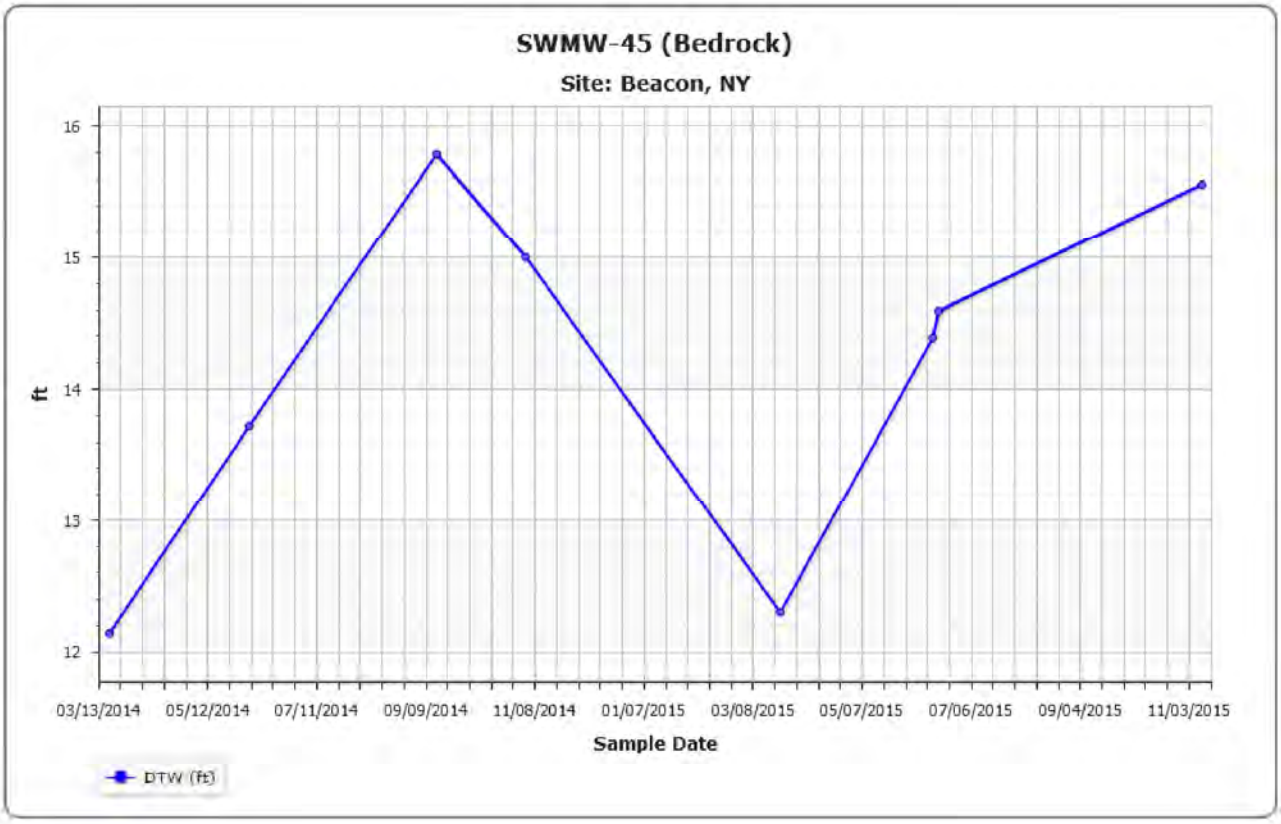

SWMW-13 (Bedrock)
Site: Beacon, NY
48
48
47
47
ft
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
DTW (ft)

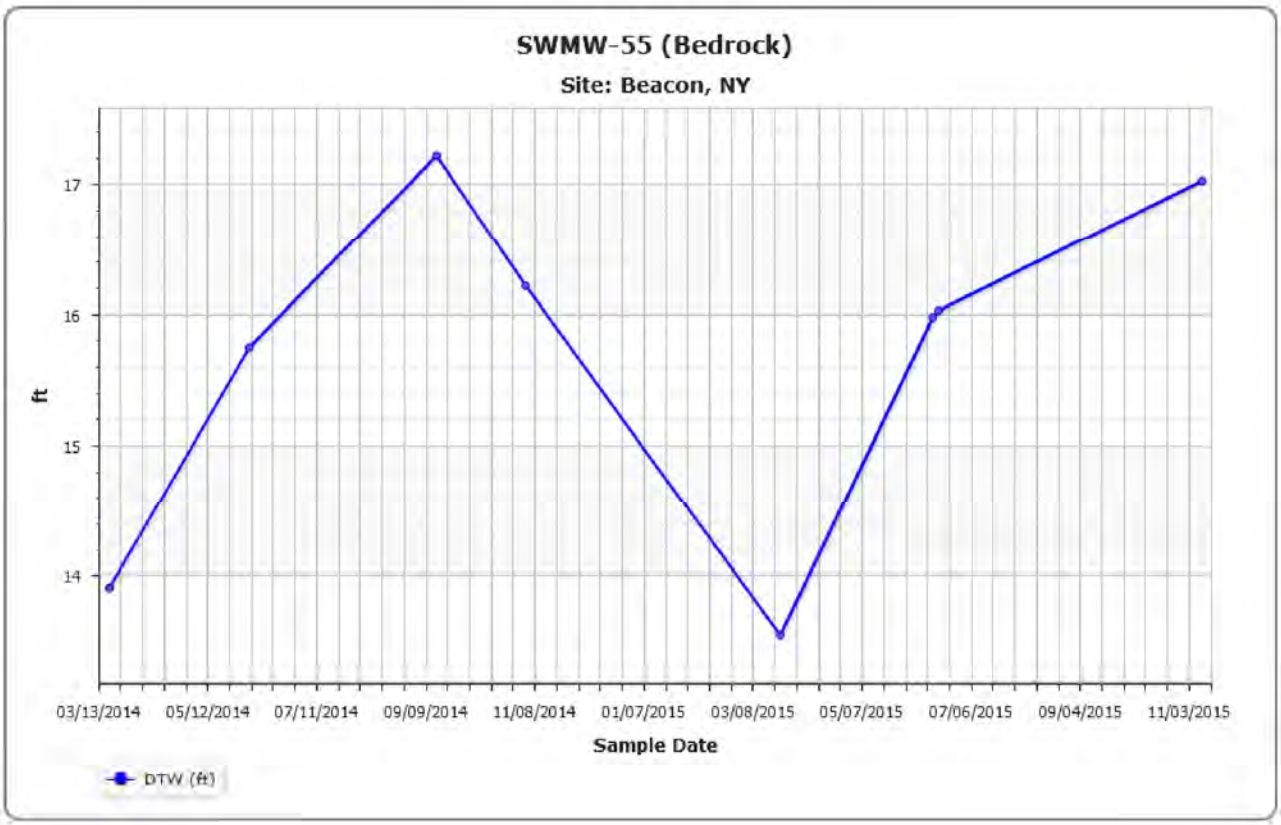

SWMW-14 (Bedrock)
Site: Beacon, NY
25
20
15
10
ft
03/20/2014
05/07/2014
06/24/2014
08/11/2014
09/28/2014
11/15/2014
01/02/2015
02/19/2015
04/08/2015
05/26/2015
07/13/2015
08/30/2015
10/17/2015
Sample Date
DTW (ft)

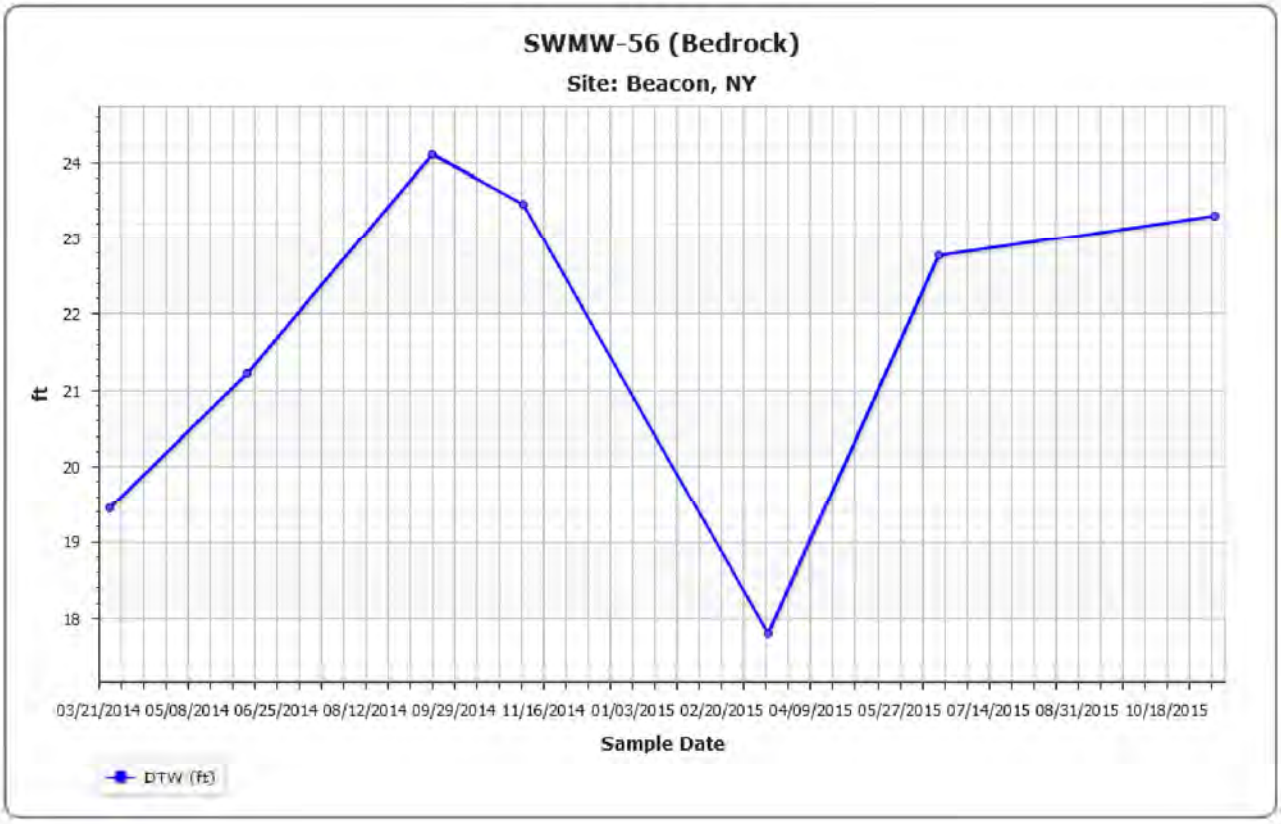

SWMW-2 (Bedrock)
Site: Beacon, NY
ft
7
7
6
6
5
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DTW (ft)

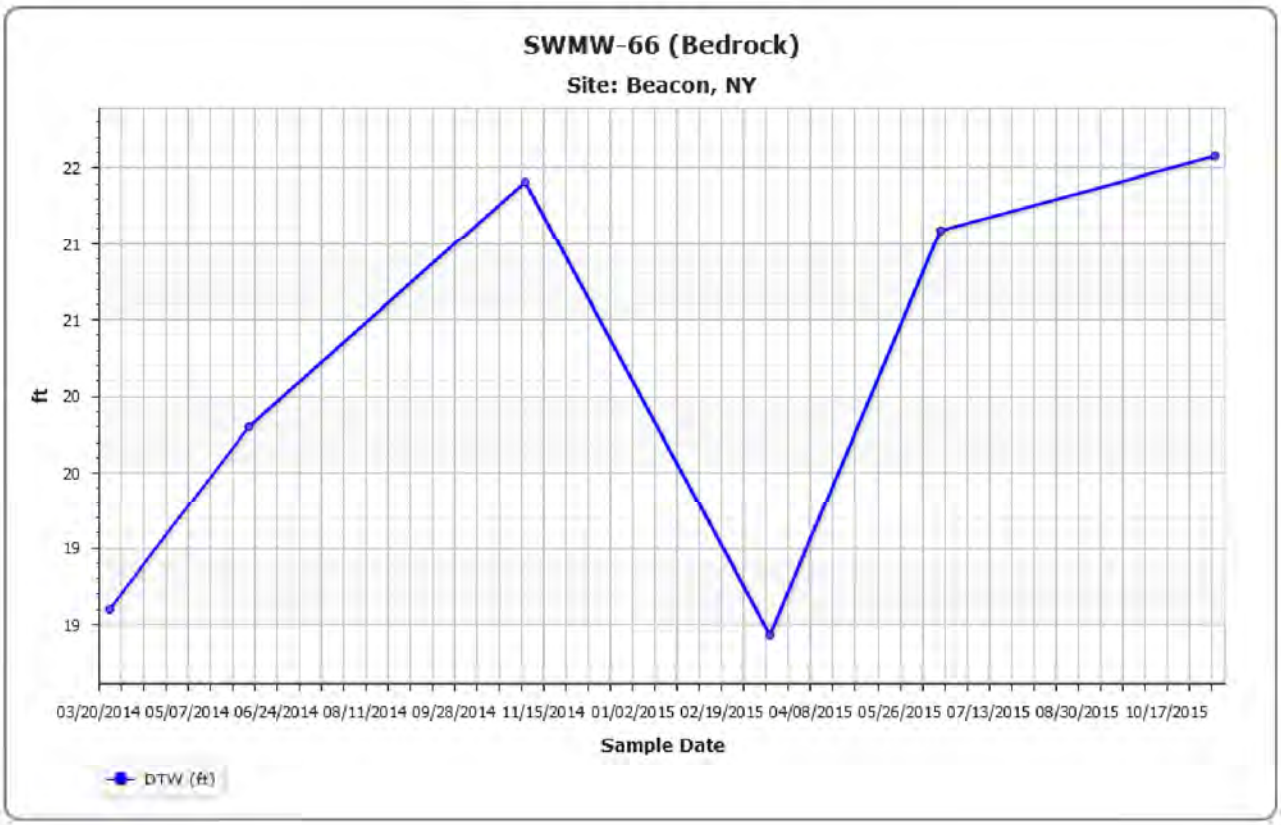

SWMW-41 (Bedrock)
Site: Beacon, NY
ft
12
11
10
9
8
03/20/2014
05/07/2014
06/24/2014
08/11/2014
09/28/2014
11/15/2014
01/02/2015
02/19/2015
04/08/2015
05/26/2015
07/13/2015
08/30/2015
10/17/2015
Sample Date
DTW (ft)

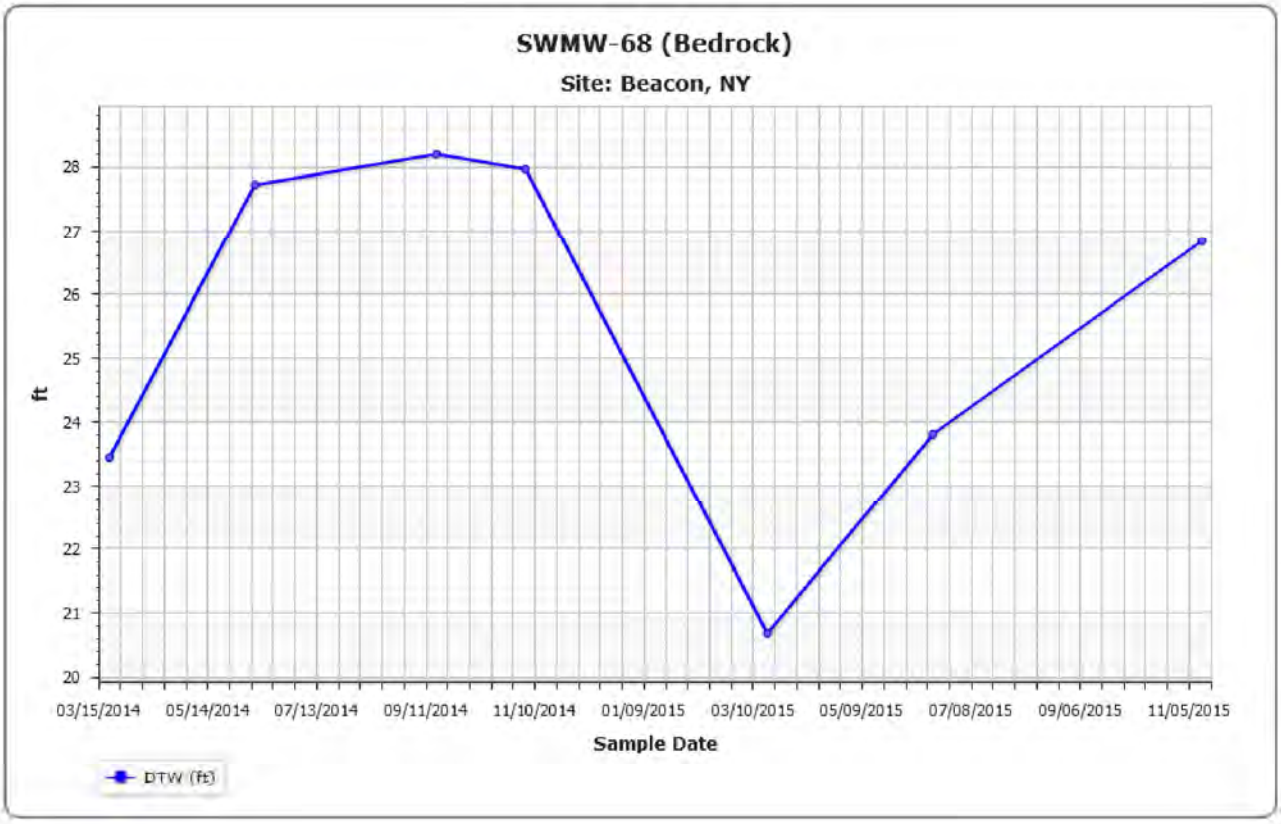

SWMW-44 (Bedrock)
Site: Beacon, NY
ft
6
5
5
4
4
3
03/15/2014 05/02/2014 06/19/2014 08/06/2014 09/23/2014 11/10/2014 12/28/2014 02/14/2015 04/03/2015 05/21/2015 07/08/2015 08/25/2015 10/12/2015
Sample Date
DTW (ft)


SWMW-45 (Bedrock)
Site: Beacon, NY
ft
16
15
14
13
12
03/13/2014 05/12/2014 07/11/2014 09/09/2014 11/08/2014 01/07/2015 03/08/2015 05/07/2015 07/06/2015 09/04/2015 11/03/2015
Sample Date
DTW (ft)

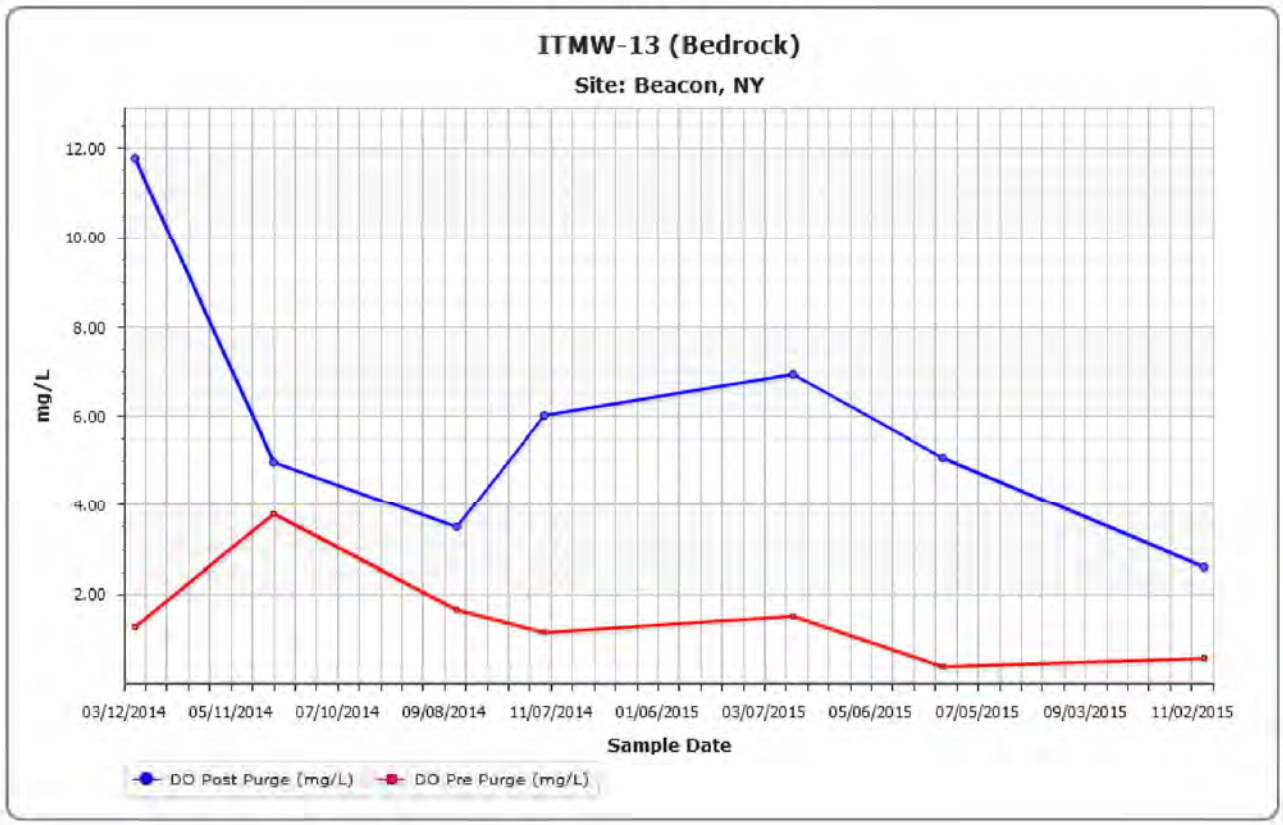

SWMW-55 (Bedrock)
Site: Beacon, NY
17
16
15
14
ft
03/13/2014
05/12/2014
07/11/2014
09/09/2014
11/08/2014
01/07/2015
03/08/2015
05/07/2015
07/06/2015
09/04/2015
11/03/2015
Sample Date
DTW (ft)

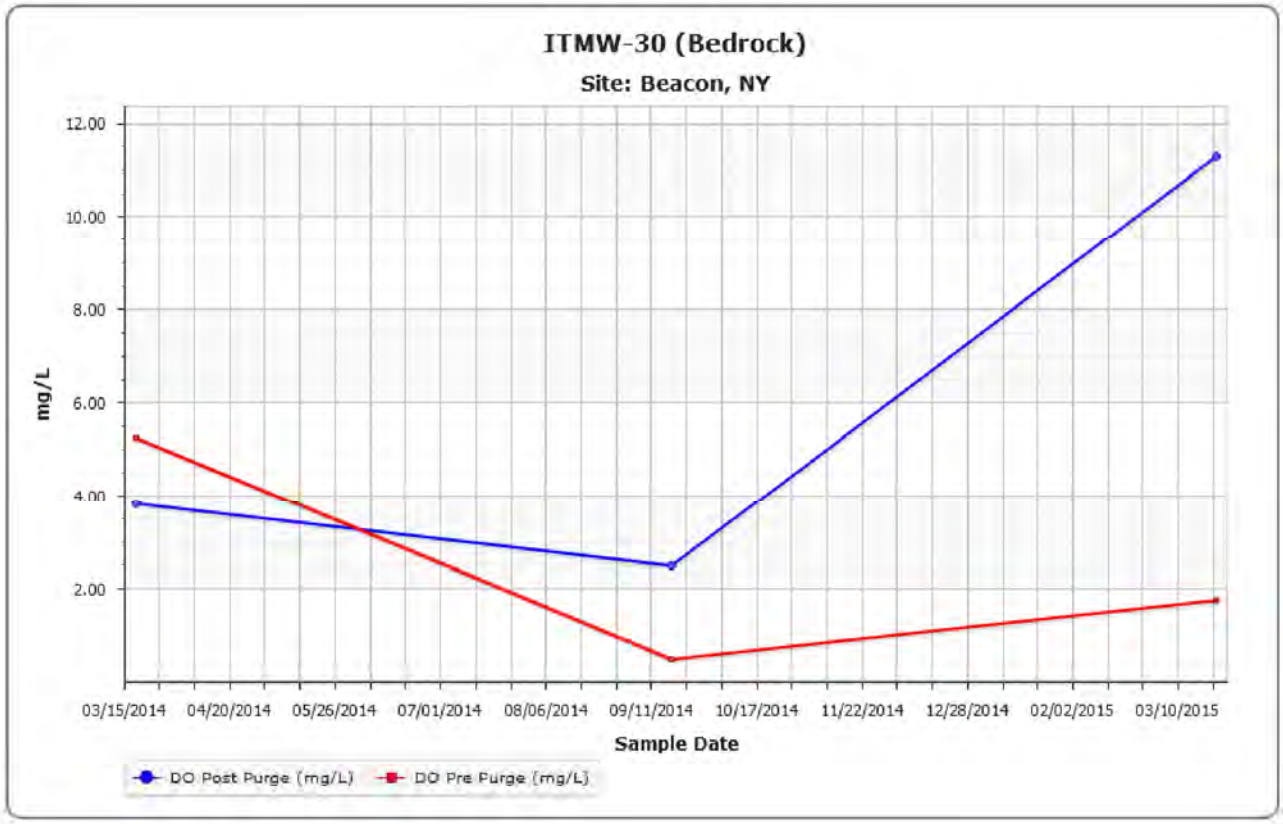

SWMW-56 (Bedrock)
Site: Beacon, NY
24
23
22
21
20
19
18
ft
03/21/2014
05/08/2014
06/25/2014
08/12/2014
09/29/2014
11/16/2014
01/03/2015
02/20/2015
04/09/2015
05/27/2015
07/14/2015
08/31/2015
10/18/2015
Sample Date
DTW (ft)

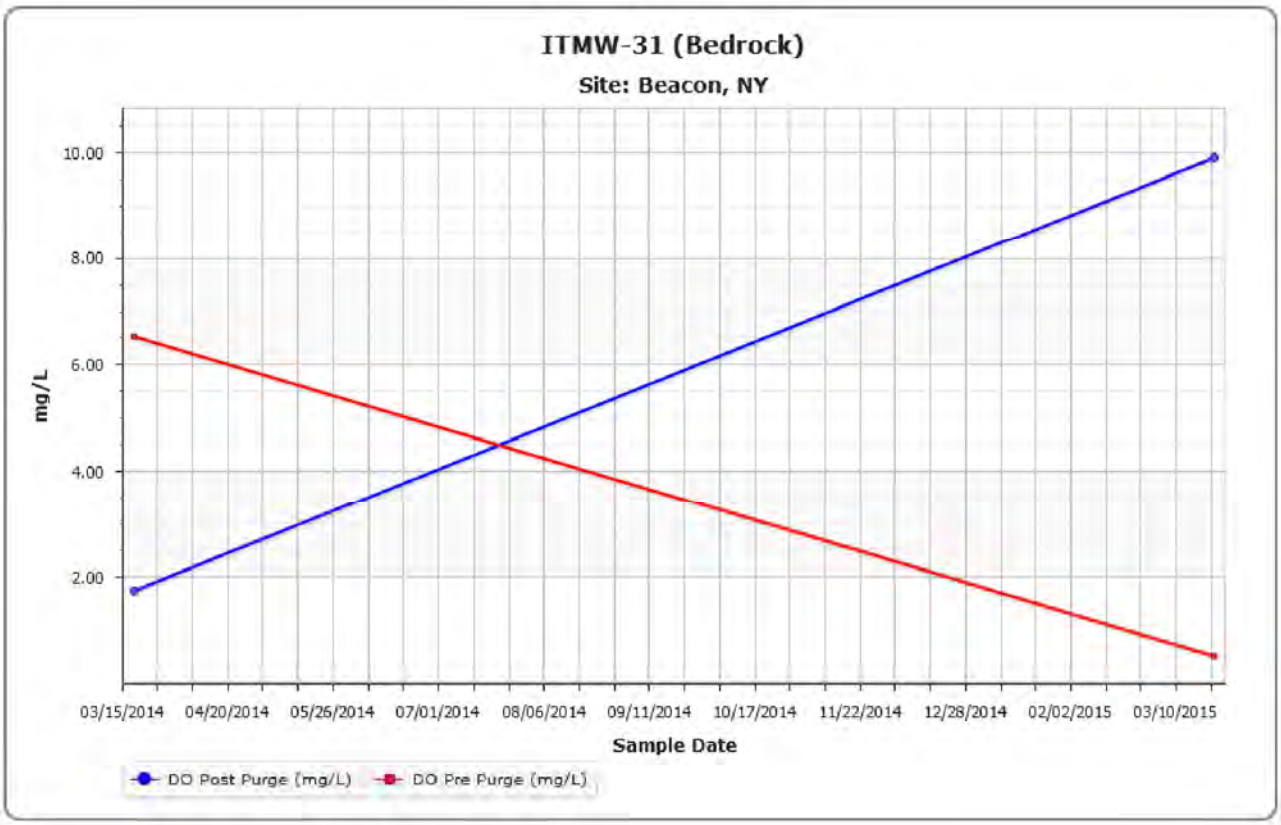

SWMW-66 (Bedrock)
Site: Beacon, NY
ft
22
21
21
20
20
19
19
03/20/2014 05/07/2014 06/24/2014 08/11/2014 09/28/2014 11/15/2014 01/02/2015 02/19/2015 04/08/2015 05/26/2015 07/13/2015 08/30/2015 10/17/2015
Sample Date
DTW (ft)

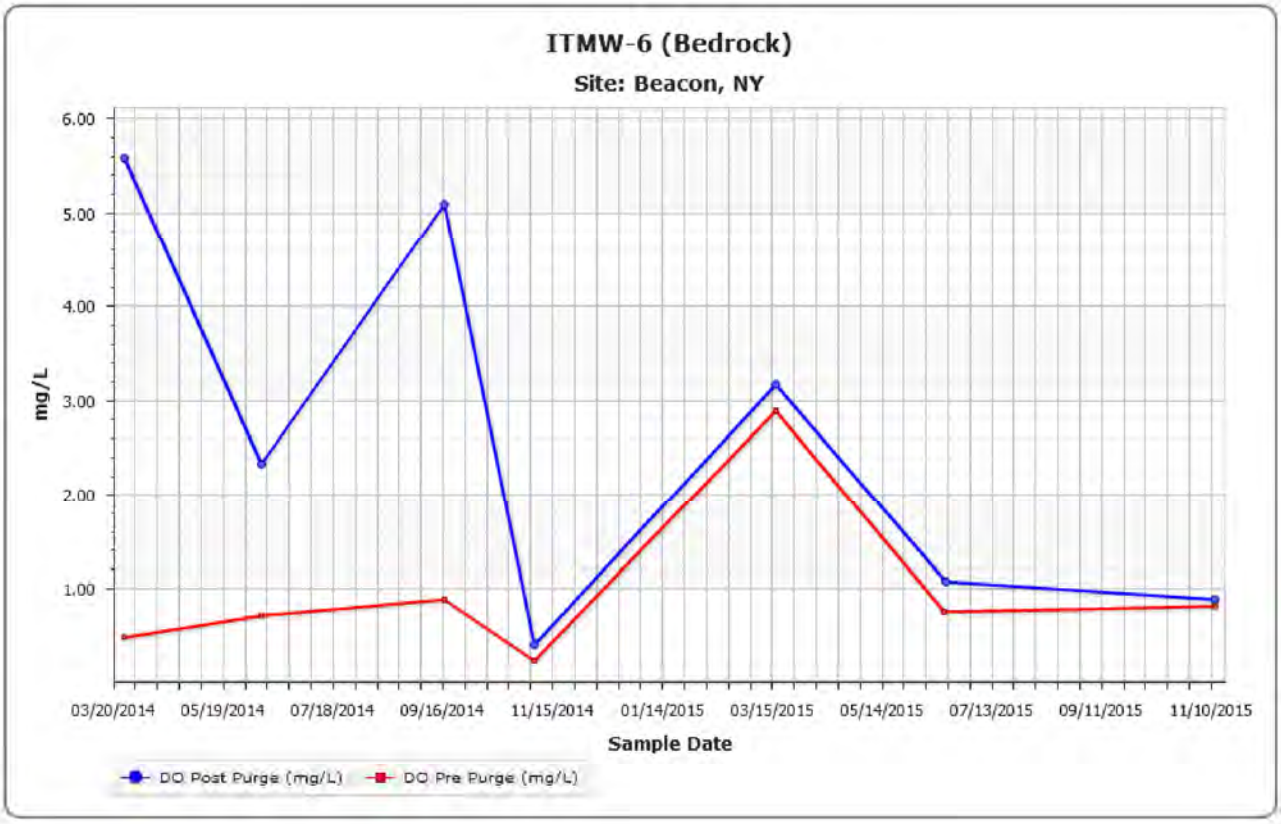

SWMW-68 (Bedrock)
Site: Beacon, NY
ft
28
27
26
25
24
23
22
21
20
03/15/2014 05/14/2014 07/13/2014 09/11/2014 11/10/2014 01/09/2015 03/10/2015 05/09/2015 07/08/2015 09/06/2015 11/05/2015
Sample Date
DTW (ft)

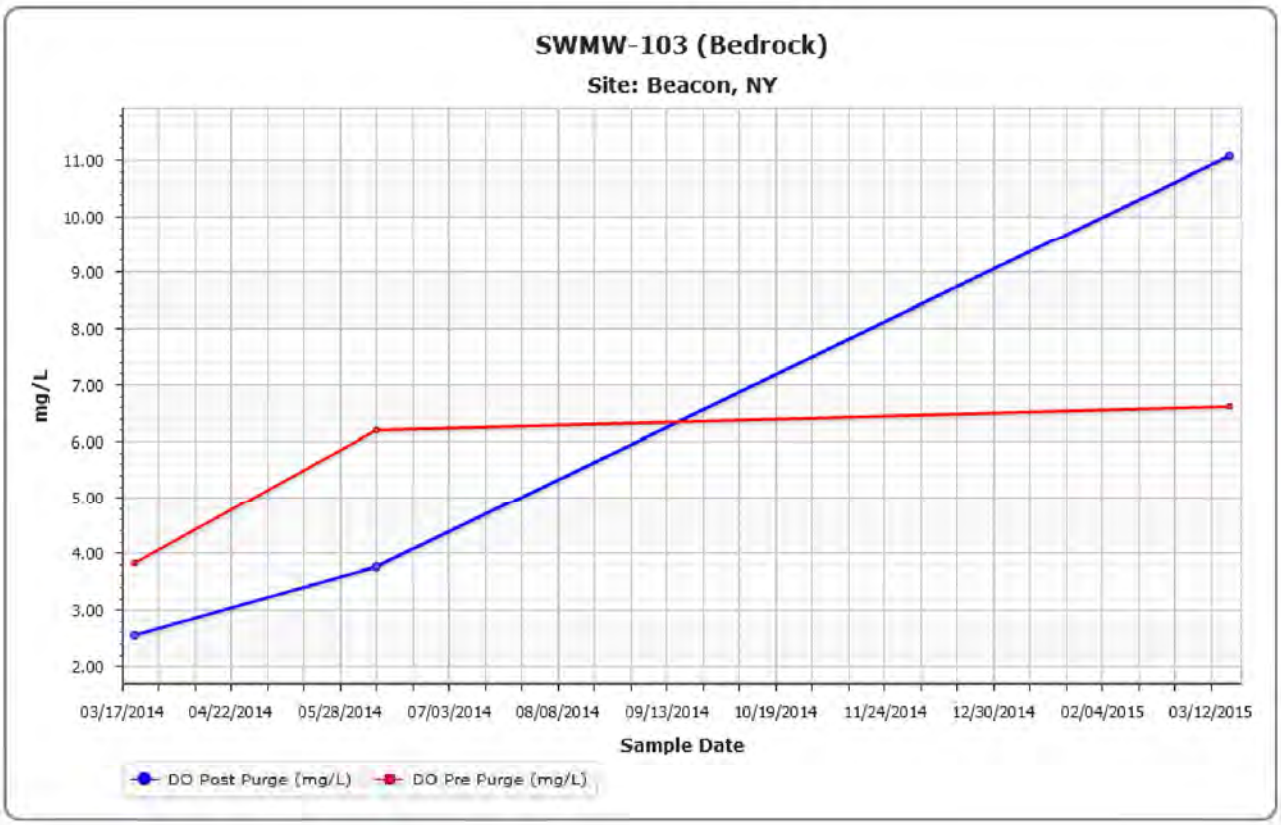
2014 THROUGH 2015 DO BEDROCK WELLS
SUMMARY GRAPHS

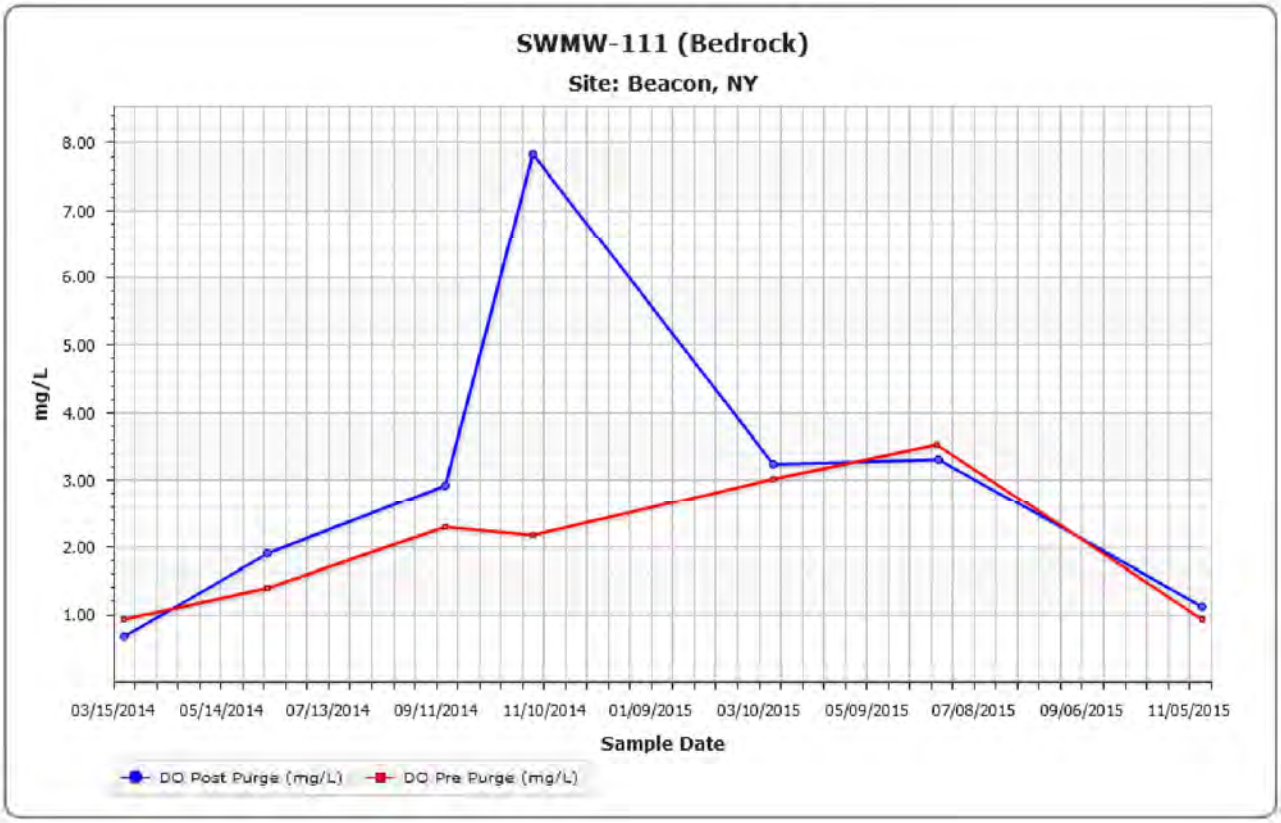

ITMW-13 (Bedrock)
Site: Beacon, NY
12.00
10.00
8.00
6.00
4.00
2.00
mg/L
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

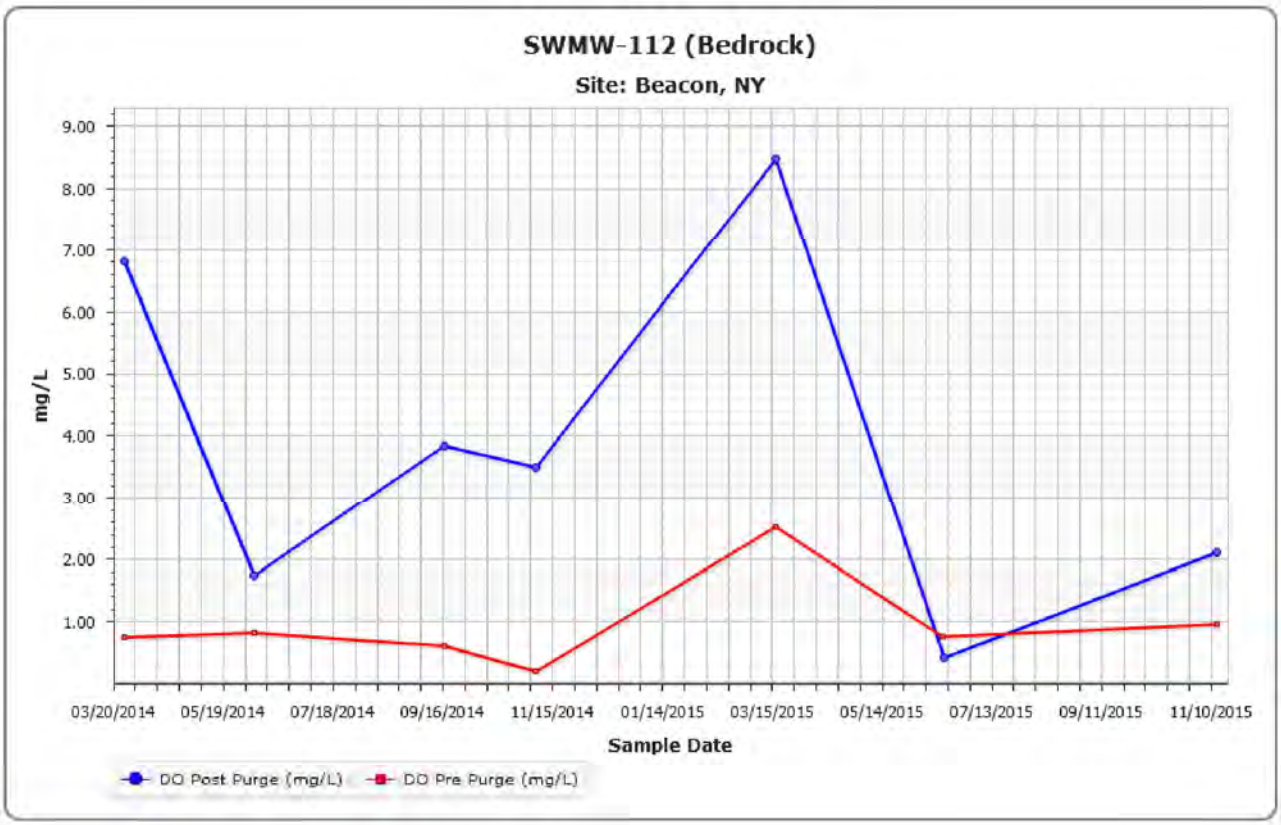

ITMW-30 (Bedrock)
Site: Beacon, NY
12.00
10.00
8.00
6.00
4.00
2.00
mg/L
03/15/2014
04/20/2014
05/26/2014
07/01/2014
08/06/2014
09/11/2014
10/17/2014
11/22/2014
12/28/2014
02/02/2015
03/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

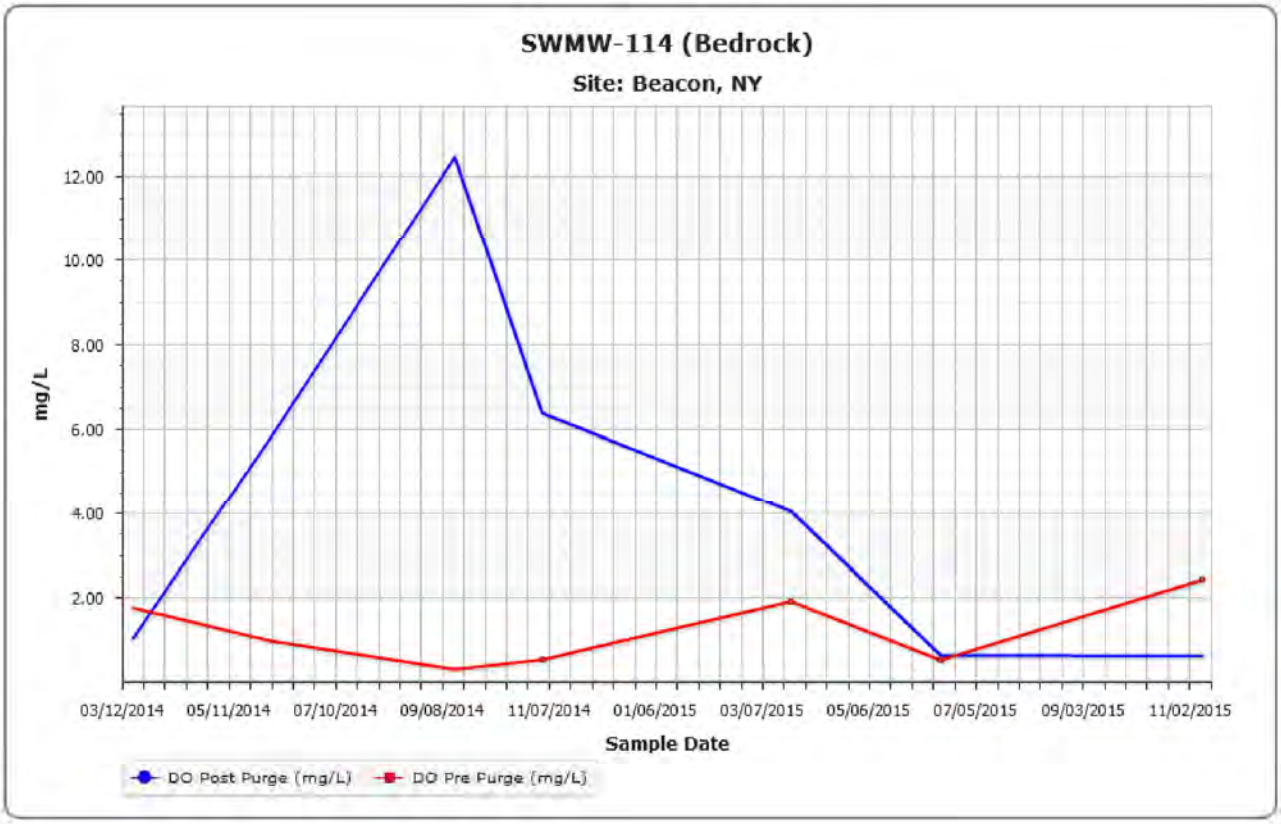

ITMW-31 (Bedrock)
Site: Beacon, NY
10.00
8.00
6.00
4.00
2.00
mg/L
03/15/2014
04/20/2014
05/26/2014
07/01/2014
08/06/2014
09/11/2014
10/17/2014
11/22/2014
12/28/2014
02/02/2015
03/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

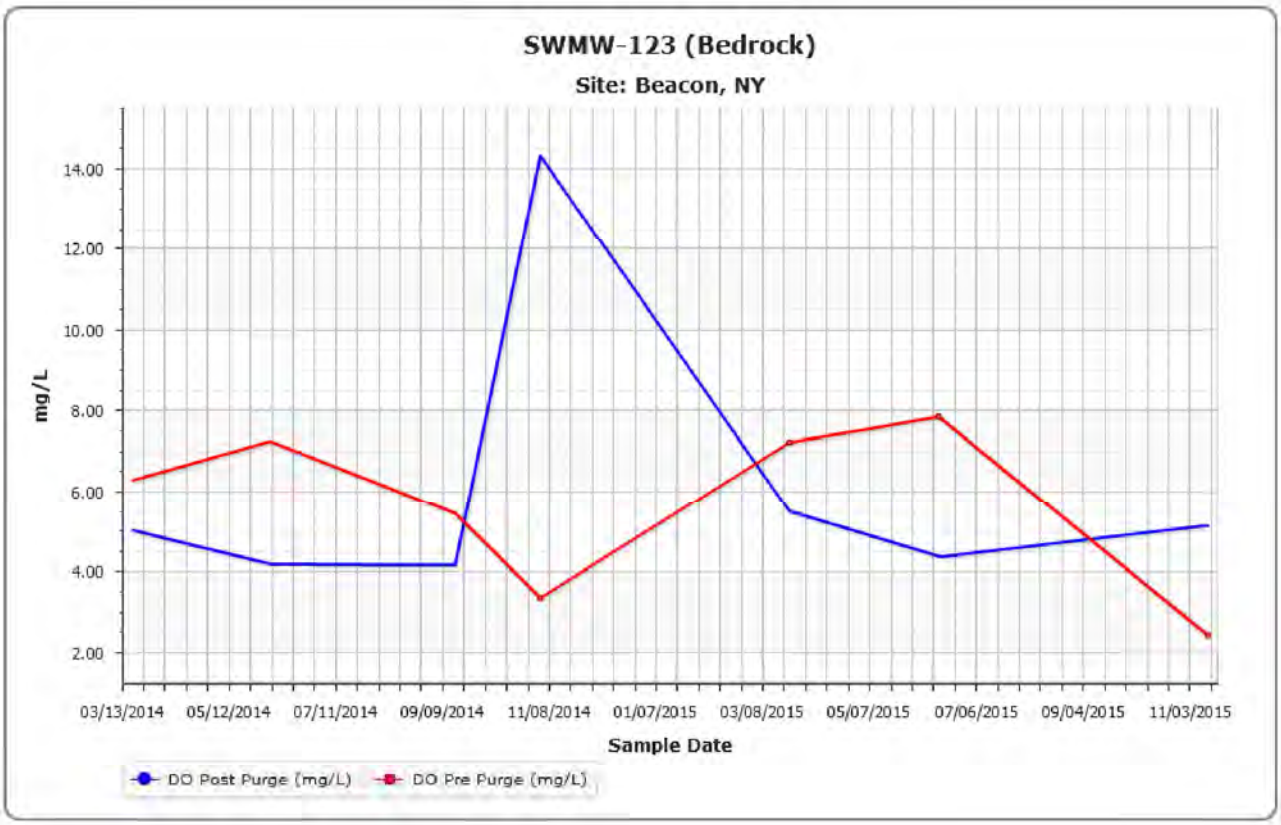

ITMW-6 (Bedrock)
Site: Beacon, NY
6.00
5.00
4.00
3.00
2.00
1.00
mg/L
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

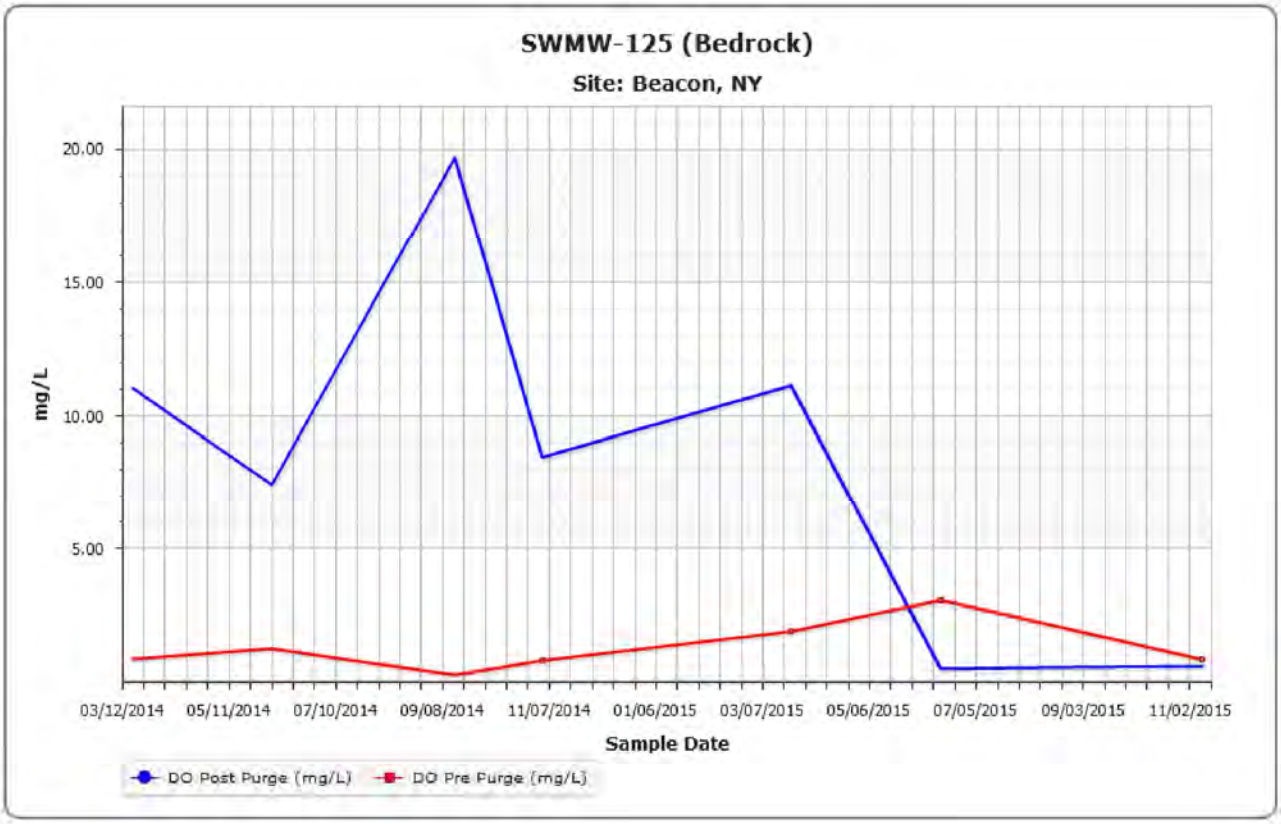

SWMW-103 (Bedrock)
Site: Beacon, NY
mg/L
11.00
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

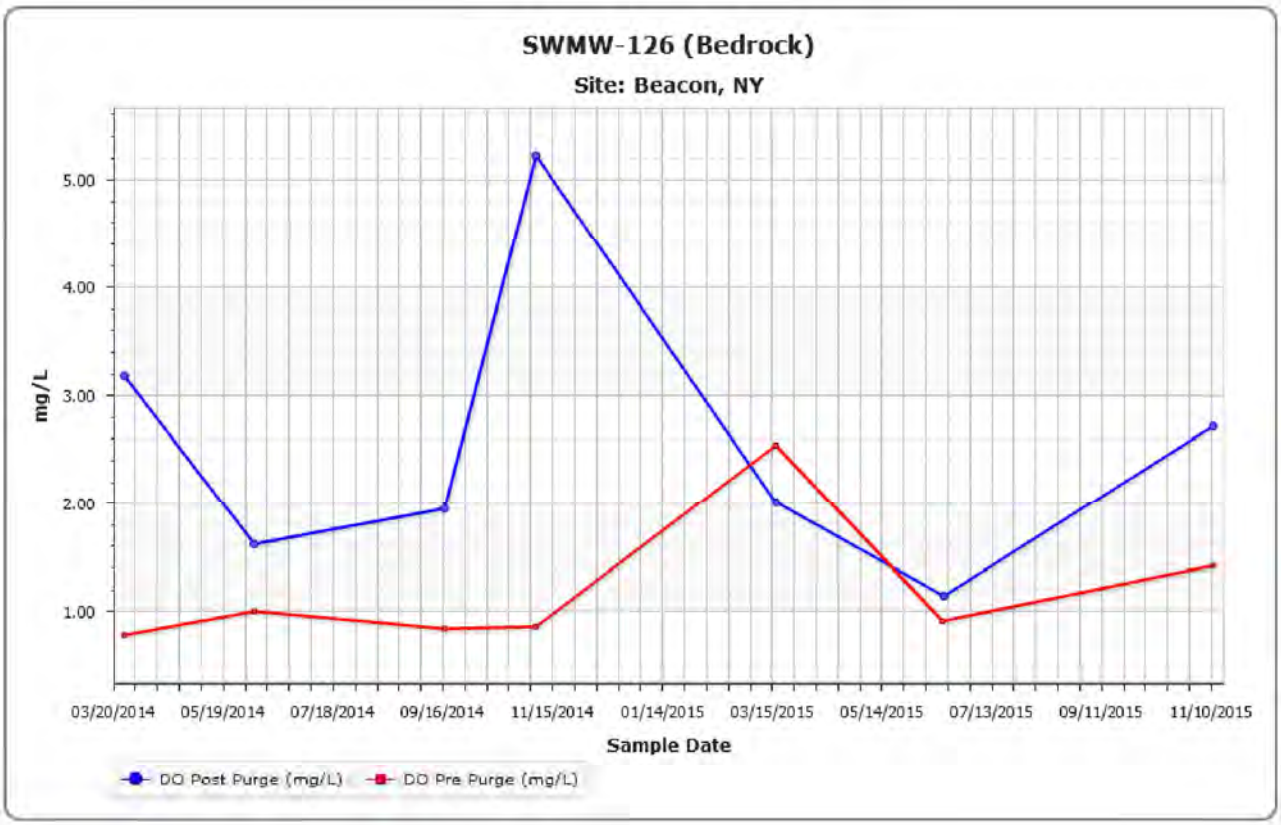

SWMW-111 (Bedrock)
Site: Beacon, NY
mg/L
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

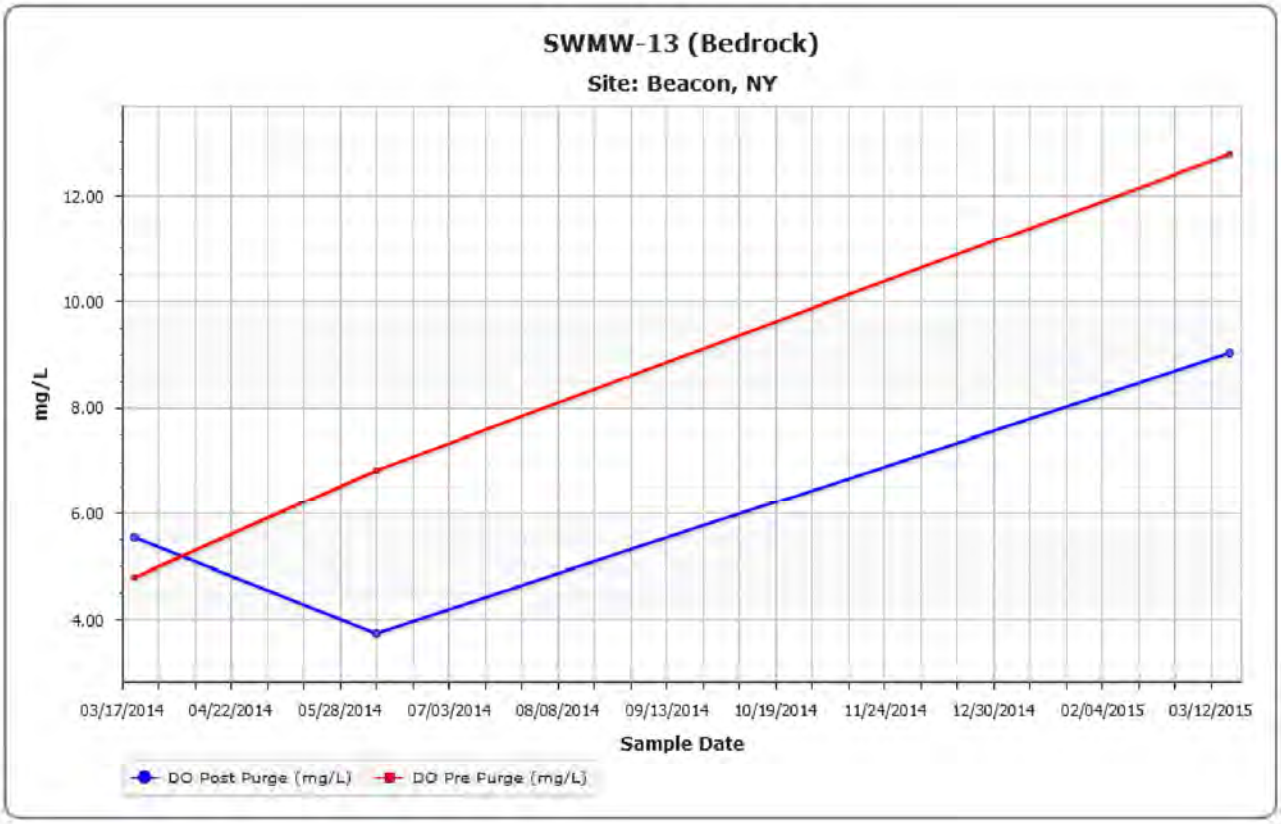

SWMW-112 (Bedrock)
Site: Beacon, NY
mg/L
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

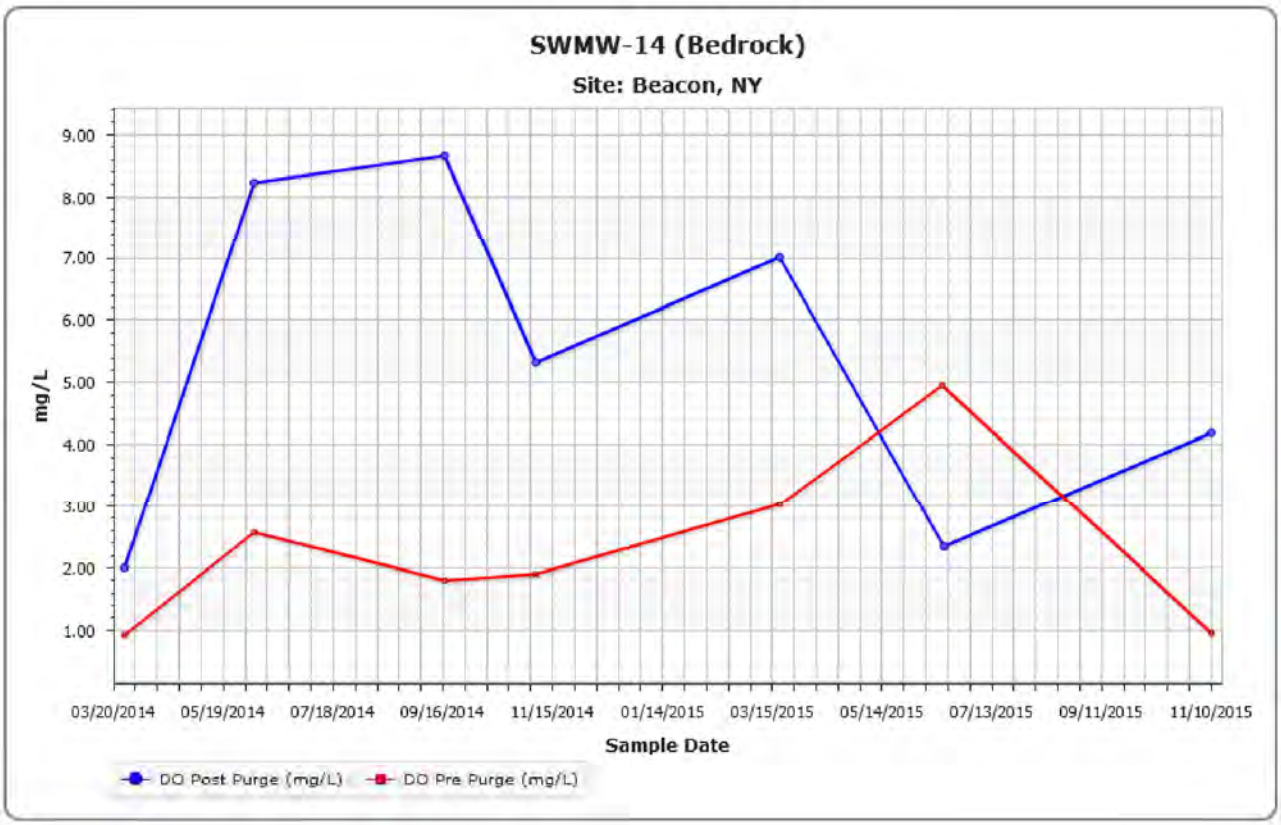

SWMW-114 (Bedrock)
Site: Beacon, NY
mg/L
12.00
10.00
8.00
6.00
4.00
2.00
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

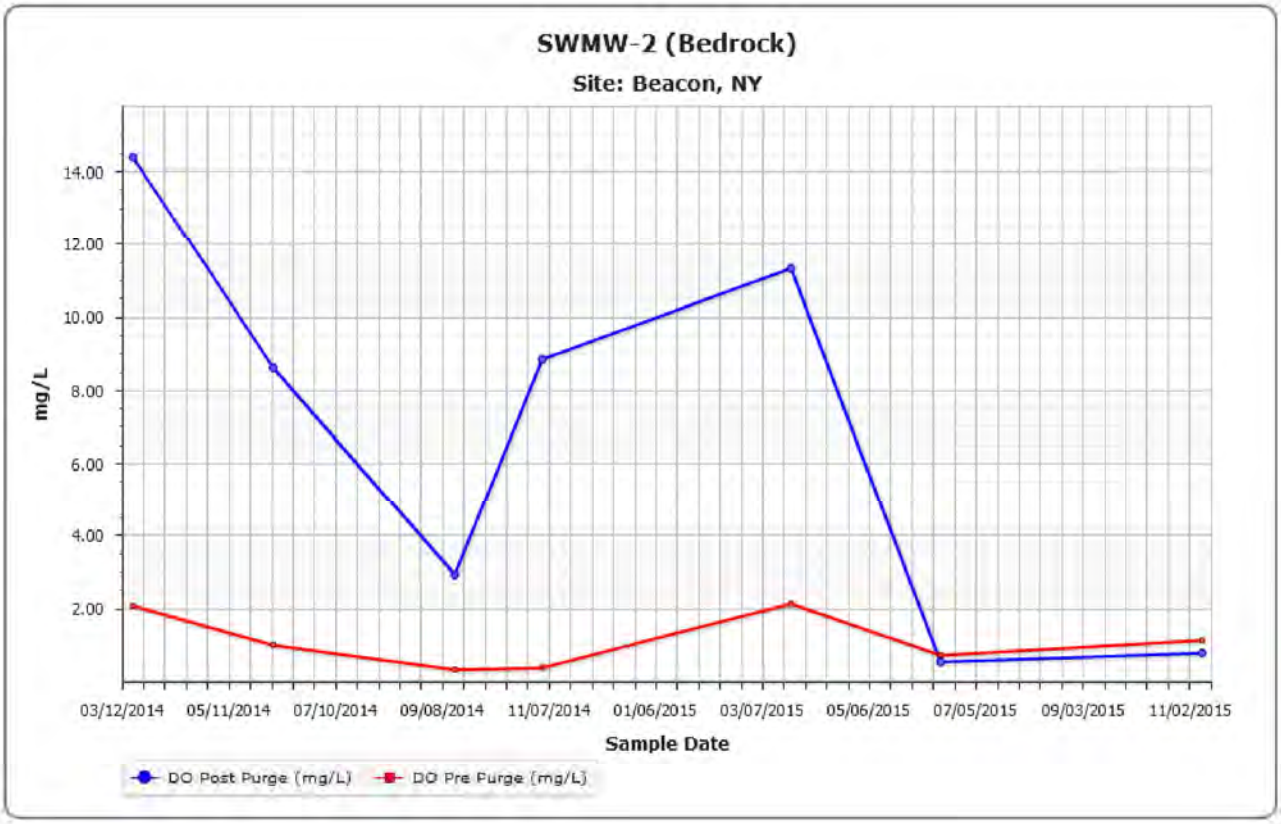

SWMW-123 (Bedrock)
Site: Beacon, NY
mg/L
14.00
12.00
10.00
8.00
6.00
4.00
2.00
03/13/2014
05/12/2014
07/11/2014
09/09/2014
11/08/2014
01/07/2015
03/08/2015
05/07/2015
07/06/2015
09/04/2015
11/03/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

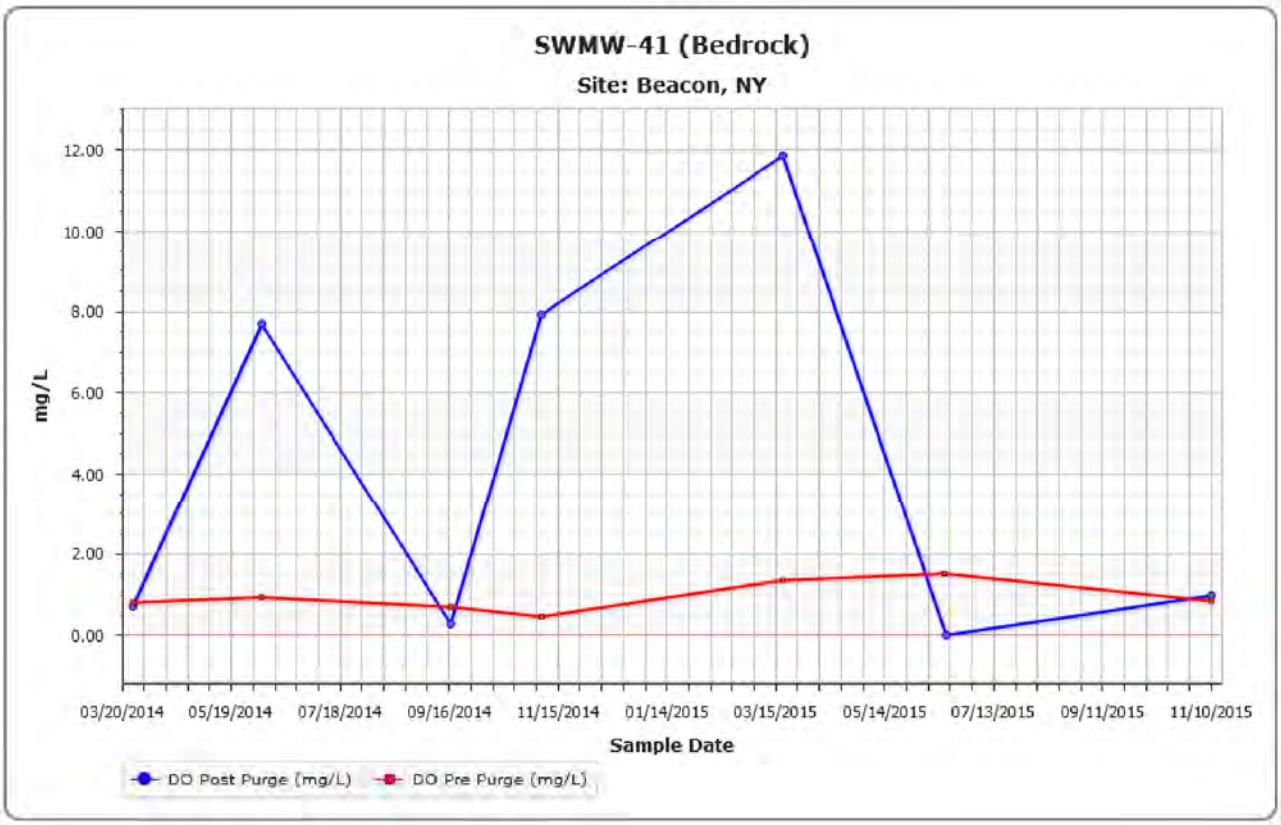

SWMW-125 (Bedrock)
Site: Beacon, NY
mg/L
20.00
15.00
10.00
5.00
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

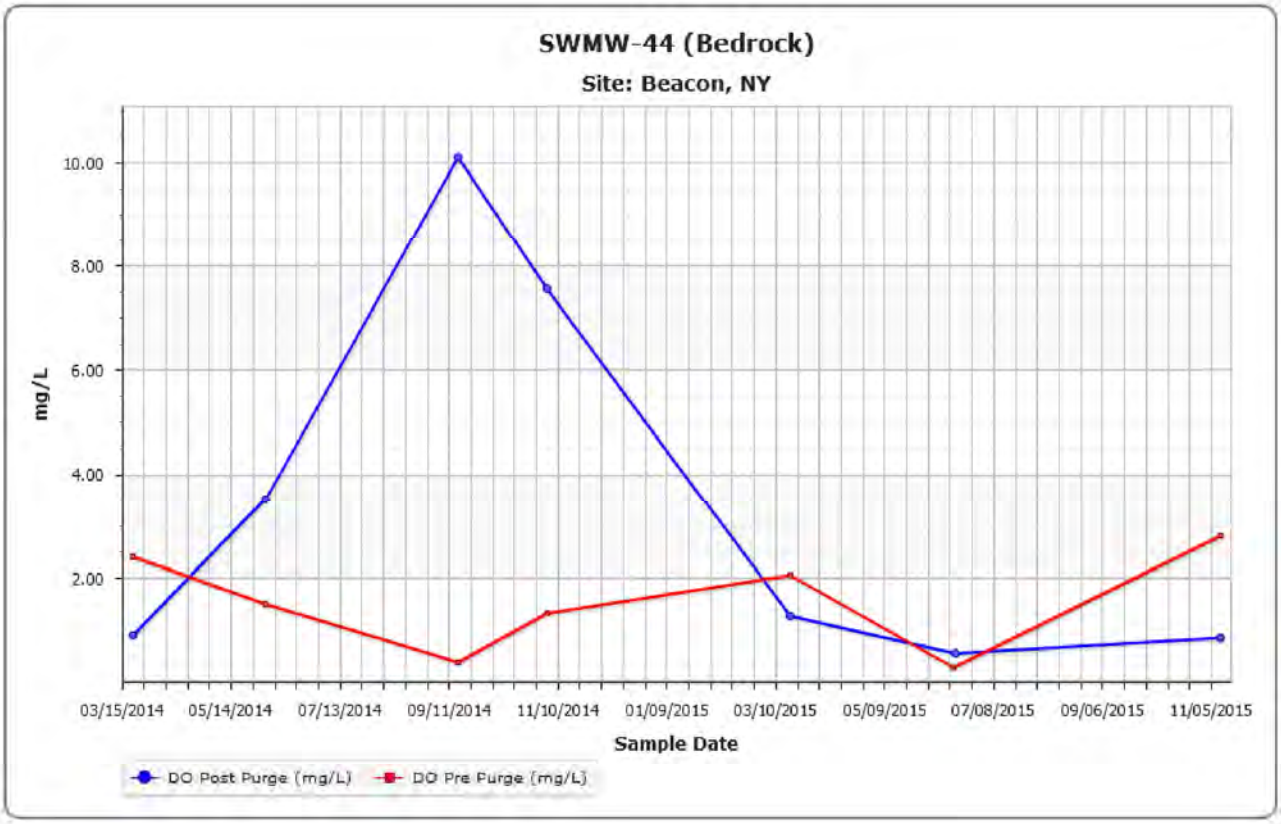

SWMW-126 (Bedrock)
Site: Beacon, NY
mg/L
5.00
4.00
3.00
2.00
1.00
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

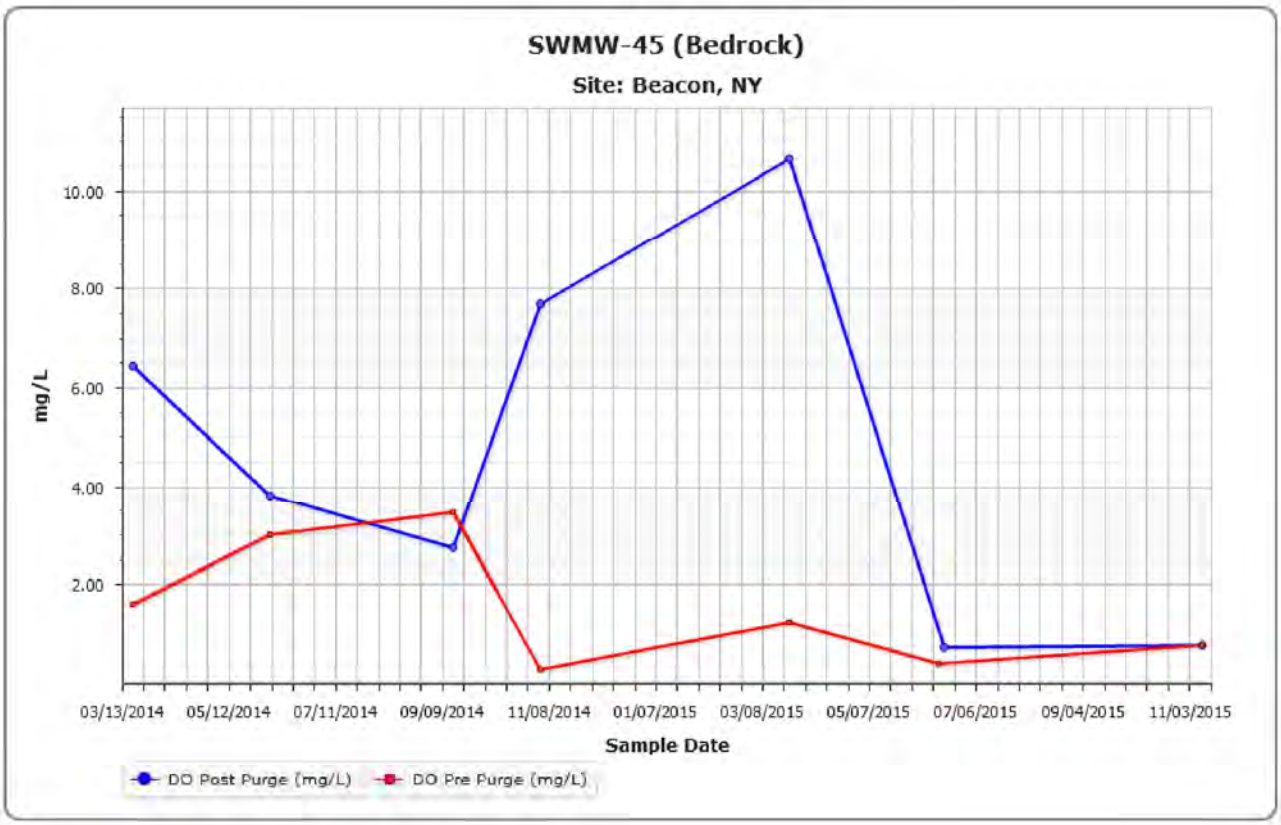

SWMW-13 (Bedrock)
Site: Beacon, NY
mg/L
12.00
10.00
8.00
6.00
4.00
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

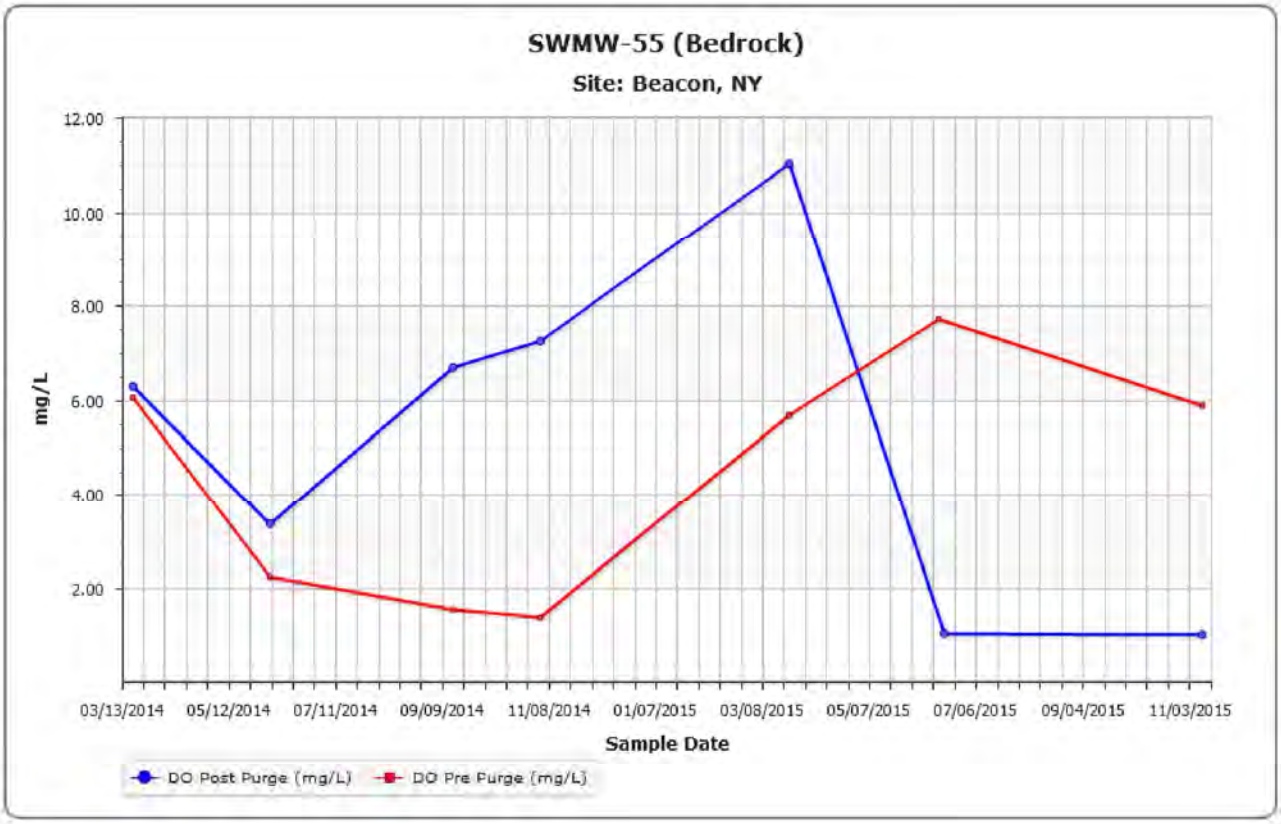

SWMW-14 (Bedrock)
Site: Beacon, NY
mg/L
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

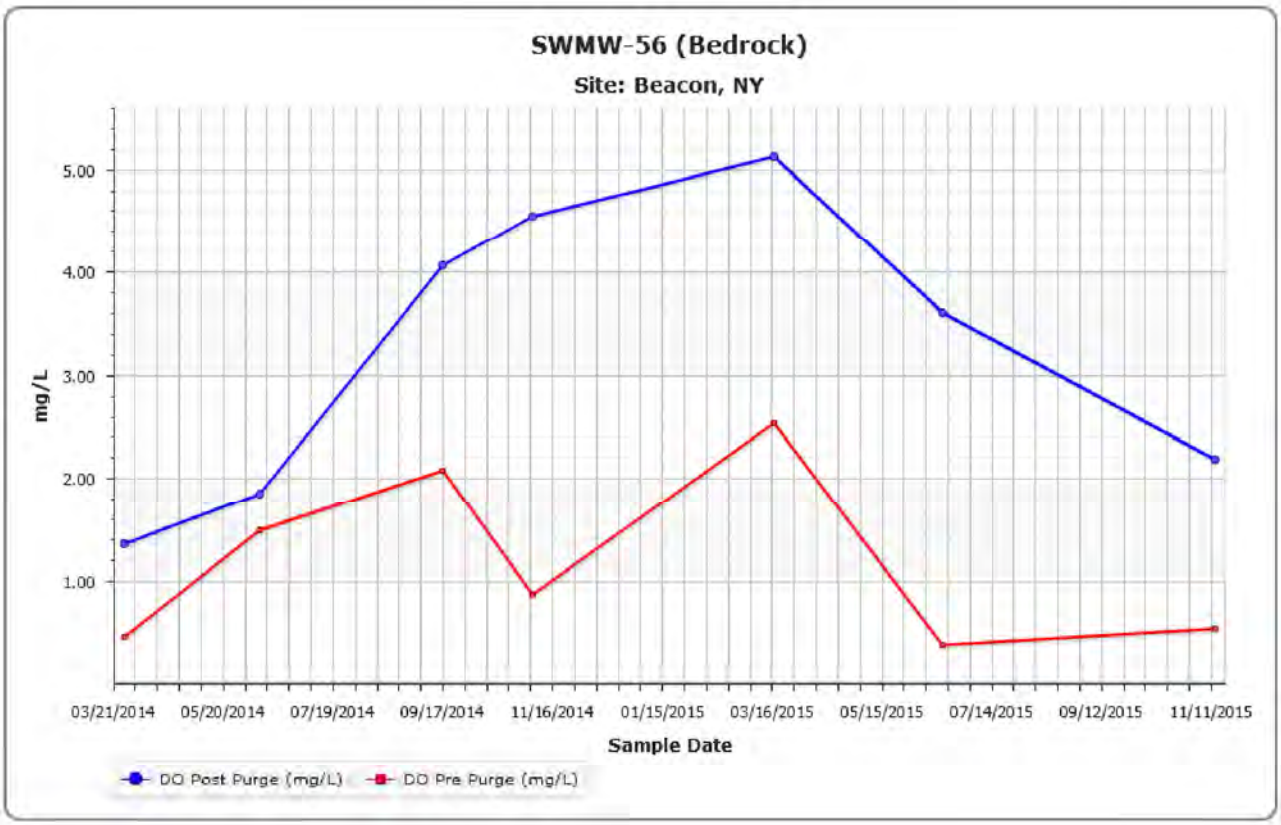

SWMW-2 (Bedrock)
Site: Beacon, NY
mg/L
14.00
12.00
10.00
8.00
6.00
4.00
2.00
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

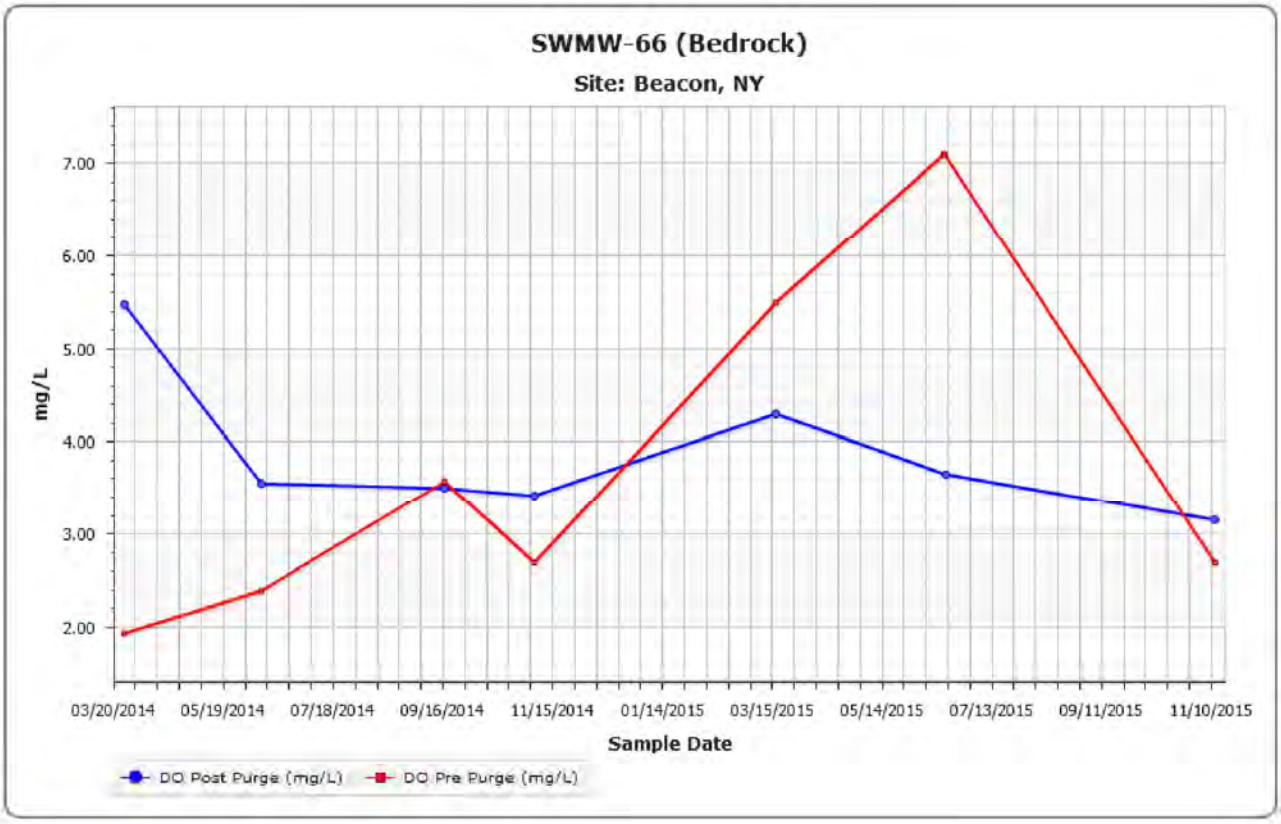

SWMW-41 (Bedrock)
Site: Beacon, NY
mg/L
12.00
10.00
8.00
6.00
4.00
2.00
0.00
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

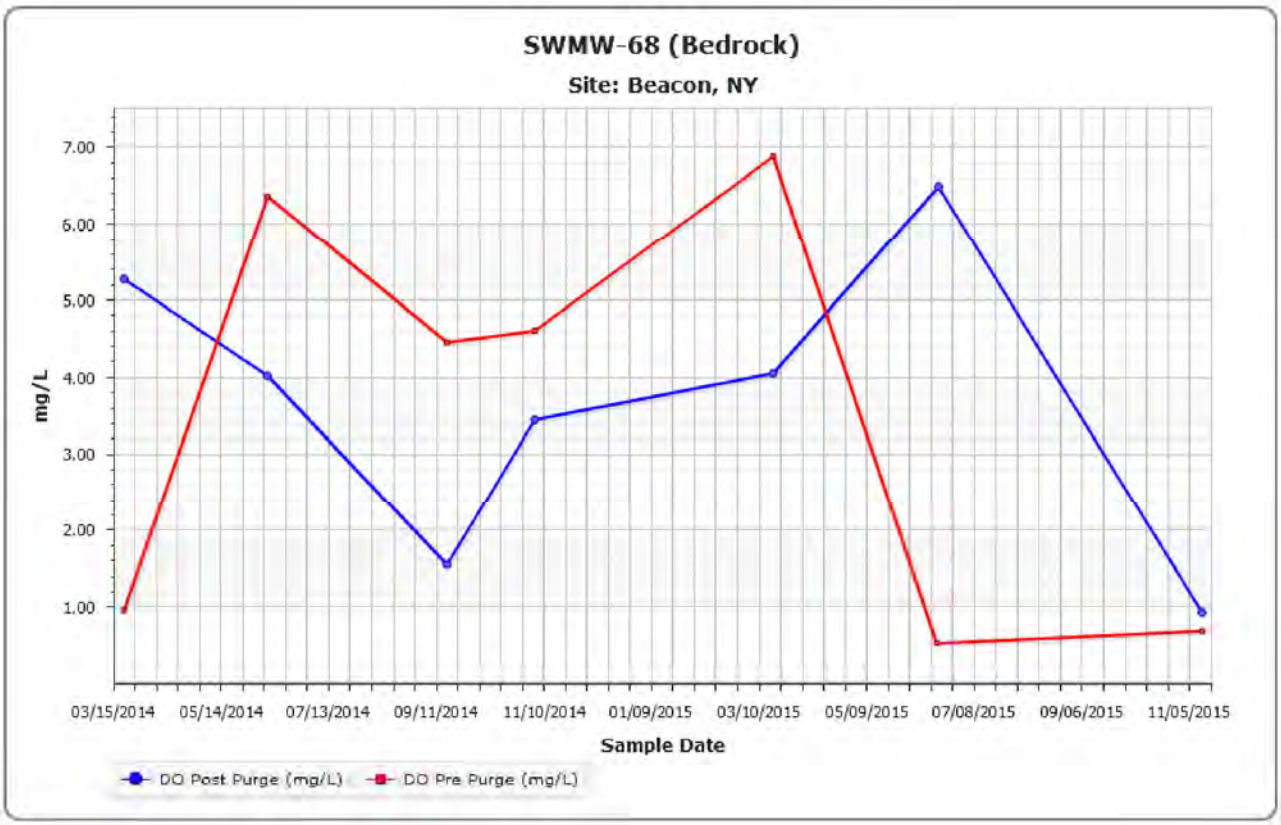

SWMW-44 (Bedrock)
Site: Beacon, NY
mg/L
10.00
8.00
6.00
4.00
2.00
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)


SWMW-45 (Bedrock)
Site: Beacon, NY
mg/L
10.00
8.00
6.00
4.00
2.00
03/13/2014
05/12/2014
07/11/2014
09/09/2014
11/08/2014
01/07/2015
03/08/2015
05/07/2015
07/06/2015
09/04/2015
11/03/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

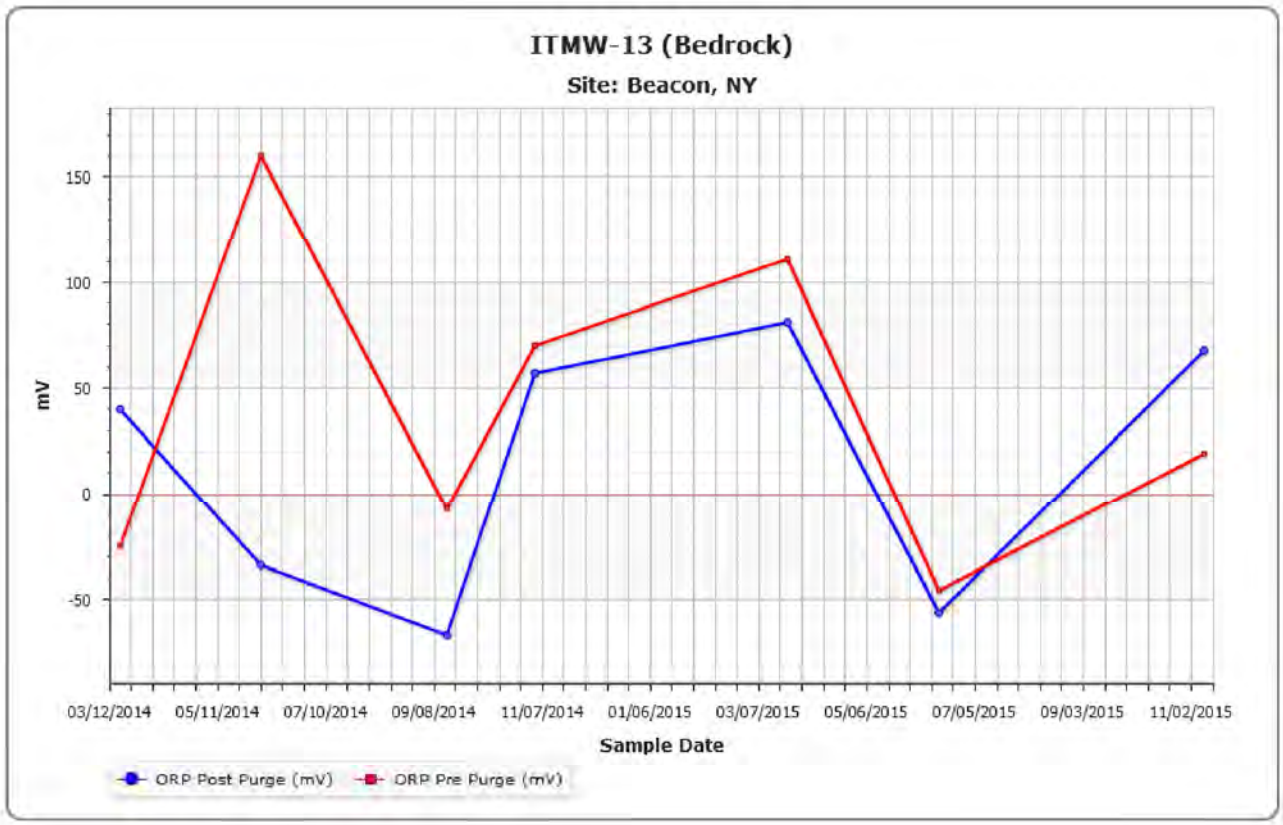

SWMW-55 (Bedrock)
Site: Beacon, NY
mg/L
12.00
10.00
8.00
6.00
4.00
2.00
03/13/2014
05/12/2014
07/11/2014
09/09/2014
11/08/2014
01/07/2015
03/08/2015
05/07/2015
07/06/2015
09/04/2015
11/03/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)


SWMW-56 (Bedrock)
Site: Beacon, NY
mg/L
5.00
4.00
3.00
2.00
1.00
03/21/2014
05/20/2014
07/19/2014
09/17/2014
11/16/2014
01/15/2015
03/16/2015
05/15/2015
07/14/2015
09/12/2015
11/11/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

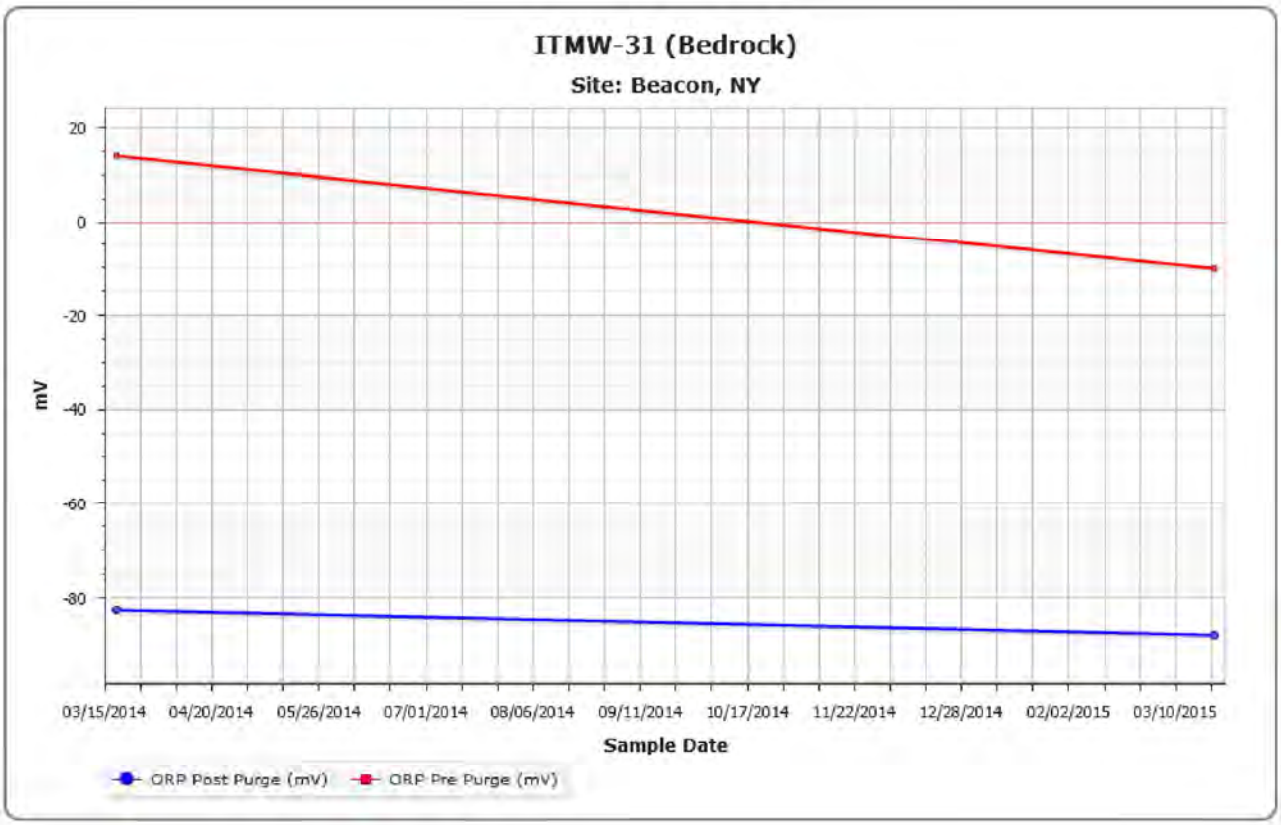

SWMW-66 (Bedrock)
Site: Beacon, NY
mg/L
7.00
6.00
5.00
4.00
3.00
2.00
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

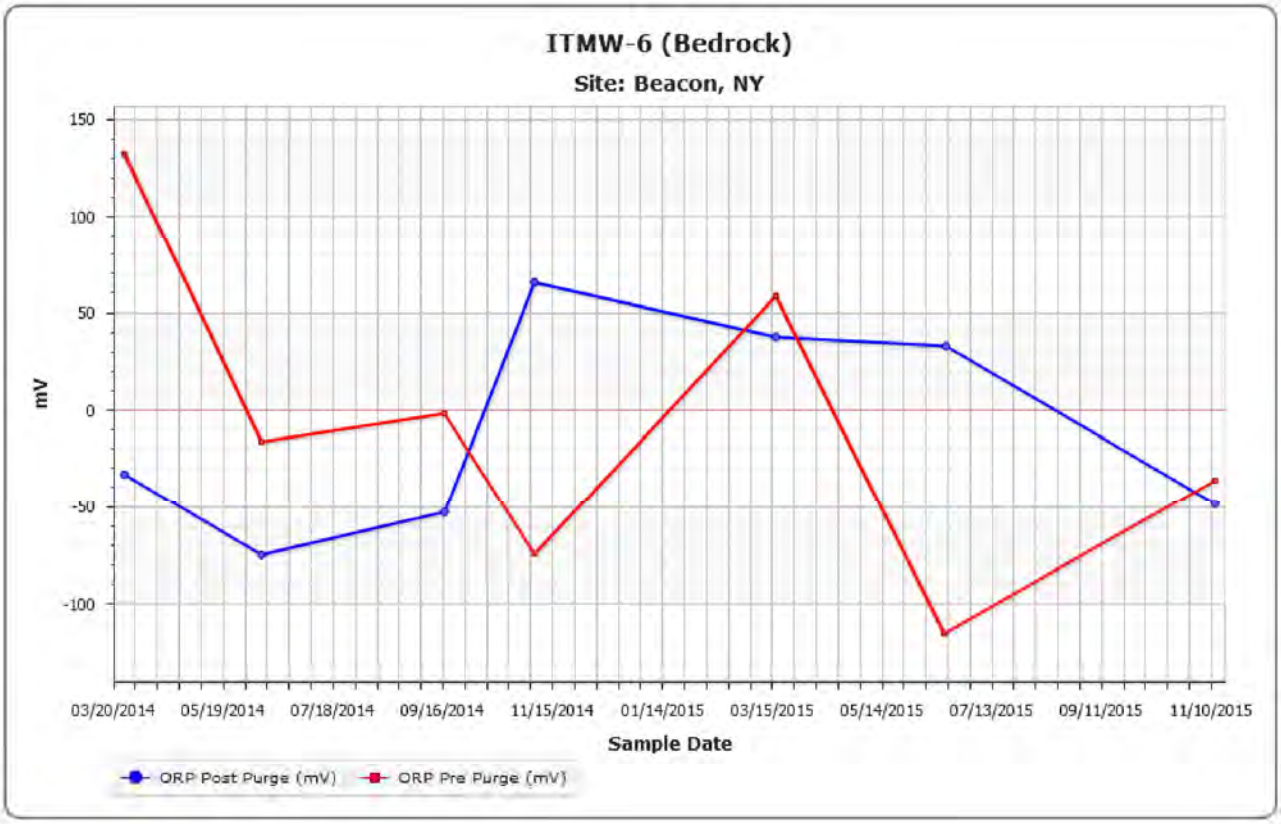

SWMW-68 (Bedrock)
Site: Beacon, NY
mg/L
7.00
6.00
5.00
4.00
3.00
2.00
1.00
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
DO Post Purge (mg/L)
DO Pre Purge (mg/L)

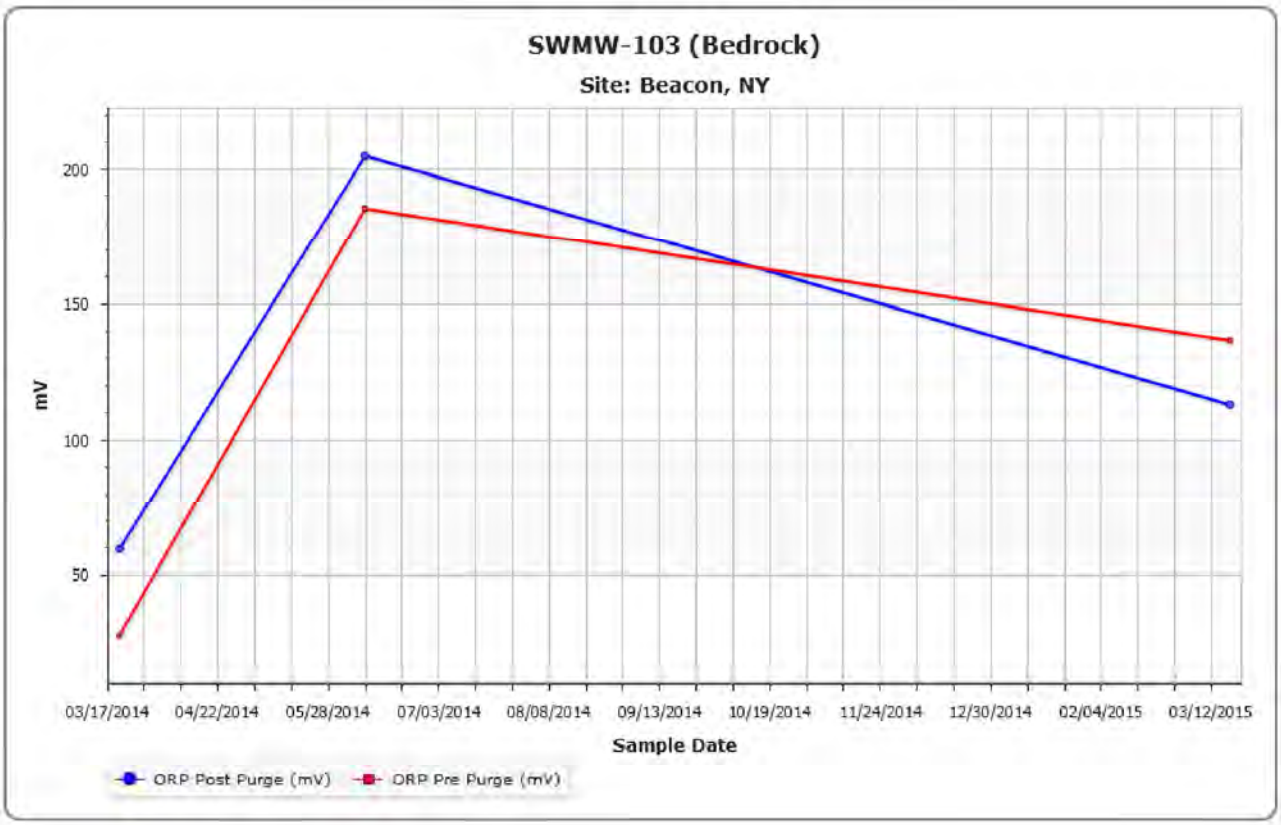
2014 THROUGH 2015 ORP BEDROCK WELLS
SUMMARY GRAPHS

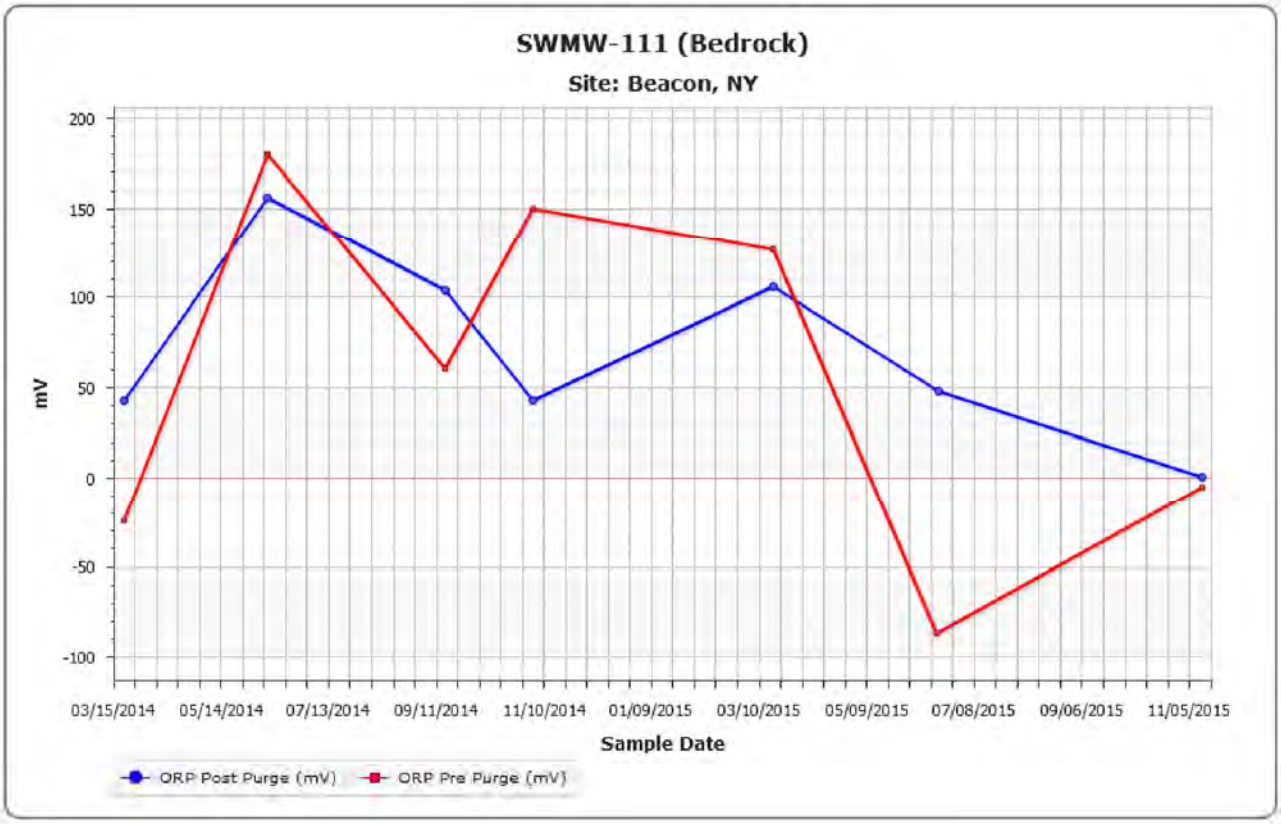

ITMW-13 (Bedrock)
Site: Beacon, NY
150
100
50
0
-50
mV
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

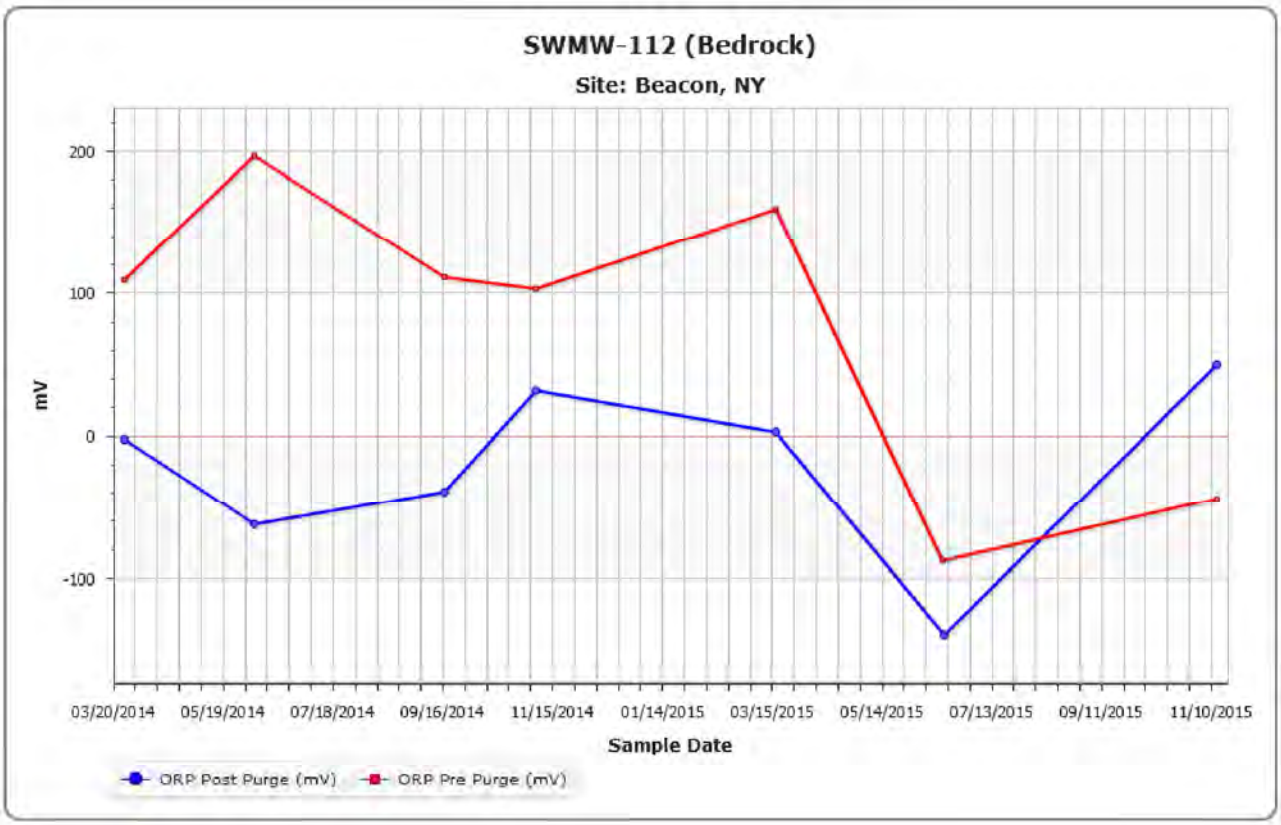

ITMW-30 (Bedrock)
Site: Beacon, NY
150
100
50
0
-50
-100
mV
03/15/2014
04/20/2014
05/26/2014
07/01/2014
08/06/2014
09/11/2014
10/17/2014
11/22/2014
12/28/2014
02/02/2015
03/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

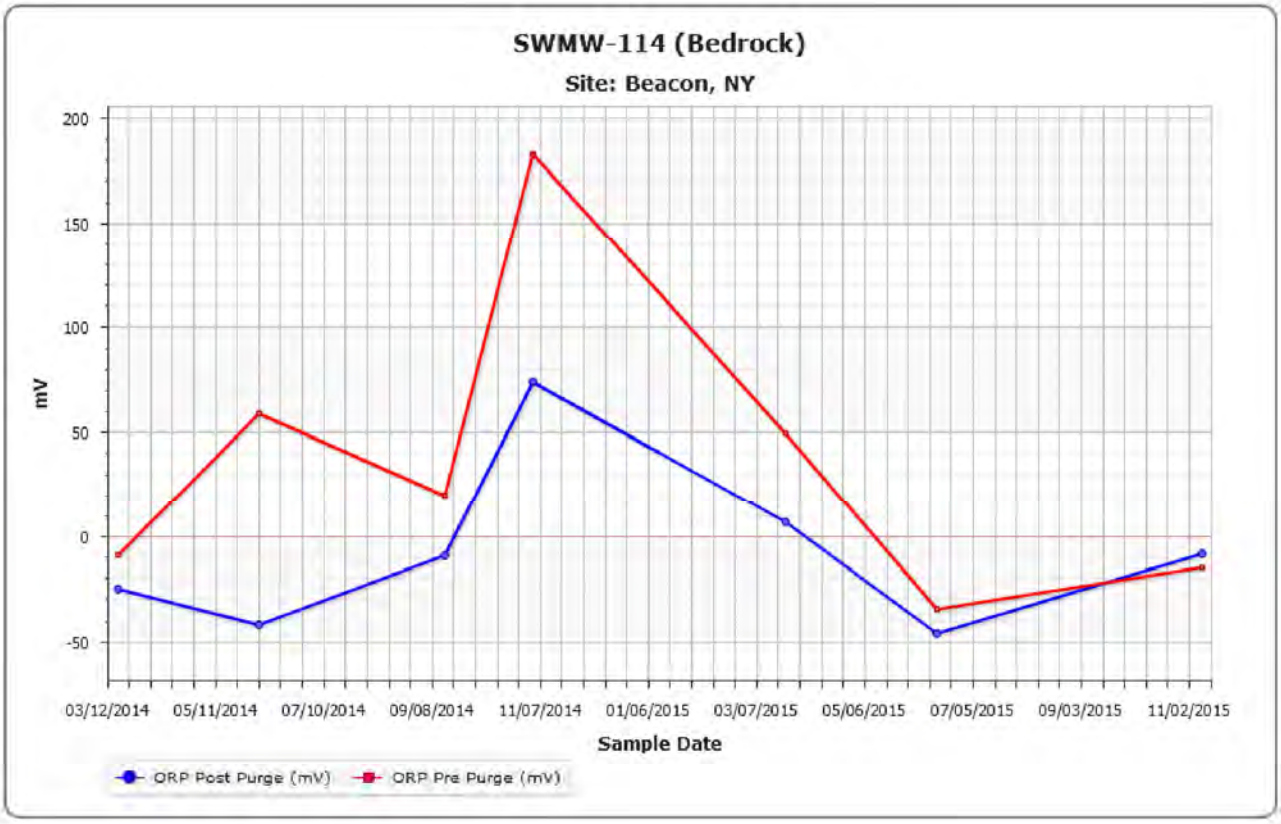

ITMW-31 (Bedrock)
Site: Beacon, NY
20
0
-20
-40
-60
-80
mV
03/15/2014
04/20/2014
05/26/2014
07/01/2014
08/06/2014
09/11/2014
10/17/2014
11/22/2014
12/28/2014
02/02/2015
03/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

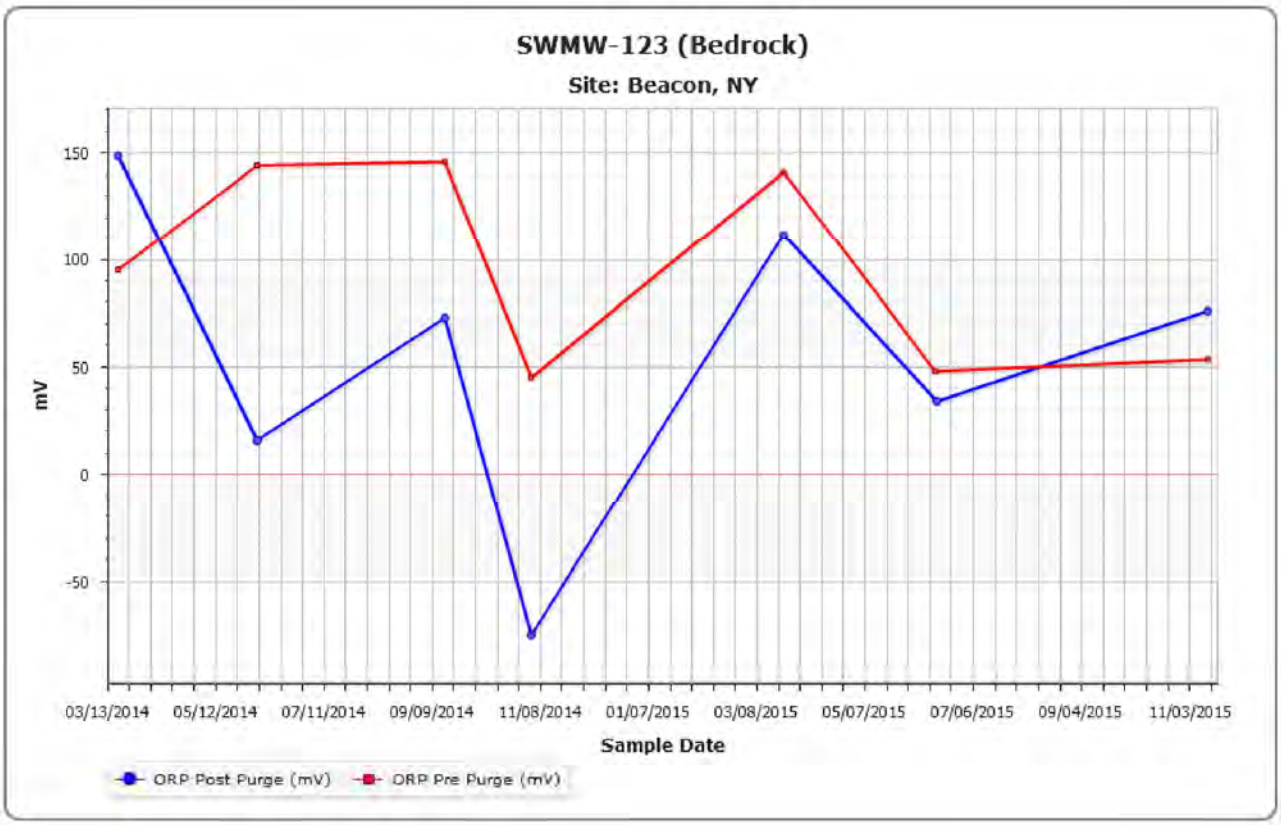

ITMW-6 (Bedrock)
Site: Beacon, NY
150
100
50
0
-50
-100
mV
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

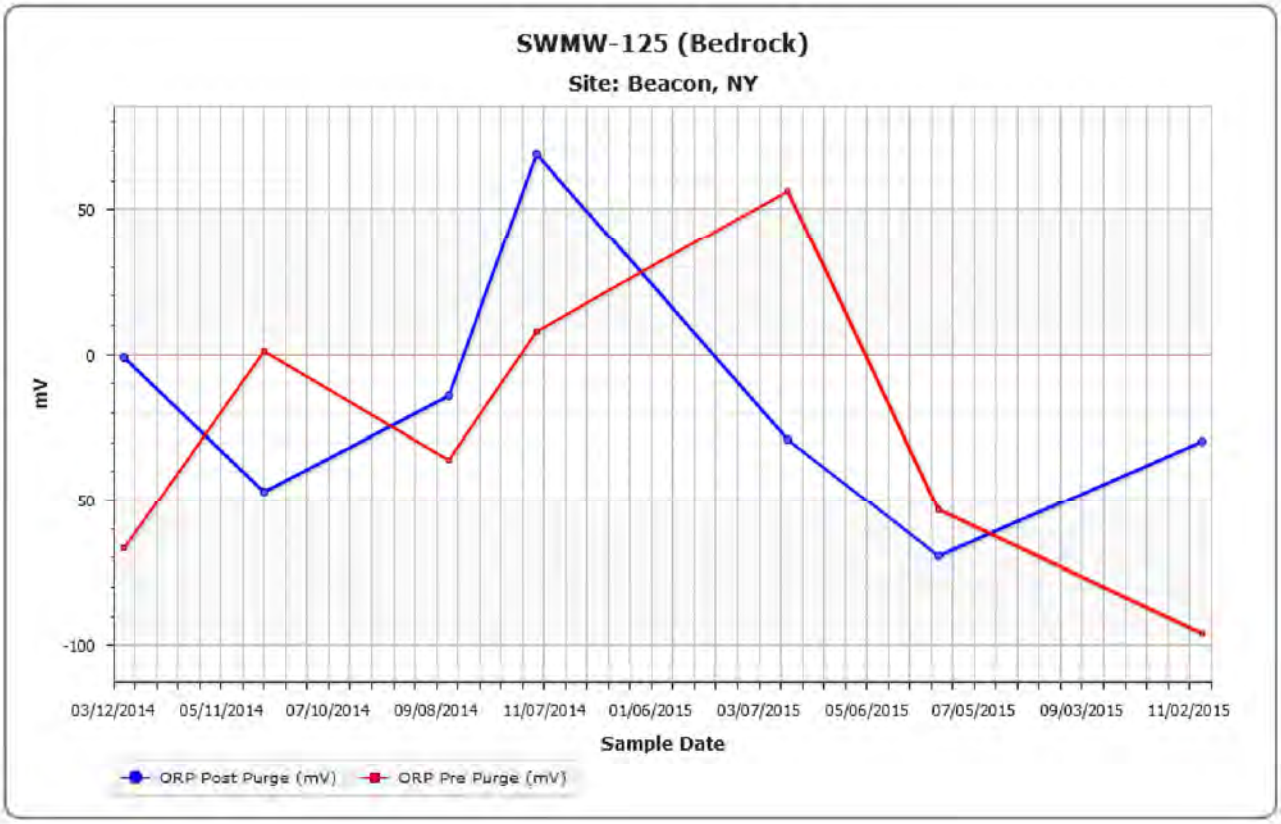

SWMW-103 (Bedrock)
Site: Beacon, NY
mV
200
150
100
50
03/17/2014
04/22/2014
05/28/2014
07/03/2014
08/08/2014
09/13/2014
10/19/2014
11/24/2014
12/30/2014
02/04/2015
03/12/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

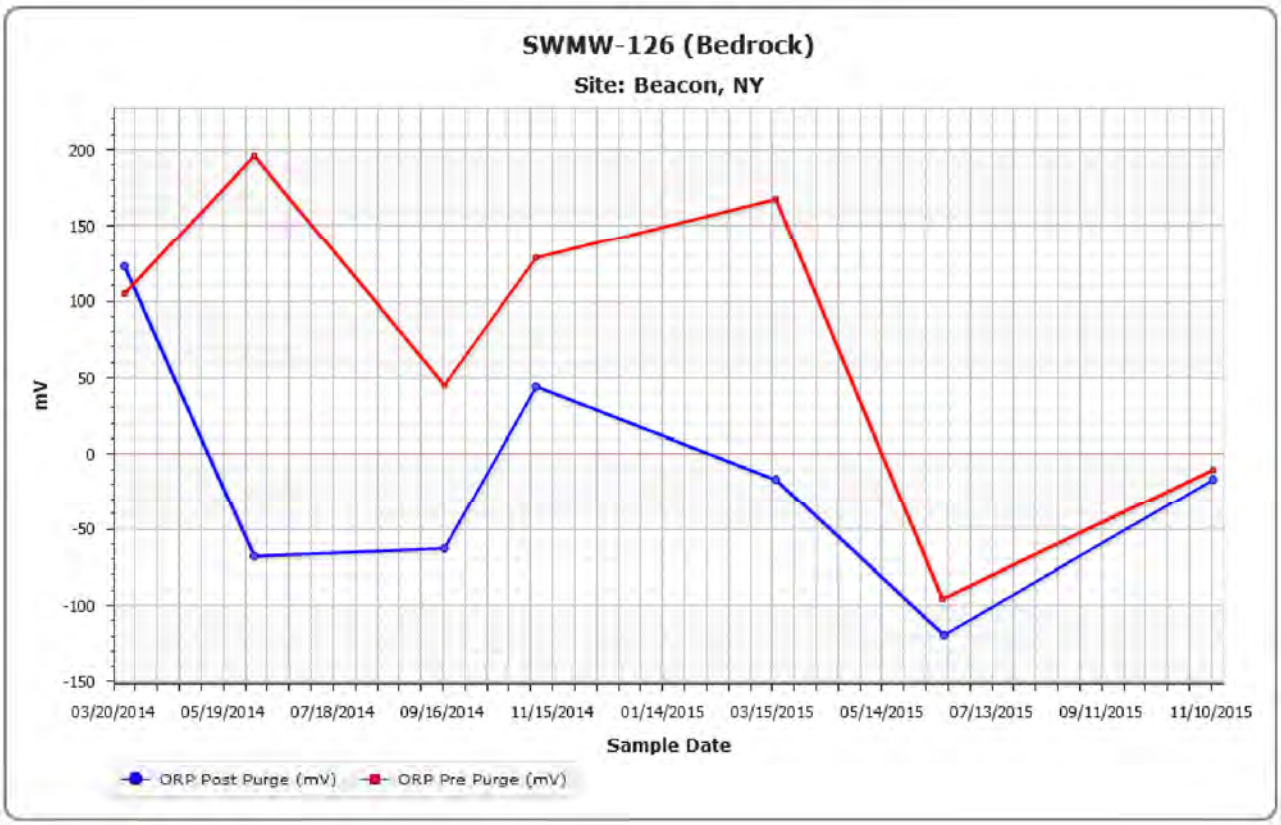

SWMW-111 (Bedrock)
Site: Beacon, NY
mV
200
150
100
50
0
-50
-100
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

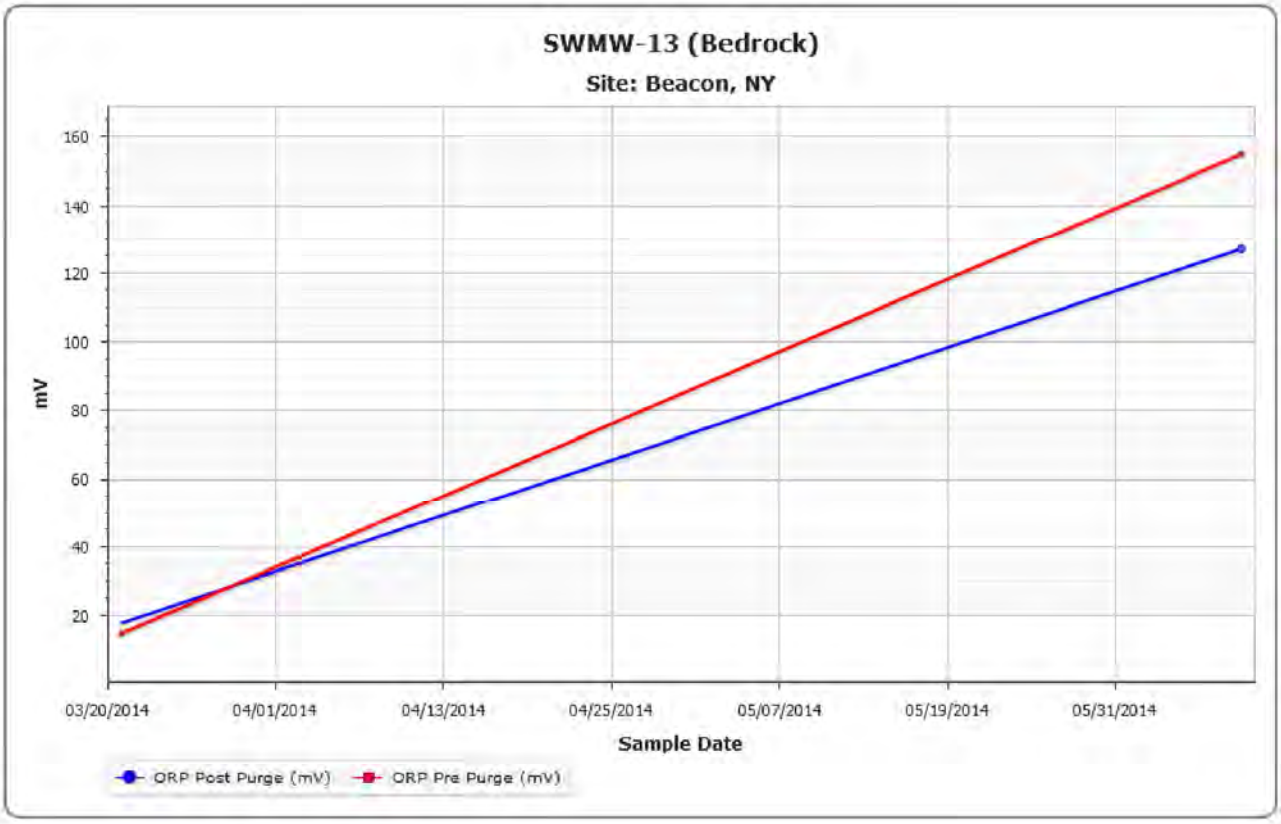

SWMW-112 (Bedrock)
Site: Beacon, NY
200
100
0
-100
mV
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

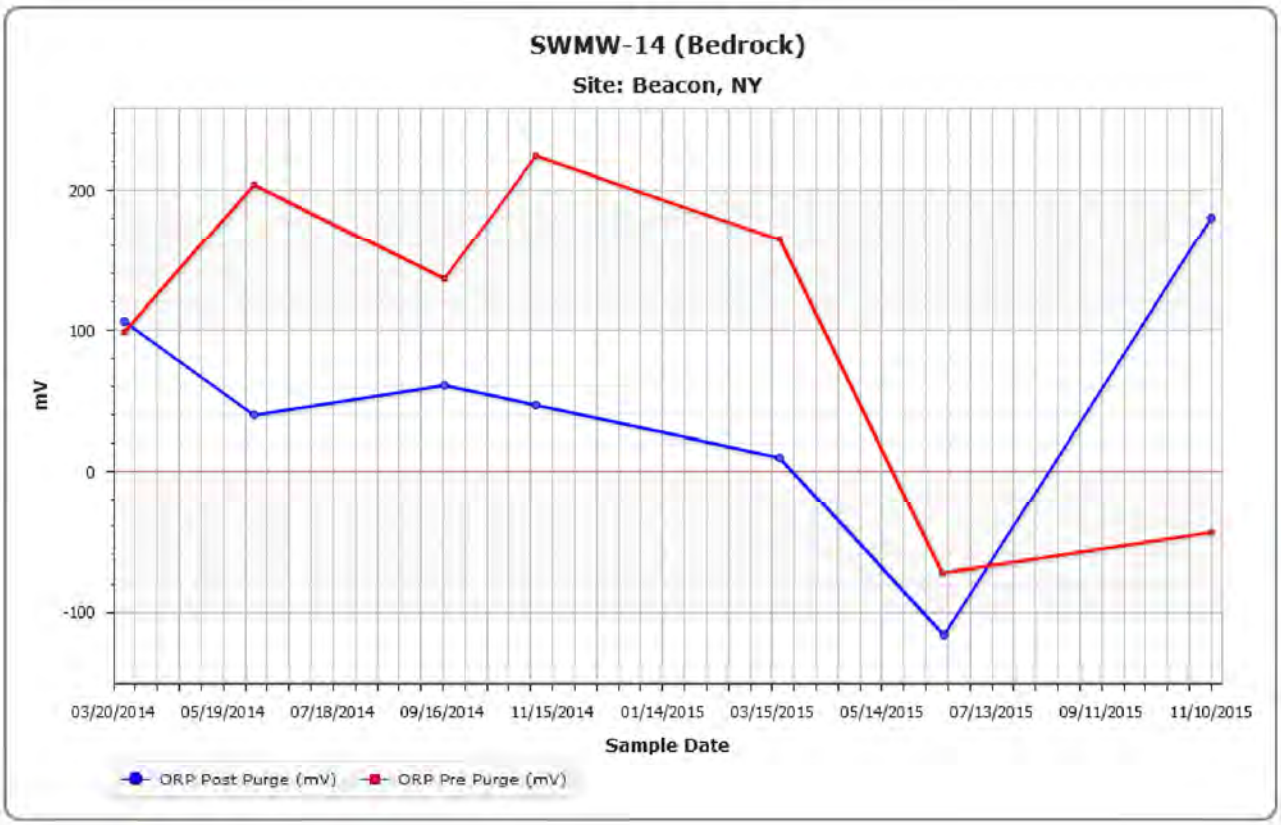

SWMW-114 (Bedrock)
Site: Beacon, NY
200
150
100
50
0
-50
mV
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

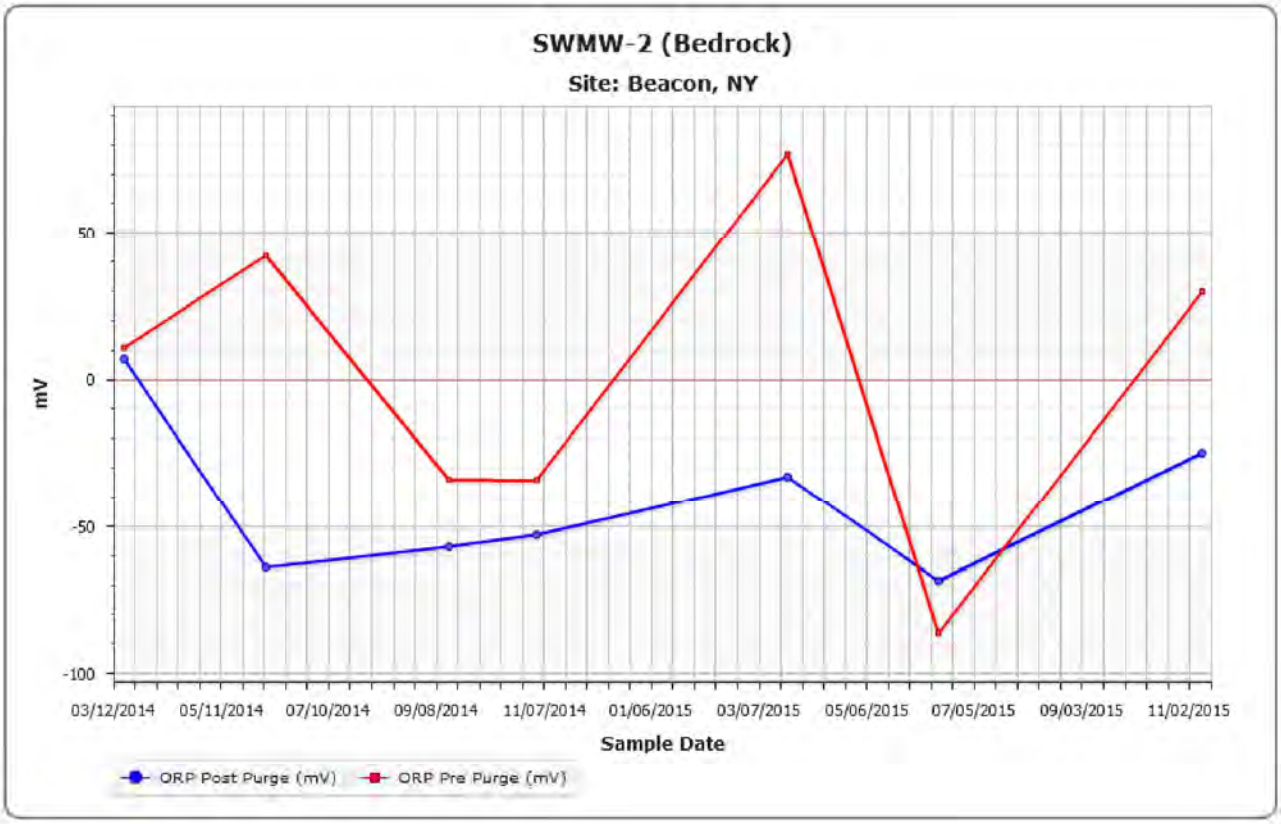

SWMW-123 (Bedrock)
Site: Beacon, NY
150
100
50
0
-50
mV
03/13/2014
05/12/2014
07/11/2014
09/09/2014
11/08/2014
01/07/2015
03/08/2015
05/07/2015
07/06/2015
09/04/2015
11/03/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

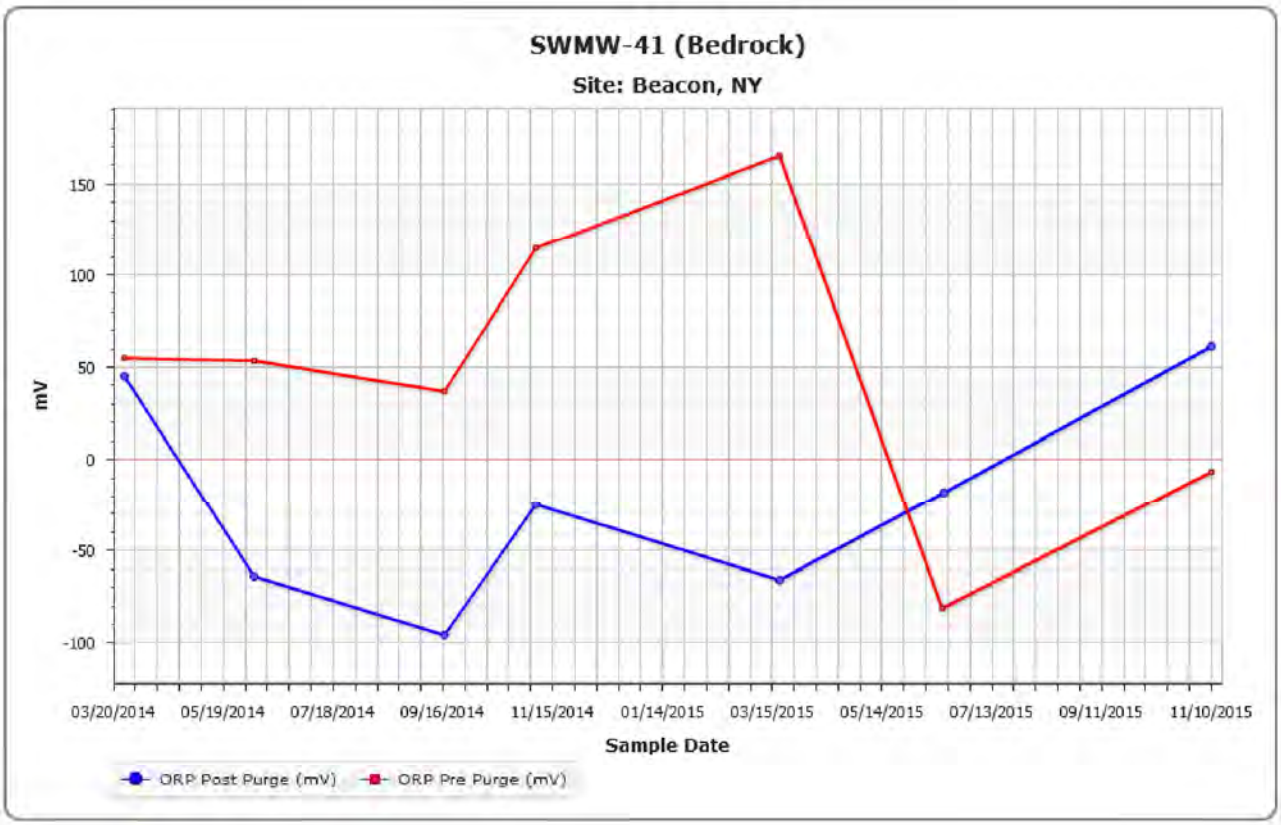

SWMW-125 (Bedrock)
Site: Beacon, NY
50
0
-50
-100
mV
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

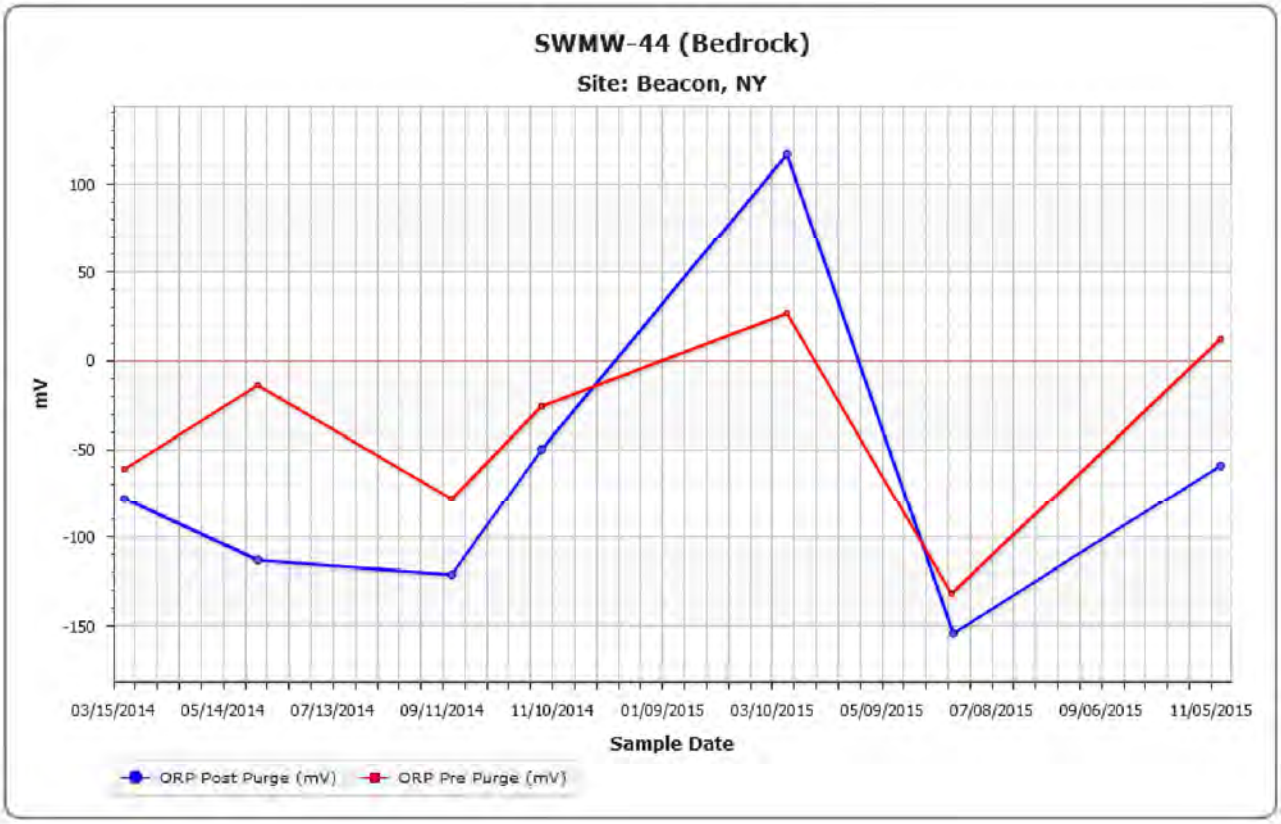

SWMW-126 (Bedrock)
Site: Beacon, NY
mV
200
150
100
50
0
-50
-100
-150
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

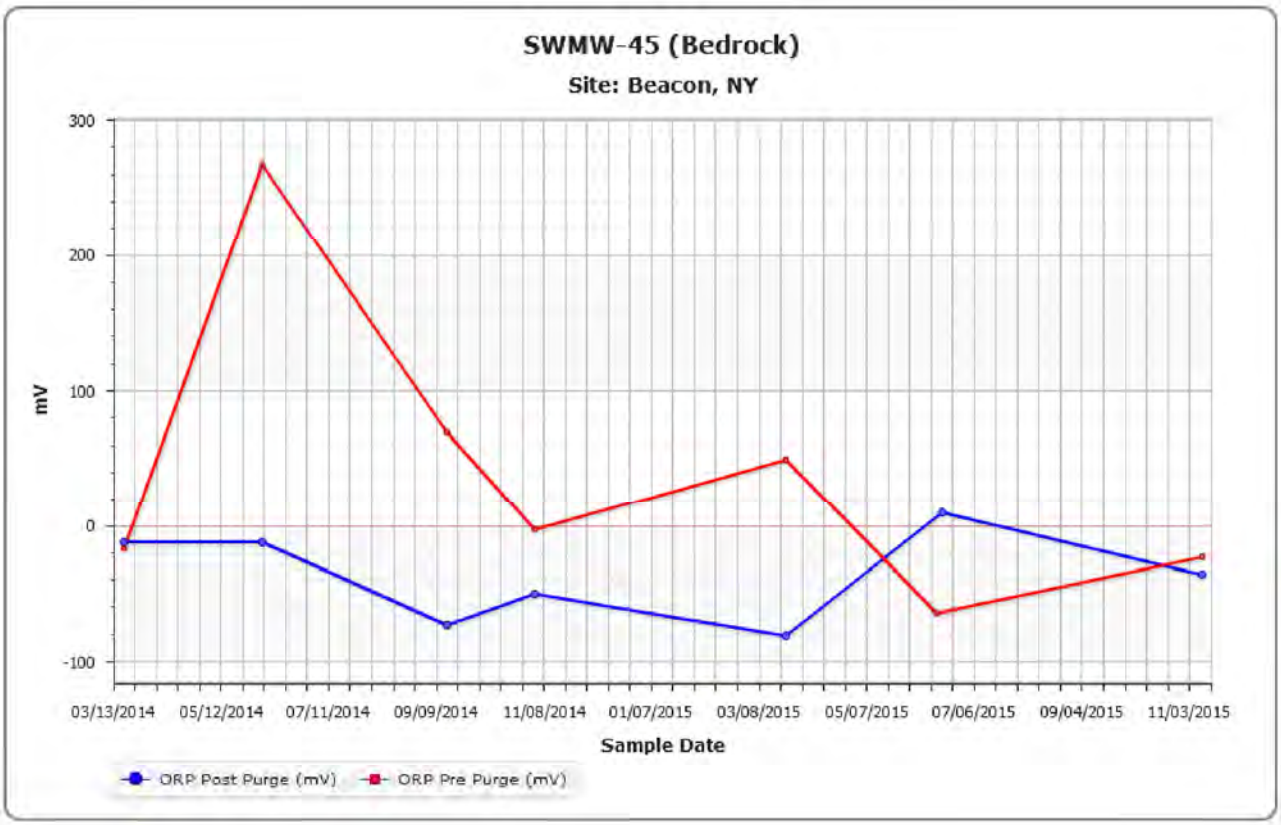

SWMW-13 (Bedrock)
Site: Beacon, NY
mV
160
140
120
100
80
60
40
20
03/20/2014
04/01/2014
04/13/2014
04/25/2014
05/07/2014
05/19/2014
05/31/2014
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

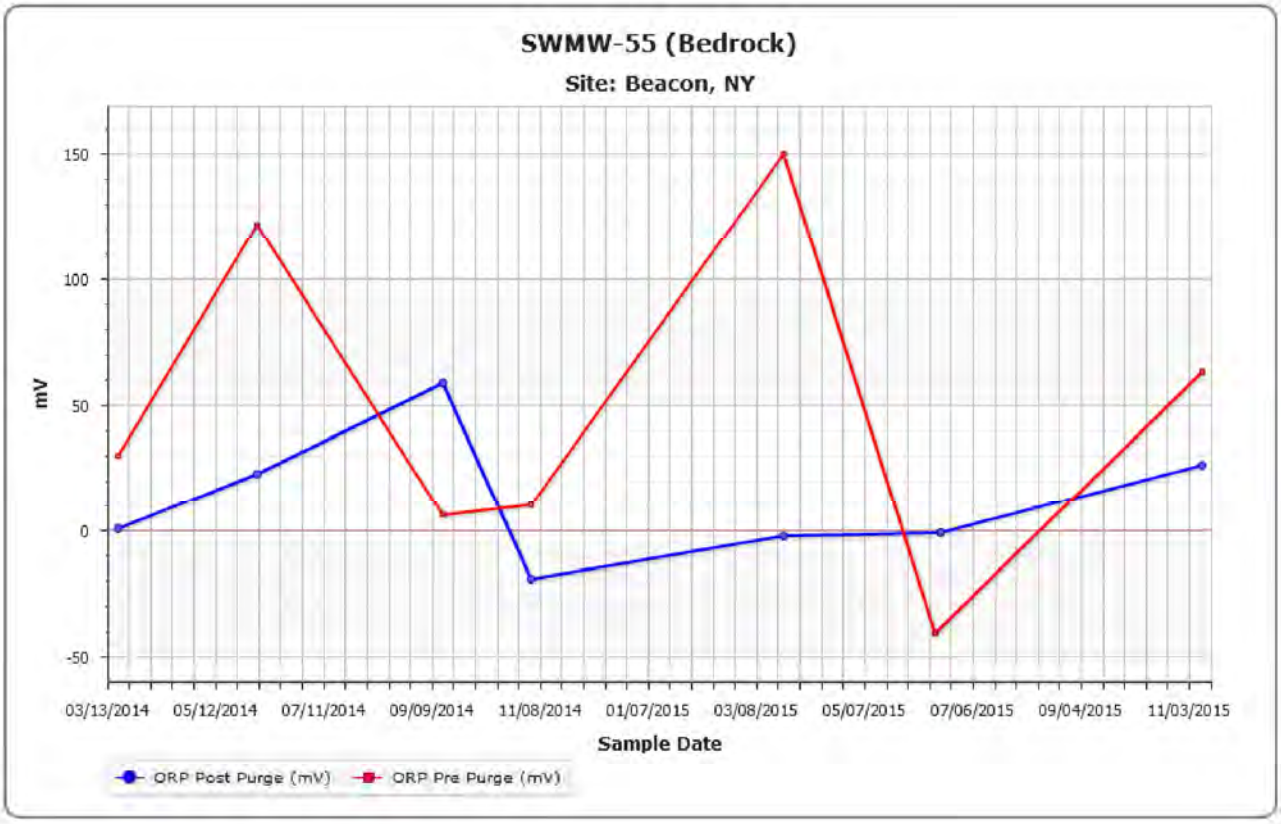

SWMW-14 (Bedrock)
Site: Beacon, NY
200
100
0
-100
mV
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

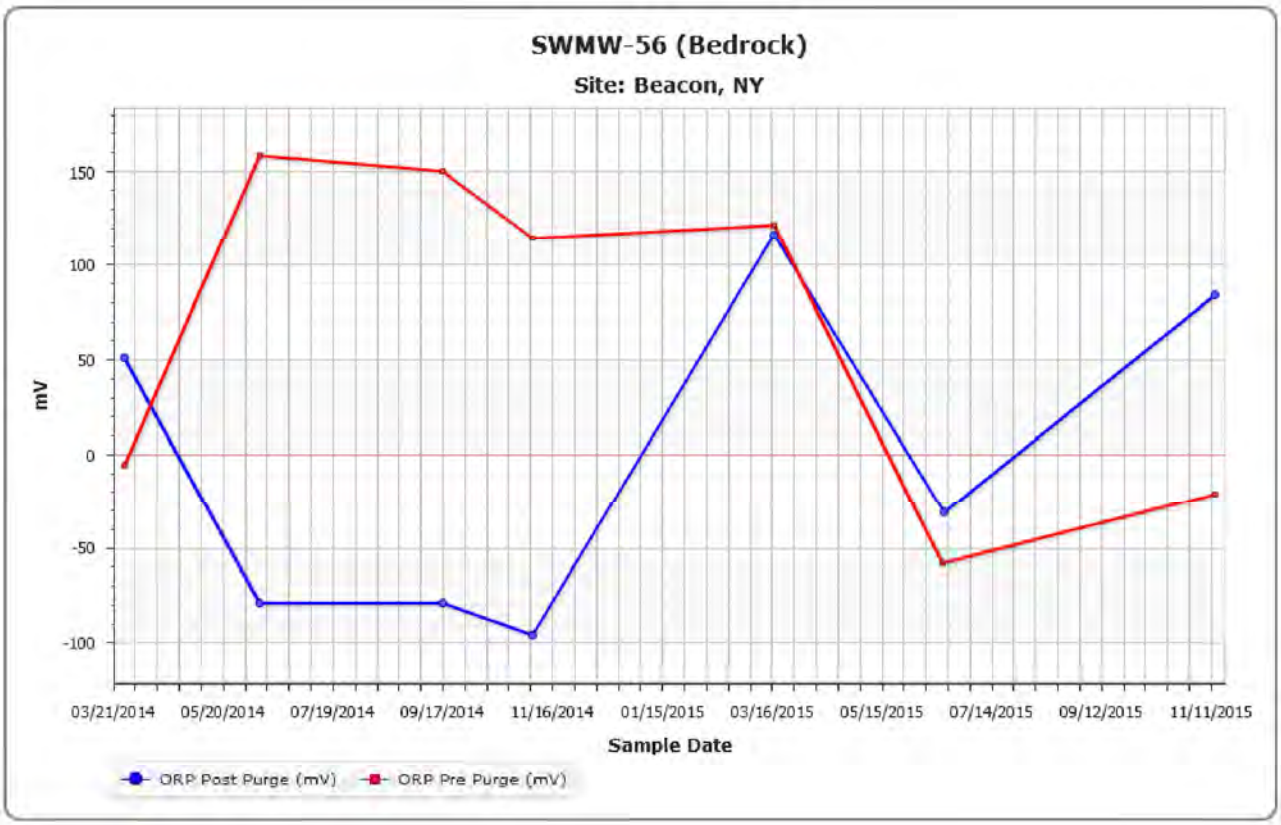

SWMW-2 (Bedrock)
Site: Beacon, NY
50
0
-50
-100
mV
03/12/2014
05/11/2014
07/10/2014
09/08/2014
11/07/2014
01/06/2015
03/07/2015
05/06/2015
07/05/2015
09/03/2015
11/02/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

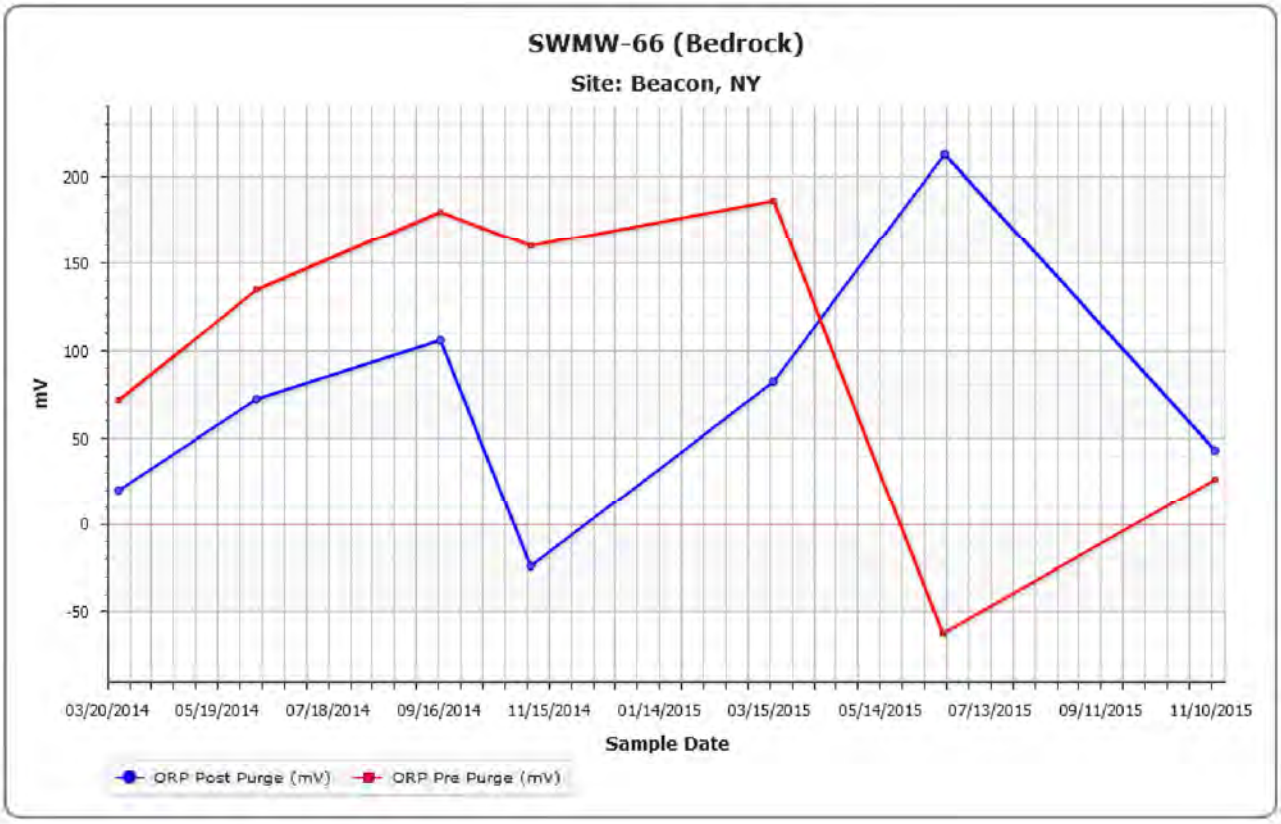

SWMW-41 (Bedrock)
Site: Beacon, NY
150
100
50
0
-50
-100
mV
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

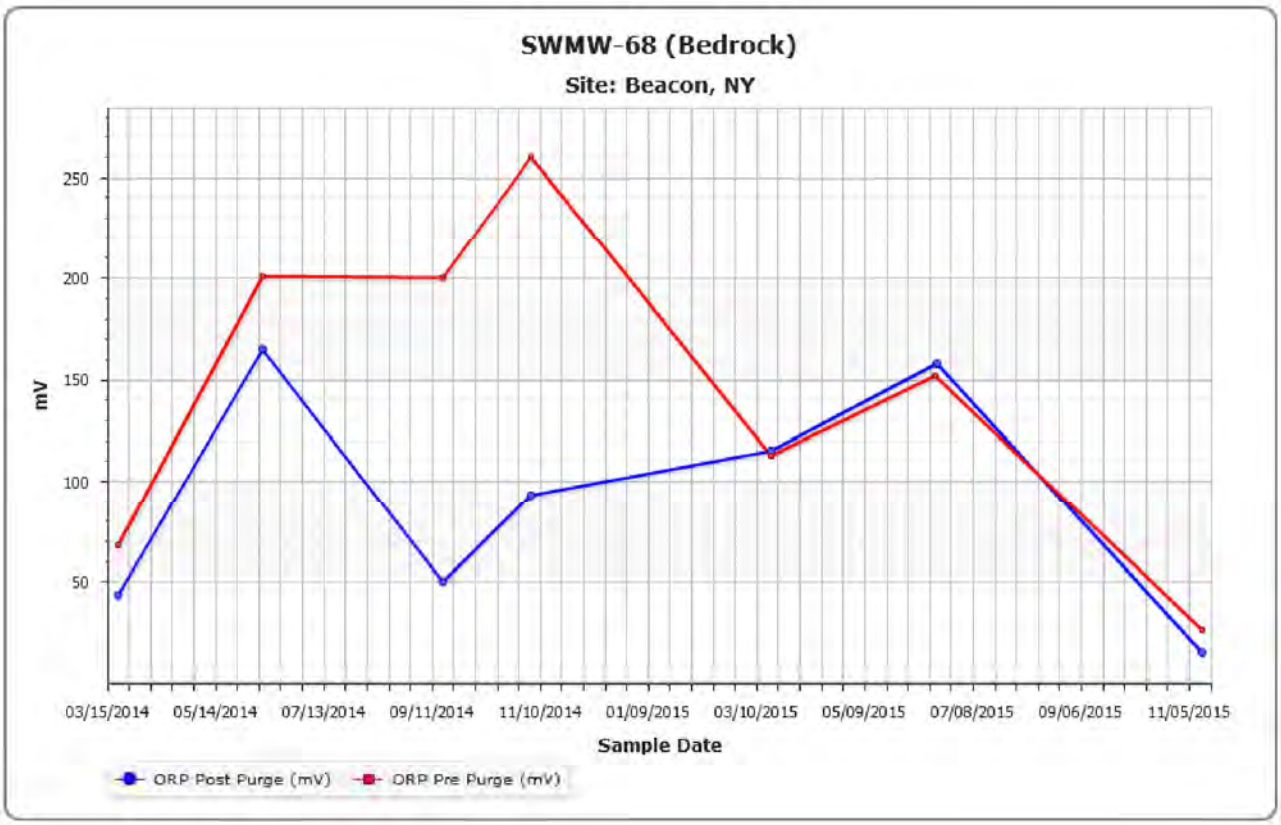

SWMW-44 (Bedrock)
Site: Beacon, NY
100
50
0
-50
-100
-150
mV
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)


SWMW-45 (Bedrock)
Site: Beacon, NY
300
200
100
0
-100
mV
03/13/2014
05/12/2014
07/11/2014
09/09/2014
11/08/2014
01/07/2015
03/08/2015
05/07/2015
07/06/2015
09/04/2015
11/03/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

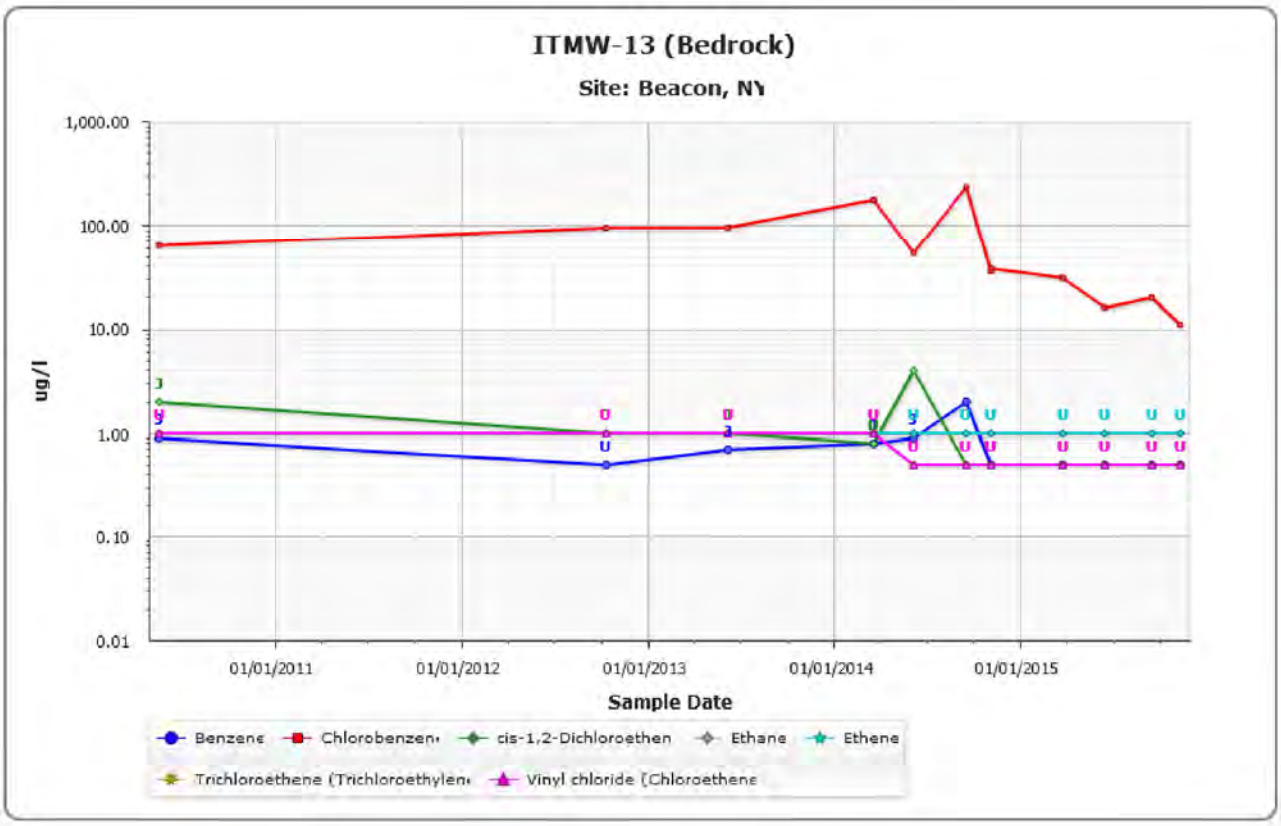

SWMW-55 (Bedrock)
Site: Beacon, NY
150
100
50
0
-50
mV
03/13/2014
05/12/2014
07/11/2014
09/09/2014
11/08/2014
01/07/2015
03/08/2015
05/07/2015
07/06/2015
09/04/2015
11/03/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

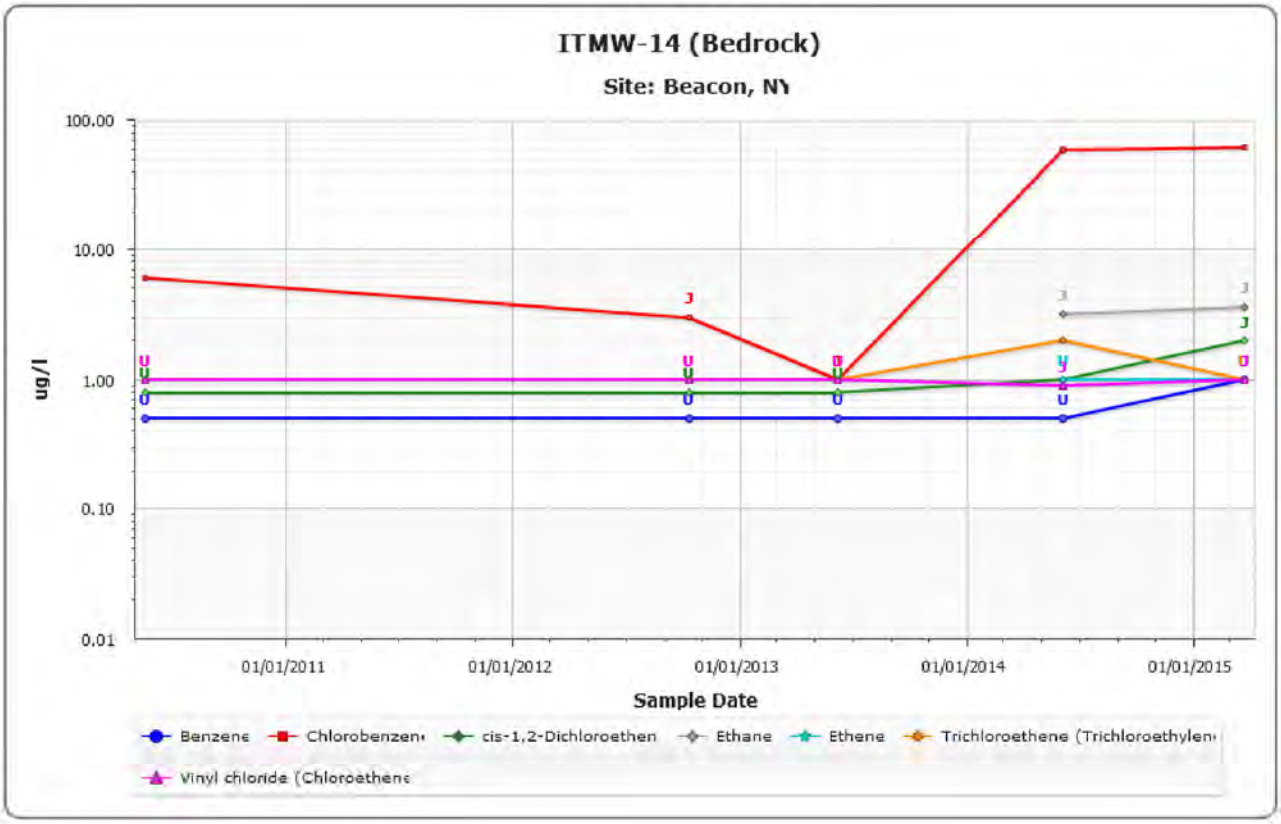

SWMW-56 (Bedrock)
Site: Beacon, NY
150
100
50
0
-50
-100
mV
03/21/2014
05/20/2014
07/19/2014
09/17/2014
11/16/2014
01/15/2015
03/16/2015
05/15/2015
07/14/2015
09/12/2015
11/11/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

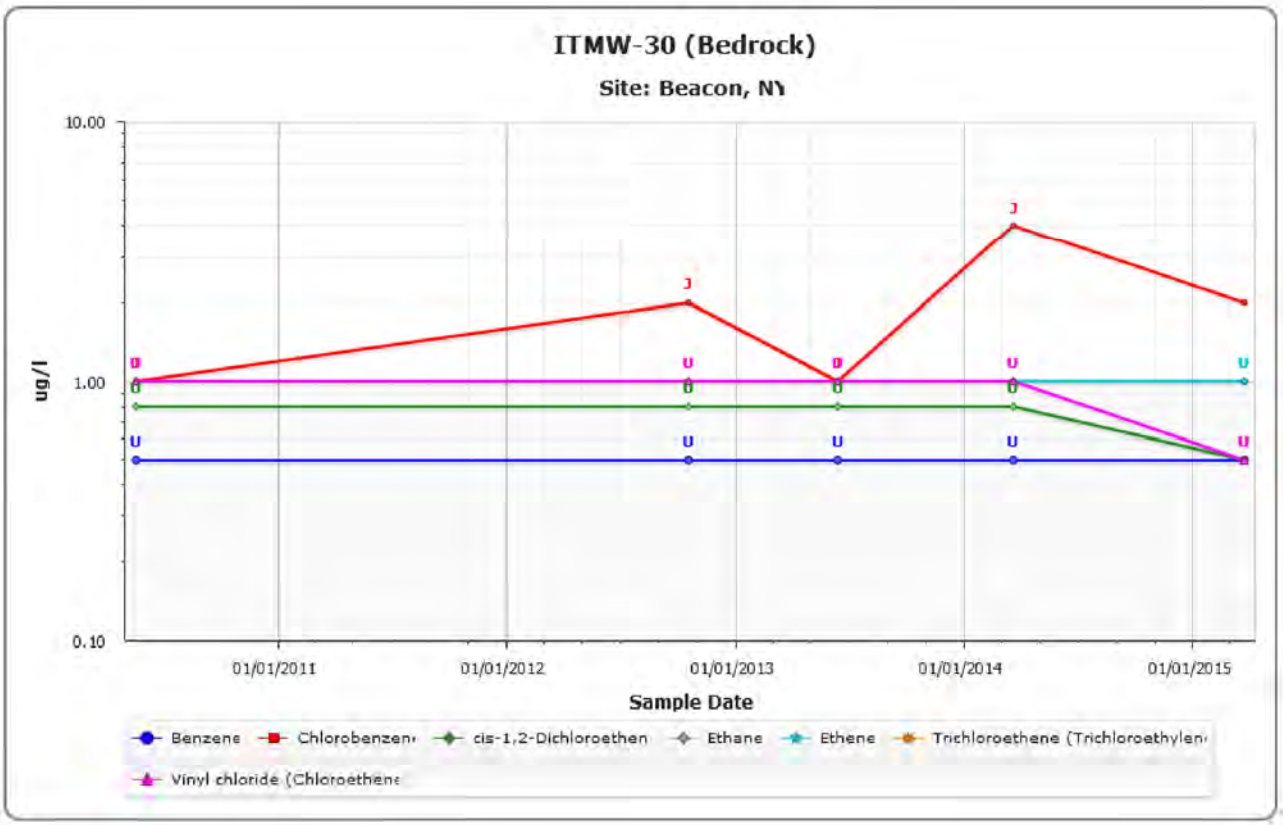

SWMW-66 (Bedrock)
Site: Beacon, NY
200
150
100
50
0
-50
mV
03/20/2014
05/19/2014
07/18/2014
09/16/2014
11/15/2014
01/14/2015
03/15/2015
05/14/2015
07/13/2015
09/11/2015
11/10/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

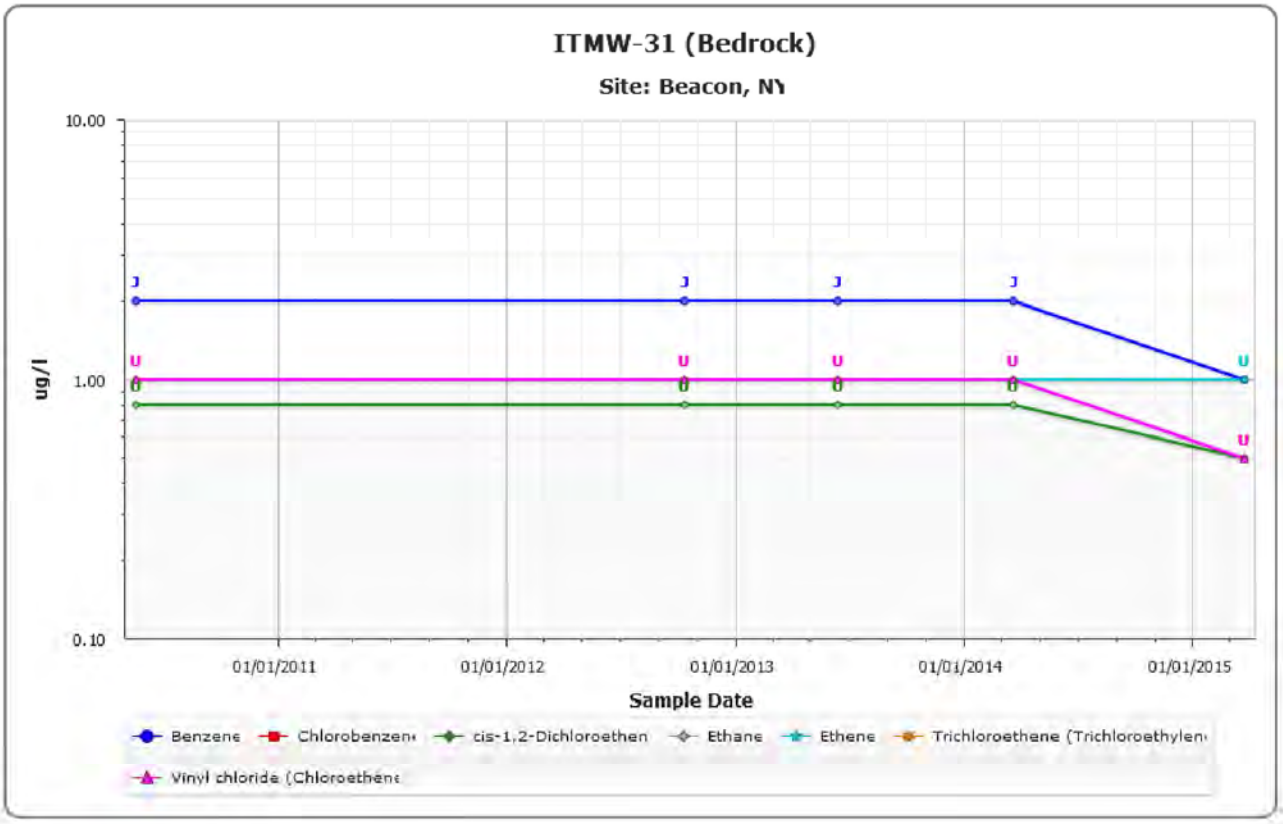

SWMW-68 (Bedrock)
Site: Beacon, NY
mV
250
200
150
100
50
03/15/2014
05/14/2014
07/13/2014
09/11/2014
11/10/2014
01/09/2015
03/10/2015
05/09/2015
07/08/2015
09/06/2015
11/05/2015
Sample Date
ORP Post Purge (mV)
ORP Pre Purge (mV)

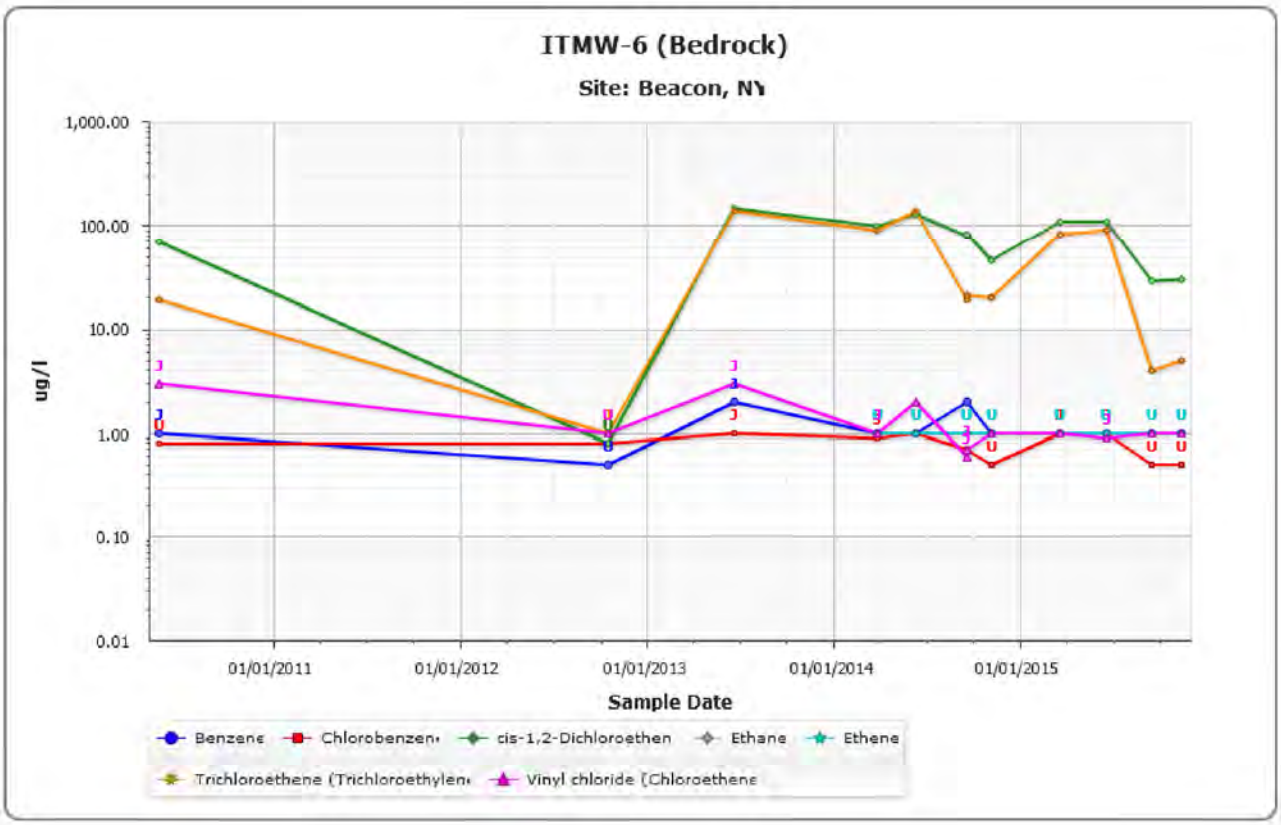
2014 THROUGH 2015 VOC BEDROCK WELLS
SUMMARY GRAPHS

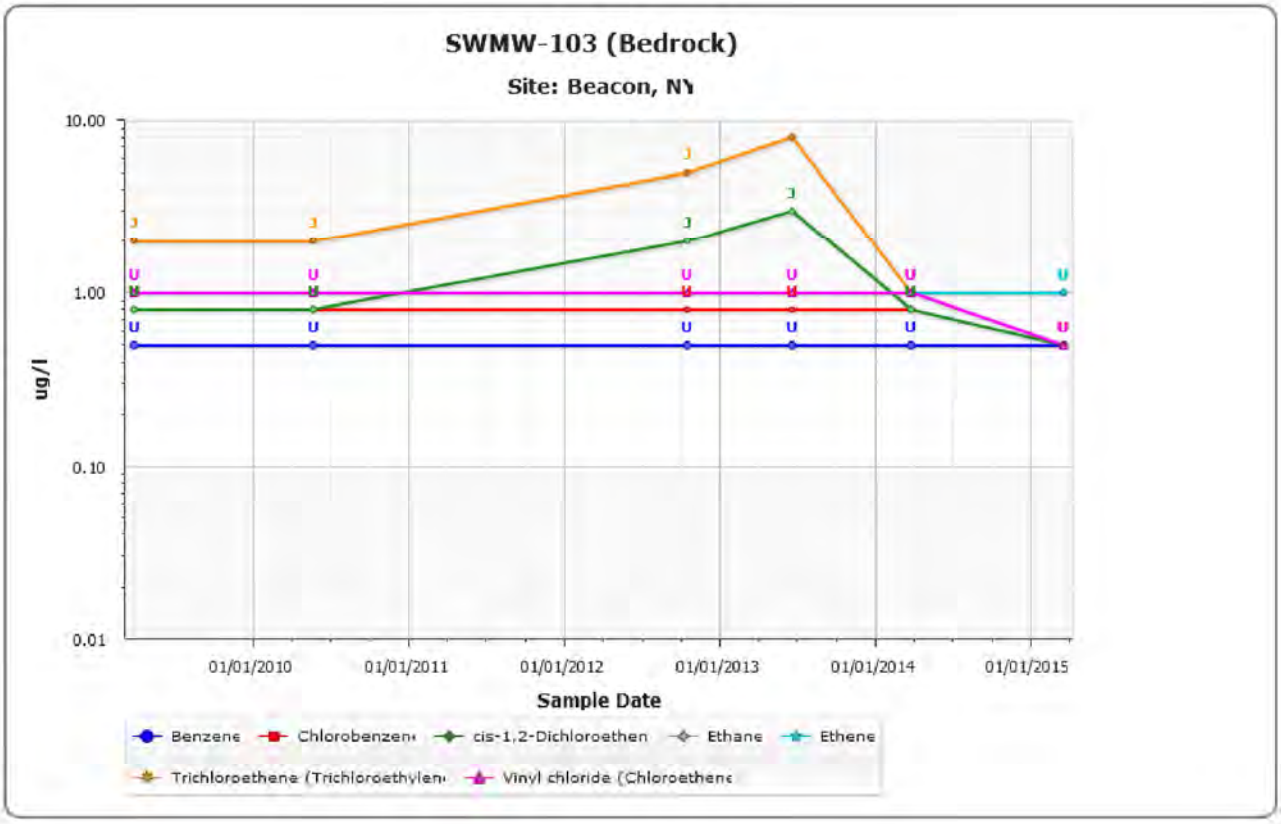

ITMW-13 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

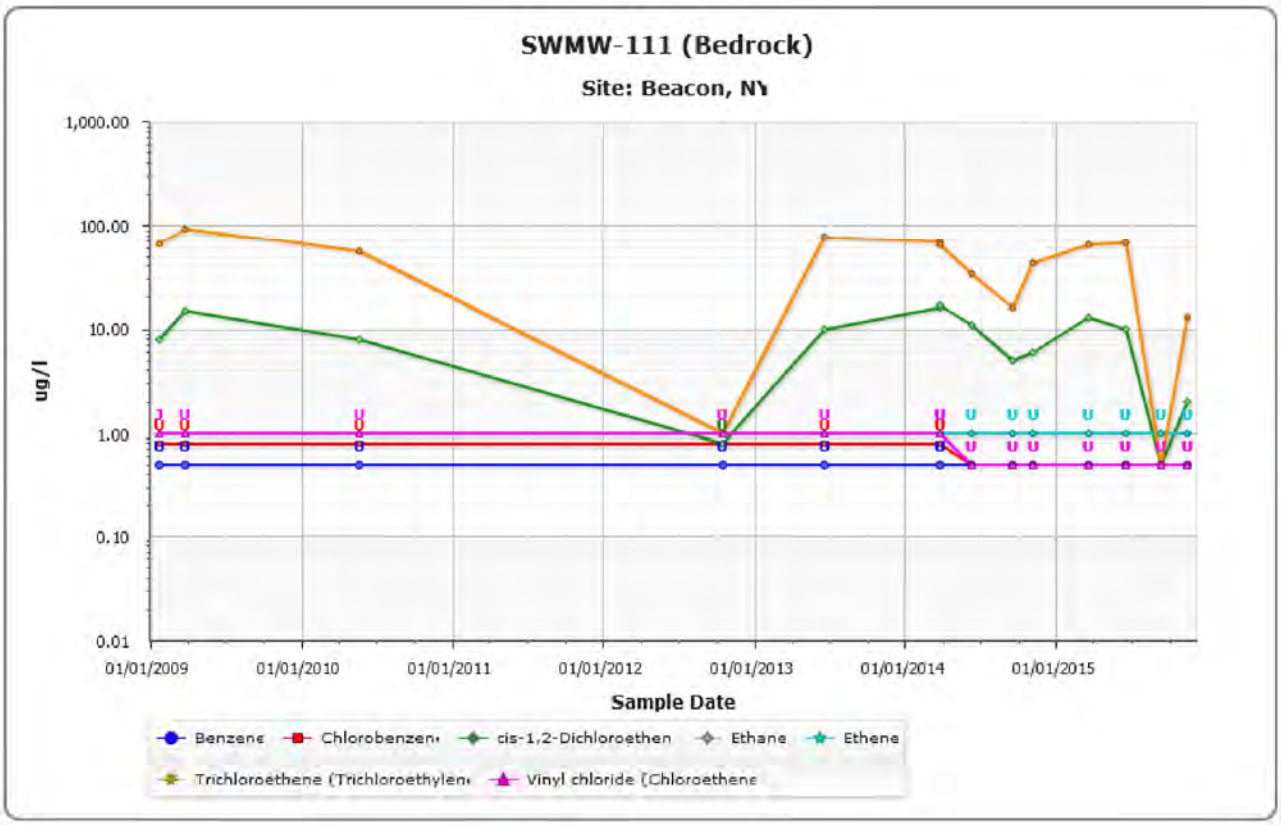

ITMW-14 (Bedrock)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

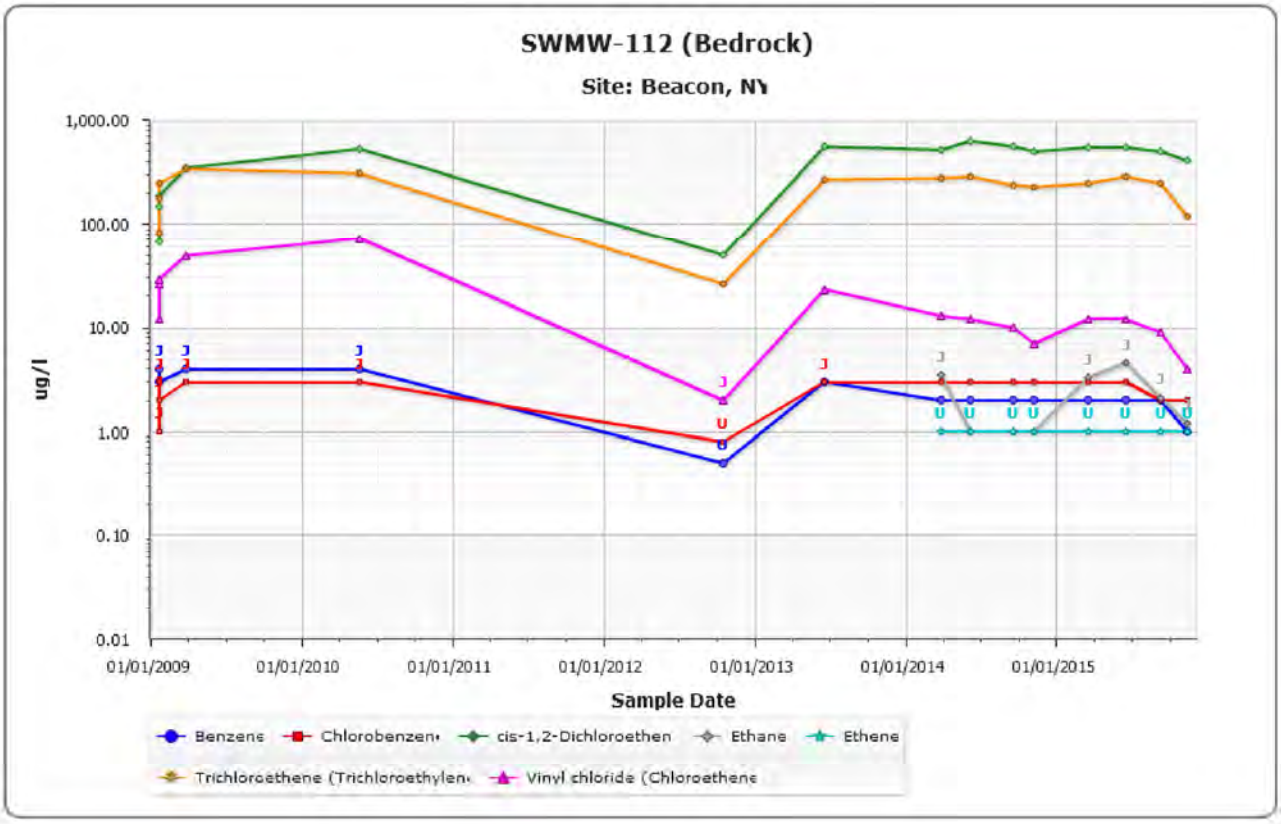

ITMW-30 (Bedrock)
Site: Beacon, NY
10.00
1.00
0.10
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

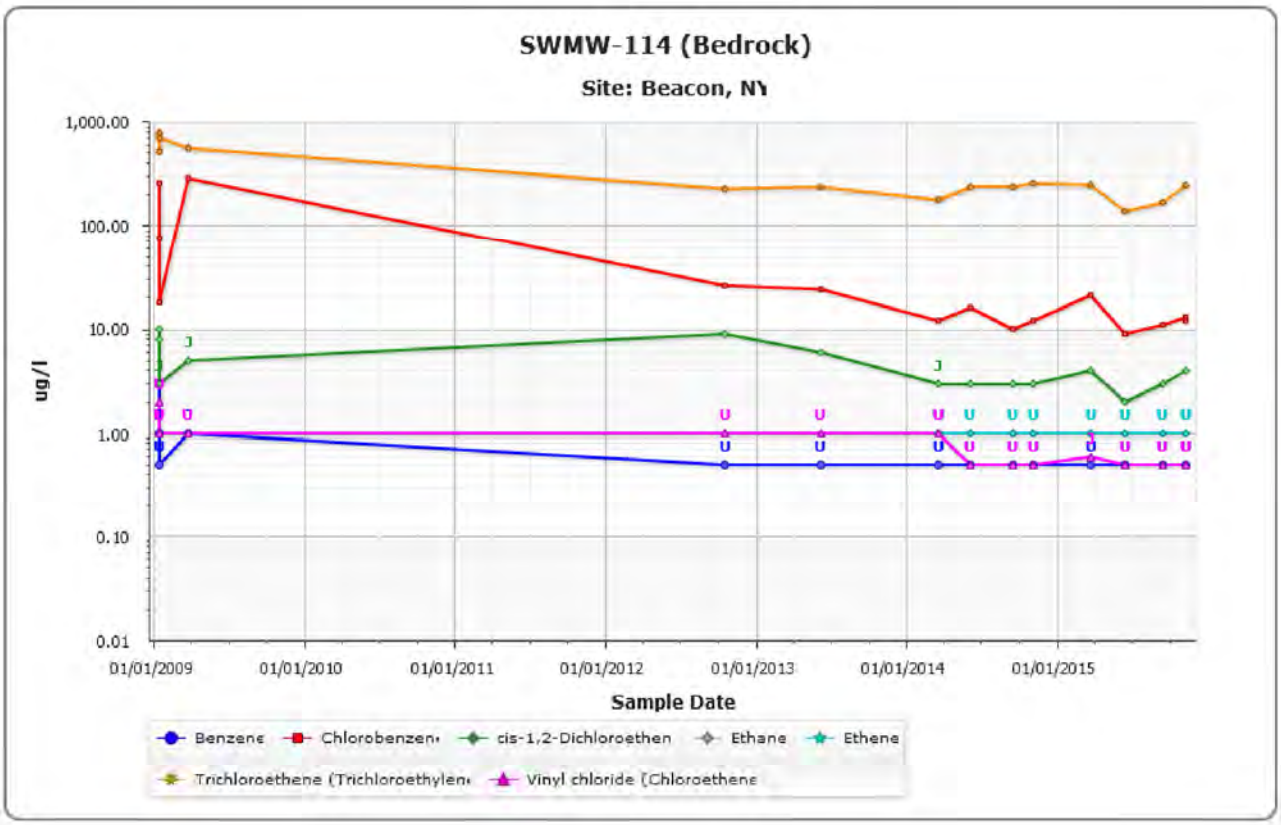

ITMW-31 (Bedrock)
Site: Beacon, NY
10.00
1.00
0.10
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

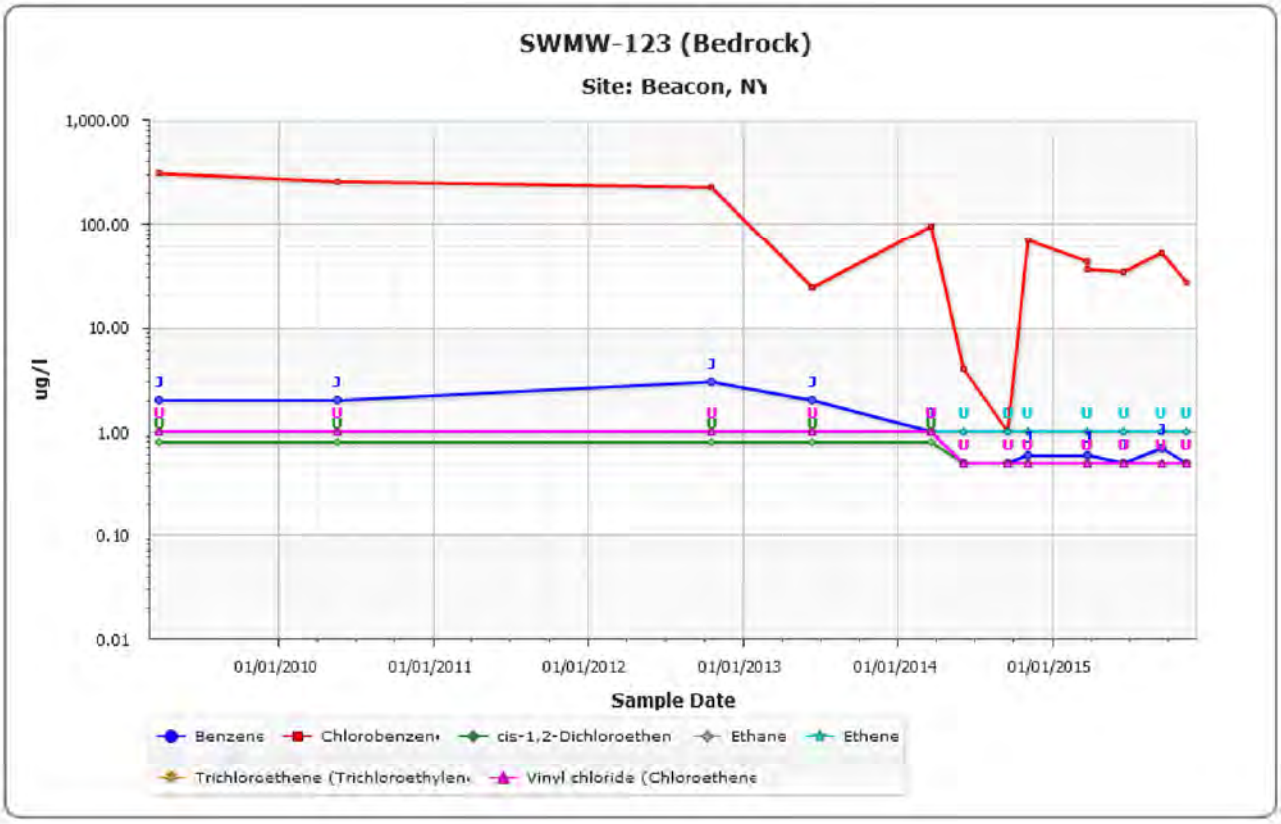

ITMW-6 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

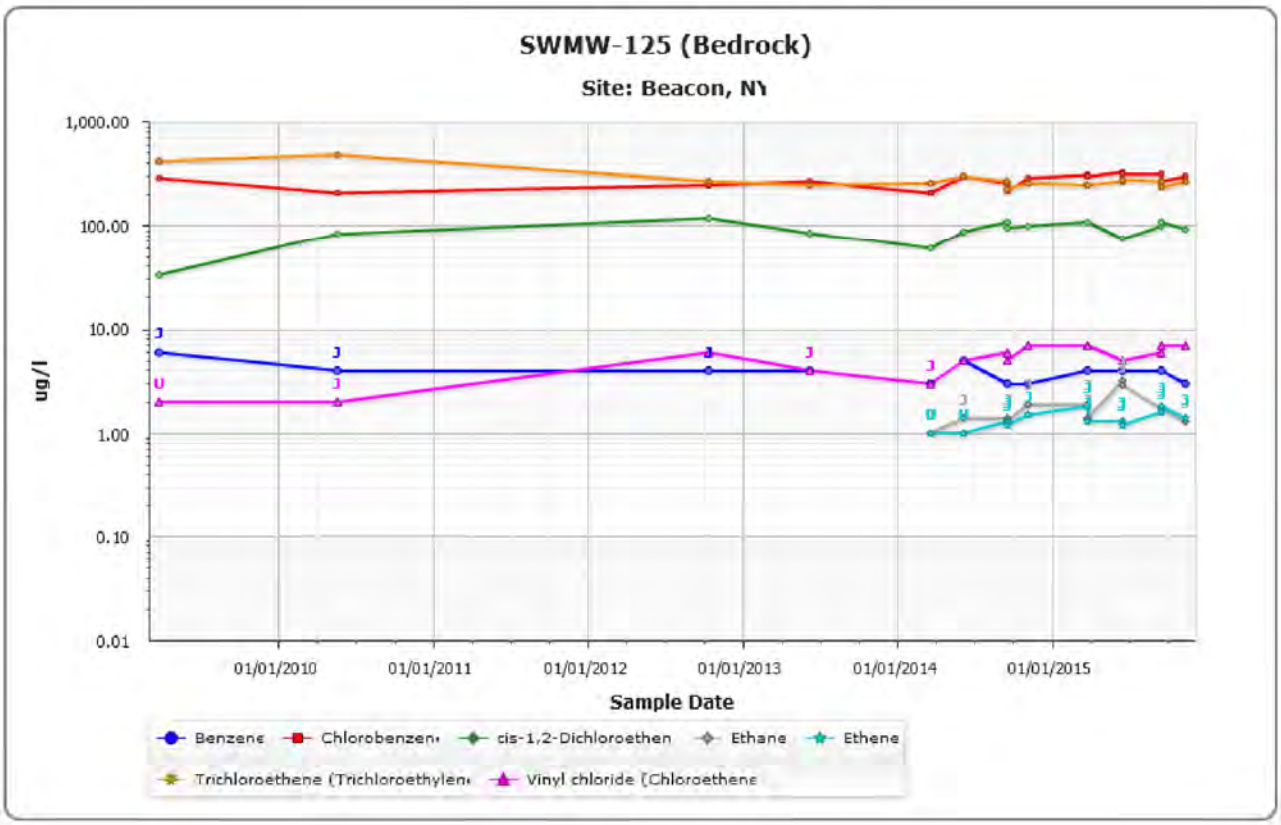

SWMW-103 (Bedrock)
Site: Beacon, NY
10.00
1.00
0.10
0.01
ug/l
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

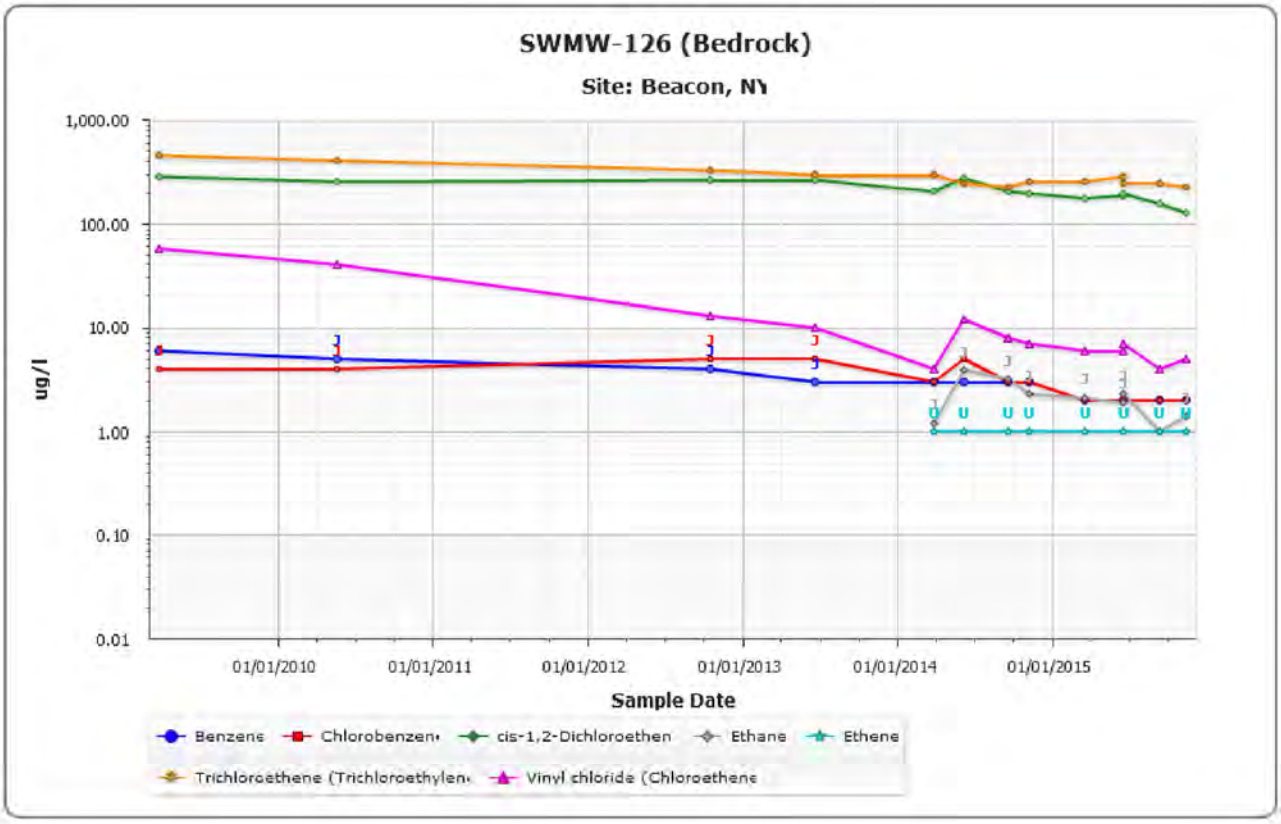

SWMW-111 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2009
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

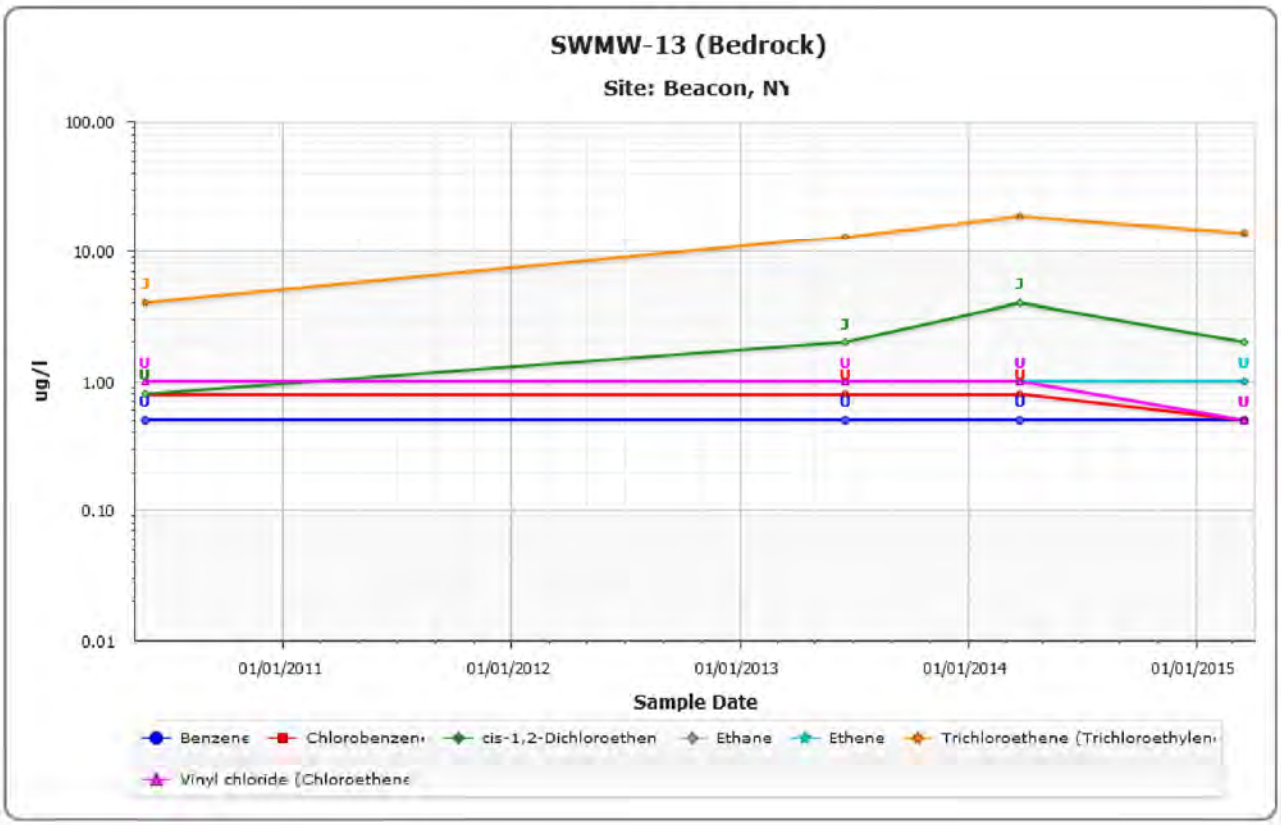

SWMW-112 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2009
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

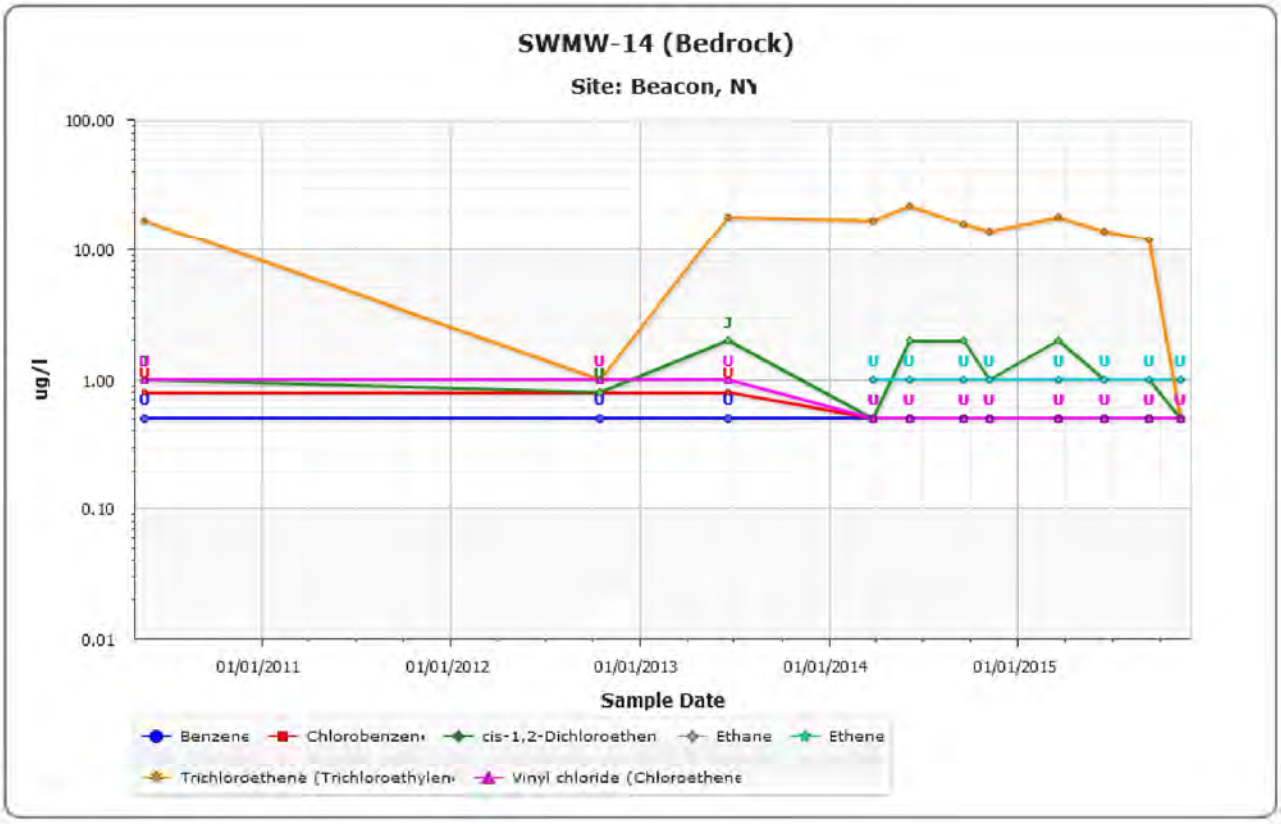

SWMW-114 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2009
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

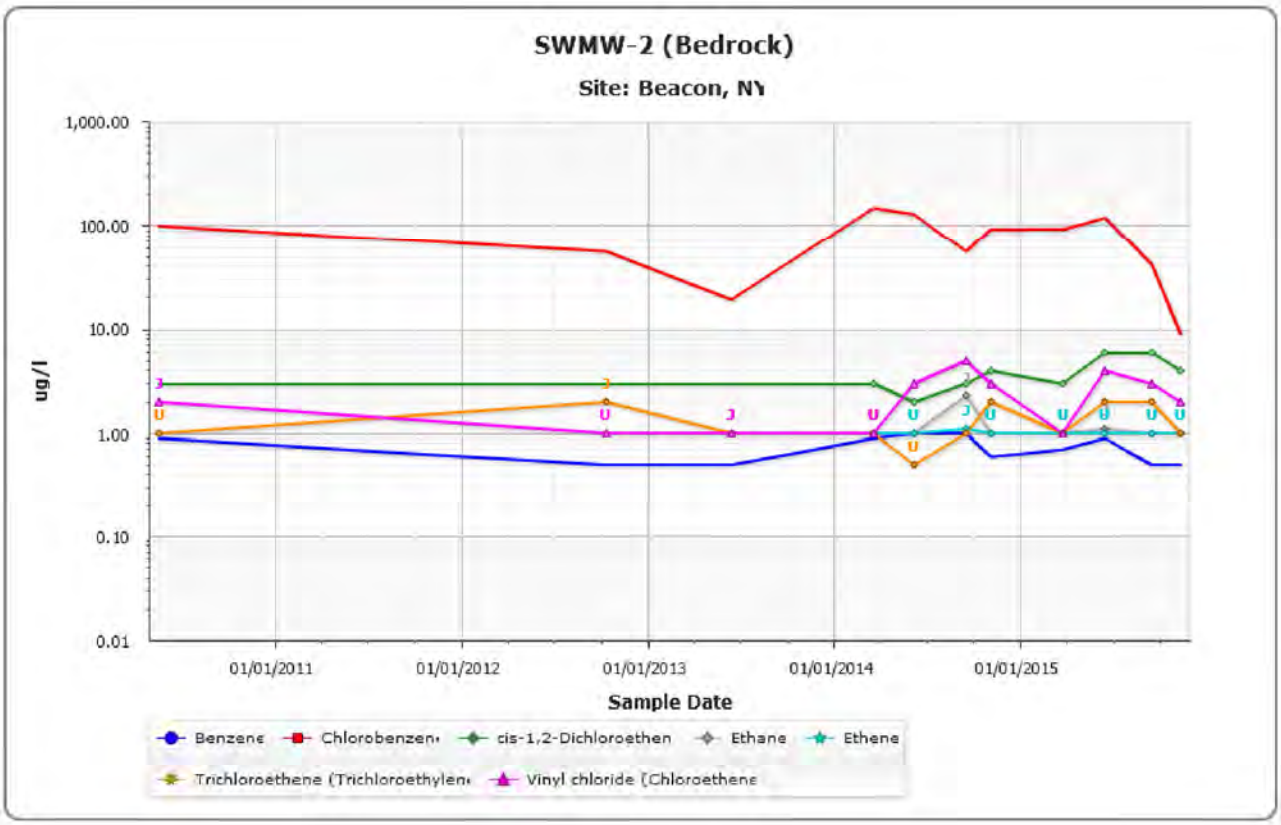

SWMW-123 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

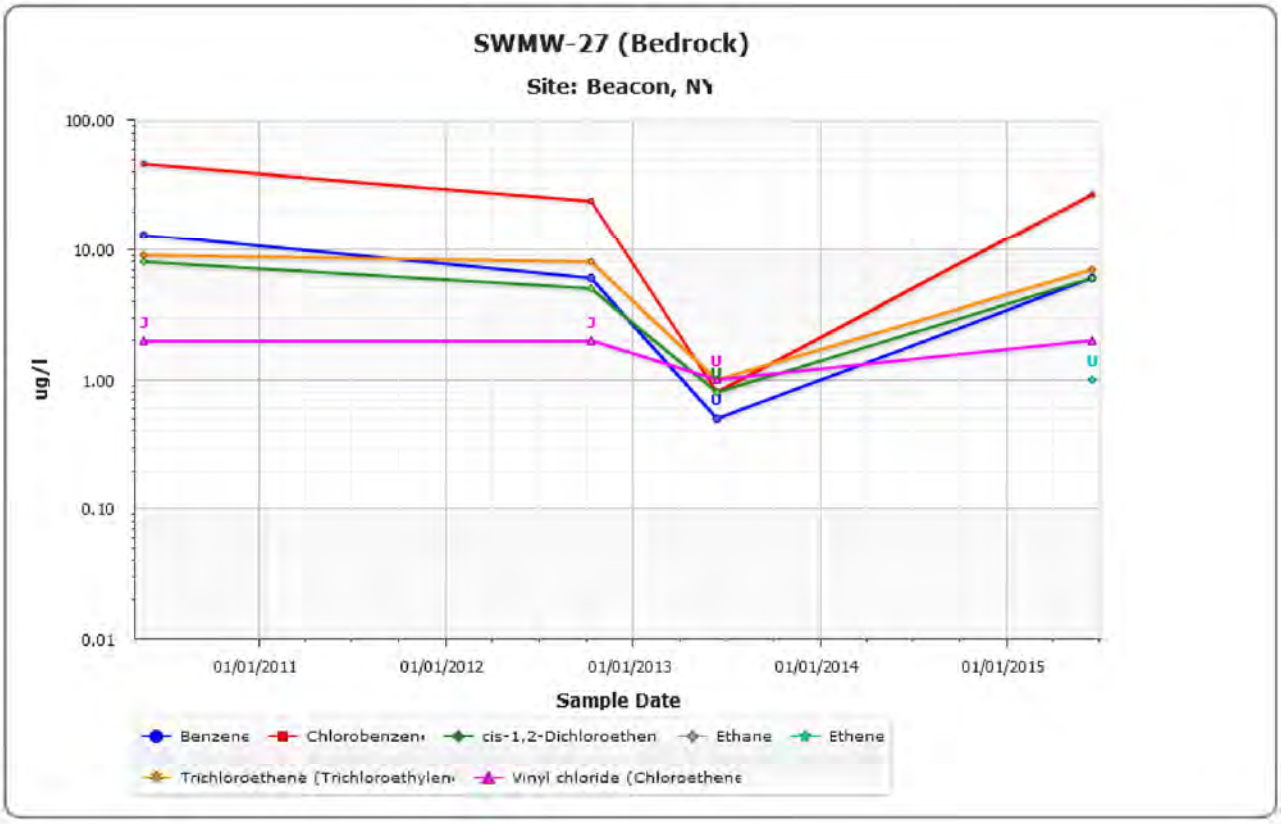

SWMW-125 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

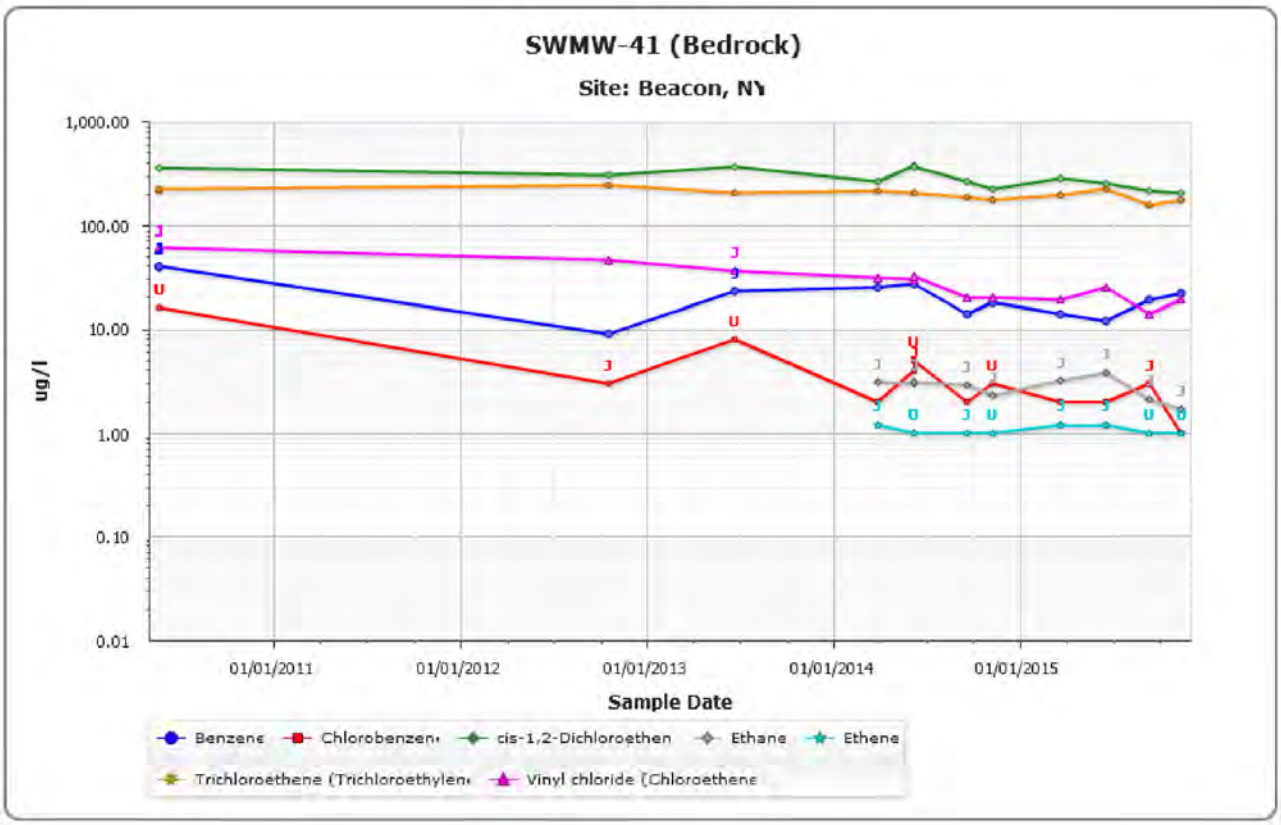

SWMW-126 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2010
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

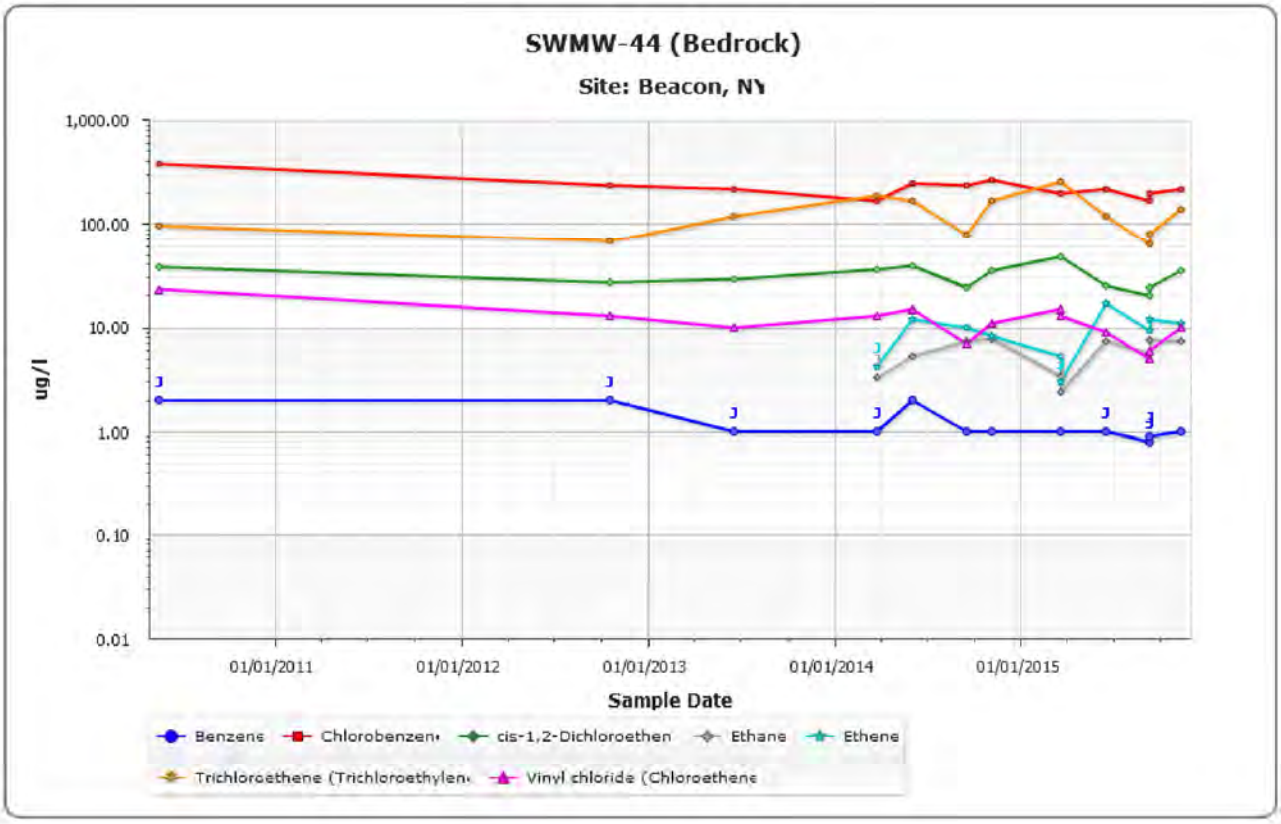

SWMW-13 (Bedrock)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

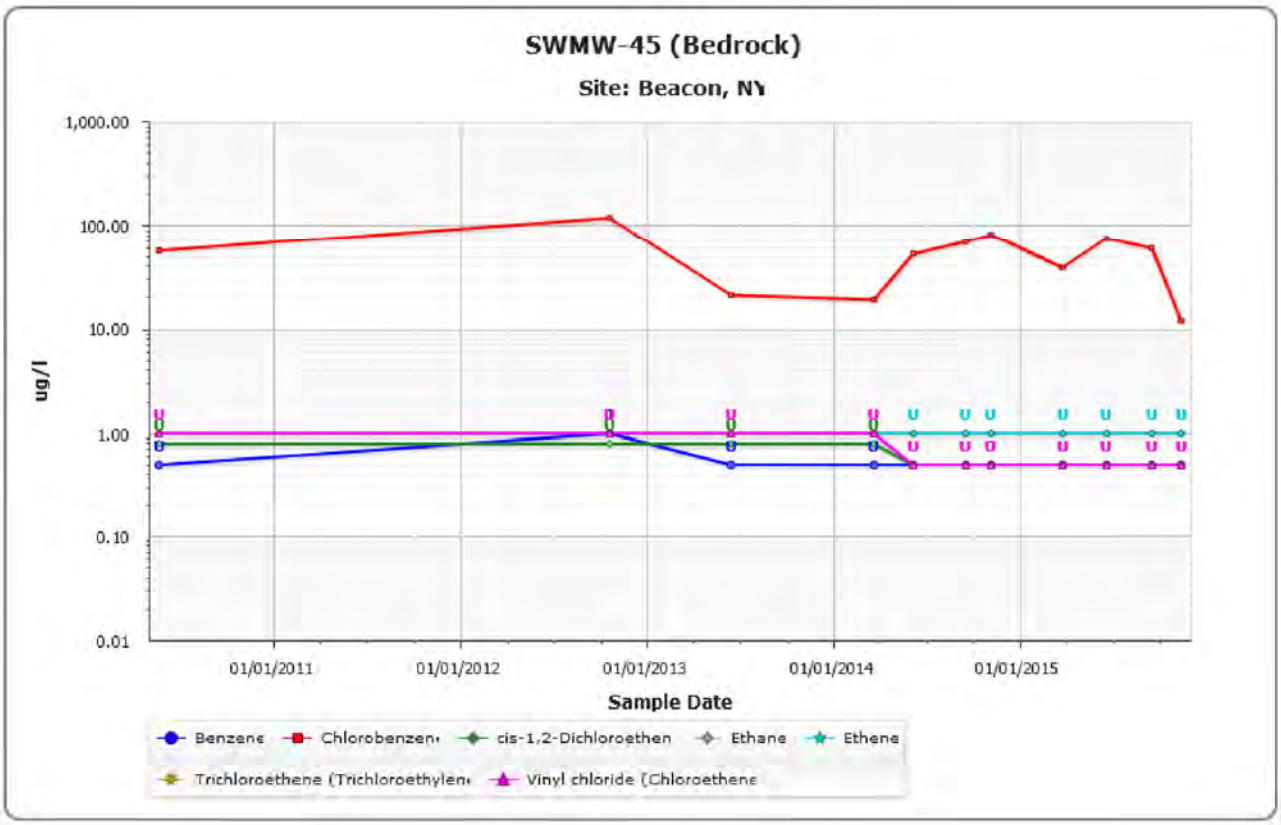

SWMW-14 (Bedrock)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

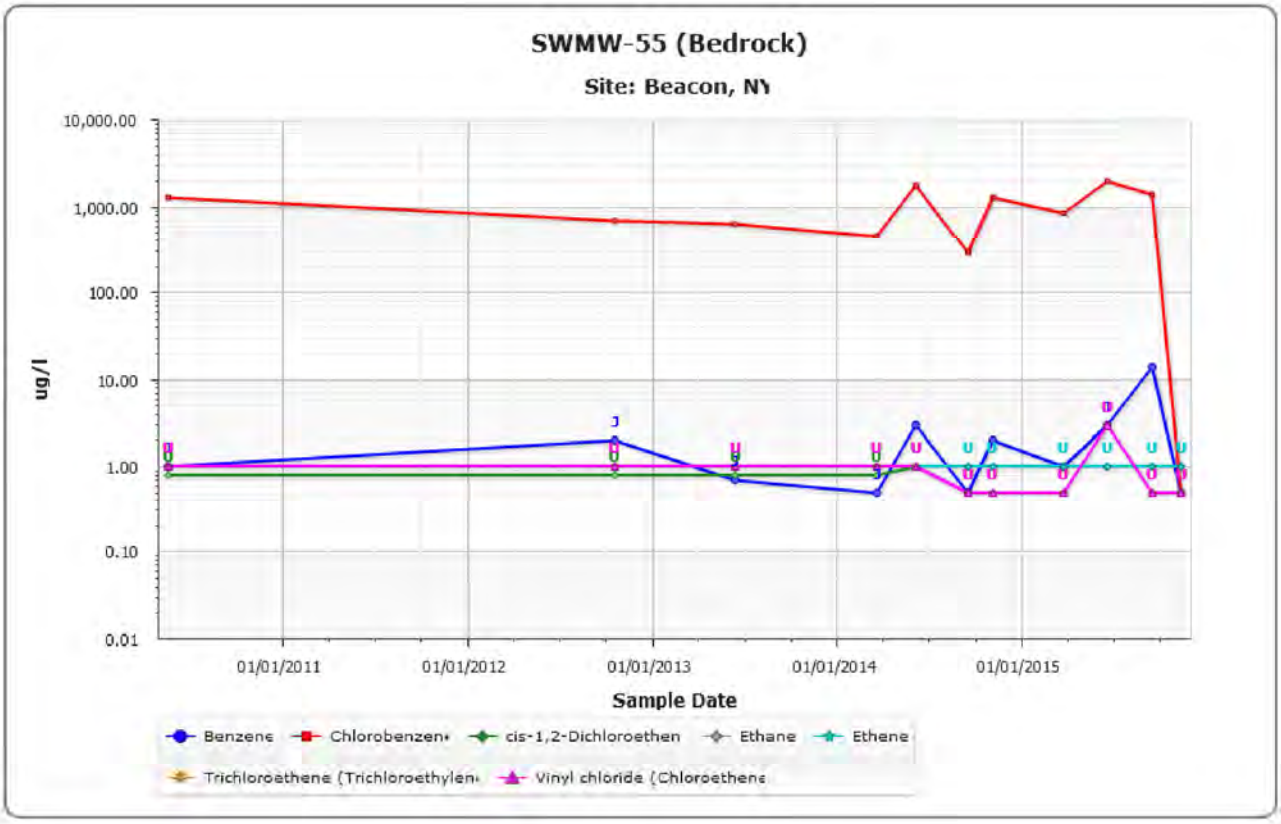

SWMW-2 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

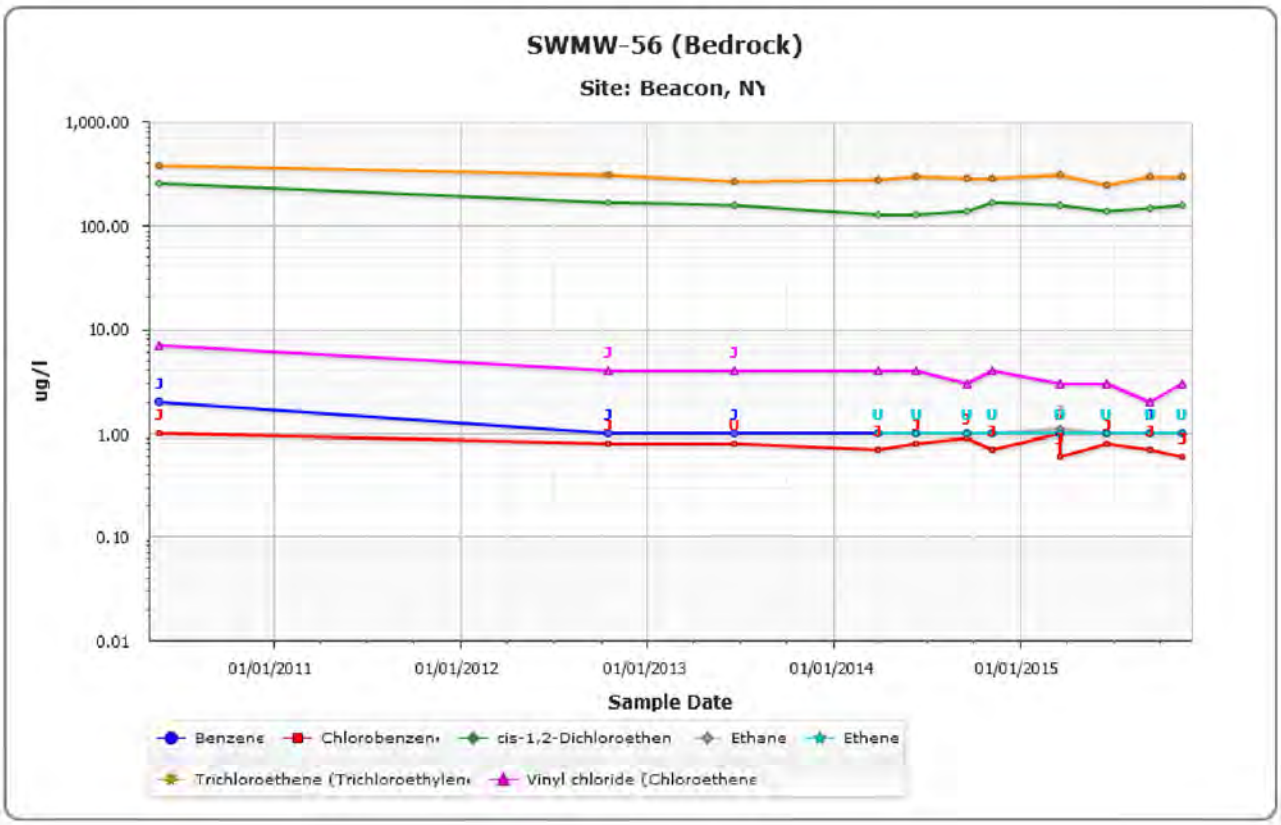

SWMW-27 (Bedrock)
Site: Beacon, NY
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

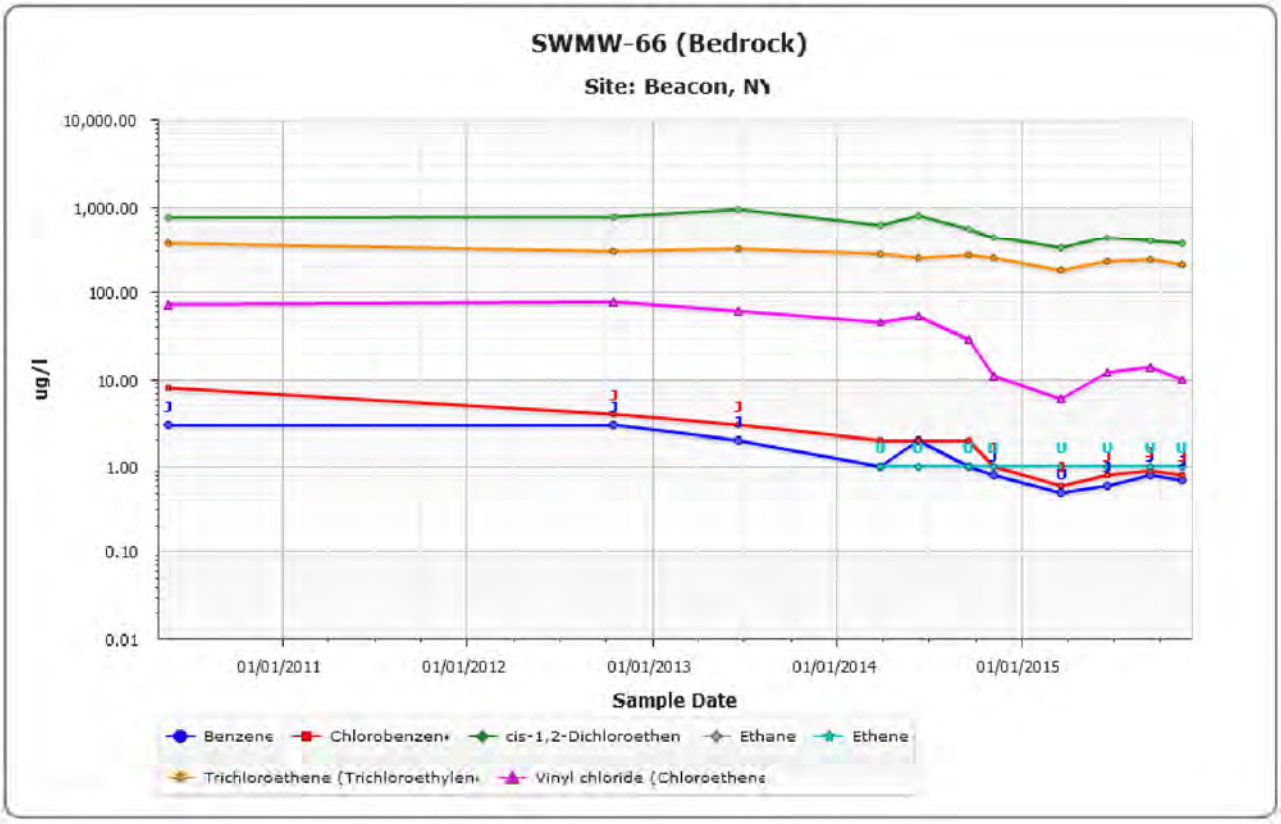

SWMW-41 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethene
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

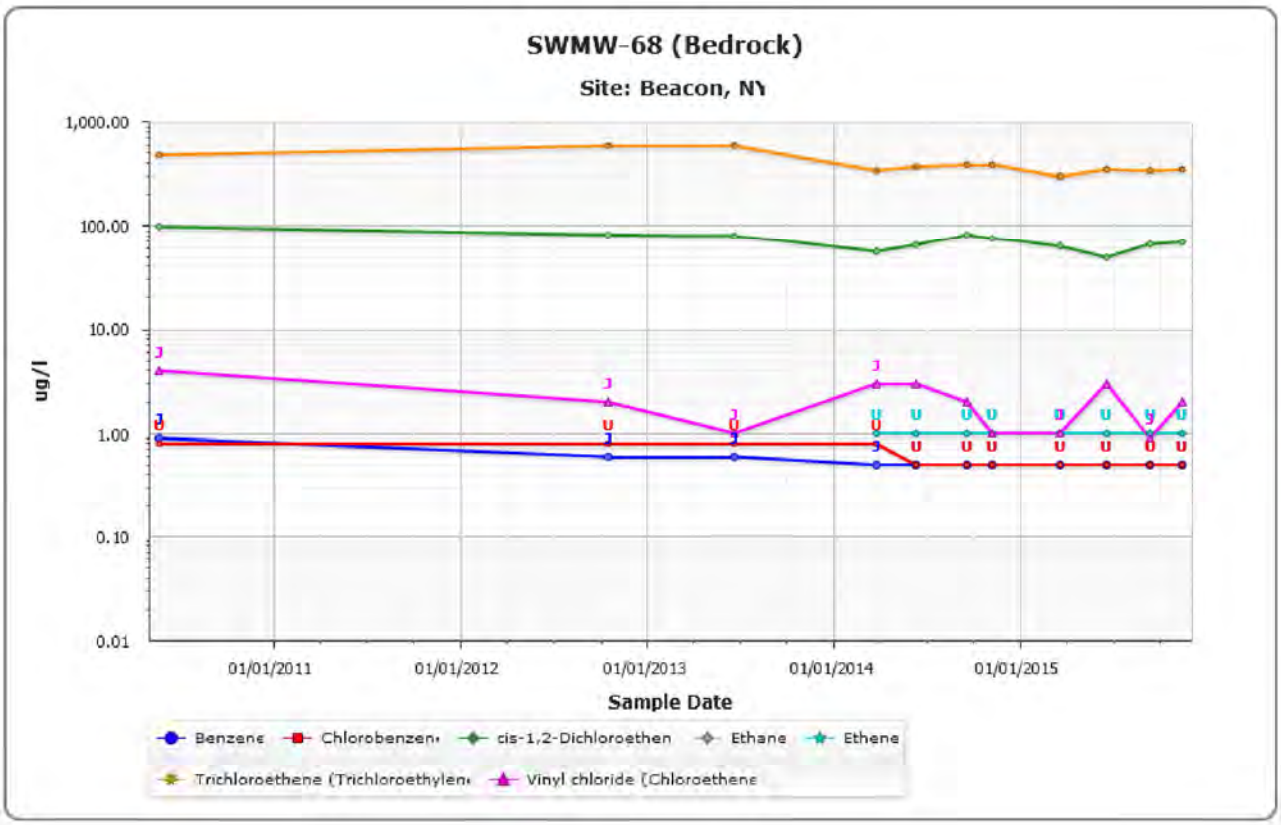

SWMW-44 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethene
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene


SWMW-45 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene


SWMW-55 (Bedrock)
Site: Beacon, NY
10,000.00
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzene
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylene
Vinyl chloride (Chloroethene

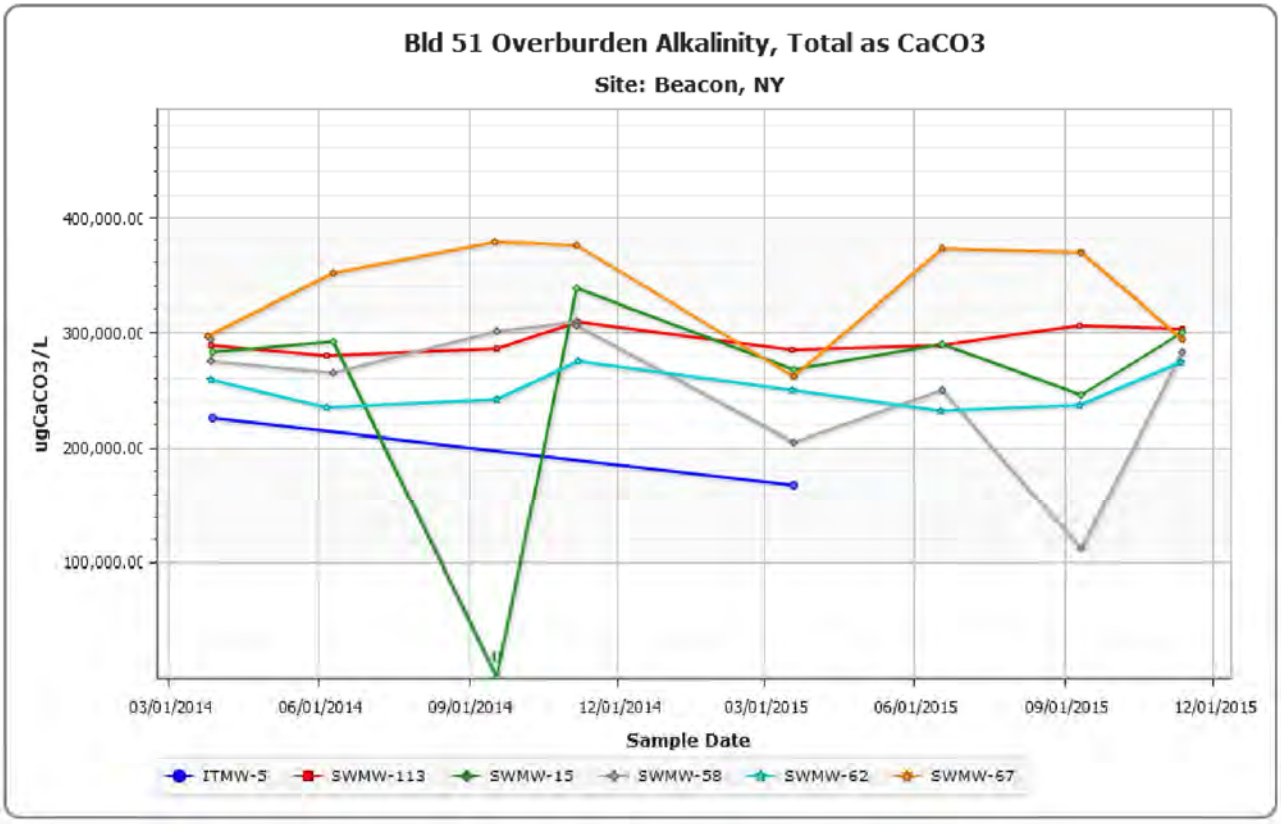

SWMW-56 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

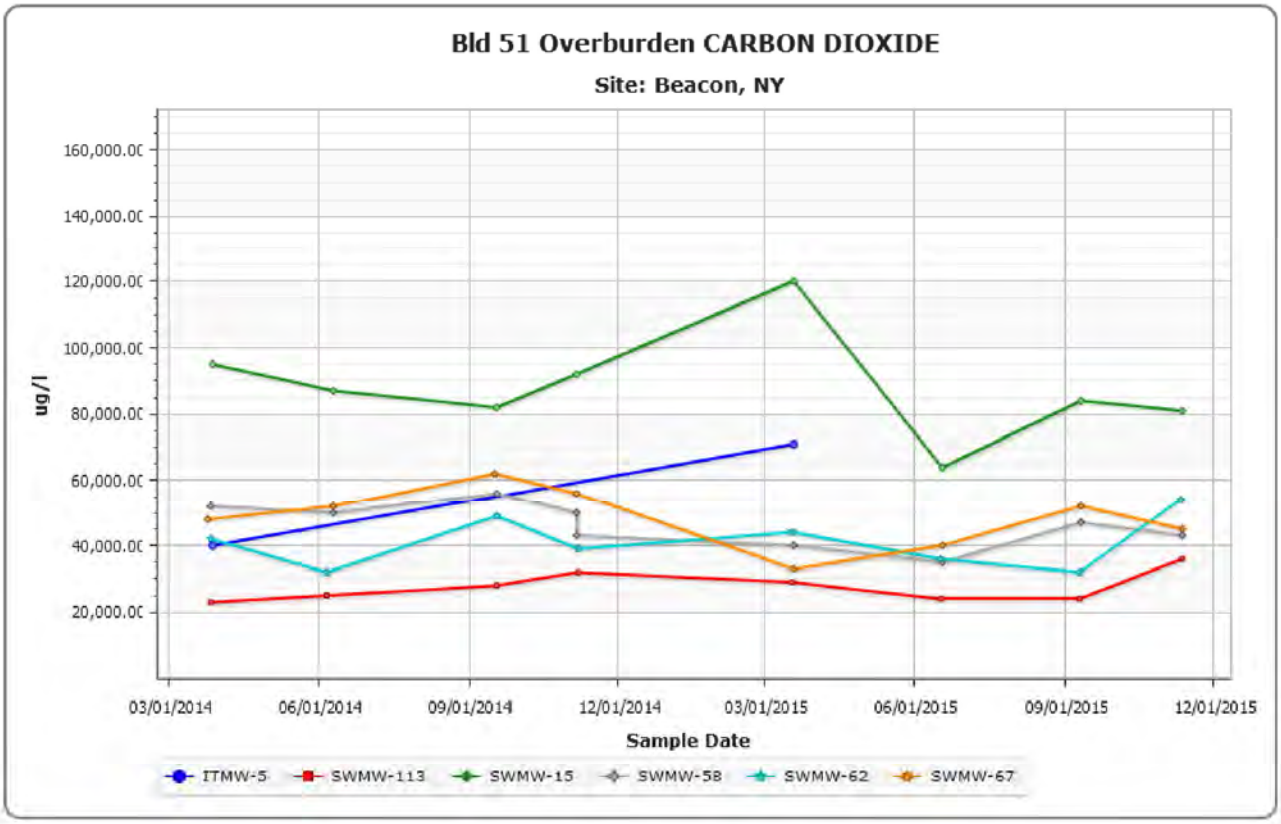

SWMW-66 (Bedrock)
Site: Beacon, NY
10,000.00
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

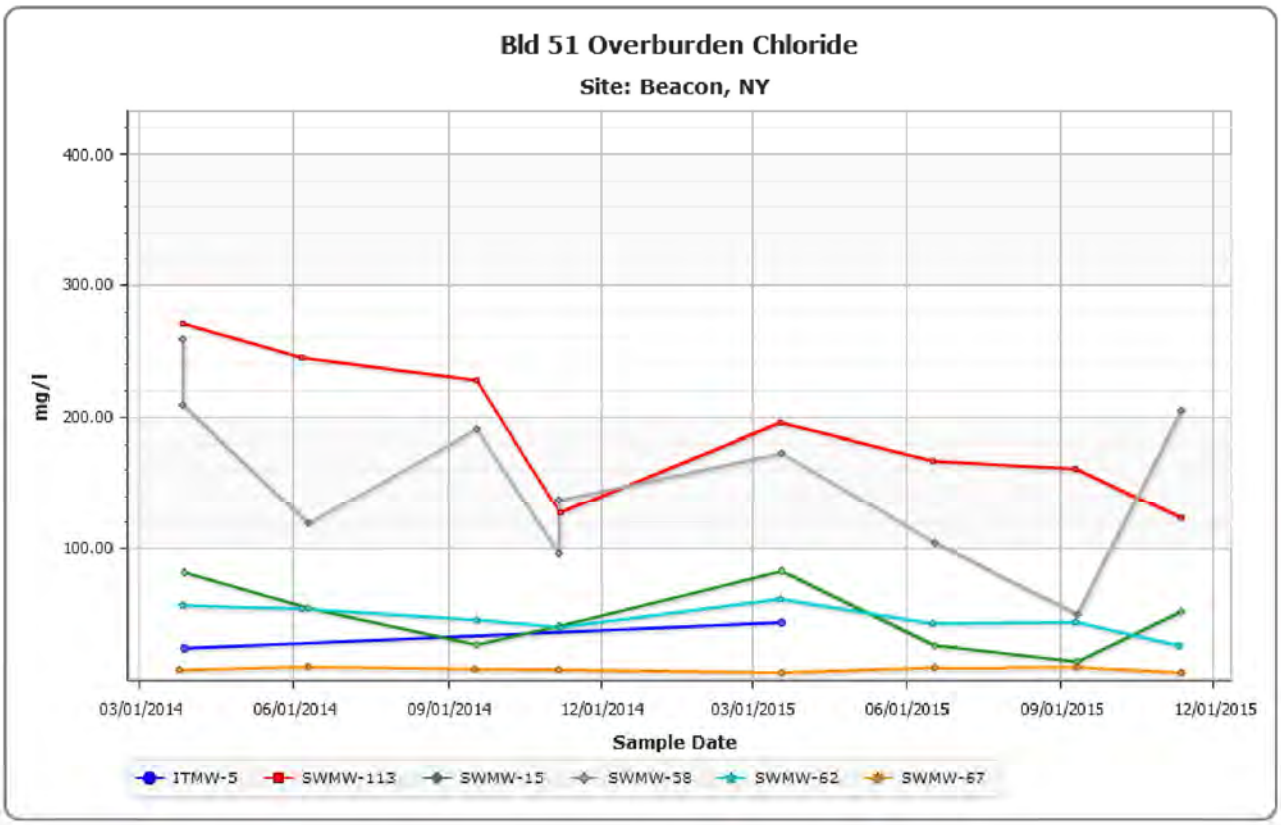

SWMW-68 (Bedrock)
Site: Beacon, NY
1,000.00
100.00
10.00
1.00
0.10
0.01
ug/l
01/01/2011
01/01/2012
01/01/2013
01/01/2014
01/01/2015
Sample Date
Benzene
Chlorobenzen
cis-1,2-Dichloroethen
Ethane
Ethene
Trichloroethene (Trichloroethylen
Vinyl chloride (Chloroethene

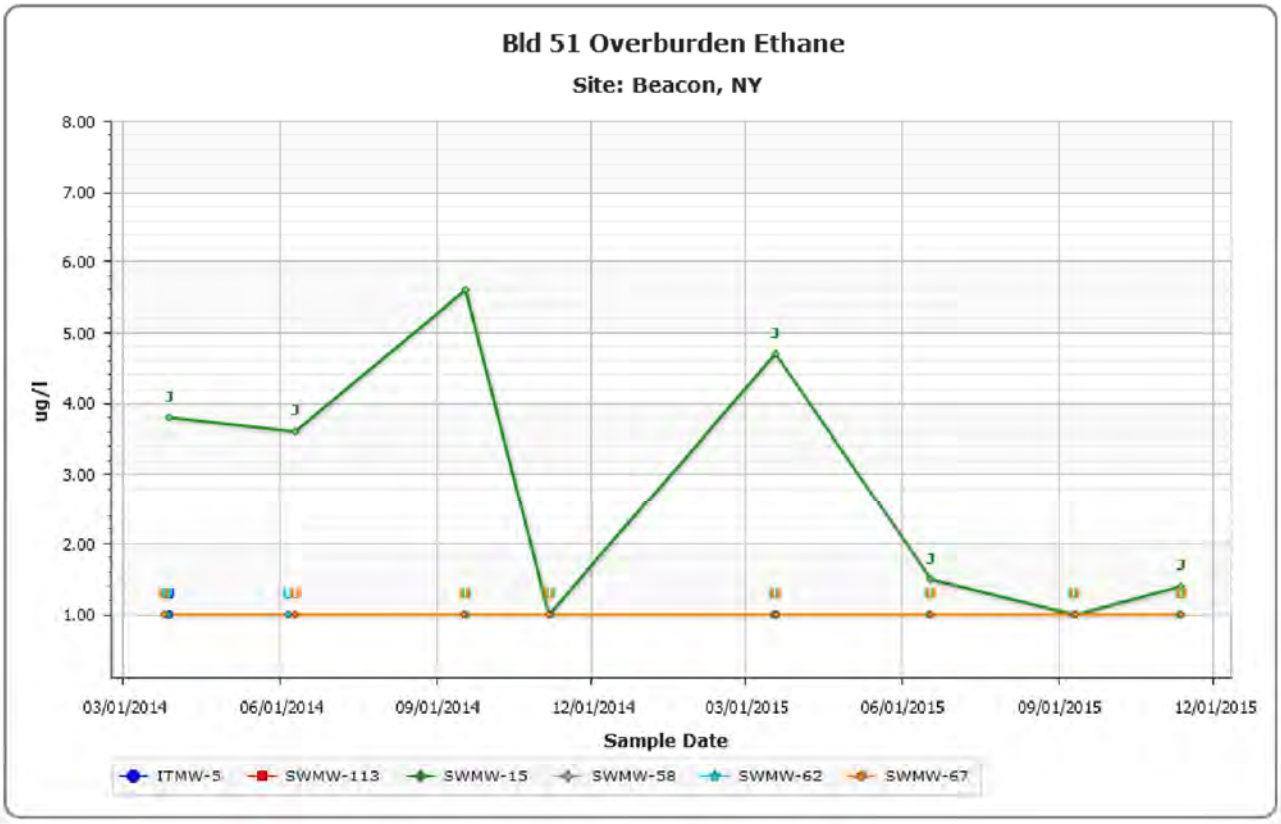
2014 THROUGH 2015 NATURAL ATTENUATION PARAMETERS SUMMARY GRAPHS

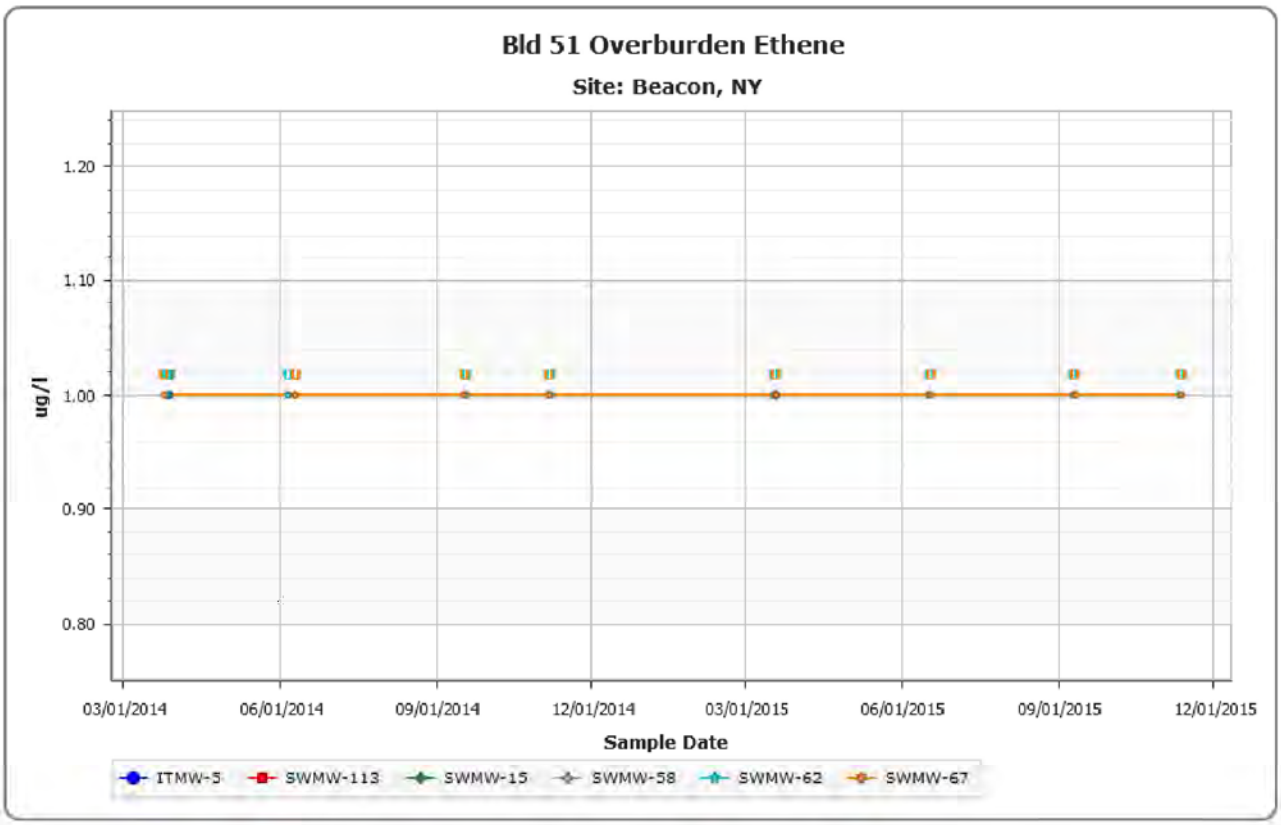
(OVERBURDEN AND BEDROCK WELLS)

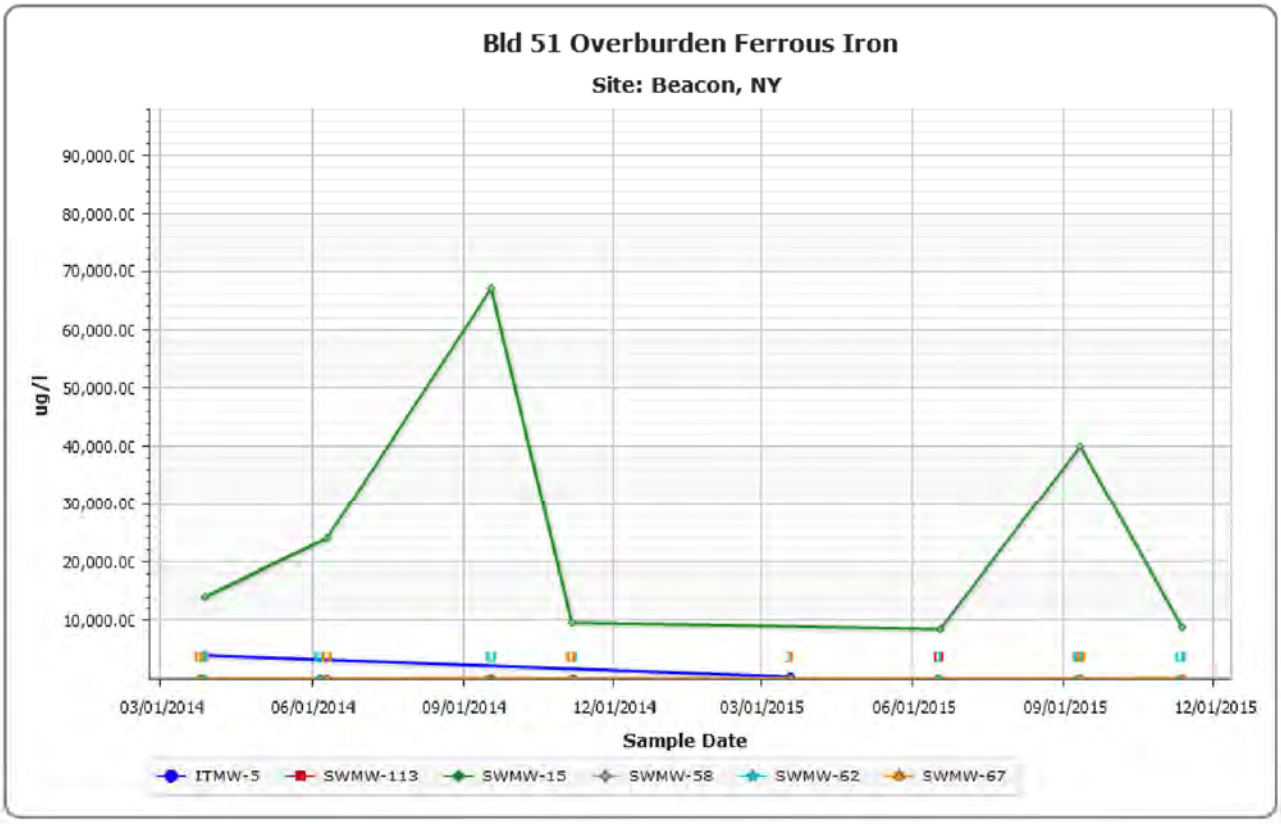

Bld 51 Overburden Alkalinity, Total as CaCO3
Site: Beacon, NY
ugCaCO3/L
400,000.0C
300,000.0C
200,000.0C
100,000.0C
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

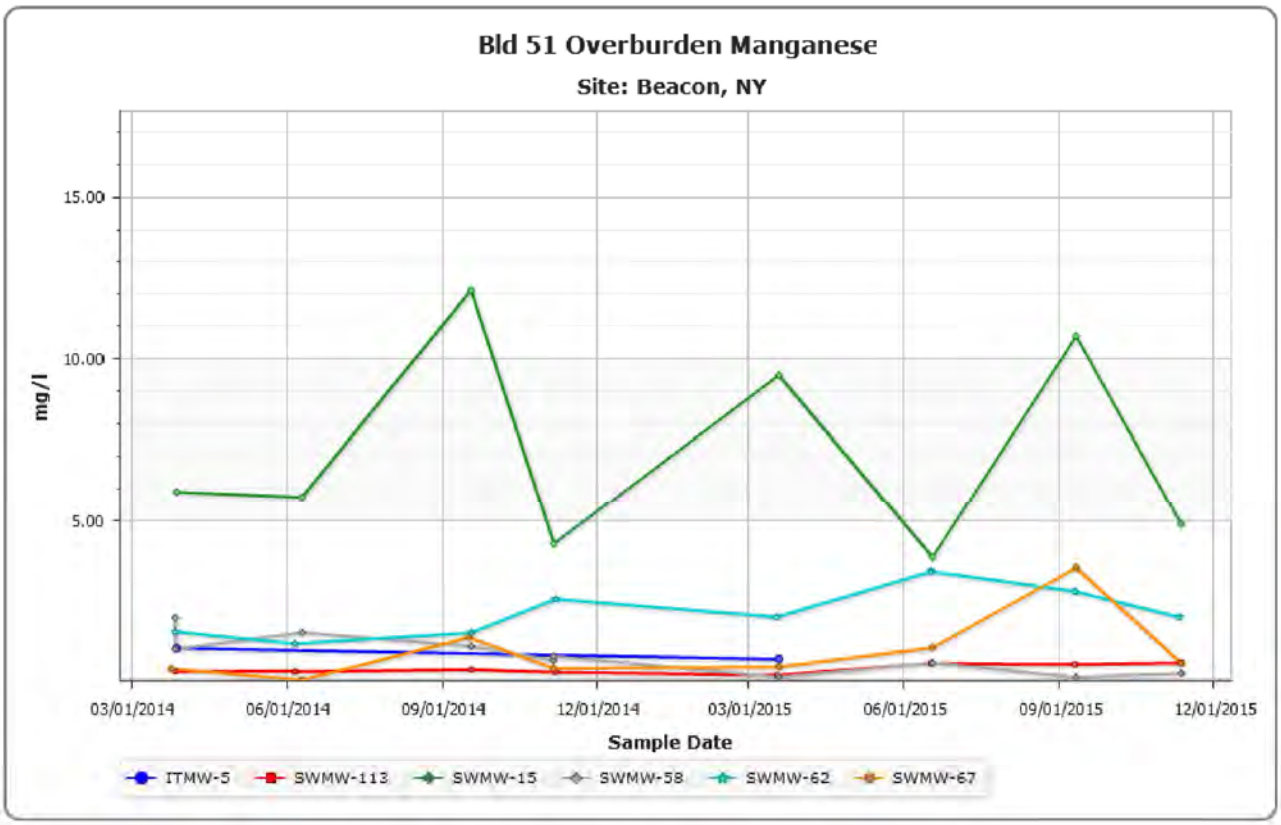

Bld 51 Overburden CARBON DIOXIDE
Site: Beacon, NY
ug/l
160,000.0C
140,000.0C
120,000.0C
100,000.0C
80,000.0C
60,000.0C
40,000.0C
20,000.0C
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

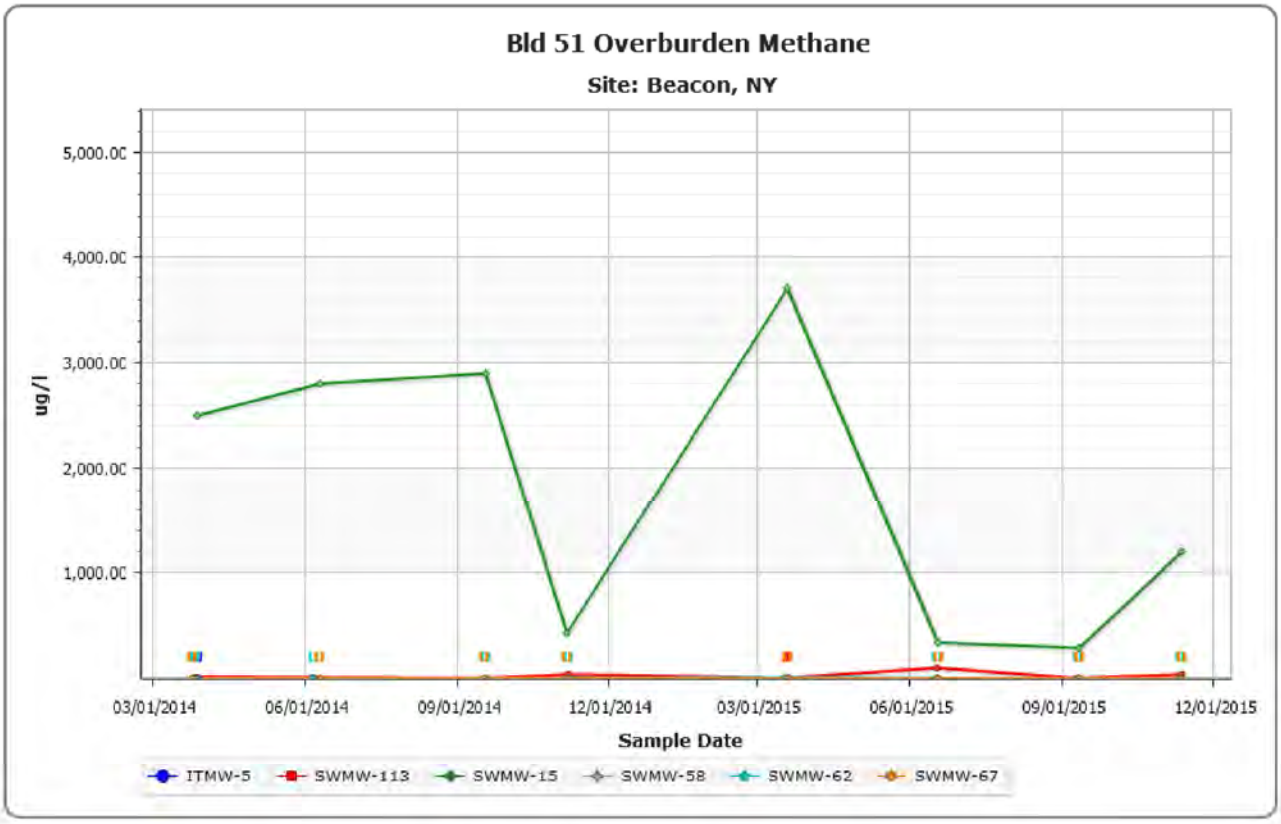

Bld 51 Overburden Chloride
Site: Beacon, NY
400.00
300.00
200.00
100.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

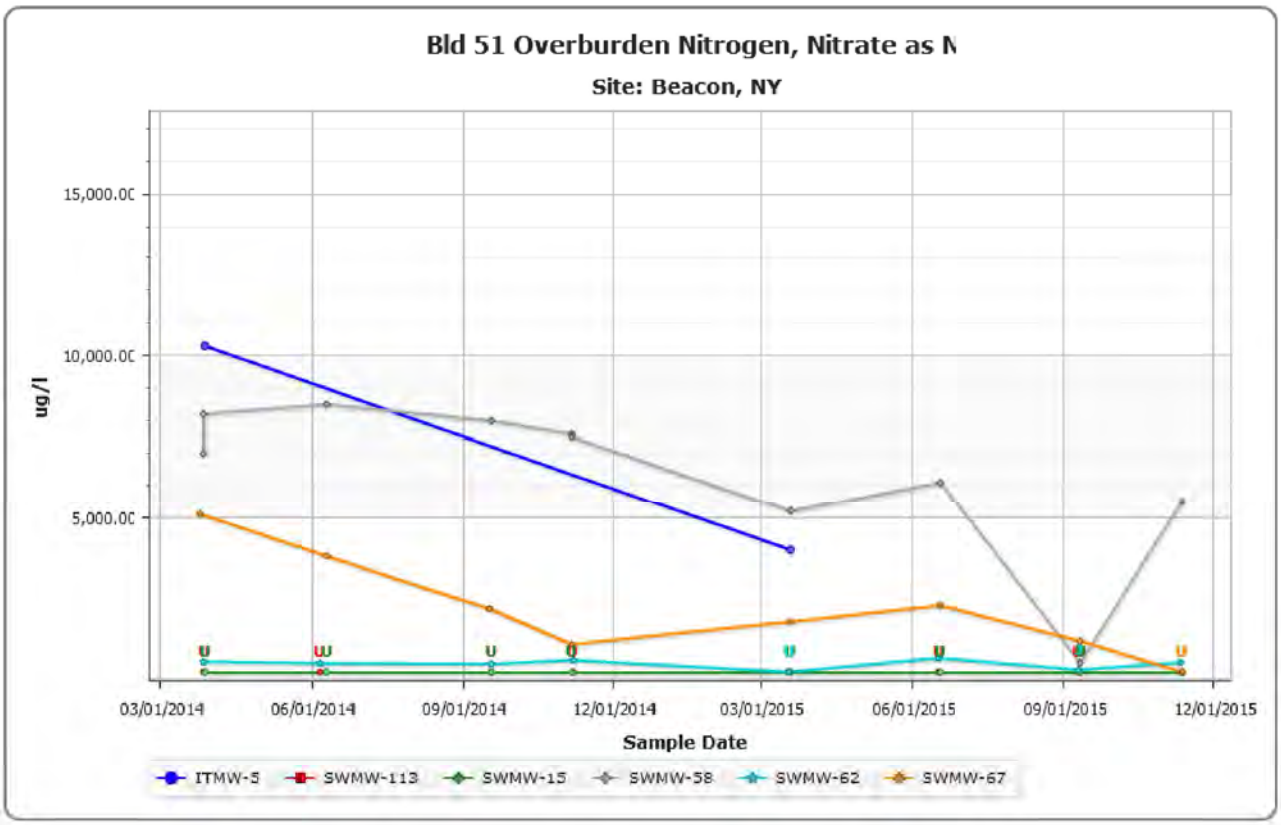

Bld 51 Overburden Ethane
Site: Beacon, NY
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
ug/l
J
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

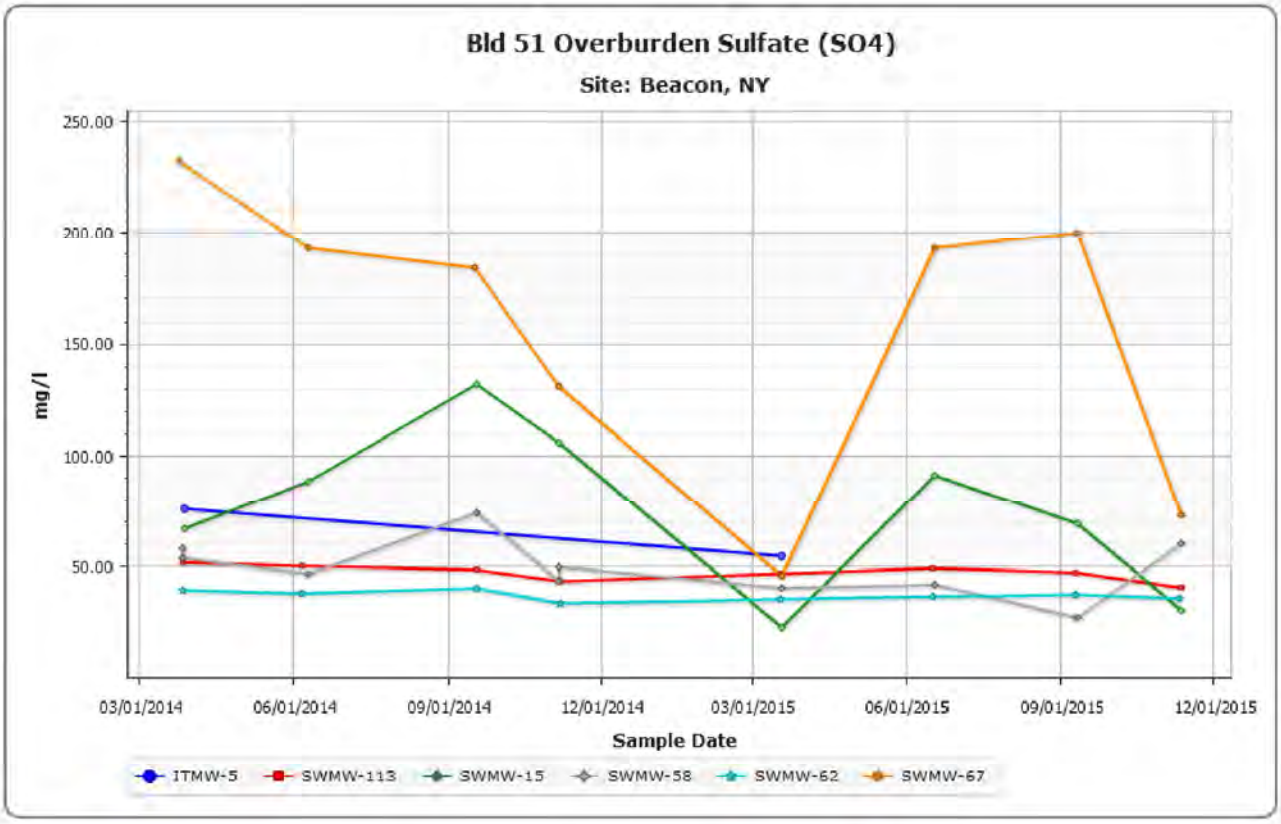

Bld 51 Overburden Ethene
Site: Beacon, NY
1.20
1.10
1.00
0.90
0.80
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

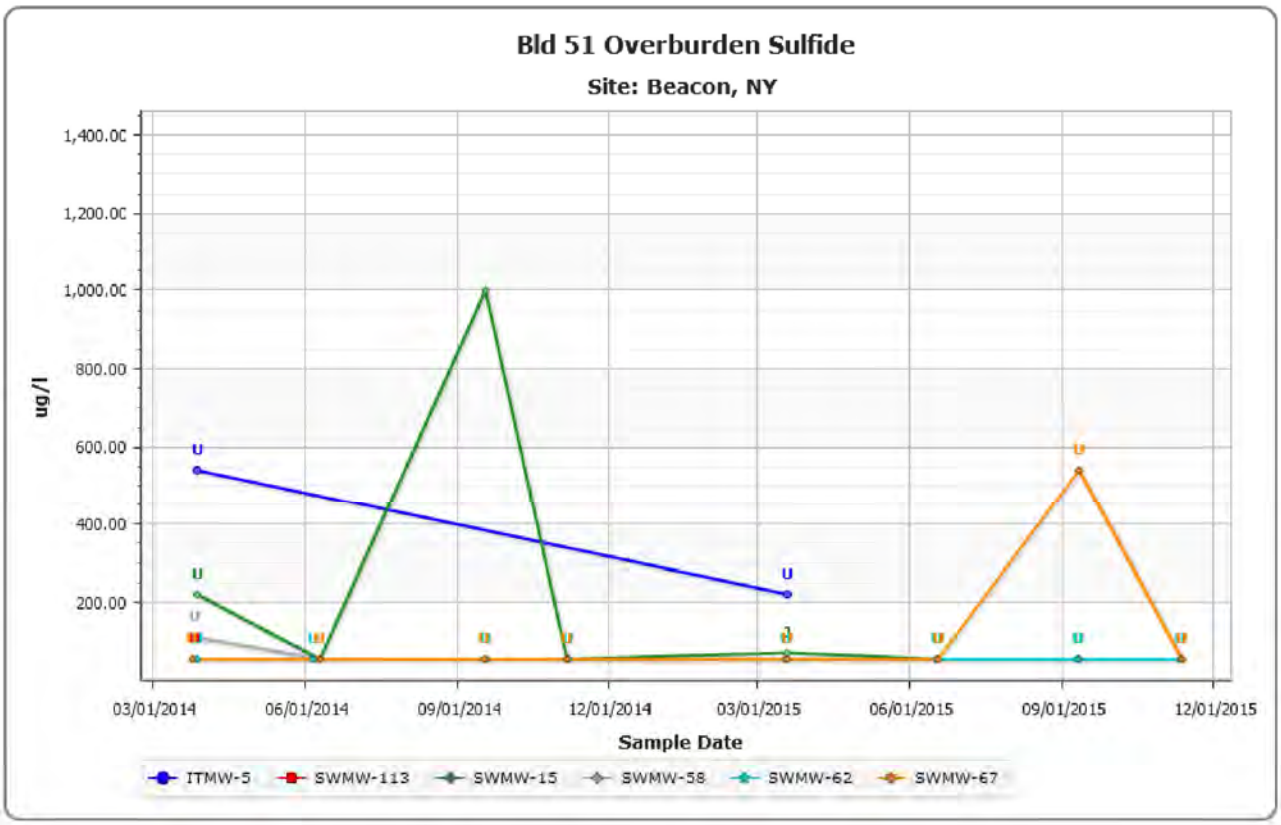

Bld 51 Overburden Ferrous Iron
Site: Beacon, NY
90,000.0
80,000.0
70,000.0
60,000.0
50,000.0
40,000.0
30,000.0
20,000.0
10,000.0
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

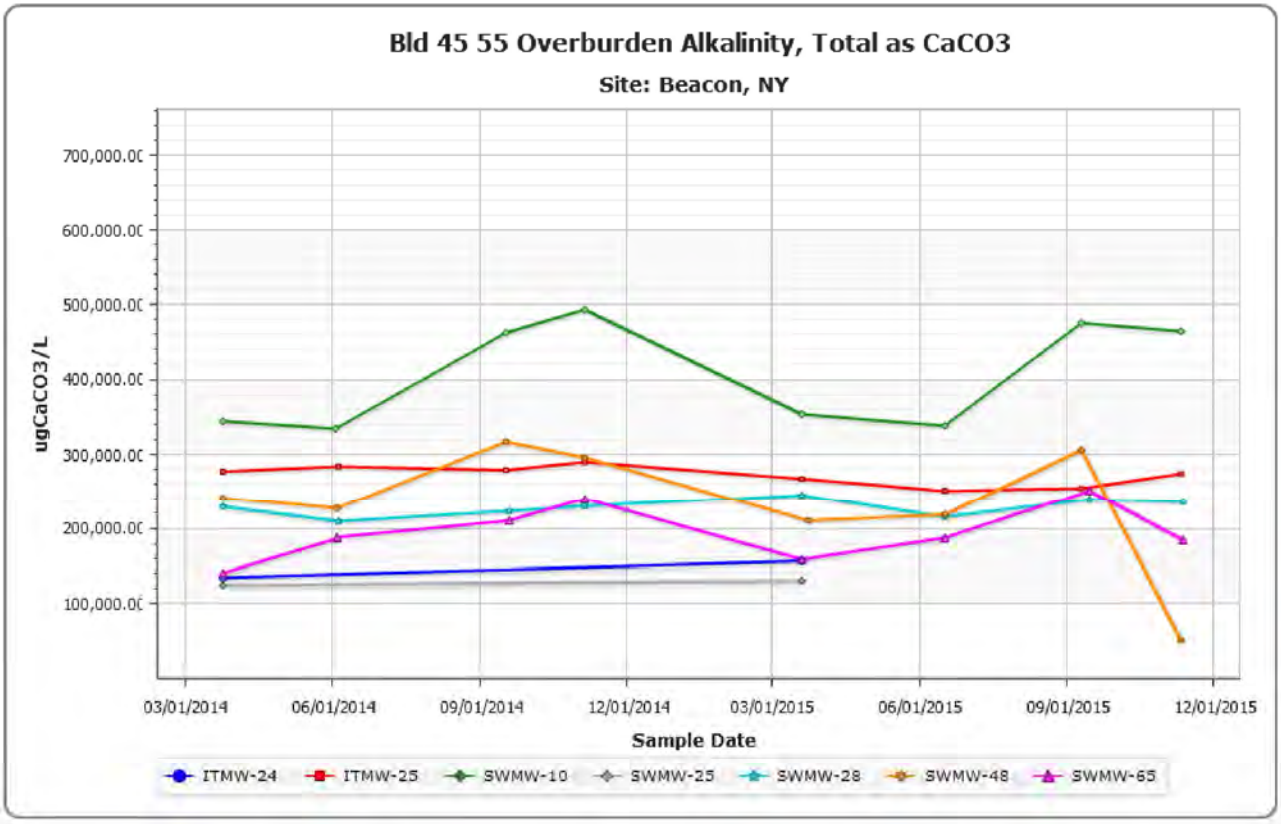

Bld 51 Overburden Manganese
Site: Beacon, NY
15.00
10.00
5.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

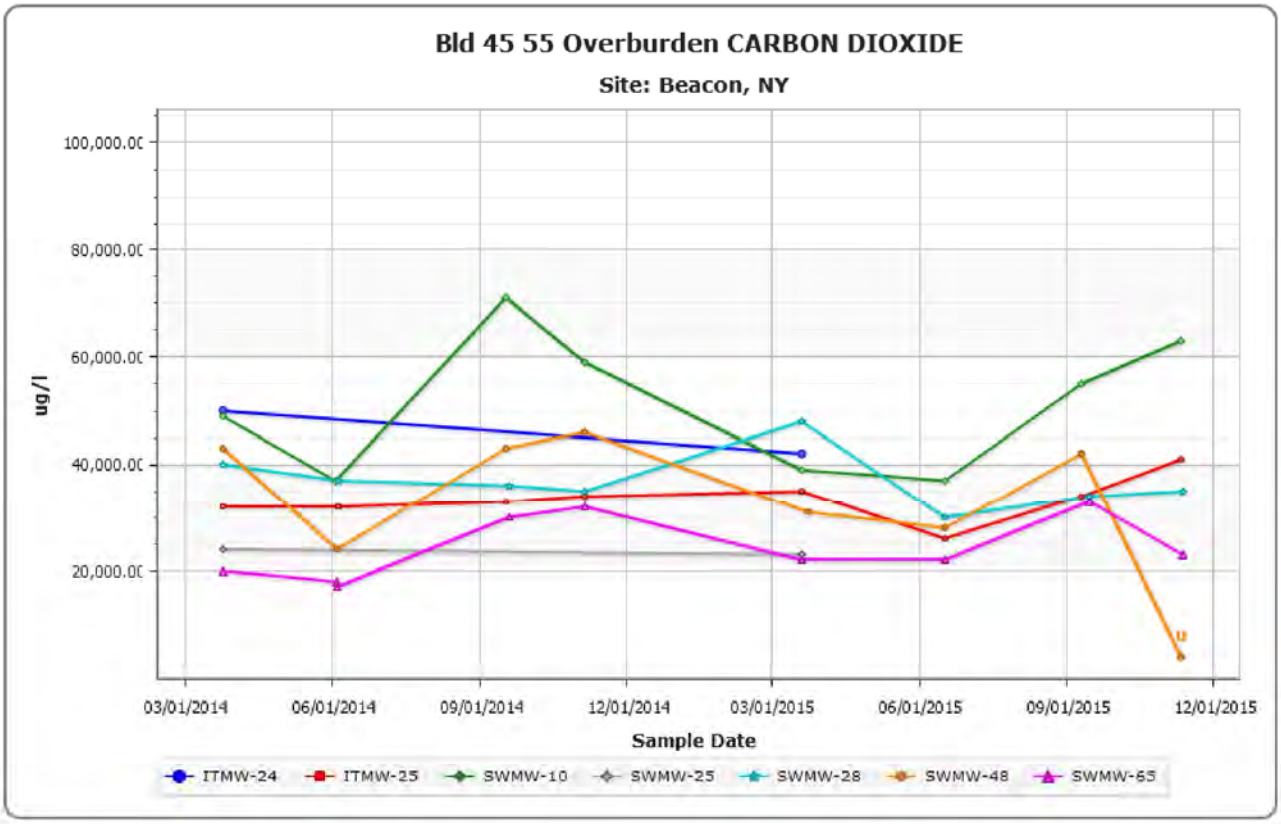

Bld 51 Overburden Methane
Site: Beacon, NY
5,000.00
4,000.00
3,000.00
2,000.00
1,000.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

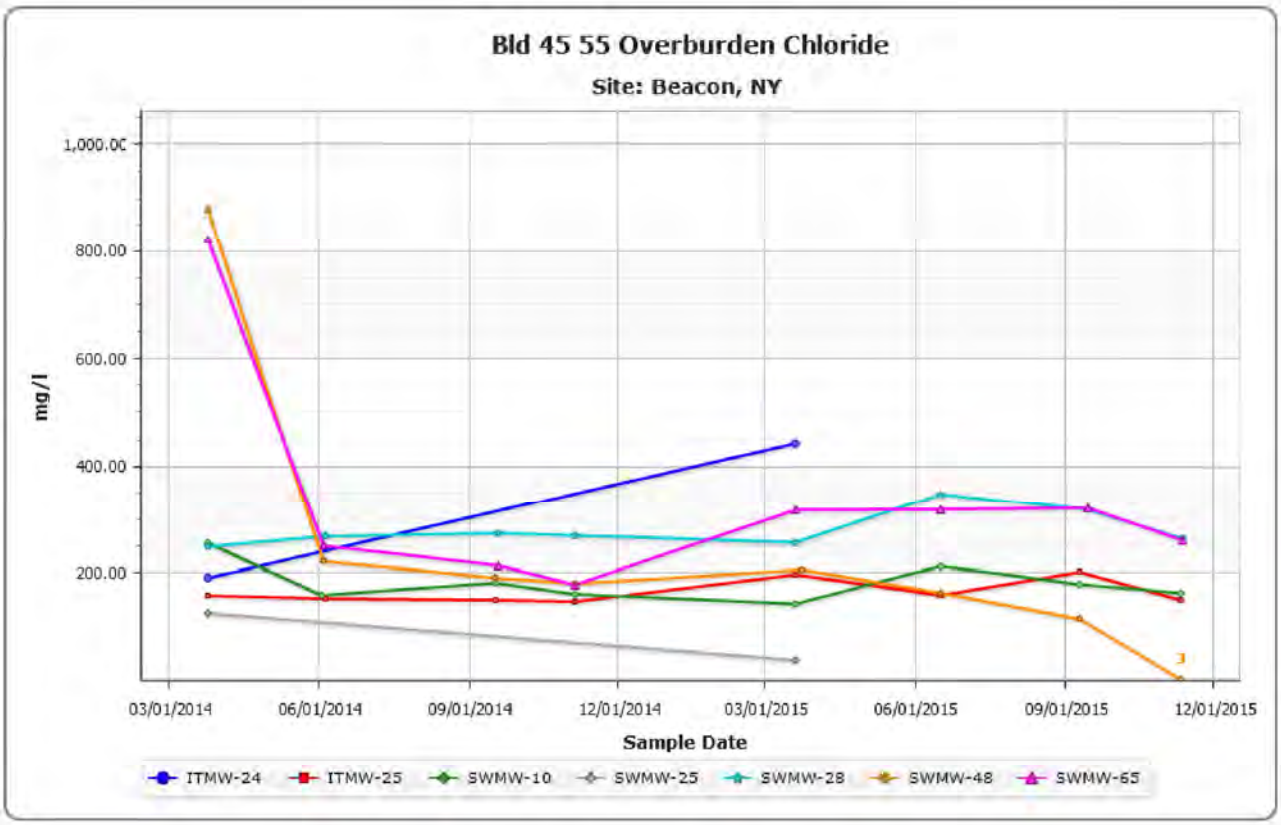

Bld 51 Overburden Nitrogen, Nitrate as N
Site: Beacon, NY
15,000.0C
10,000.0C
5,000.0C
ug/l
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

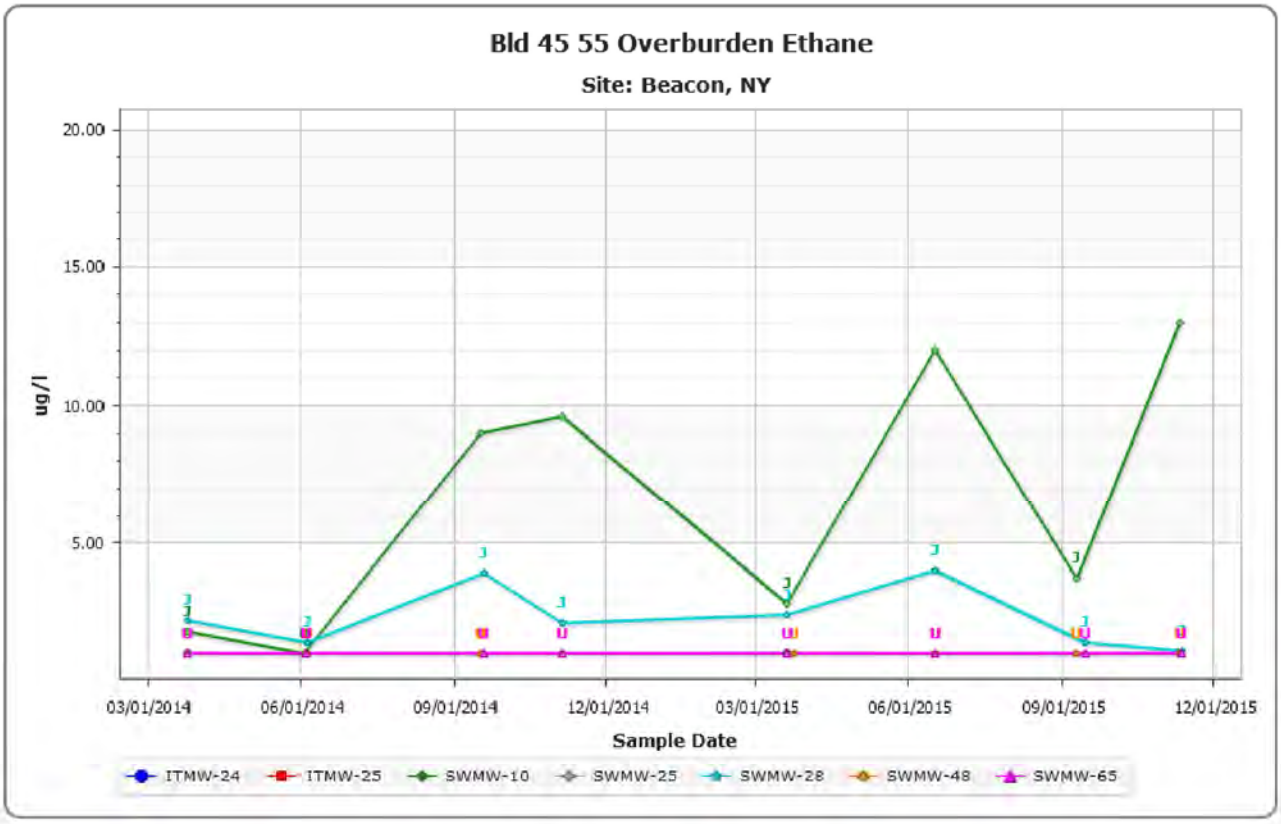

Bld 51 Overburden Sulfate (SO4)
Site: Beacon, NY
250.00
200.00
150.00
100.00
50.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

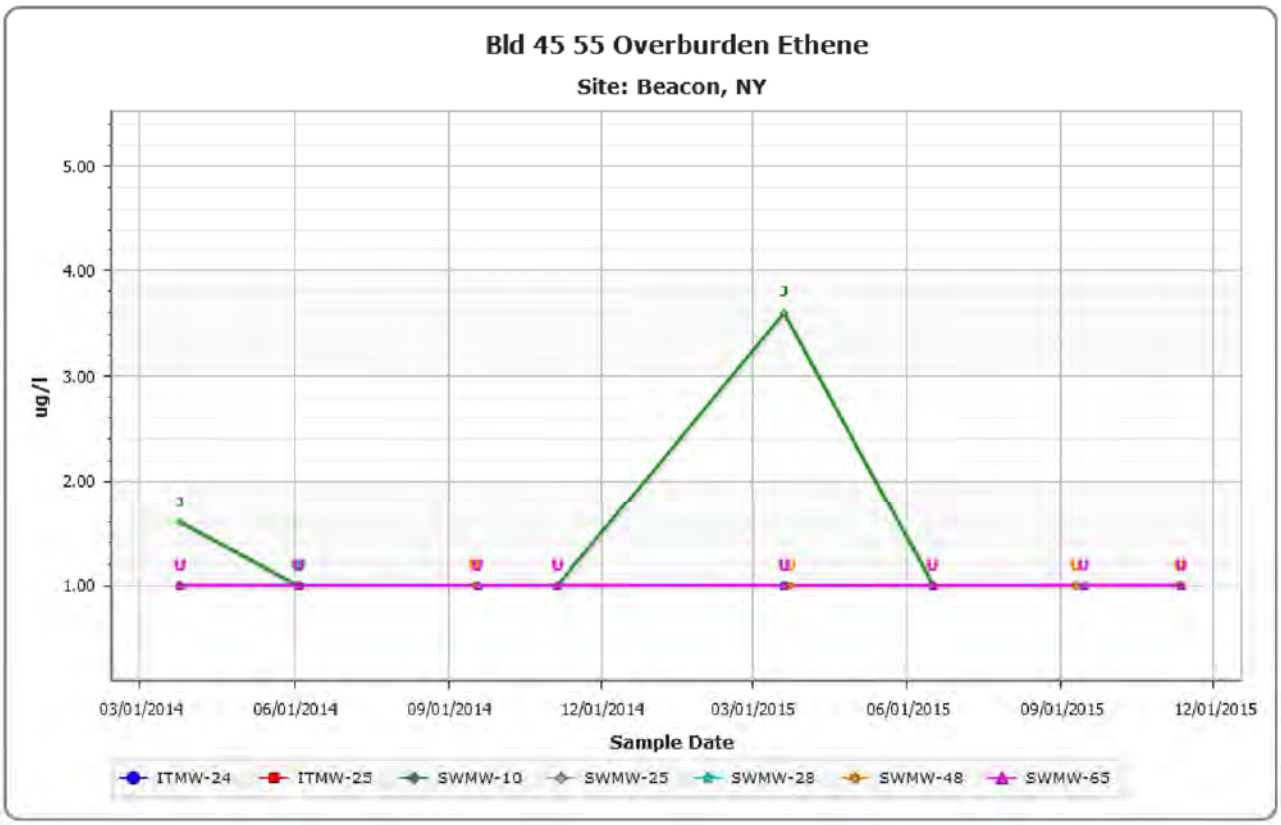

Bld 51 Overburden Sulfide
Site: Beacon, NY
1,400.00
1,200.00
1,000.00
800.00
600.00
400.00
200.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-58
SWMW-62
SWMW-67

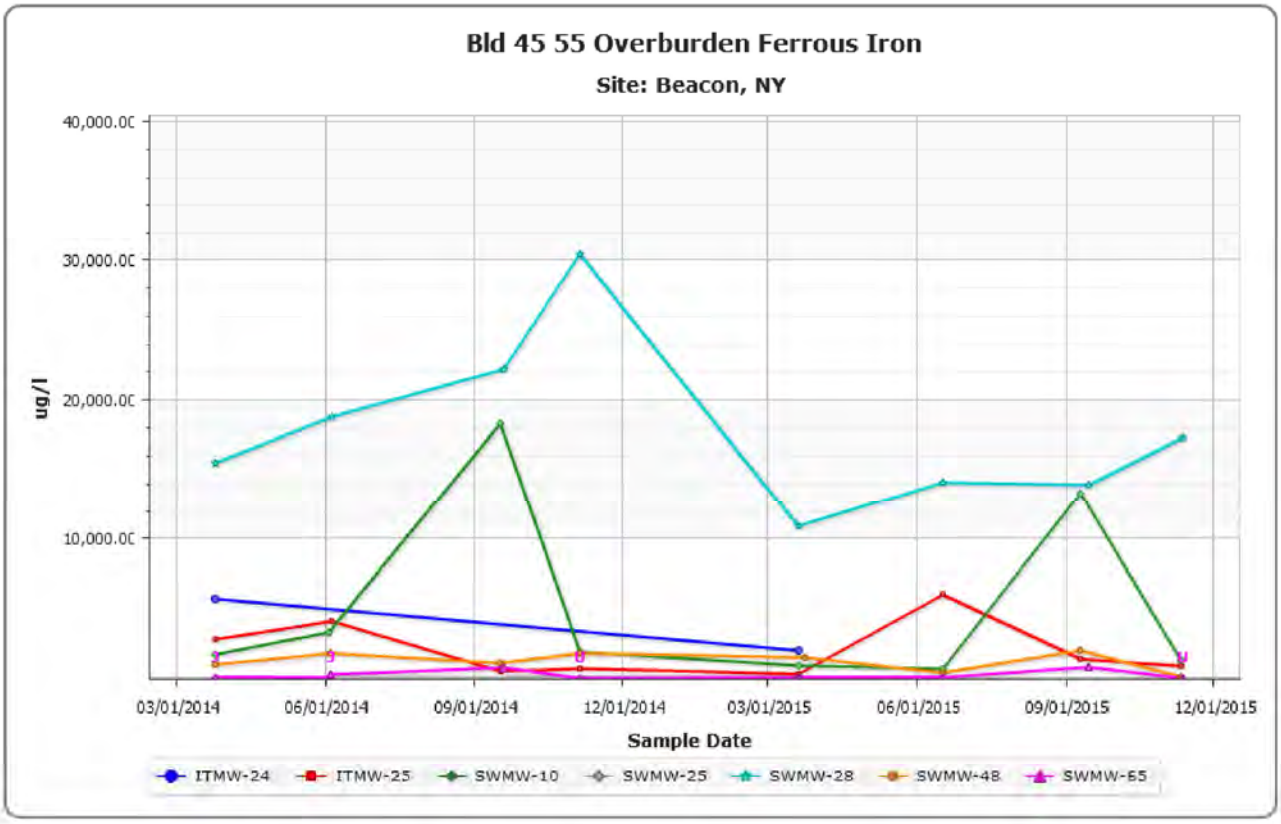

Bld 45 55 Overburden Alkalinity, Total as CaCO3
Site: Beacon, NY
ugCaCO3/L
700,000.0C
600,000.0C
500,000.0C
400,000.0C
300,000.0C
200,000.0C
100,000.0C
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

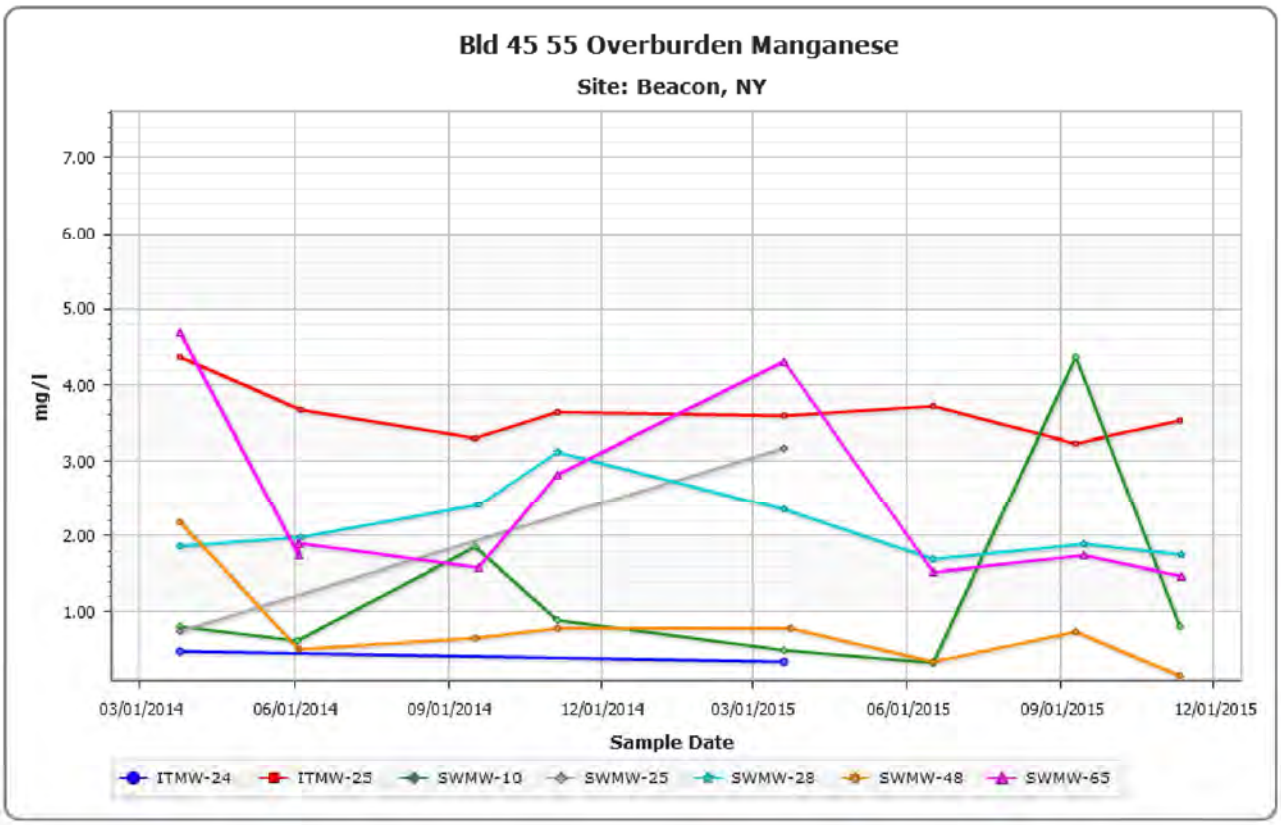

Bld 45 55 Overburden CARBON DIOXIDE
Site: Beacon, NY
ug/l
100,000.0C
80,000.0C
60,000.0C
40,000.0C
20,000.0C
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

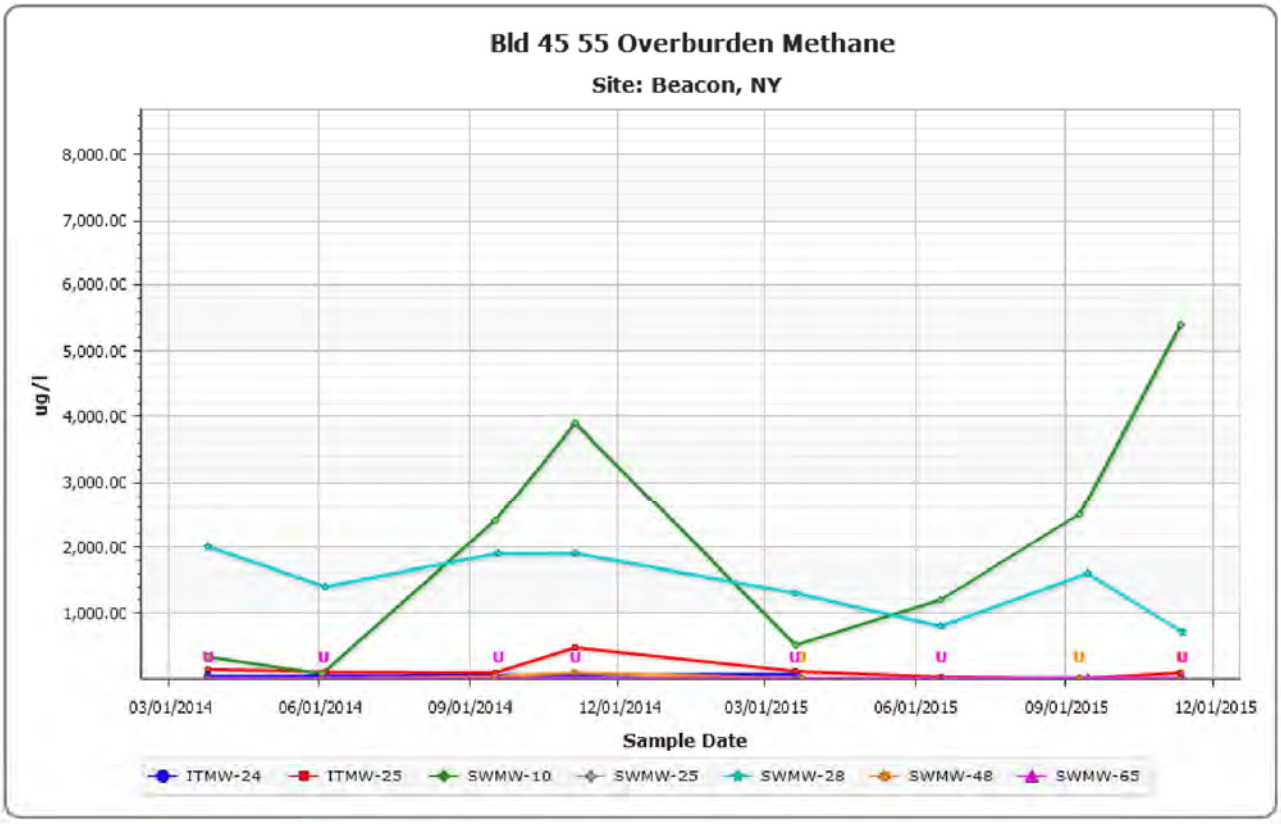

Bld 45 55 Overburden Chloride
Site: Beacon, NY
1,000.00
800.00
600.00
400.00
200.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

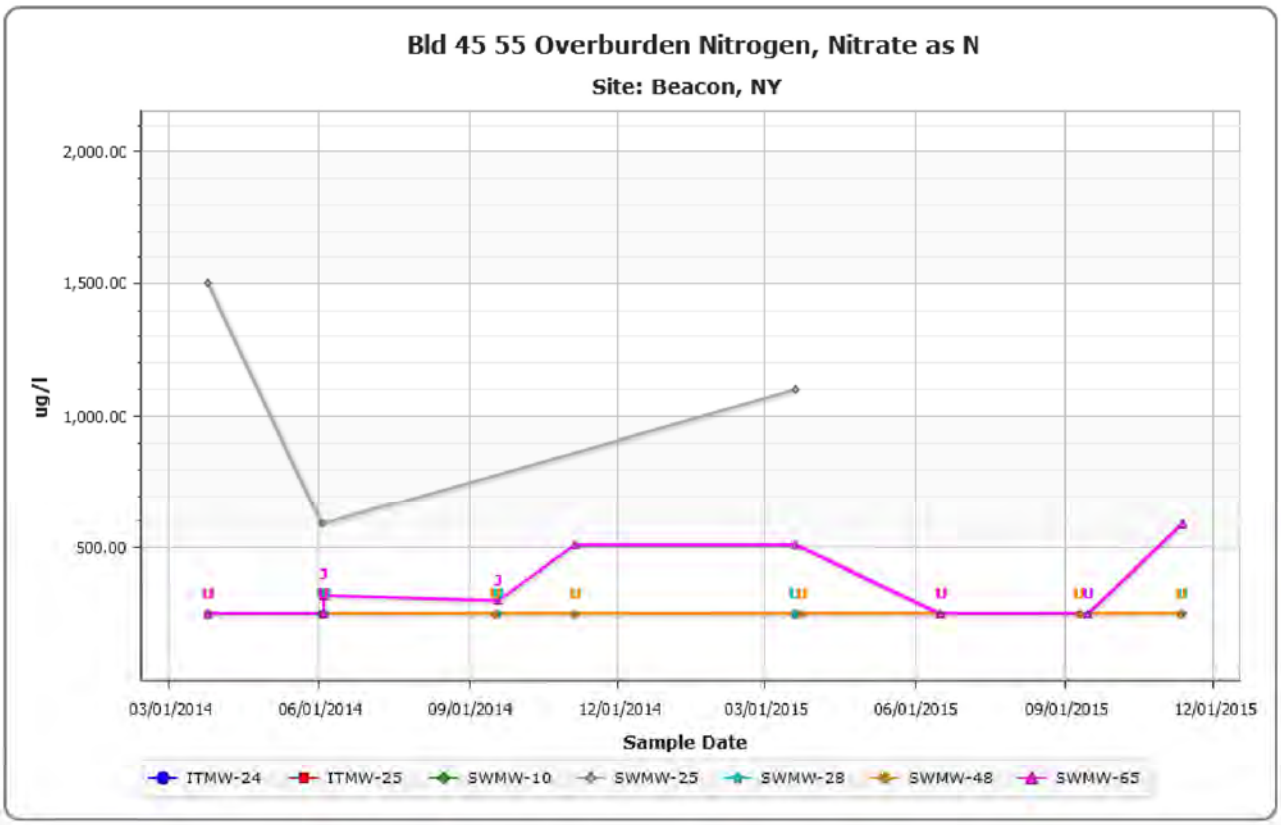

Bld 45 55 Overburden Ethane
Site: Beacon, NY
20.00
15.00
10.00
5.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

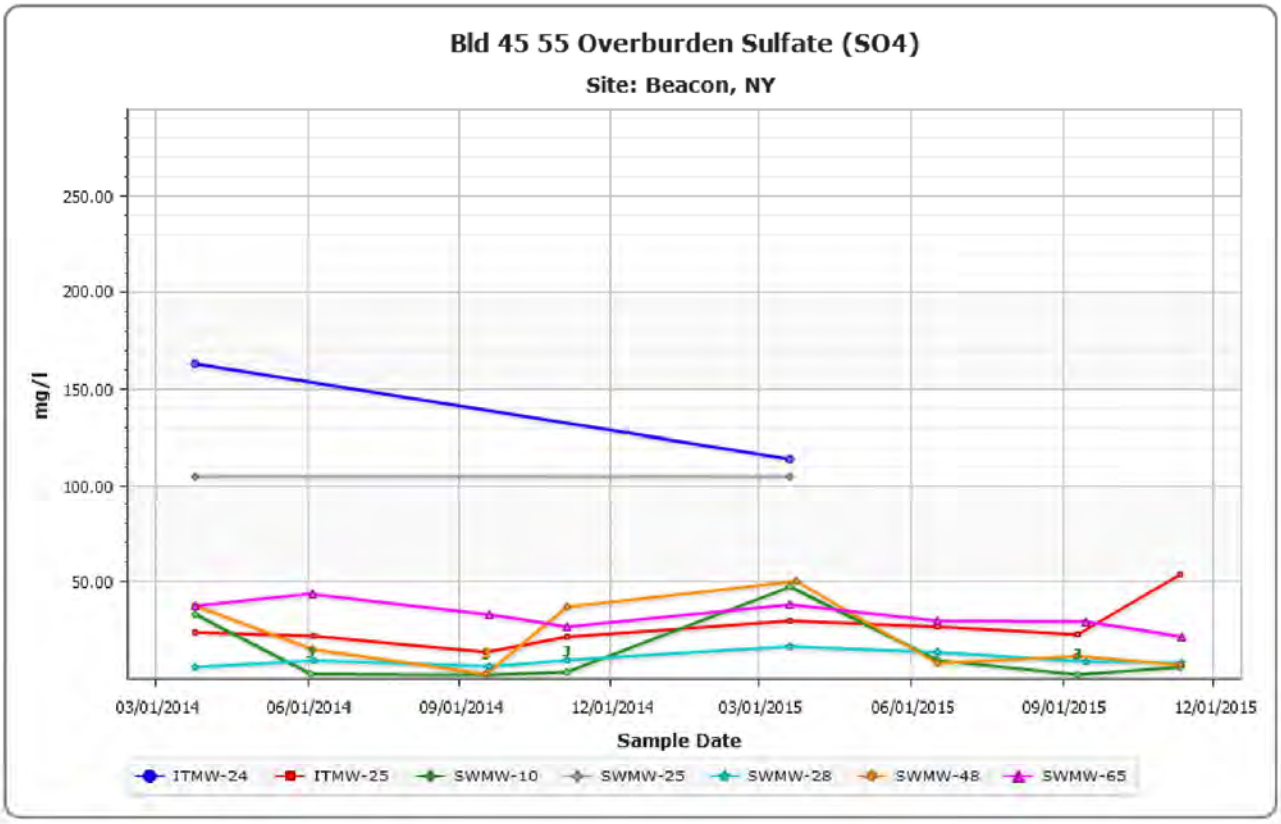

Bld 45 55 Overburden Ethene
Site: Beacon, NY
5.00
4.00
3.00
2.00
1.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

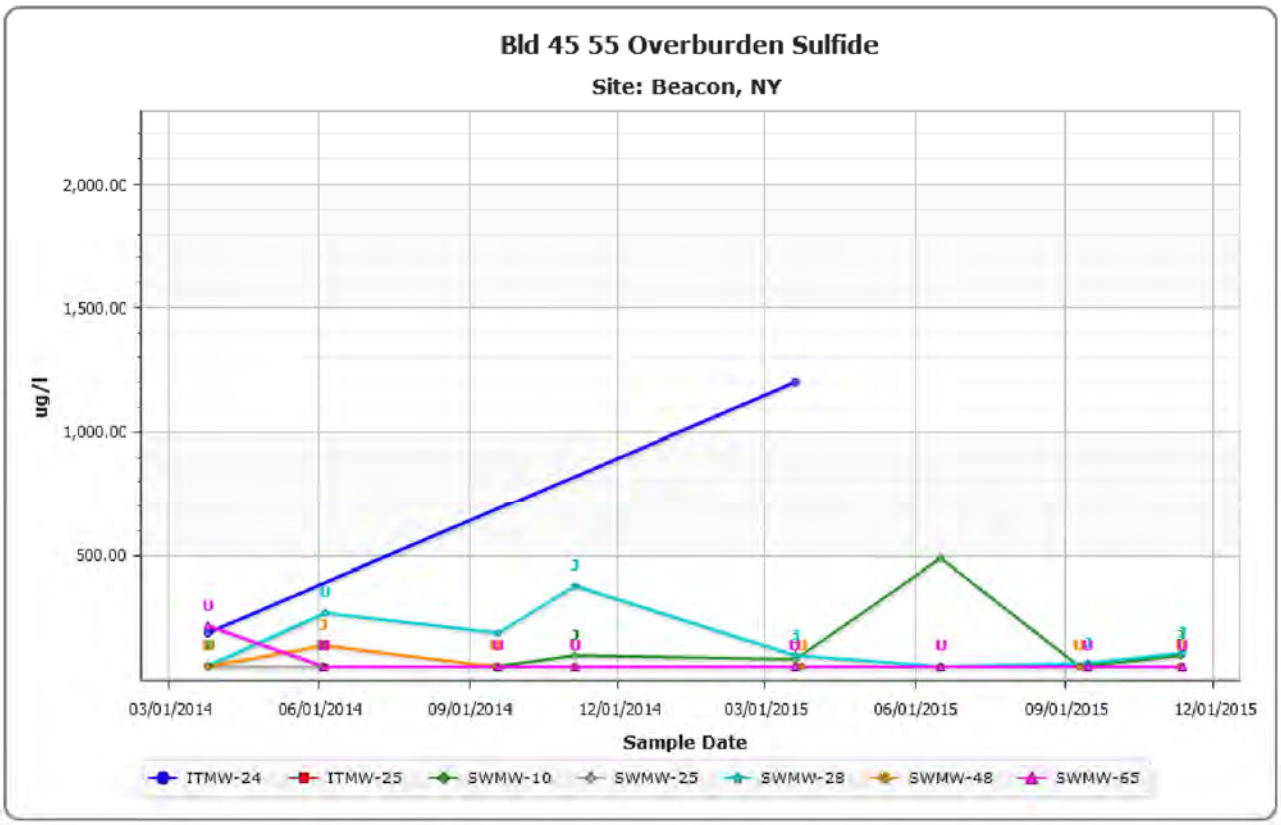

Bld 45 55 Overburden Ferrous Iron
Site: Beacon, NY
40,000.0
30,000.0
20,000.0
10,000.0
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

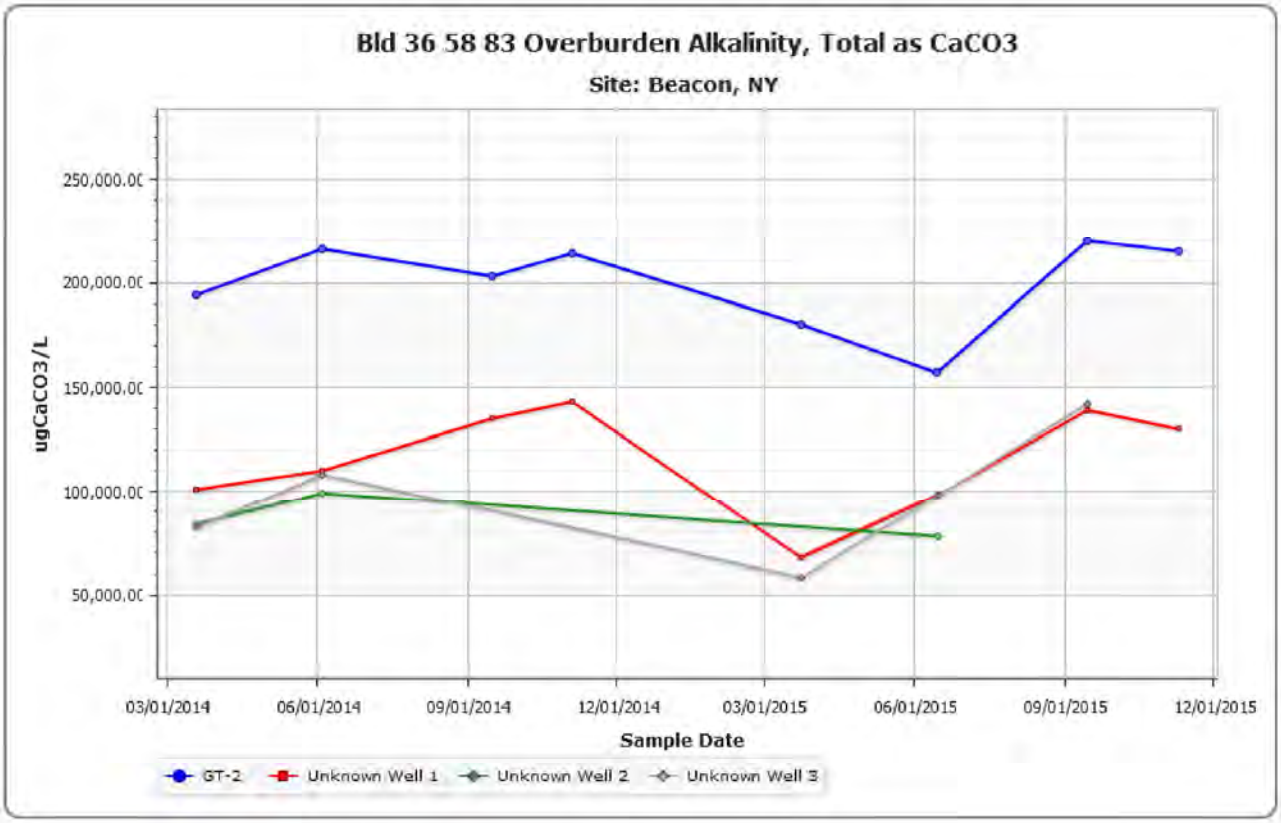

Bld 45 55 Overburden Manganese
Site: Beacon, NY
mg/l
7.00
6.00
5.00
4.00
3.00
2.00
1.00
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

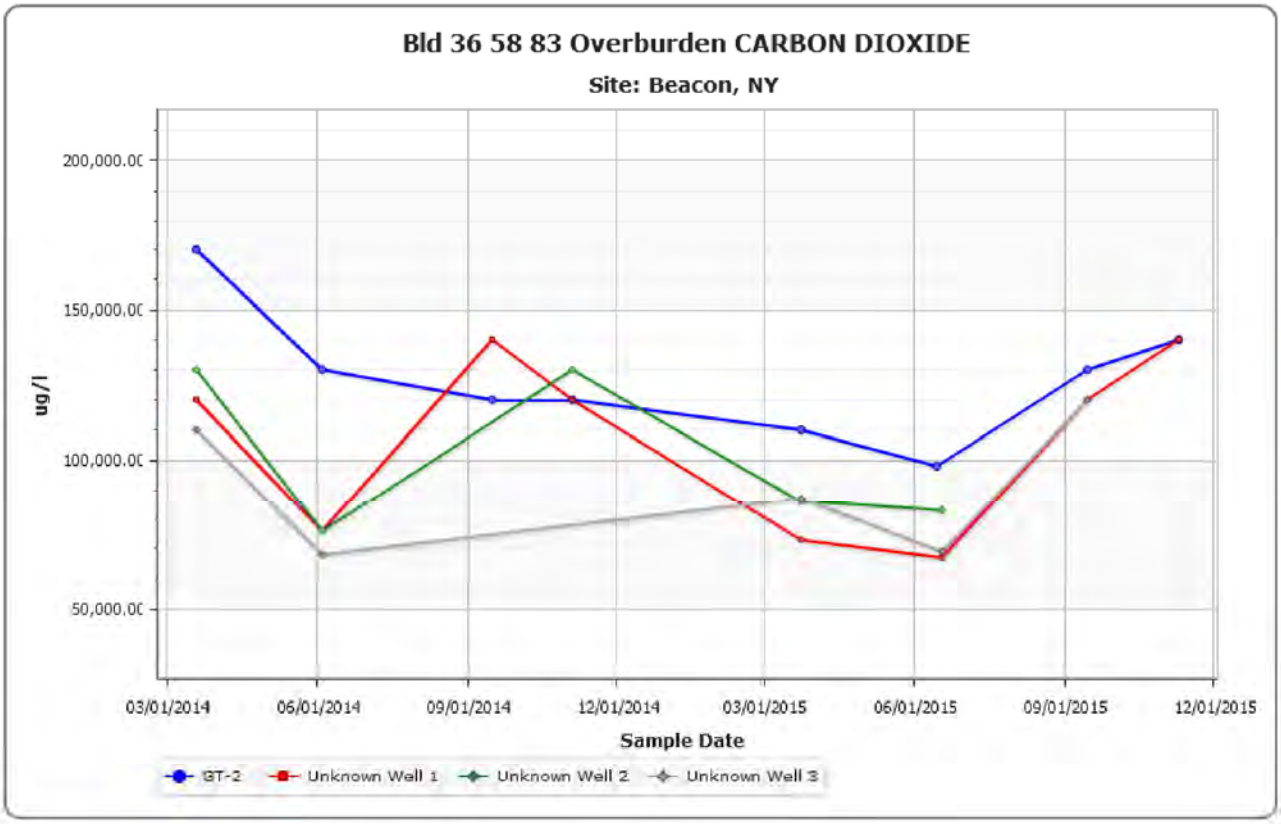

Bld 45 55 Overburden Methane
Site: Beacon, NY
ug/l
8,000.00
7,000.00
6,000.00
5,000.00
4,000.00
3,000.00
2,000.00
1,000.00
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

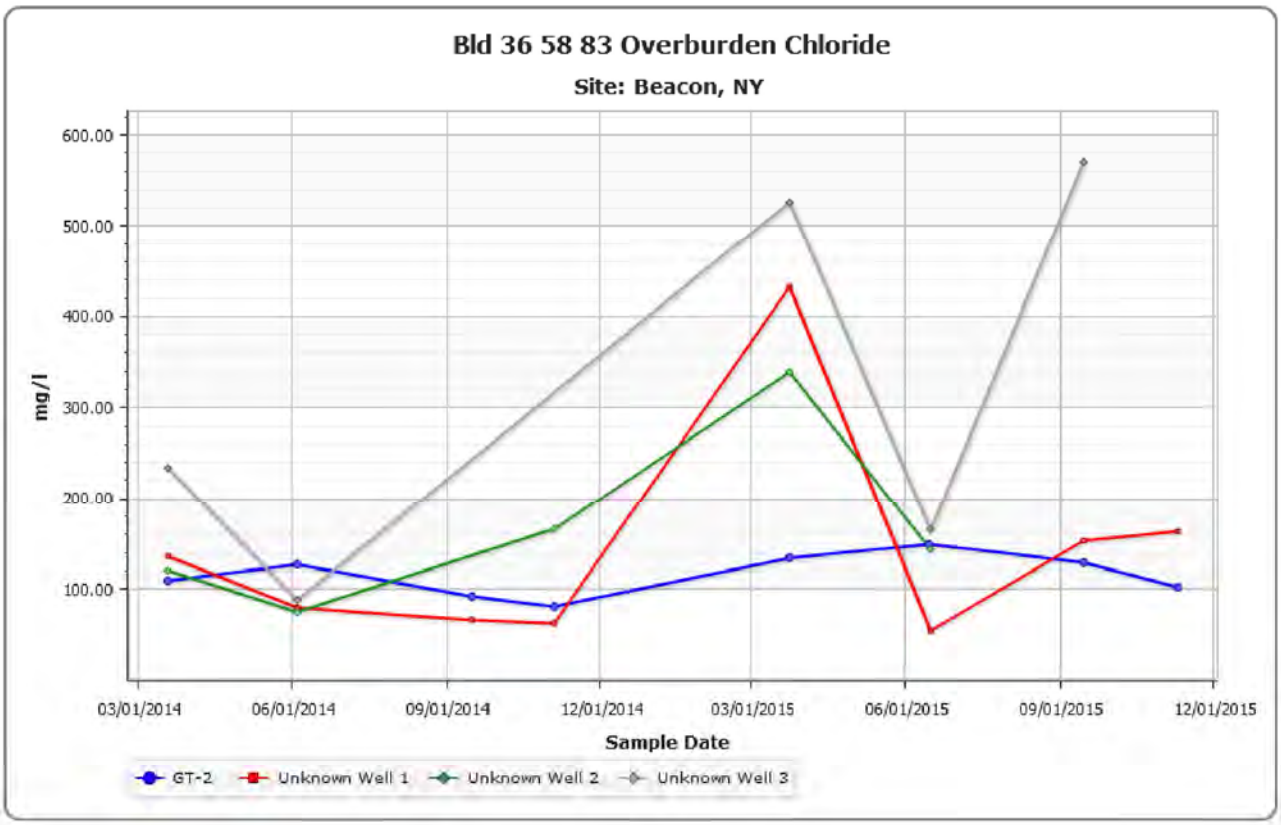

Bld 45 55 Overburden Nitrogen, Nitrate as N
Site: Beacon, NY
2,000.00
1,500.00
1,000.00
500.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

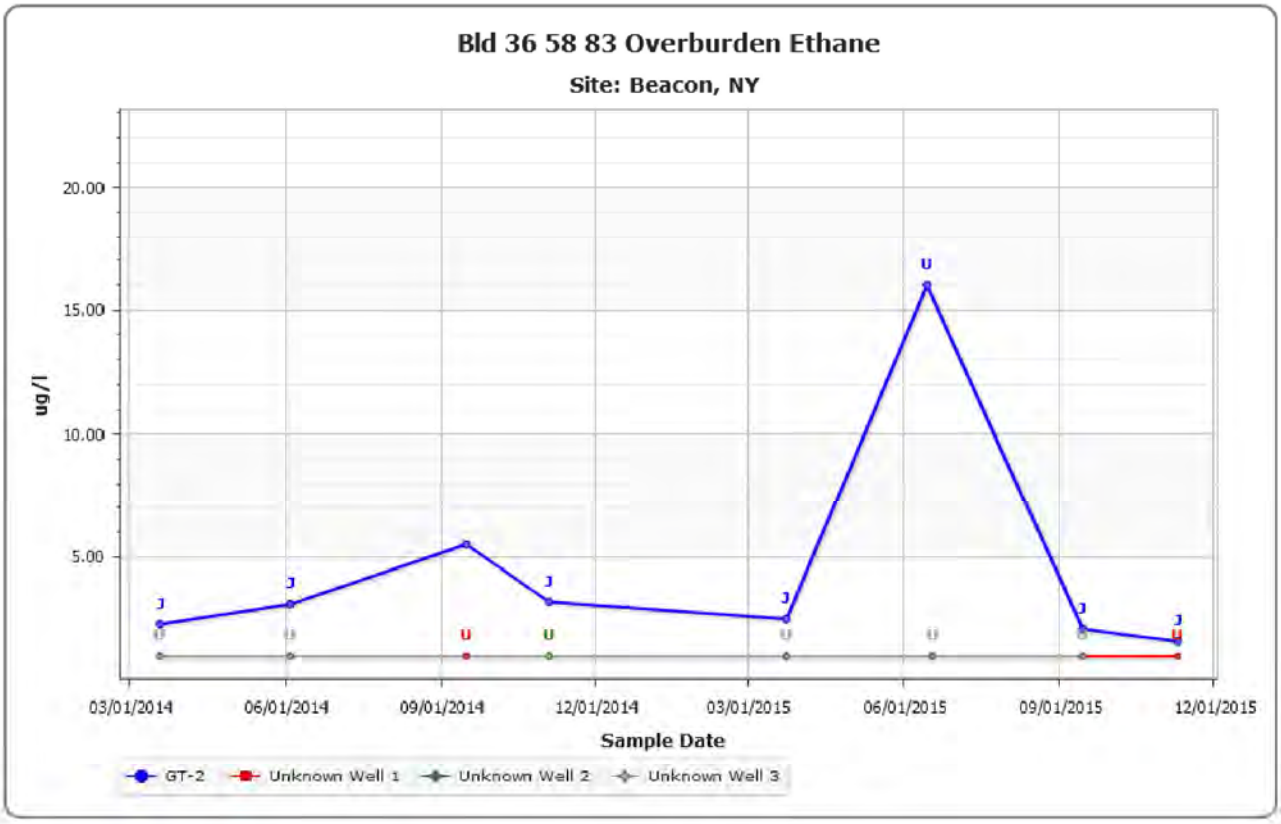

Bld 45 55 Overburden Sulfate (SO4)
Site: Beacon, NY
250.00
200.00
150.00
100.00
50.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

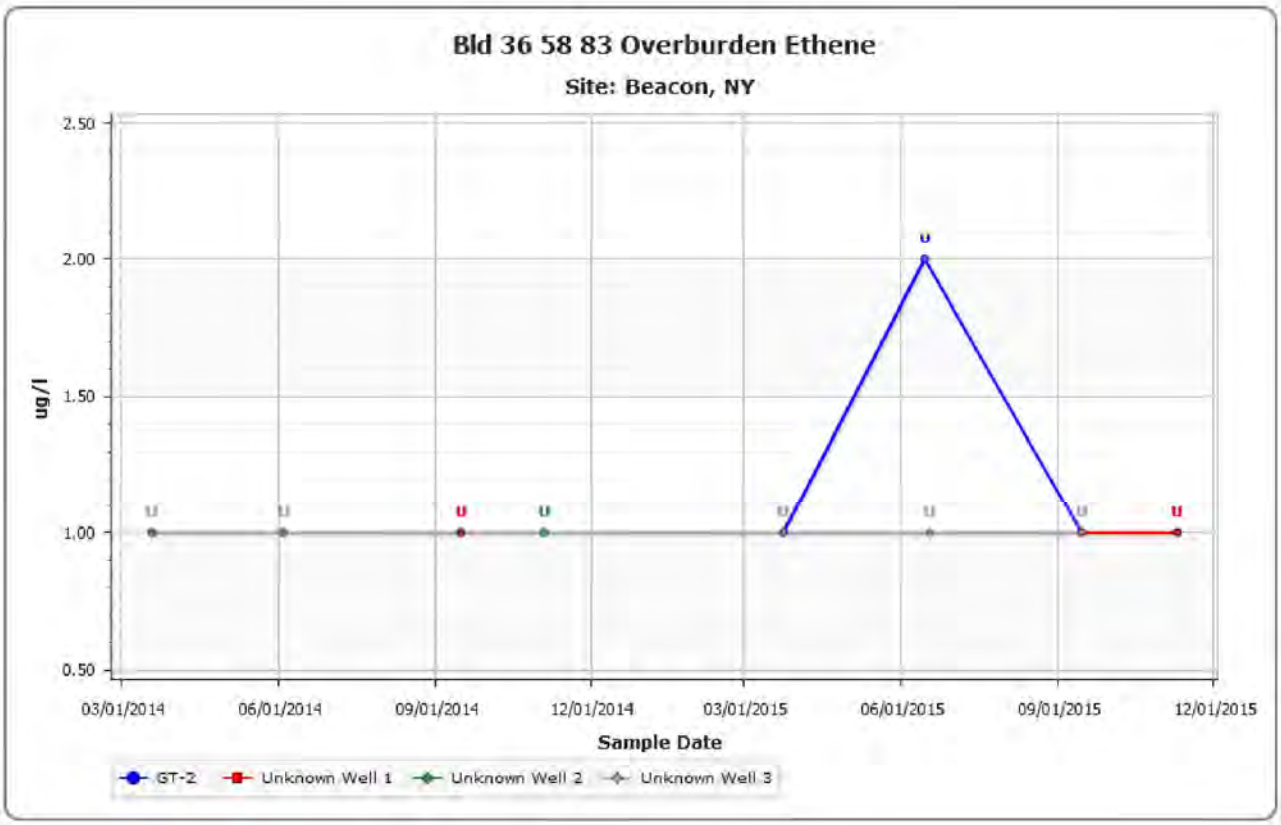

Bld 45 55 Overburden Sulfide
Site: Beacon, NY
2,000.00
1,500.00
1,000.00
500.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-24
ITMW-25
SWMW-10
SWMW-25
SWMW-28
SWMW-48
SWMW-65

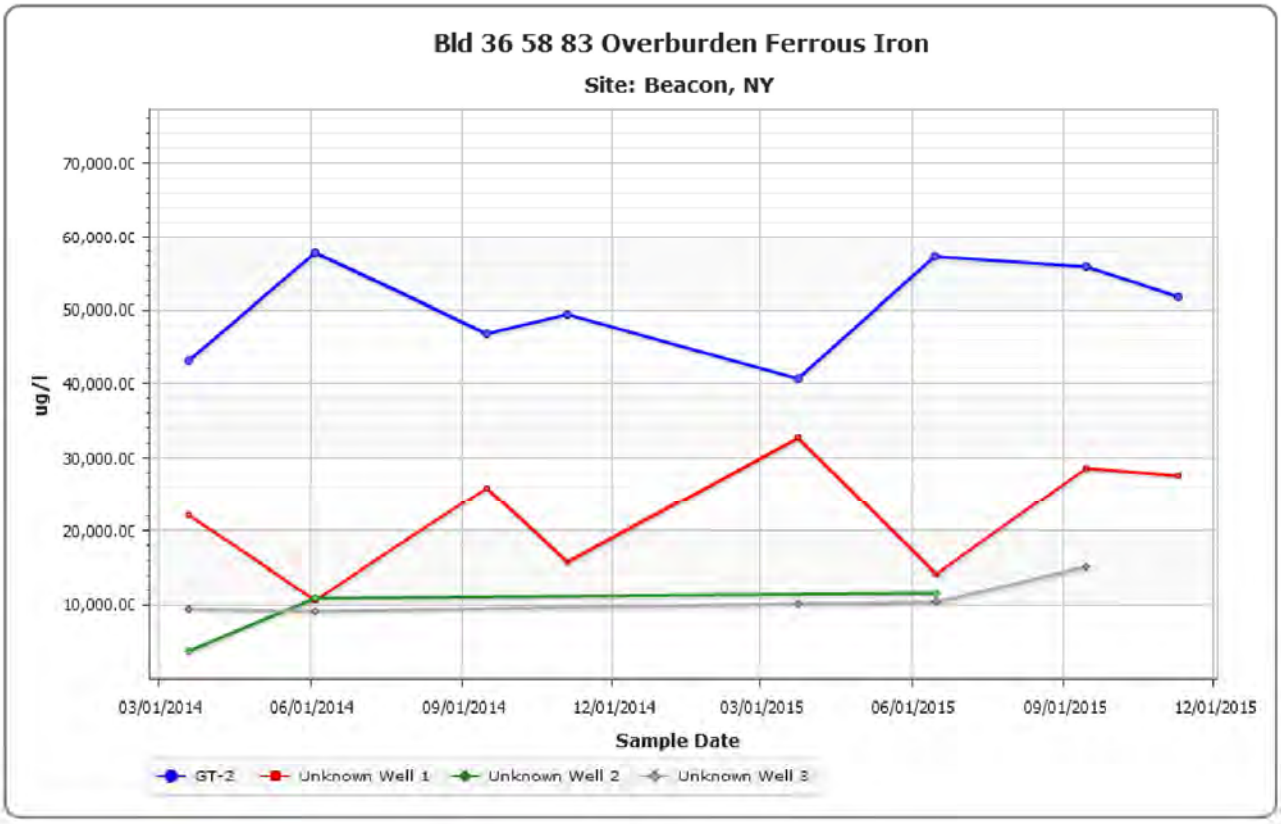

Bld 36 58 83 Overburden Alkalinity, Total as CaCO3
Site: Beacon, NY
ugCaCO3/L
250,000.0(
200,000.0(
150,000.0(
100,000.0(
50,000.0(
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

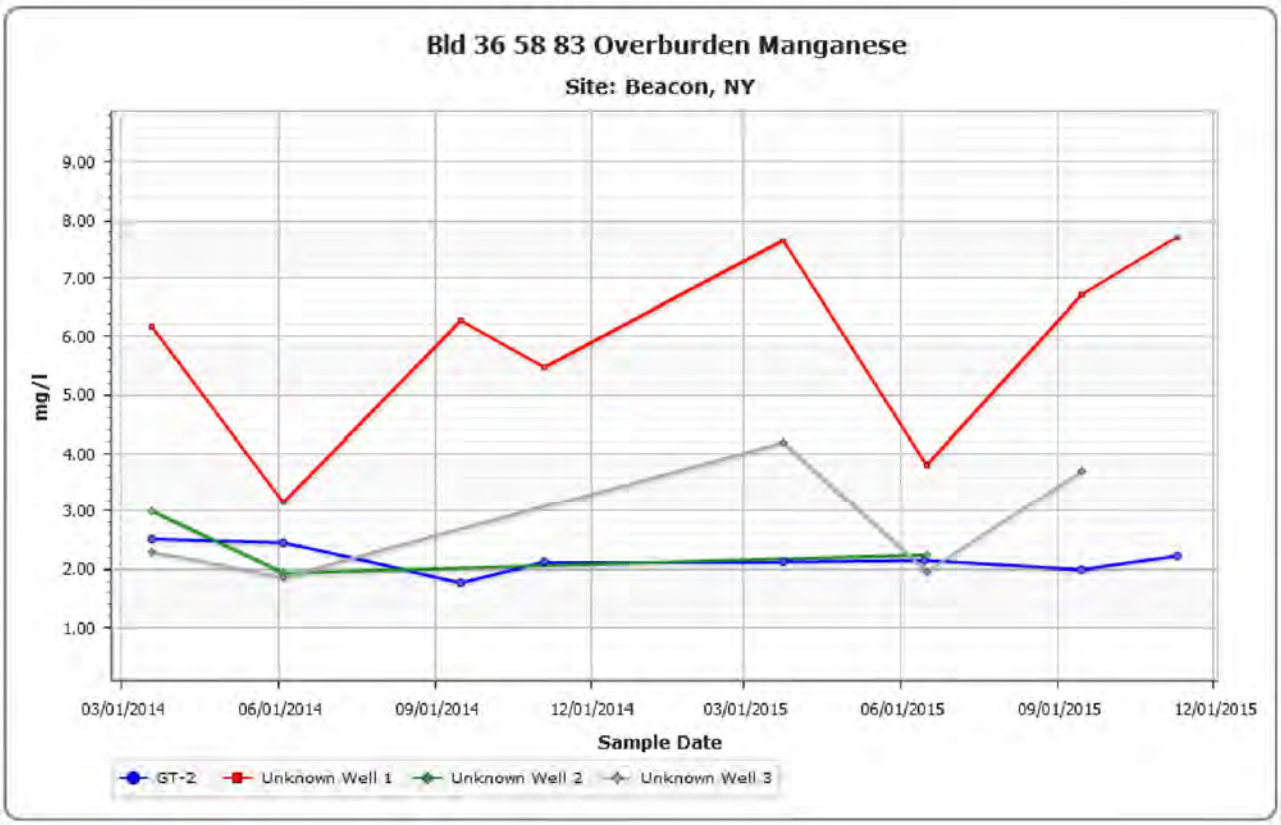

Bld 36 58 83 Overburden CARBON DIOXIDE
Site: Beacon, NY
ug/l
200,000.0(
150,000.0(
100,000.0(
50,000.0(
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

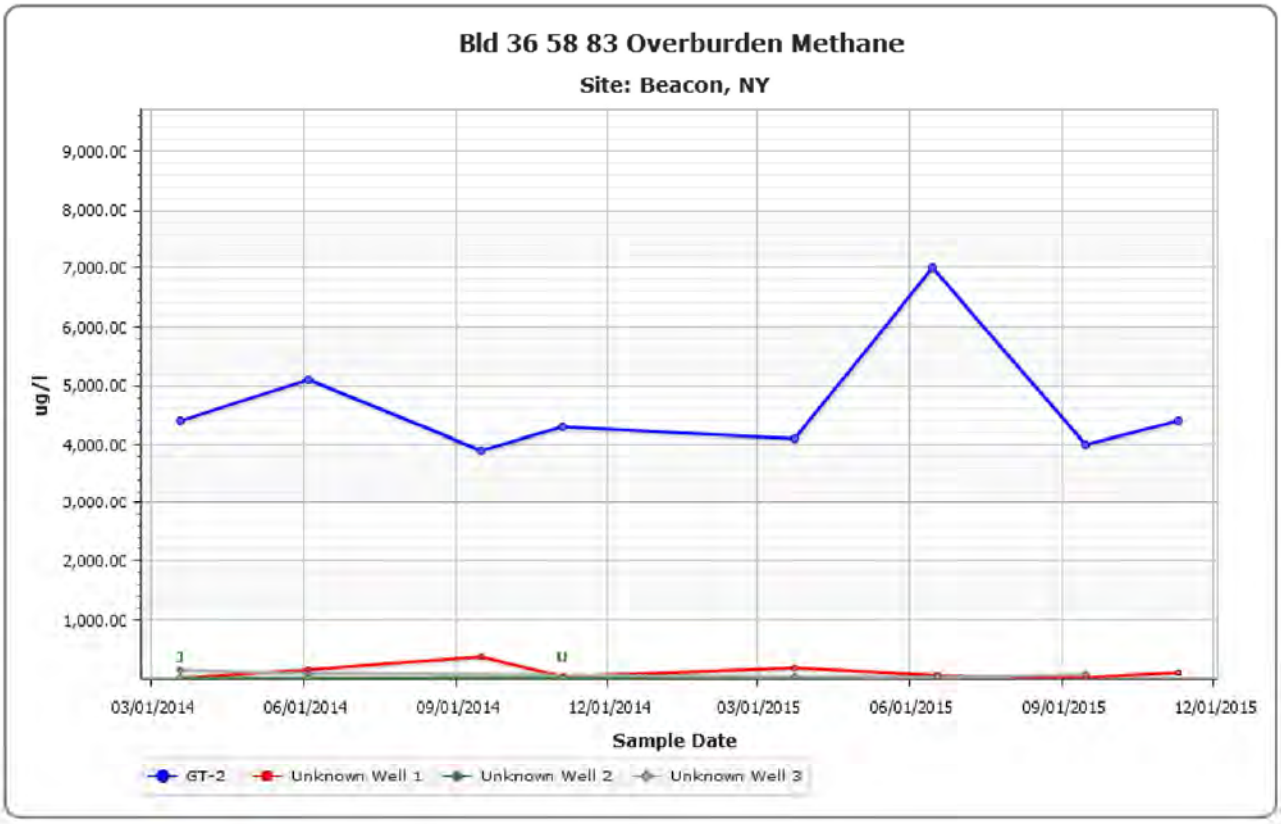

Bld 36 58 83 Overburden Chloride
Site: Beacon, NY
600.00
500.00
400.00
300.00
200.00
100.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

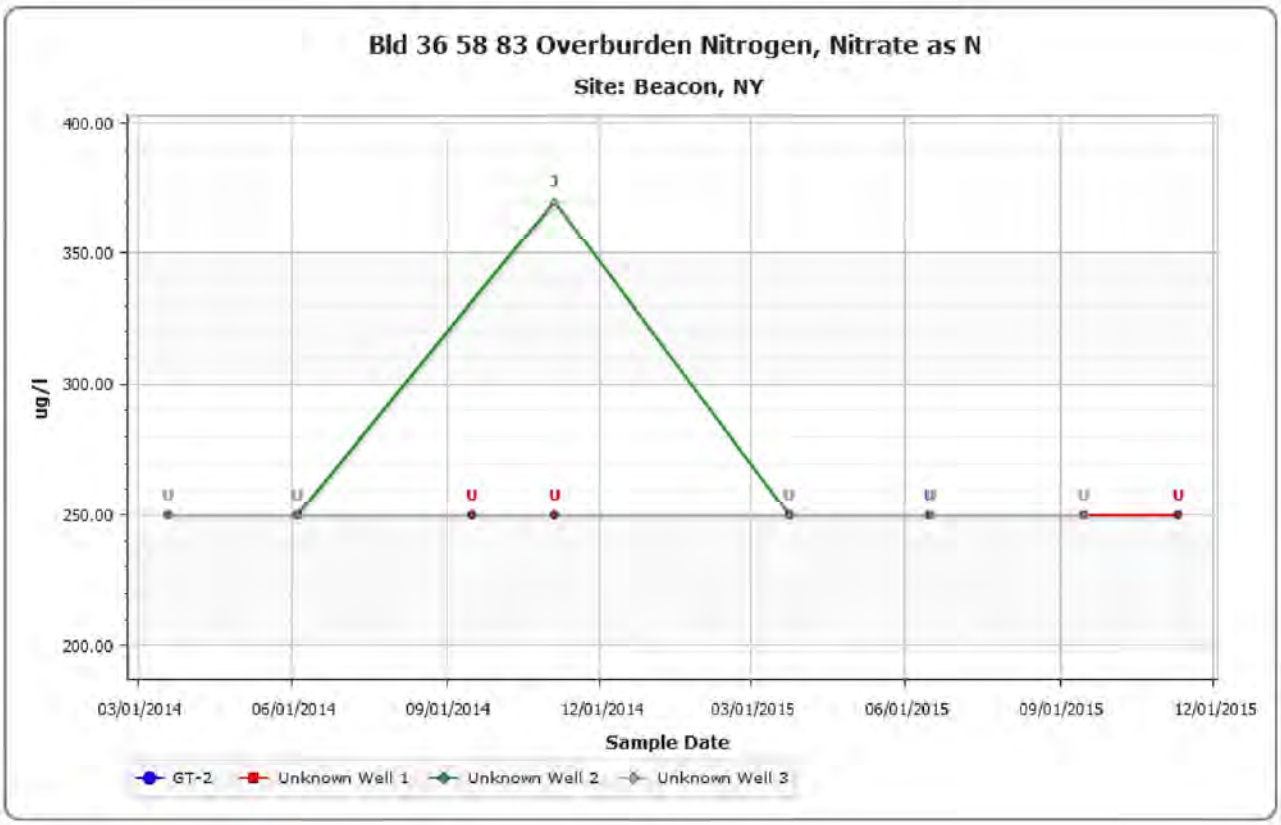

Bld 36 58 83 Overburden Ethane
Site: Beacon, NY
20.00
15.00
10.00
5.00
ug/l
J
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

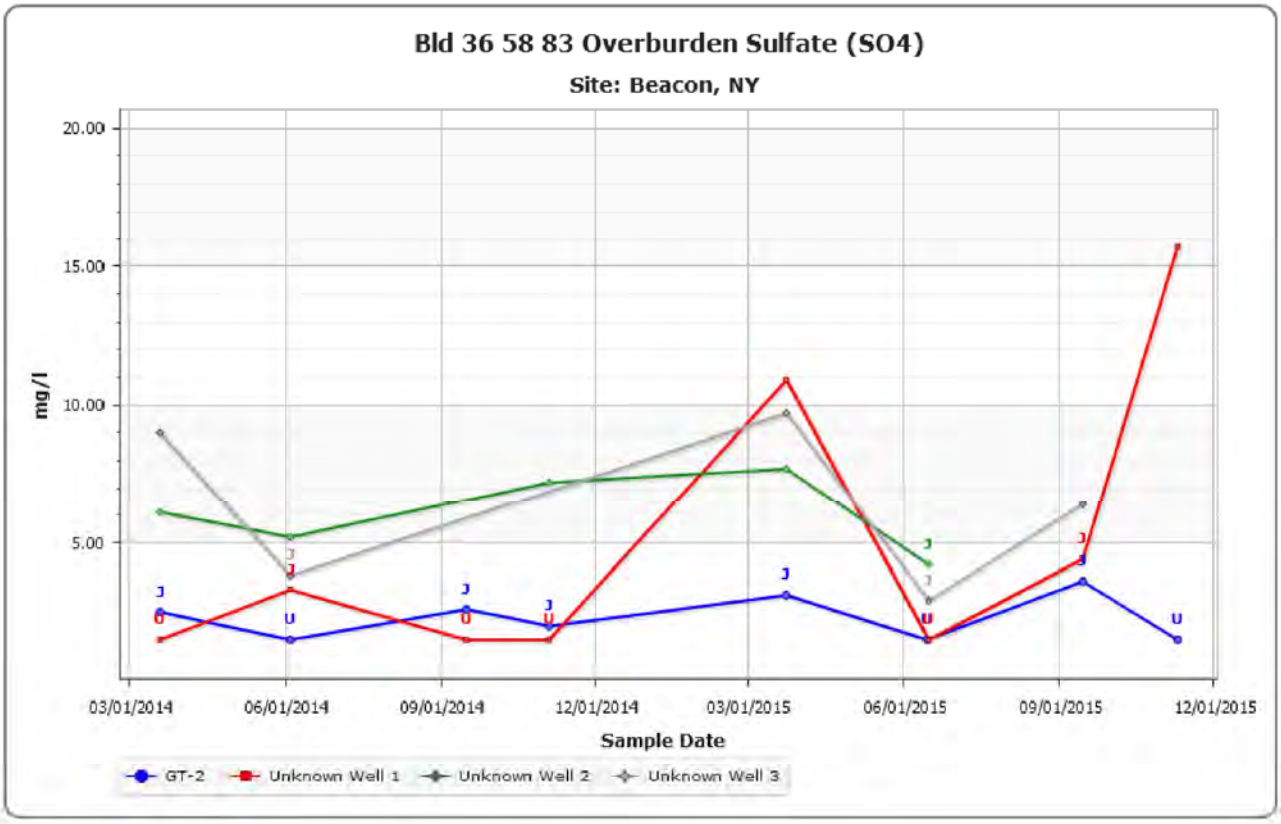

Bld 36 58 83 Overburden Ethene
Site: Beacon, NY
2.50
2.00
1.50
1.00
0.50
ug/l
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

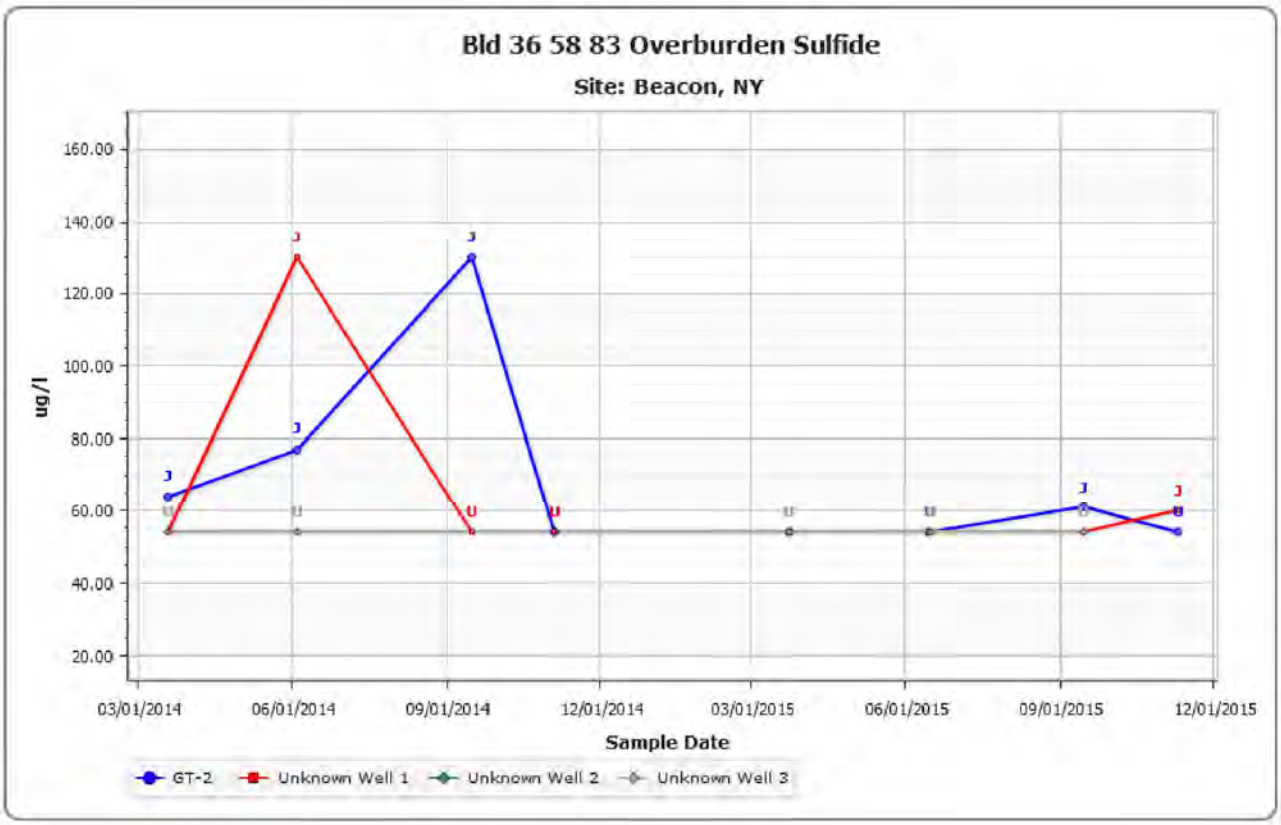

Bld 36 58 83 Overburden Ferrous Iron
Site: Beacon, NY
70,000.0(
60,000.0(
50,000.0(
40,000.0(
30,000.0(
20,000.0(
10,000.0(
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

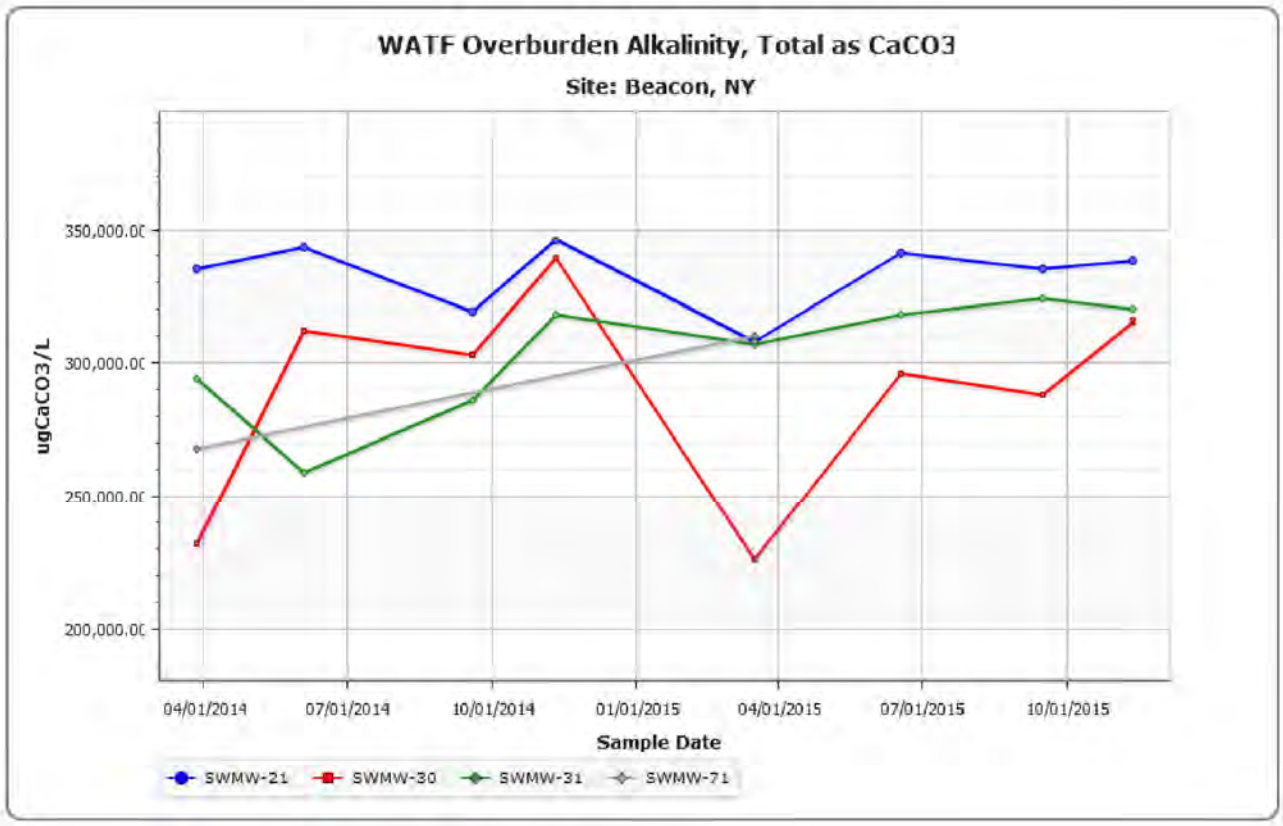

Bld 36 58 83 Overburden Manganese
Site: Beacon, NY
mg/l
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

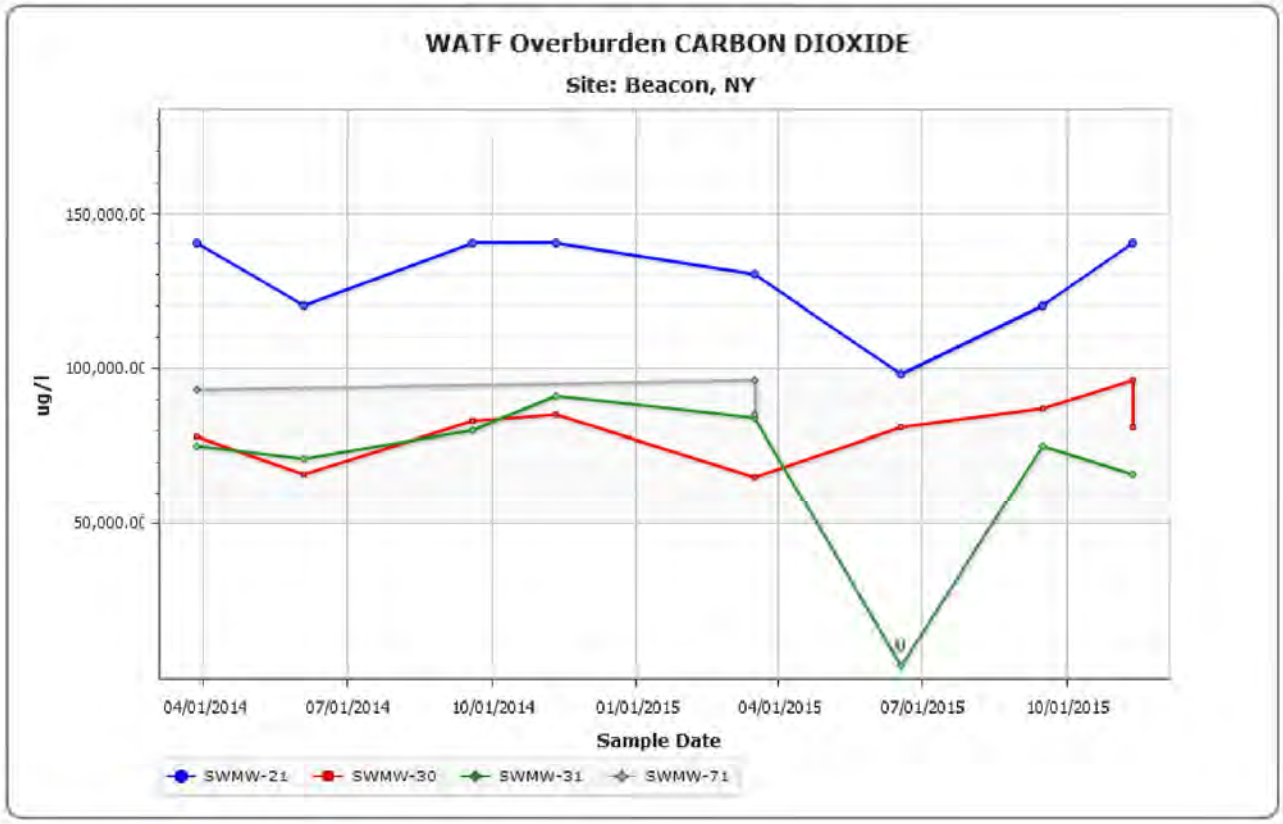

Bld 36 58 83 Overburden Methane
Site: Beacon, NY
ug/l
9,000.0C
8,000.0C
7,000.0C
6,000.0C
5,000.0C
4,000.0C
3,000.0C
2,000.0C
1,000.0C
J
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

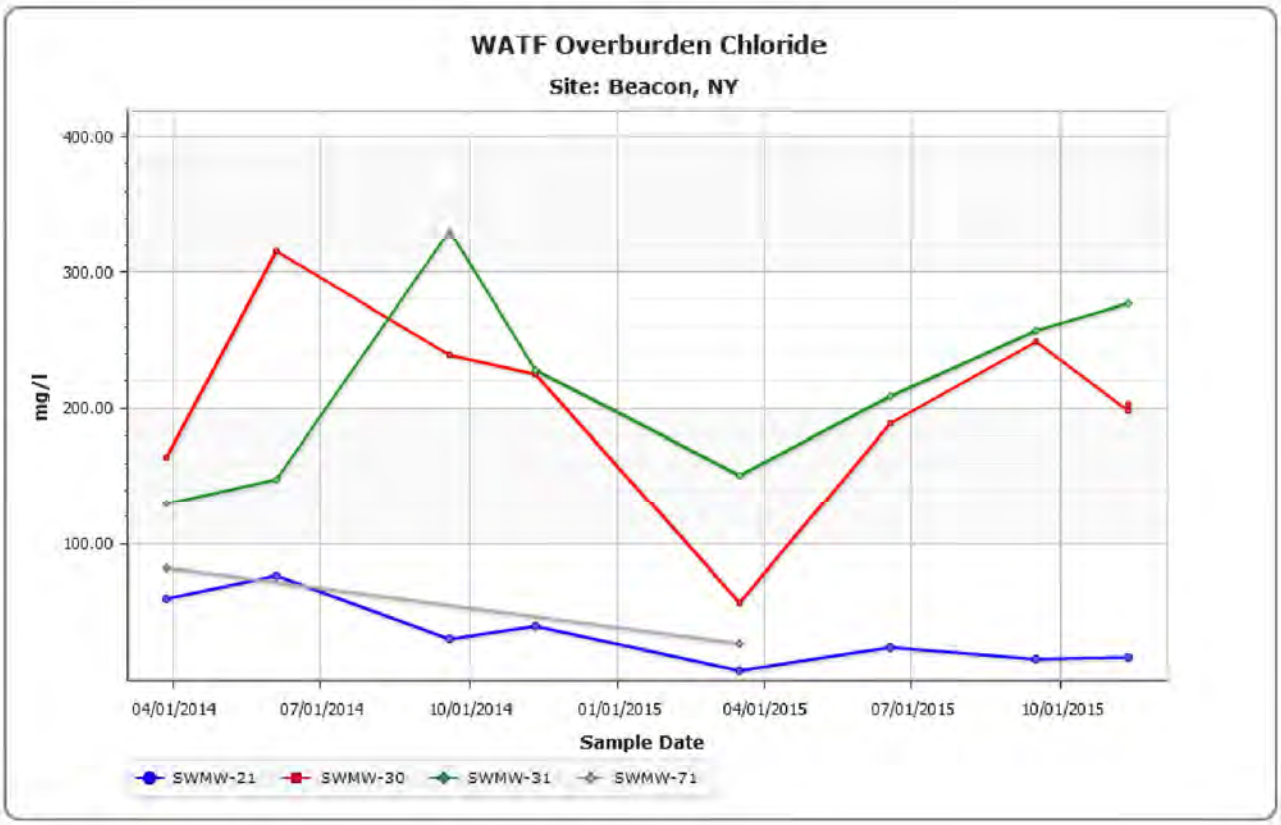

Bld 36 58 83 Overburden Nitrogen, Nitrate as N
Site: Beacon, NY
400.00
350.00
300.00
250.00
200.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

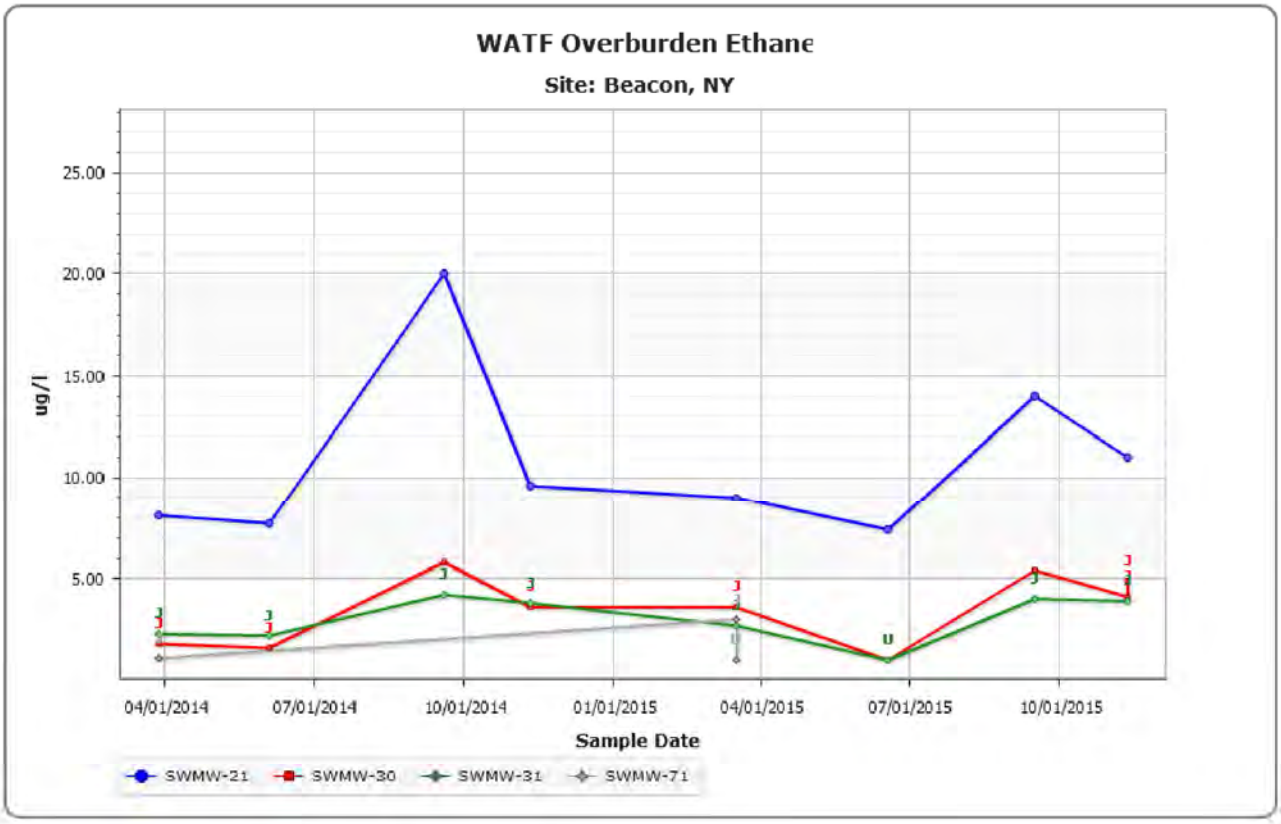

Bld 36 58 83 Overburden Sulfate (SO4)
Site: Beacon, NY
20.00
15.00
10.00
5.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

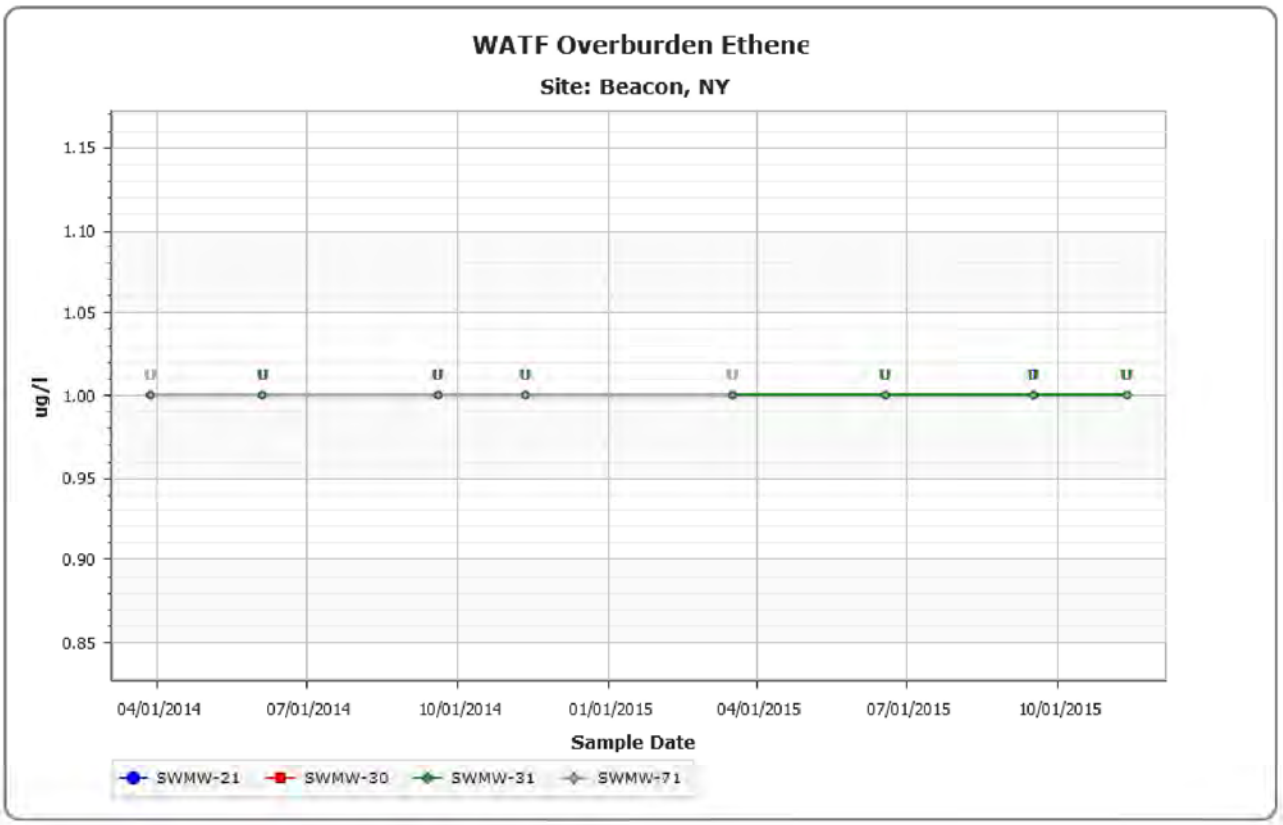

Bld 36 58 83 Overburden Sulfide
Site: Beacon, NY
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
GT-2
Unknown Well 1
Unknown Well 2
Unknown Well 3

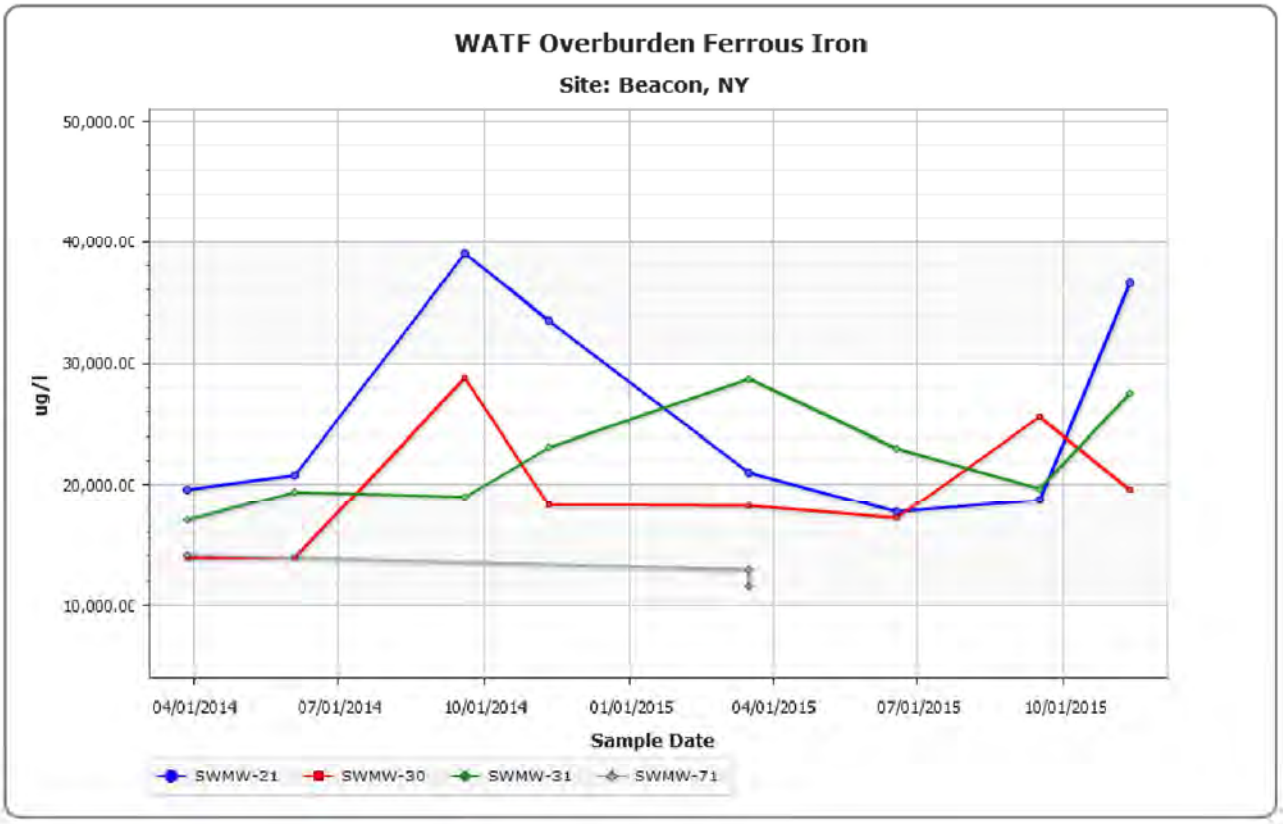

WATF Overburden Alkalinity, Total as CaCO3
Site: Beacon, NY
ugCaCO3/L
350,000.0(
300,000.0(
250,000.0(
200,000.0(
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

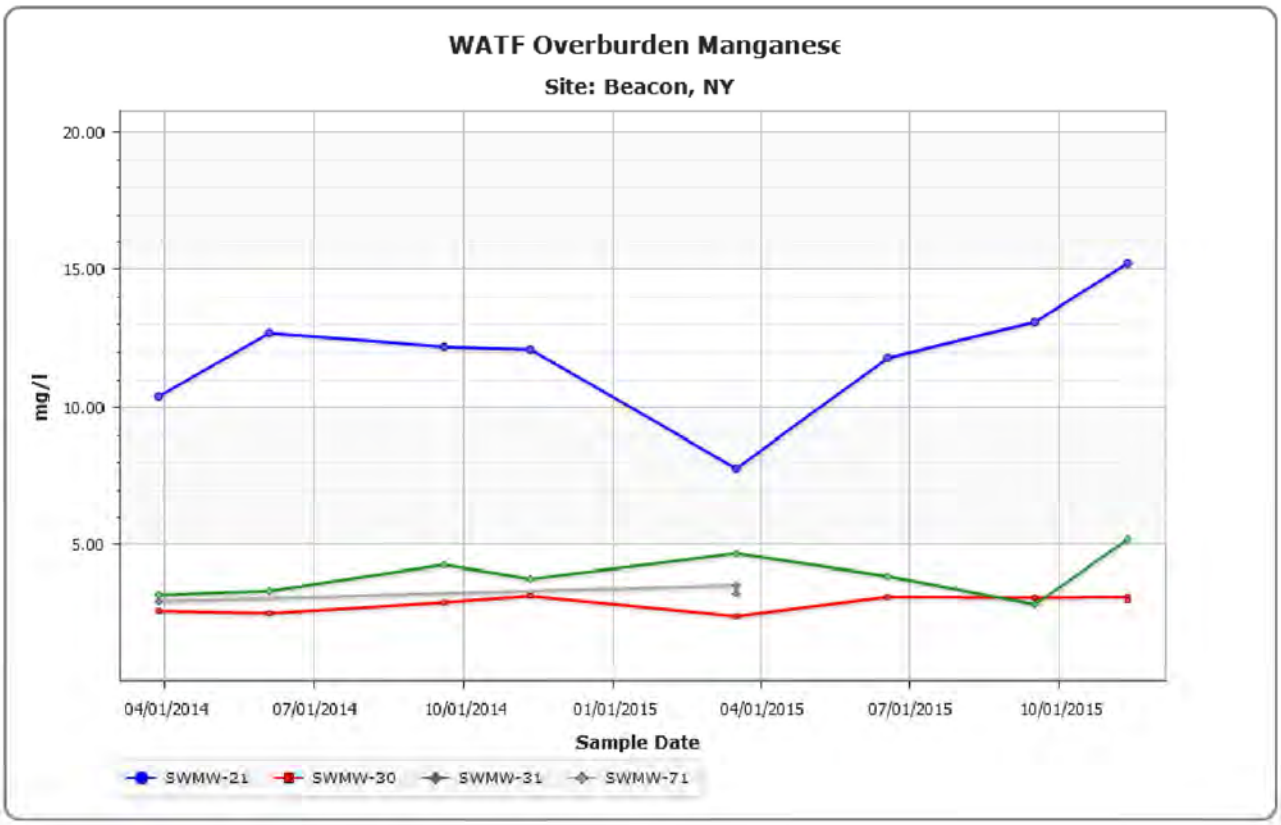

WATF Overburden CARBON DIOXIDE
Site: Beacon, NY
ug/l
150,000.0(
100,000.0(
50,000.0(
U
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

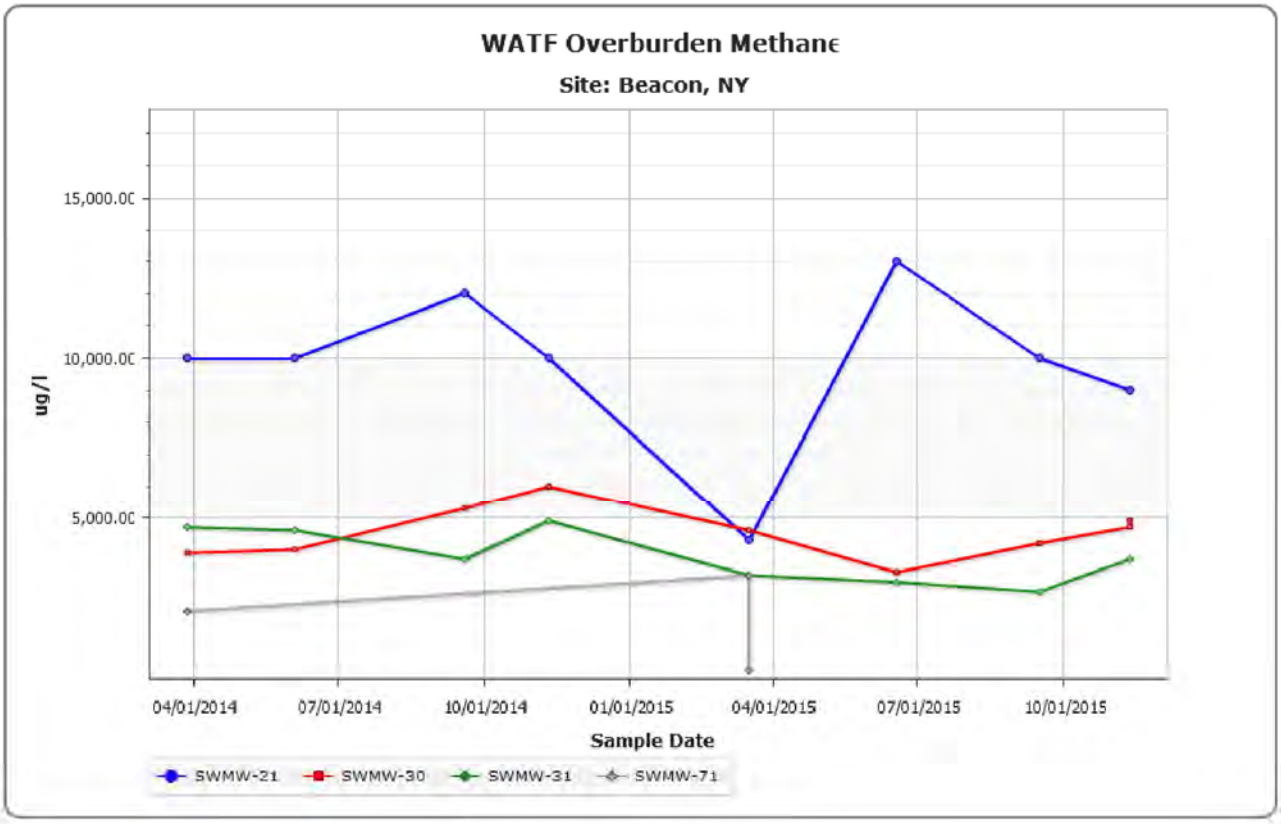

WATF Overburden Chloride
Site: Beacon, NY
400.00
300.00
200.00
100.00
mg/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

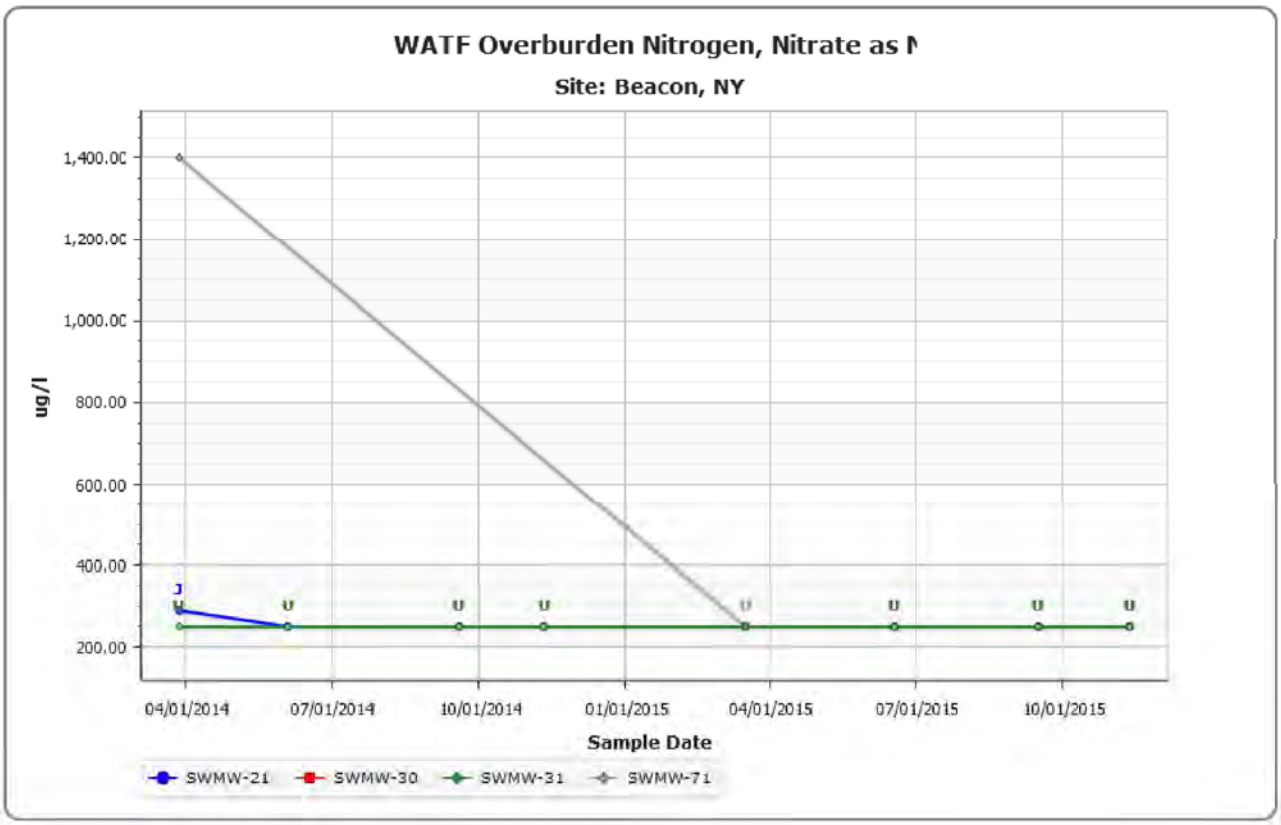

WATF Overburden Ethane
Site: Beacon, NY
25.00
20.00
15.00
10.00
5.00
ug/l
J
U
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

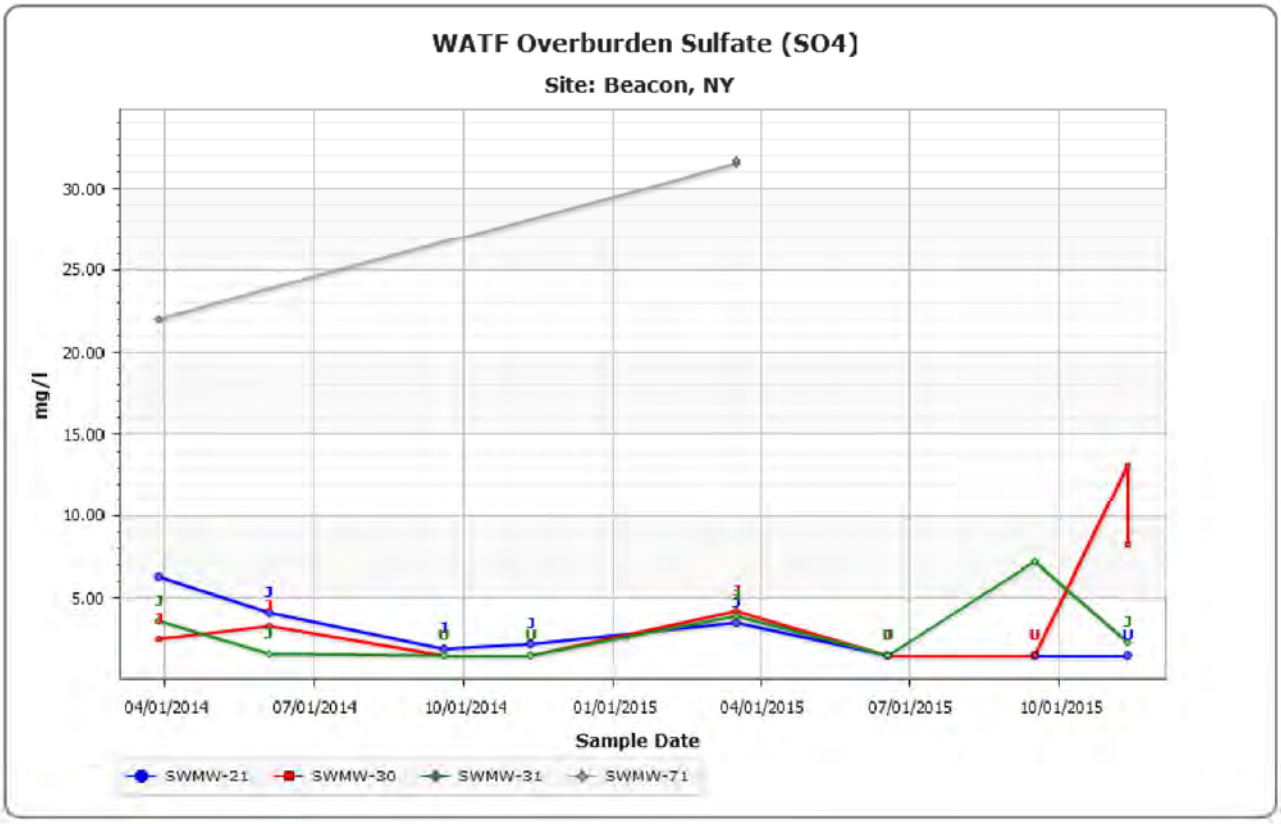

WATF Overburden Ethene
Site: Beacon, NY
1.15
1.10
1.05
1.00
0.95
0.90
0.85
ug/l
U
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

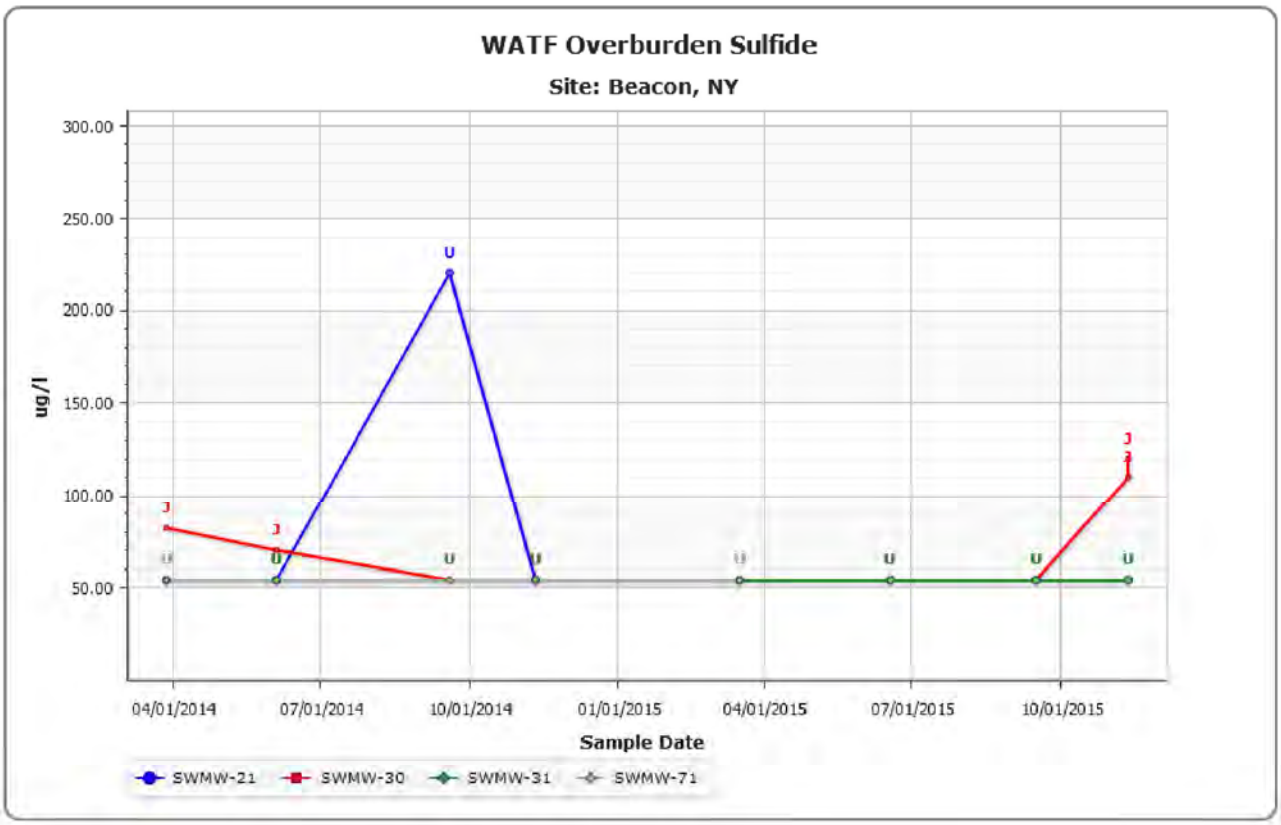

WATF Overburden Ferrous Iron
Site: Beacon, NY
50,000.0(
40,000.0(
30,000.0(
20,000.0(
10,000.0(
ug/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

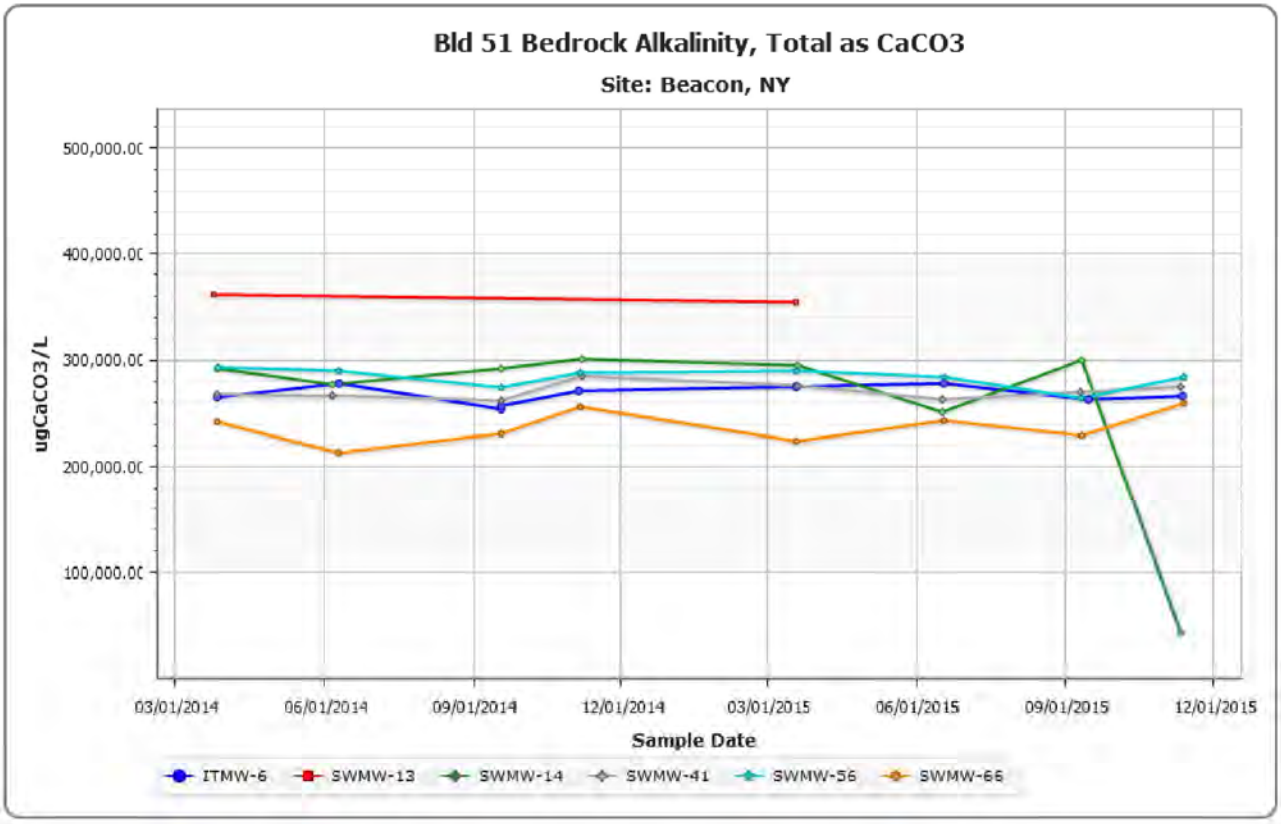

WATF Overburden Manganese
Site: Beacon, NY
20.00
15.00
10.00
5.00
mg/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

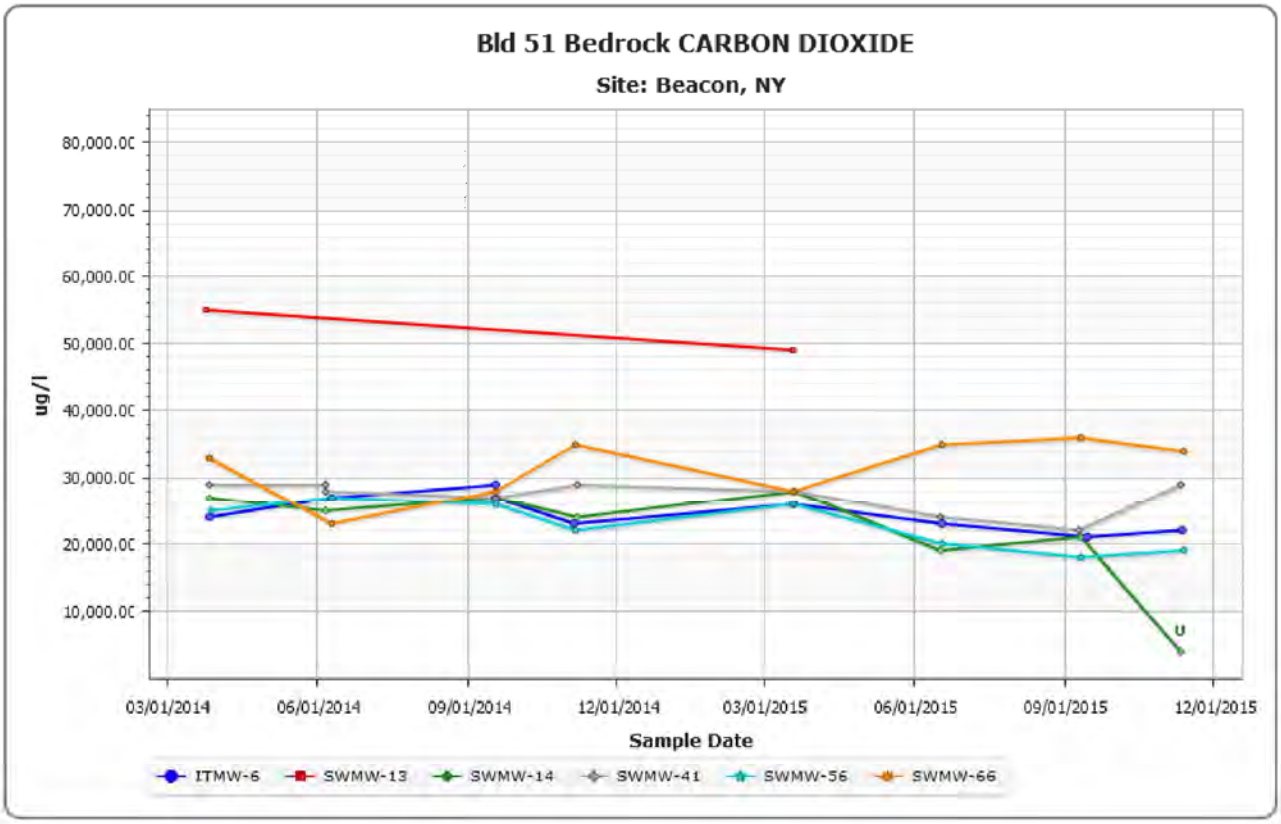

WATF Overburden Methane
Site: Beacon, NY
15,000.0(
10,000.0(
5,000.0(
ug/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

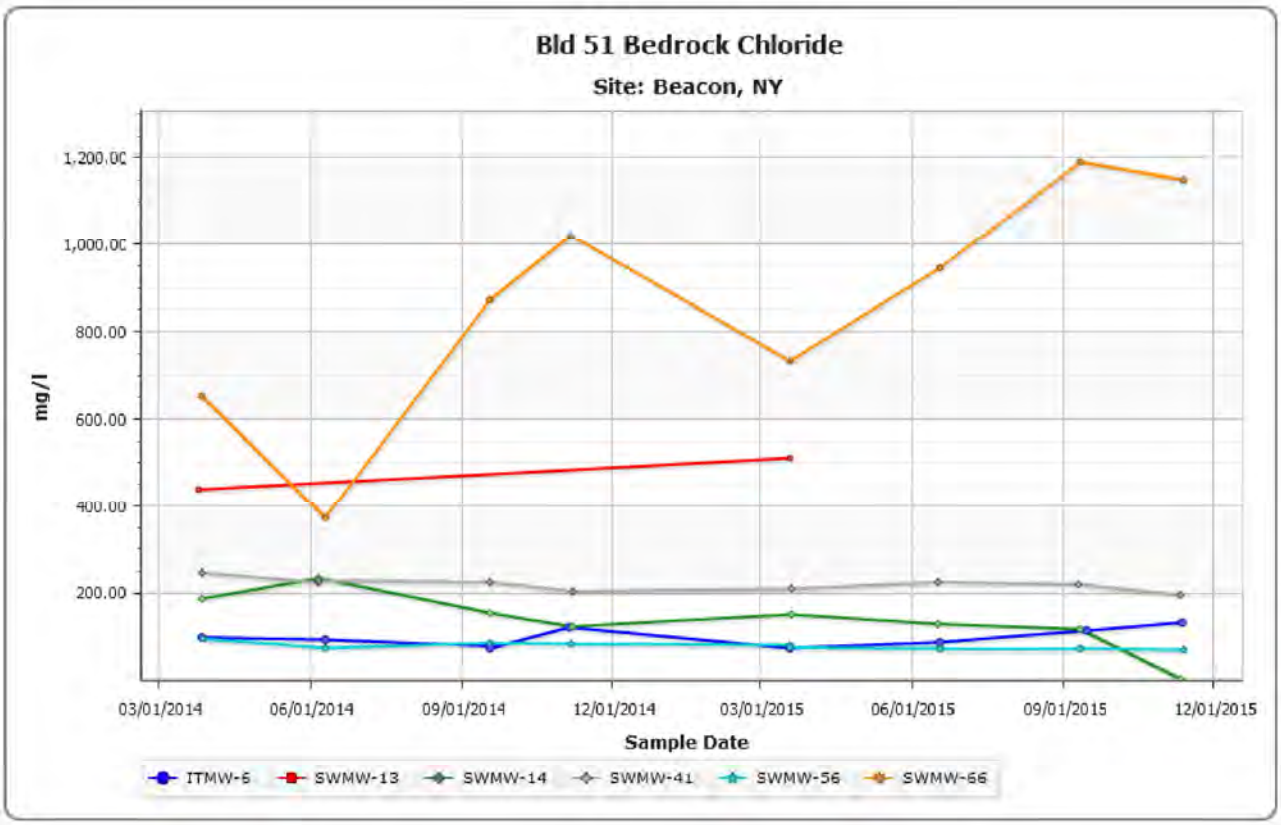

WATF Overburden Nitrogen, Nitrate as N
Site: Beacon, NY
1,400.00
1,200.00
1,000.00
800.00
600.00
400.00
200.00
ug/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

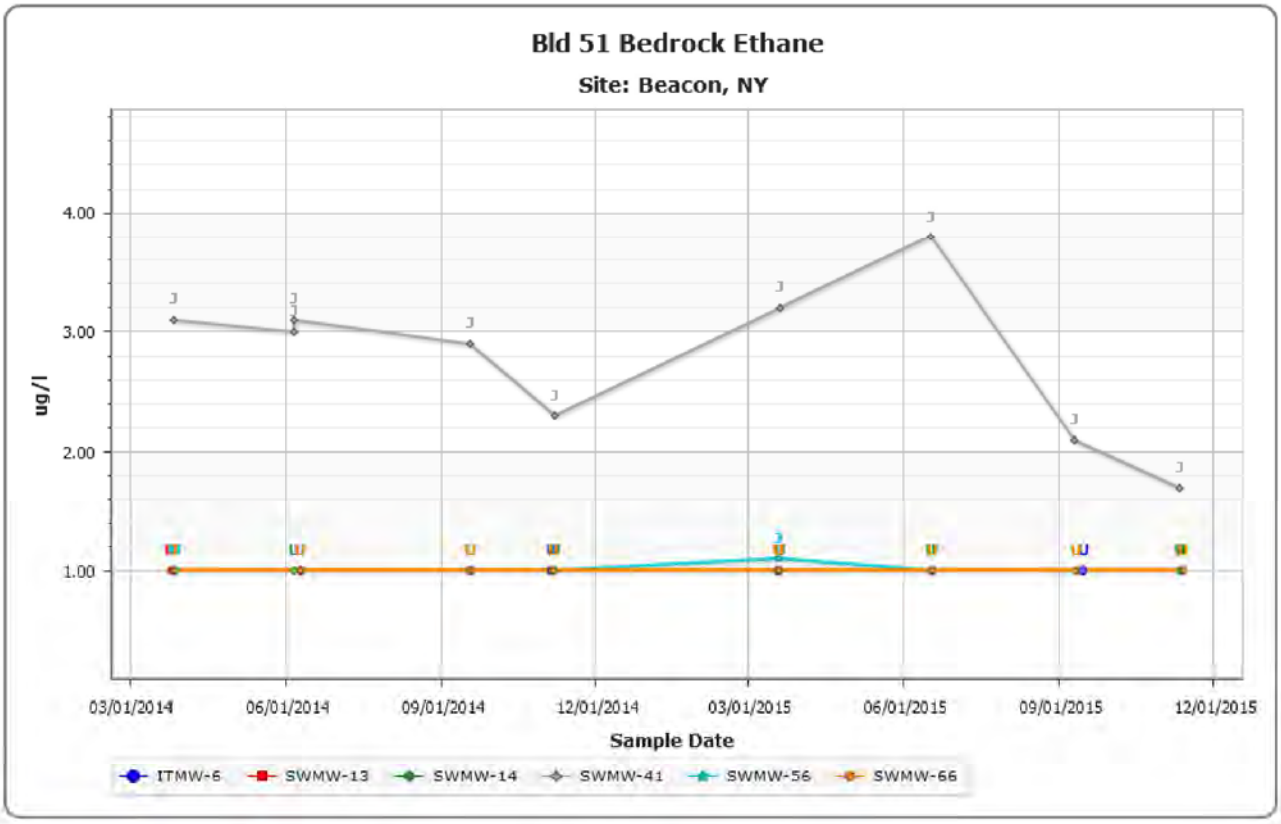

WATF Overburden Sulfate (SO4)
Site: Beacon, NY
30.00
25.00
20.00
15.00
10.00
5.00
mg/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

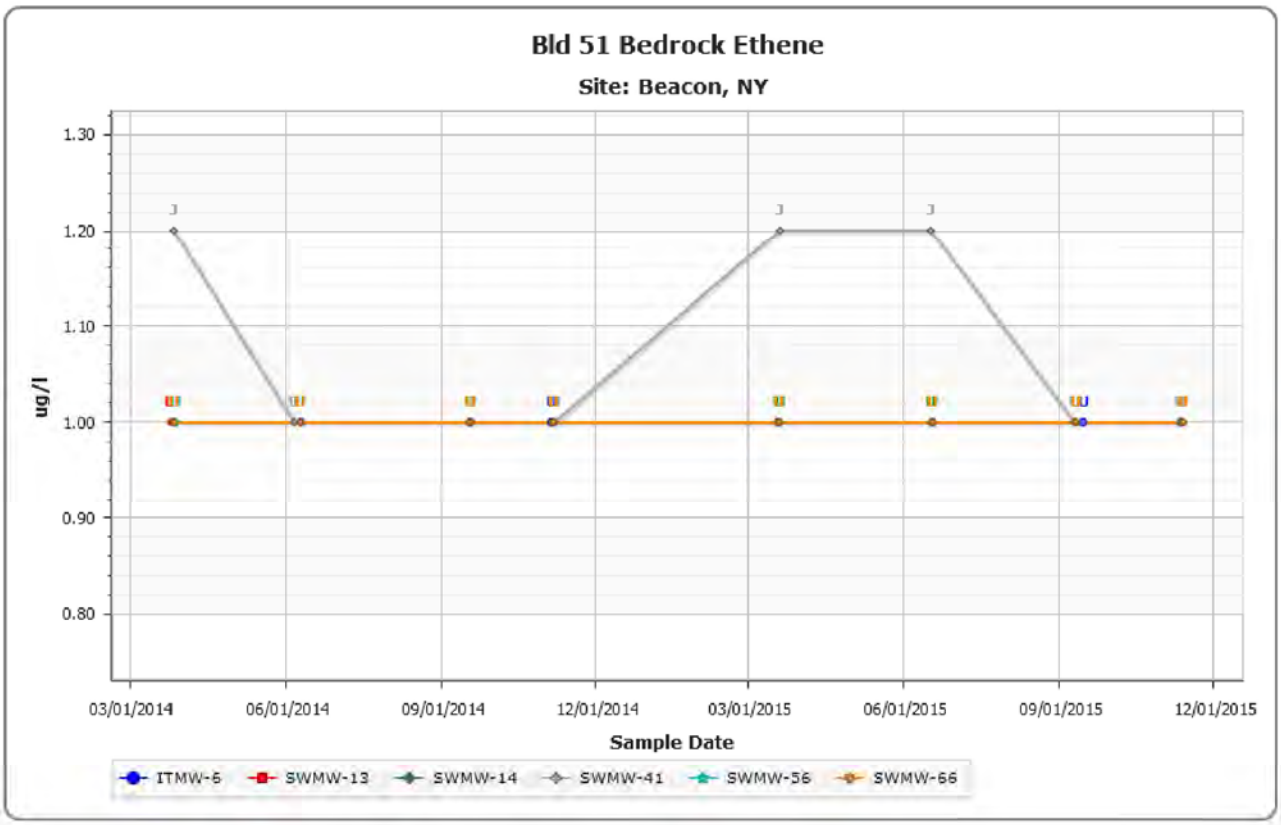

WATF Overburden Sulfide
Site: Beacon, NY
300.00
250.00
200.00
150.00
100.00
50.00
ug/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-21
SWMW-30
SWMW-31
SWMW-71

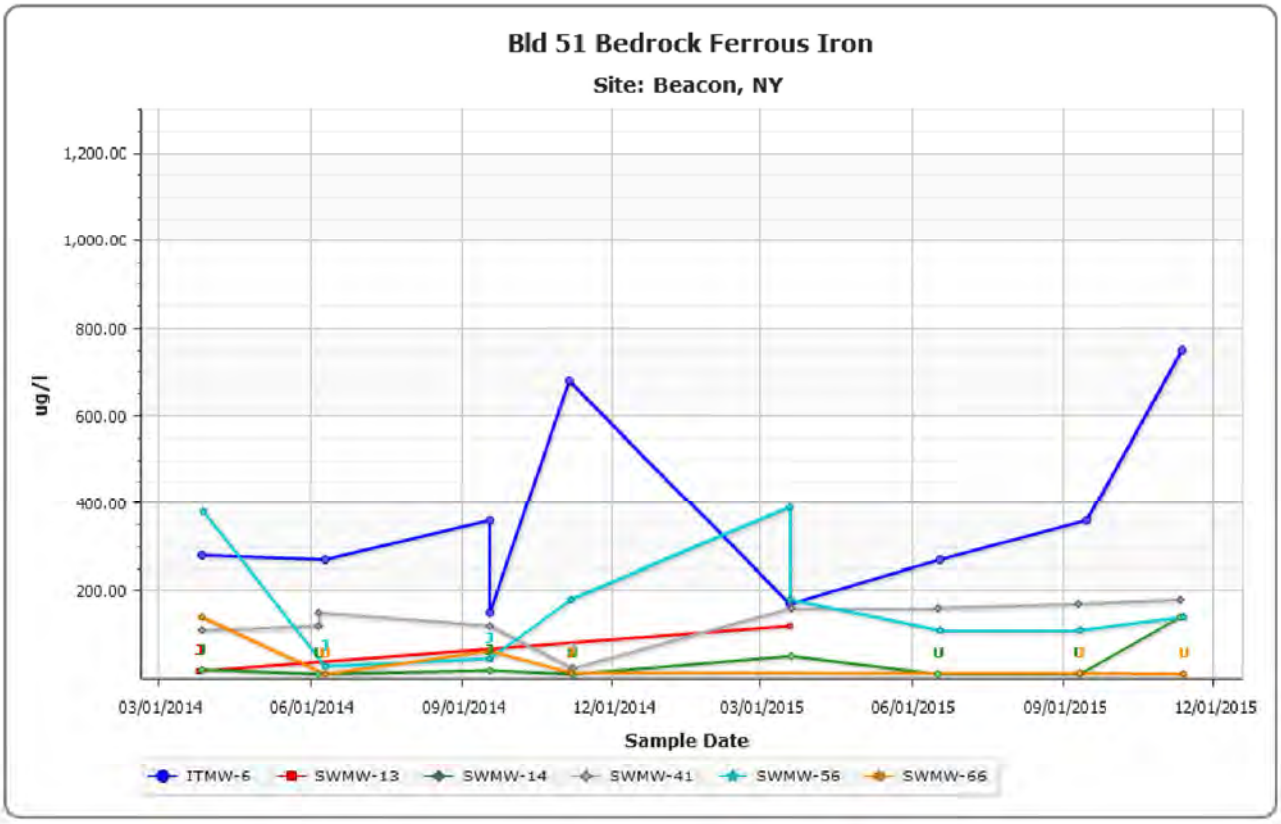

Bld 51 Bedrock Alkalinity, Total as CaCO3
Site: Beacon, NY
ugCaCO3/L
500,000.0C
400,000.0C
300,000.0C
200,000.0C
100,000.0C
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

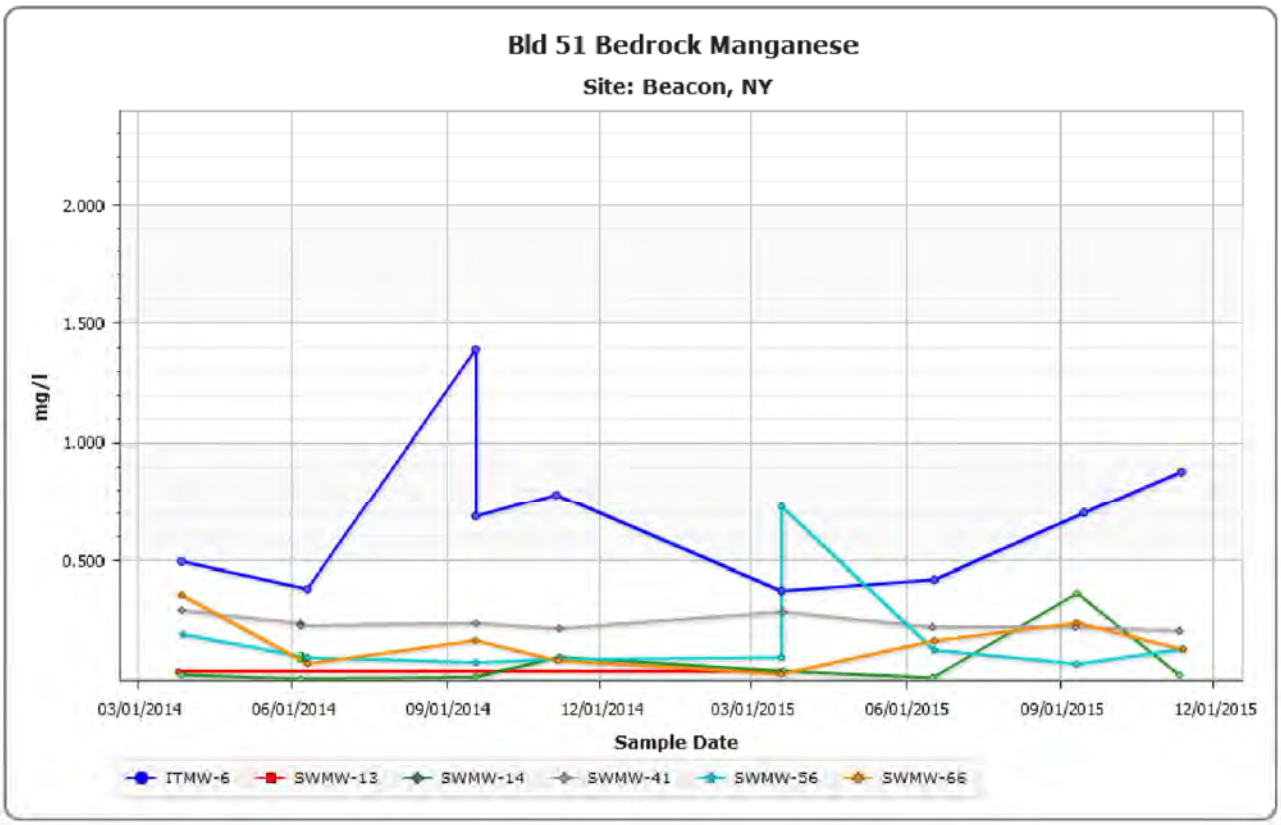

Bld 51 Bedrock CARBON DIOXIDE
Site: Beacon, NY
ug/l
80,000.0C
70,000.0C
60,000.0C
50,000.0C
40,000.0C
30,000.0C
20,000.0C
10,000.0C
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

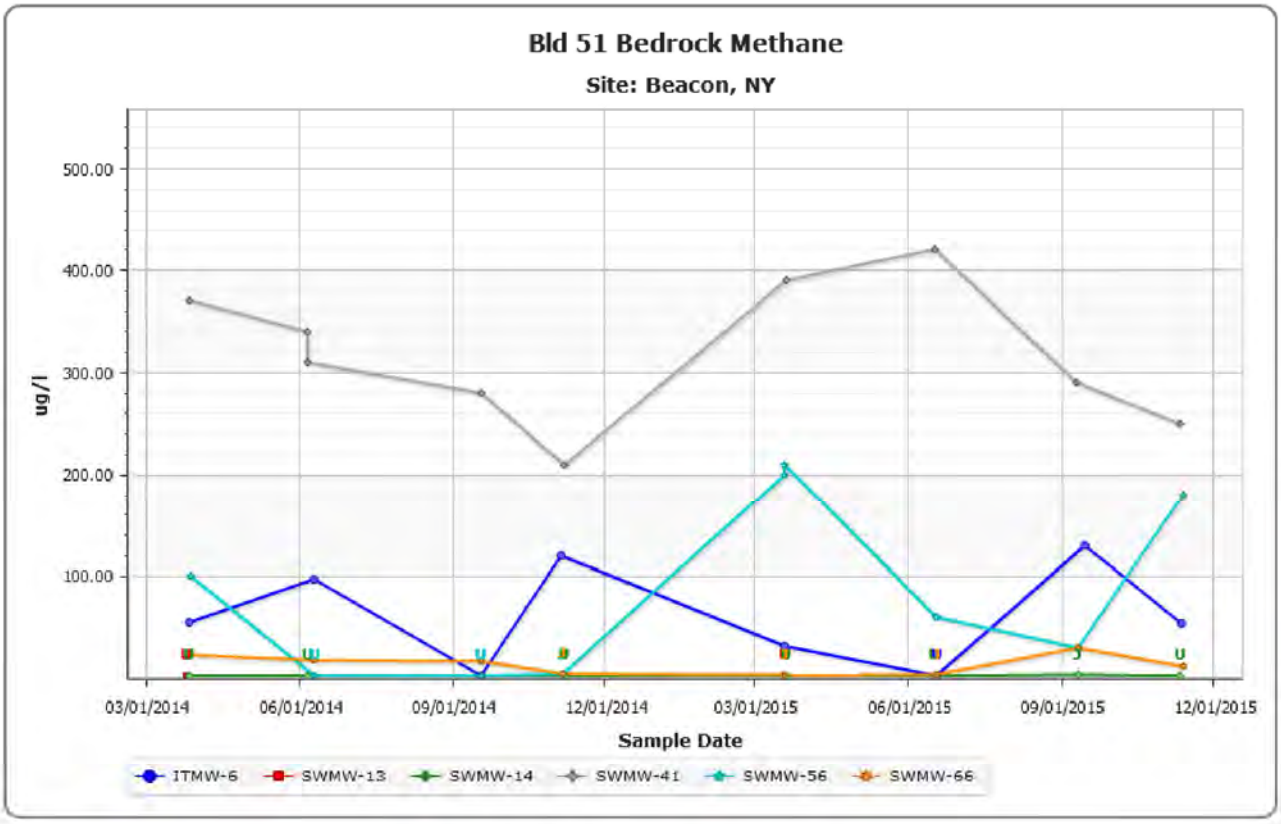

Bld 51 Bedrock Chloride
Site: Beacon, NY
1,200.00
1,000.00
800.00
600.00
400.00
200.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

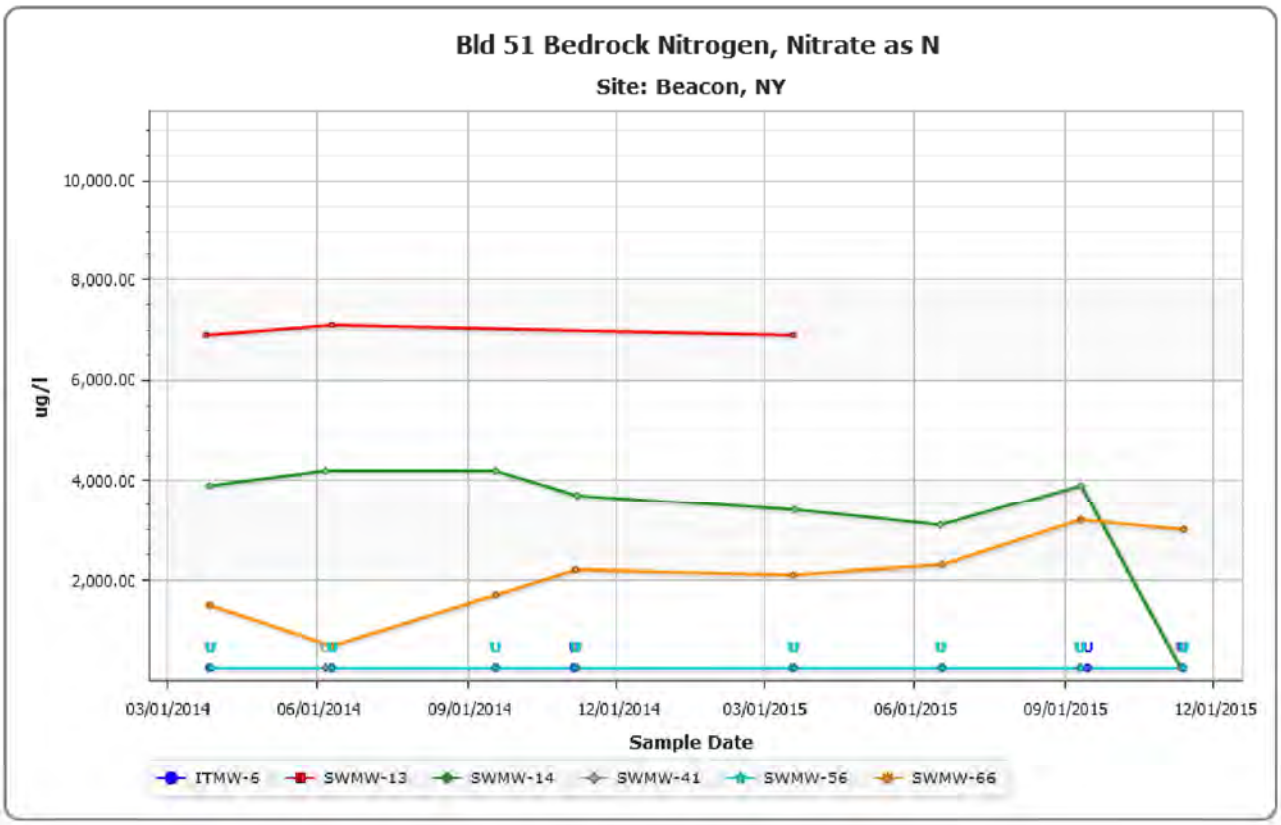

Bld 51 Bedrock Ethane
Site: Beacon, NY
4.00
3.00
2.00
1.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

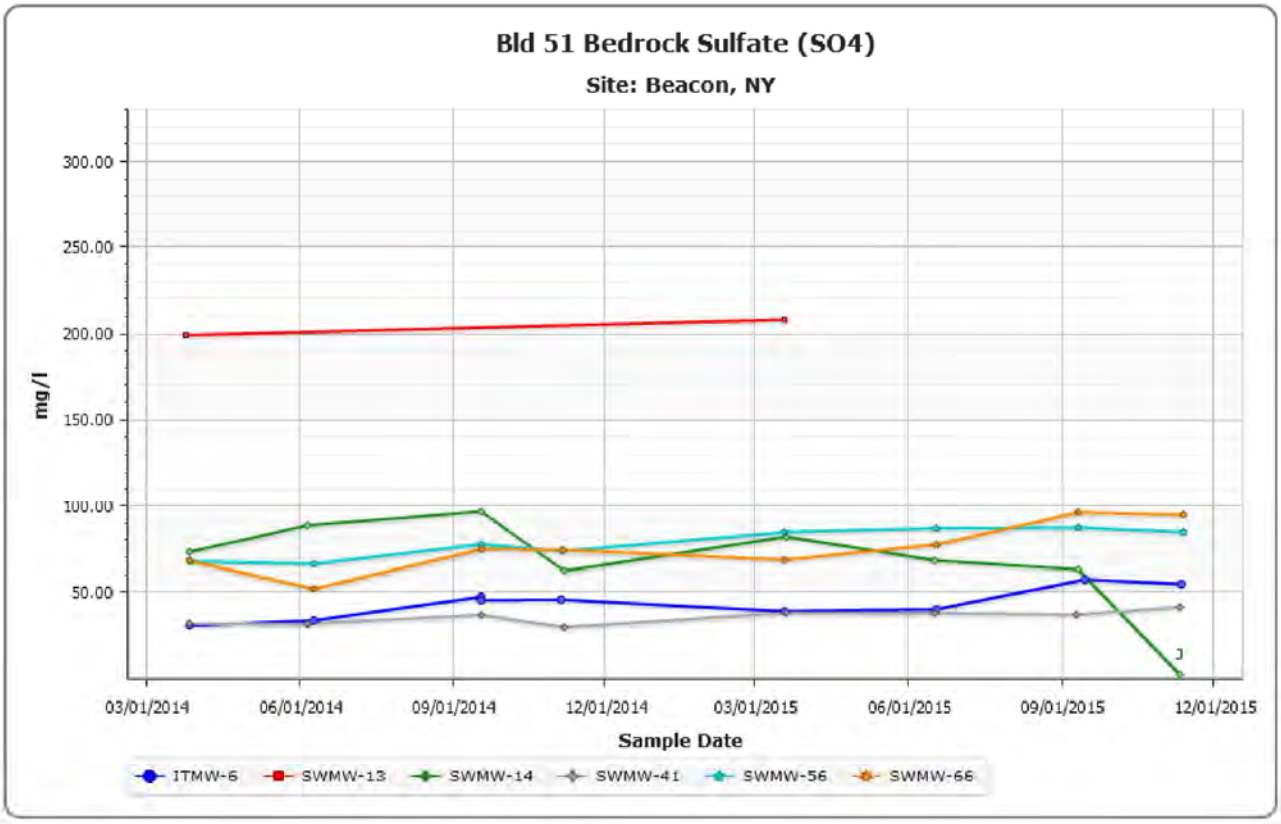

Bld 51 Bedrock Ethene
Site: Beacon, NY
1.30
1.20
1.10
1.00
0.90
0.80
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

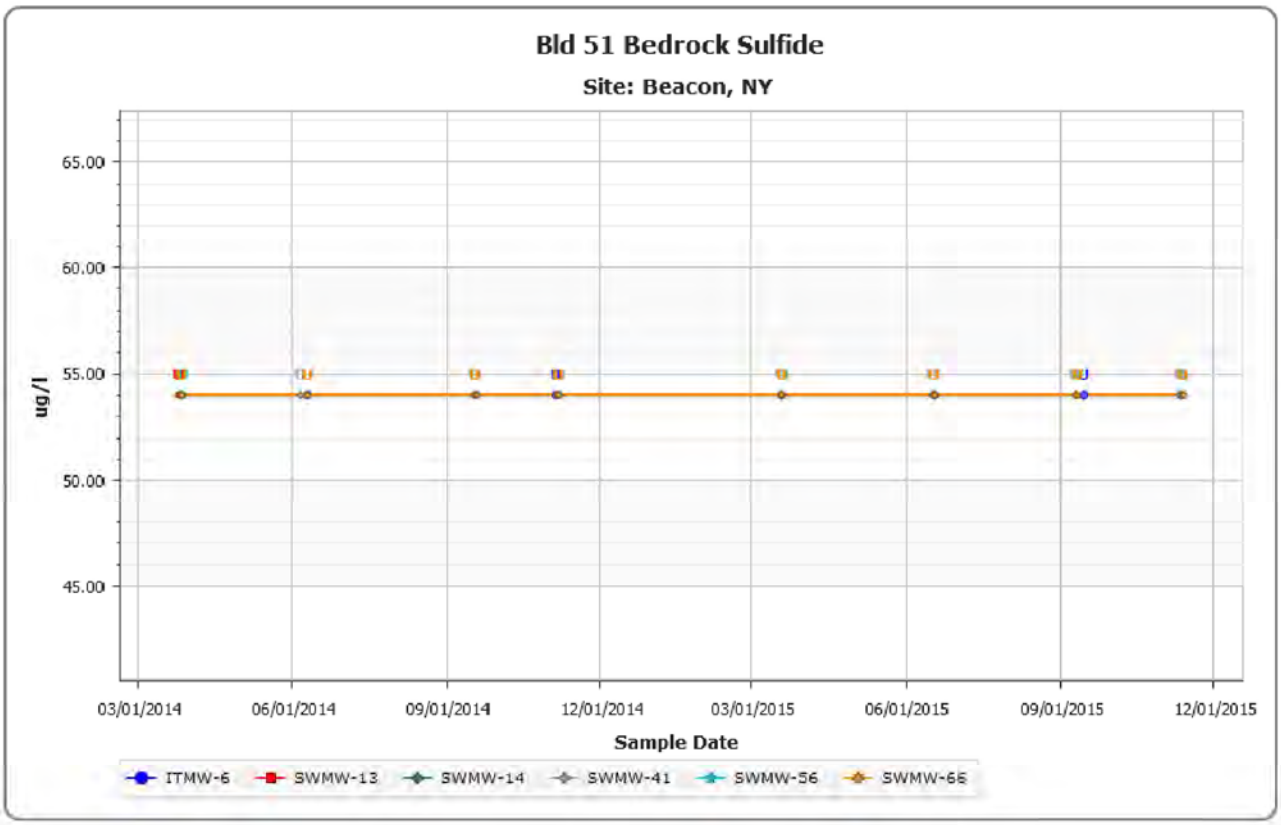

Bld 51 Bedrock Ferrous Iron
Site: Beacon, NY
1,200.00
1,000.00
800.00
600.00
400.00
200.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

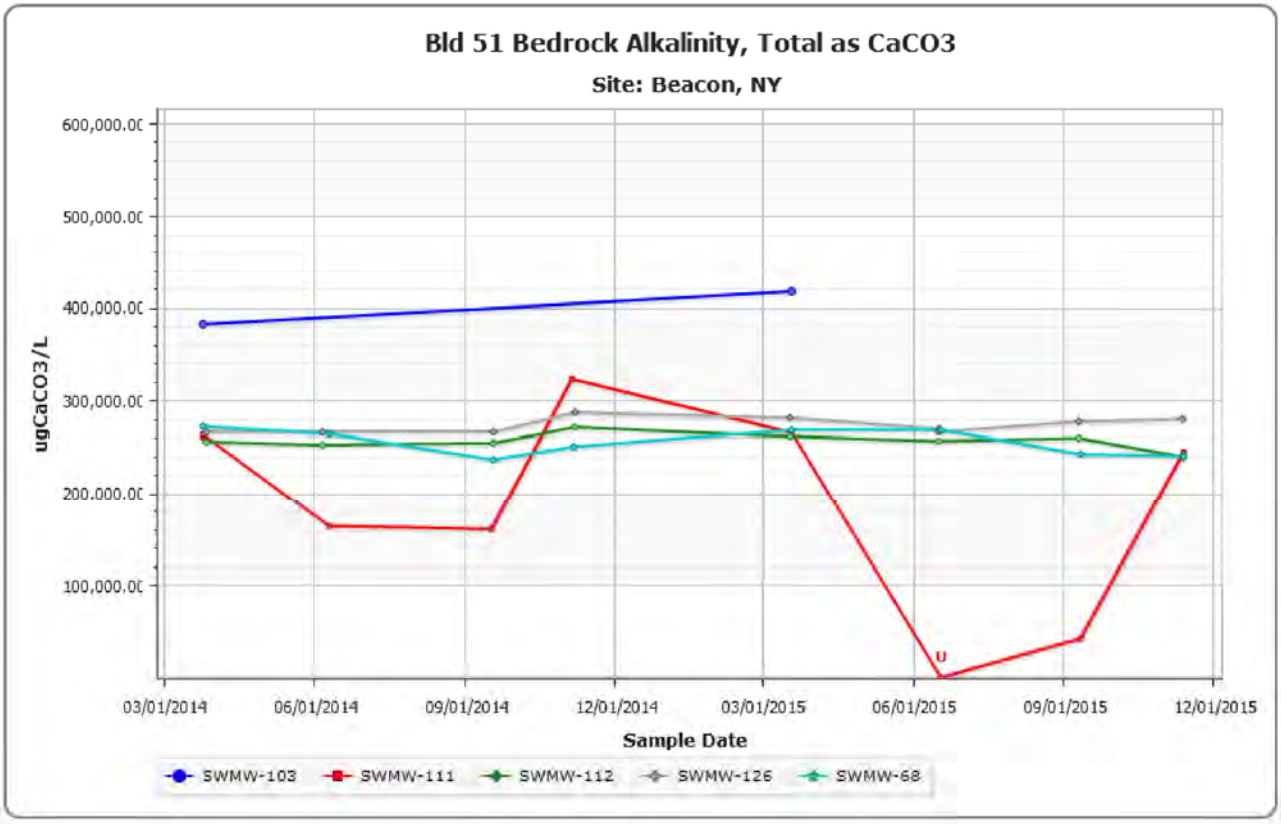

Bld 51 Bedrock Manganese
Site: Beacon, NY
mg/l
2.000
1.500
1.000
0.500
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

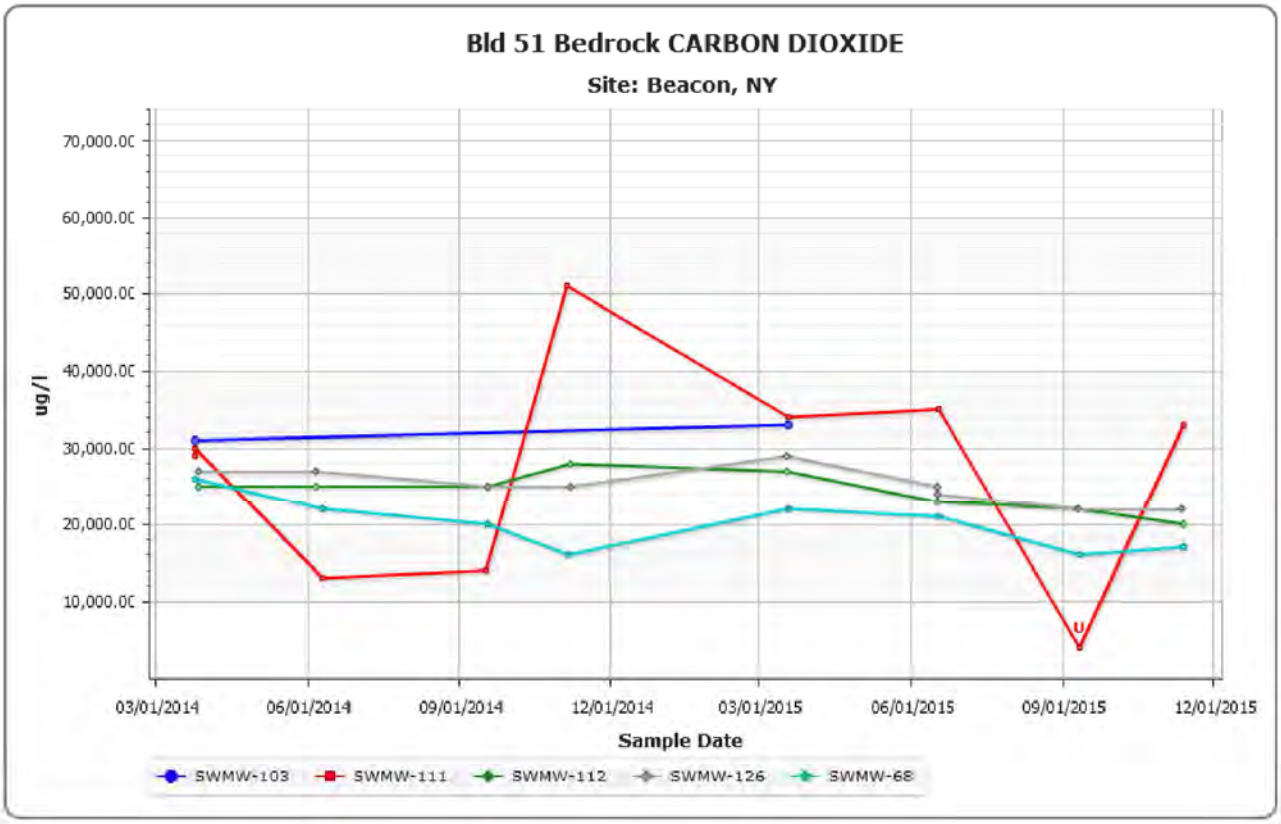

Bld 51 Bedrock Methane
Site: Beacon, NY
ug/l
500.00
400.00
300.00
200.00
100.00
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

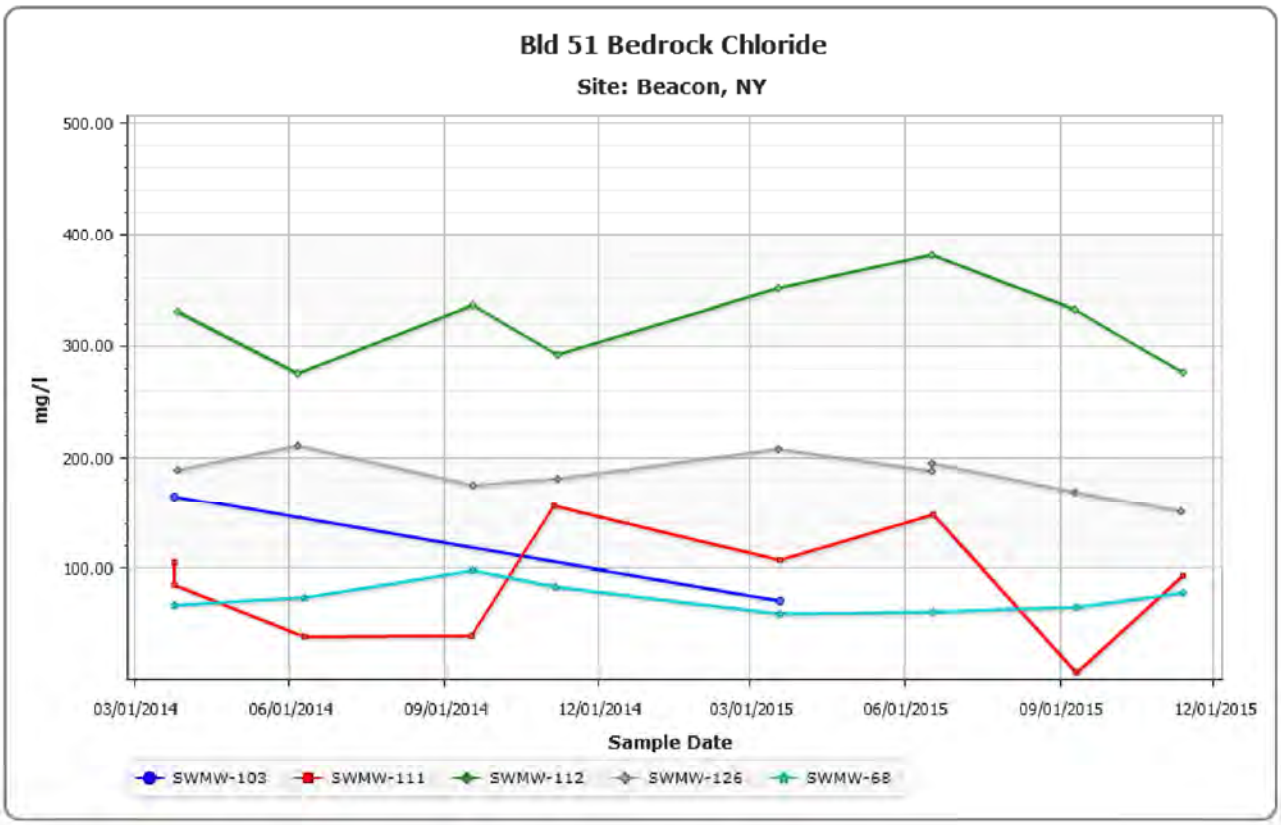

Bld 51 Bedrock Nitrogen, Nitrate as N
Site: Beacon, NY
10,000.00
8,000.00
6,000.00
4,000.00
2,000.00
ug/l
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

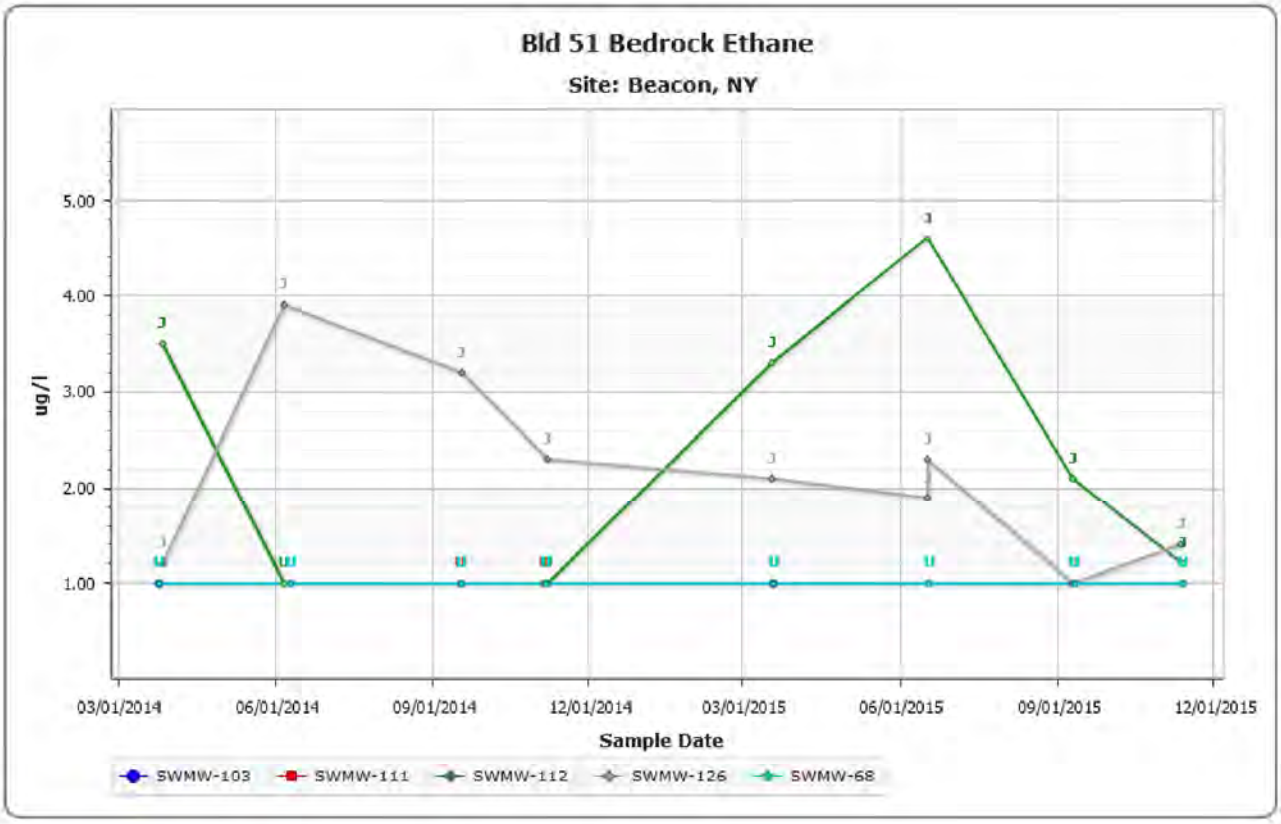

Bld 51 Bedrock Sulfate (SO4)
Site: Beacon, NY
300.00
250.00
200.00
150.00
100.00
50.00
mg/l
J
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

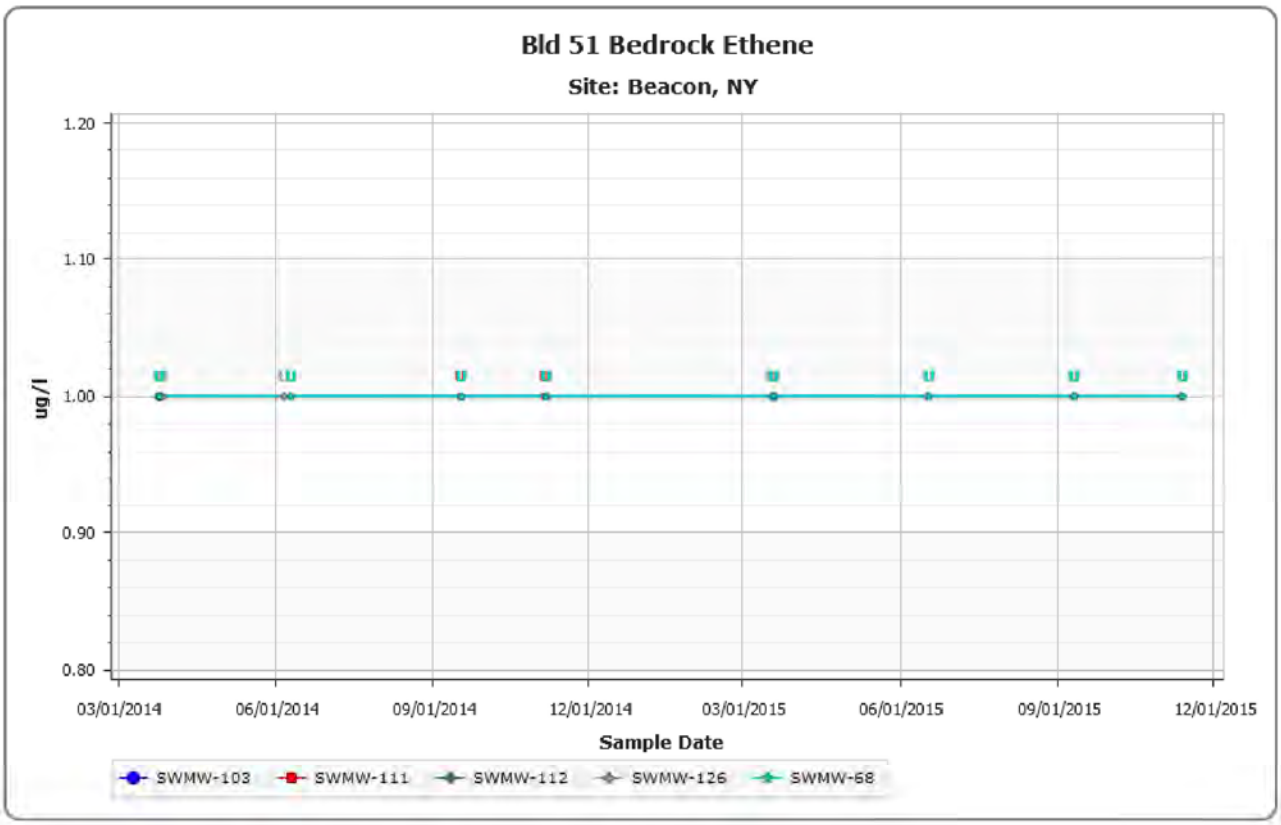

Bld 51 Bedrock Sulfide
Site: Beacon, NY
65.00
60.00
55.00
50.00
45.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
ITMW-6
SWMW-13
SWMW-14
SWMW-41
SWMW-56
SWMW-66

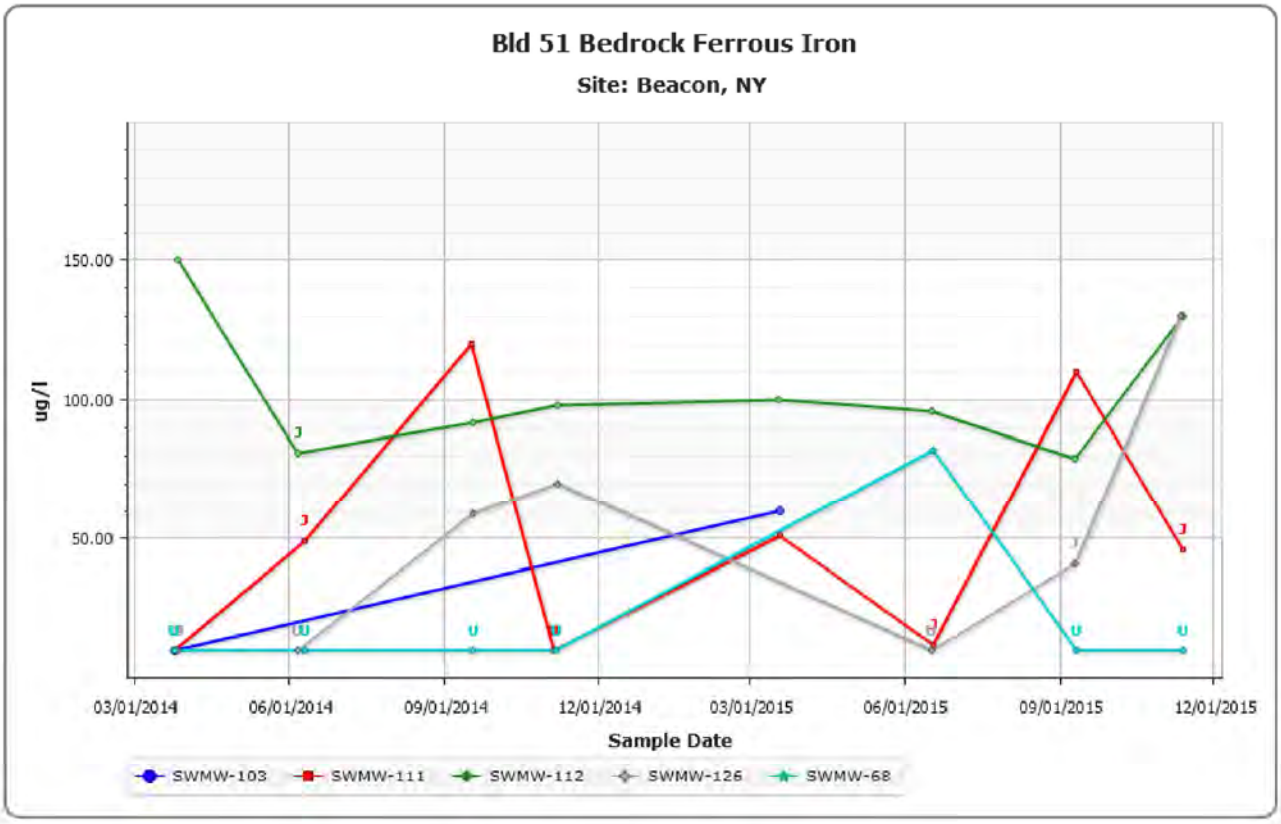

Bld 51 Bedrock Alkalinity, Total as CaCO3
Site: Beacon, NY
ugCaCO3/L
600,000.0C
500,000.0C
400,000.0C
300,000.0C
200,000.0C
100,000.0C
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

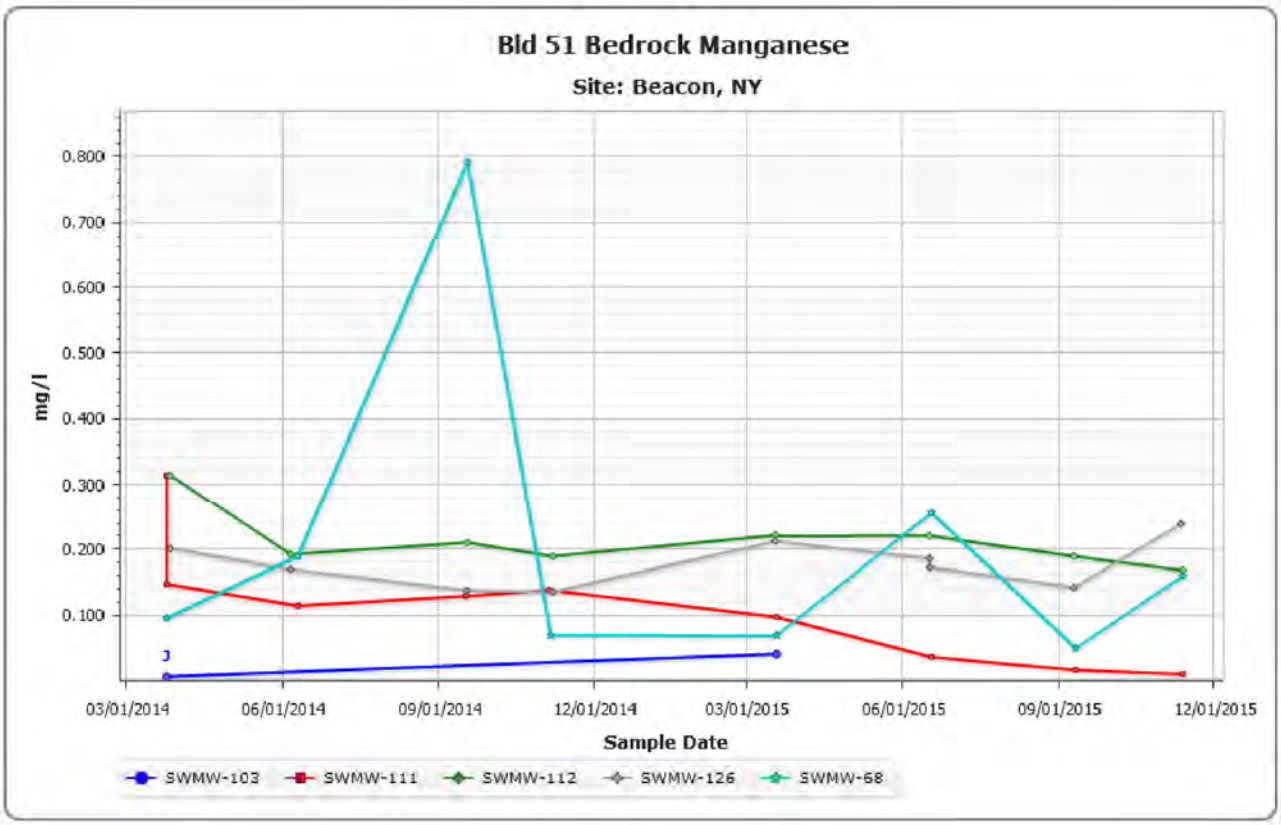

Bld 51 Bedrock CARBON DIOXIDE
Site: Beacon, NY
ug/l
70,000.0C
60,000.0C
50,000.0C
40,000.0C
30,000.0C
20,000.0C
10,000.0C
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

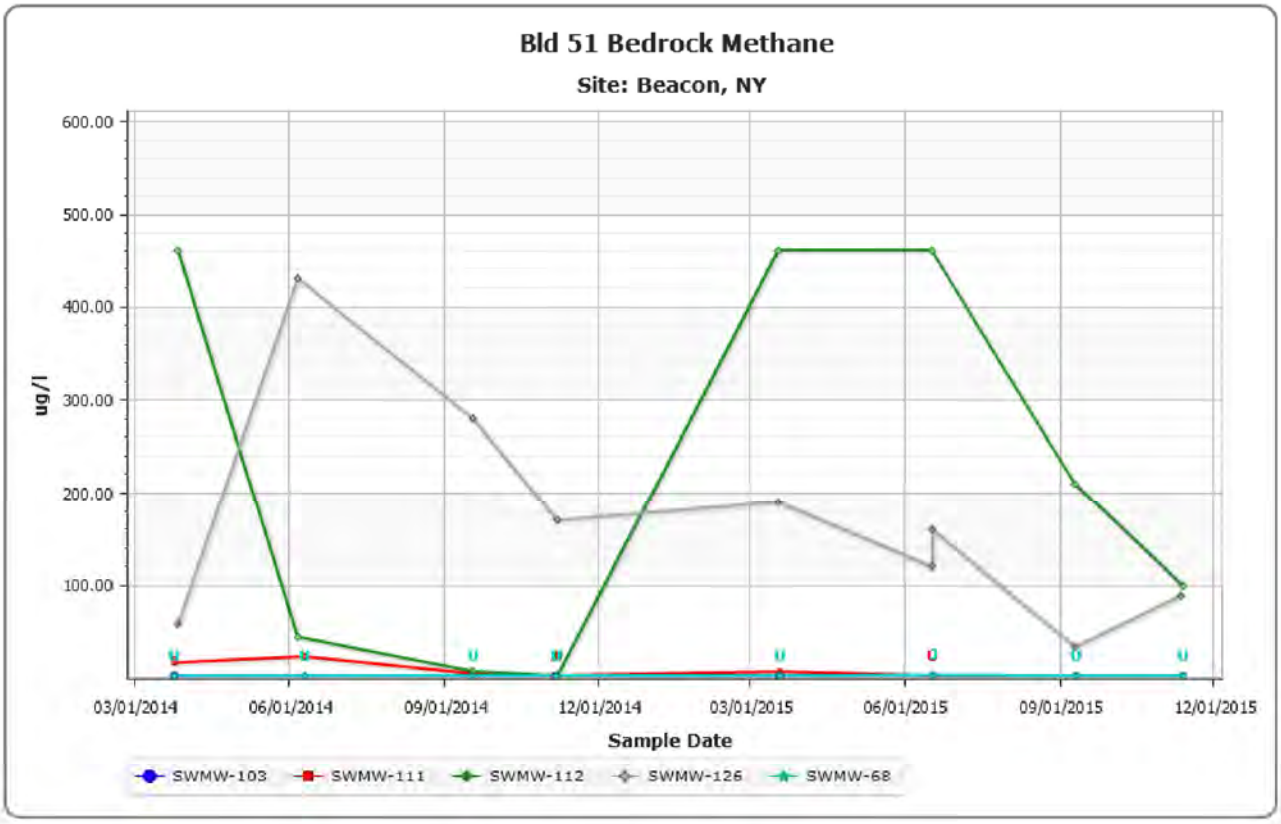

Bld 51 Bedrock Chloride
Site: Beacon, NY
500.00
400.00
300.00
200.00
100.00
mg/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

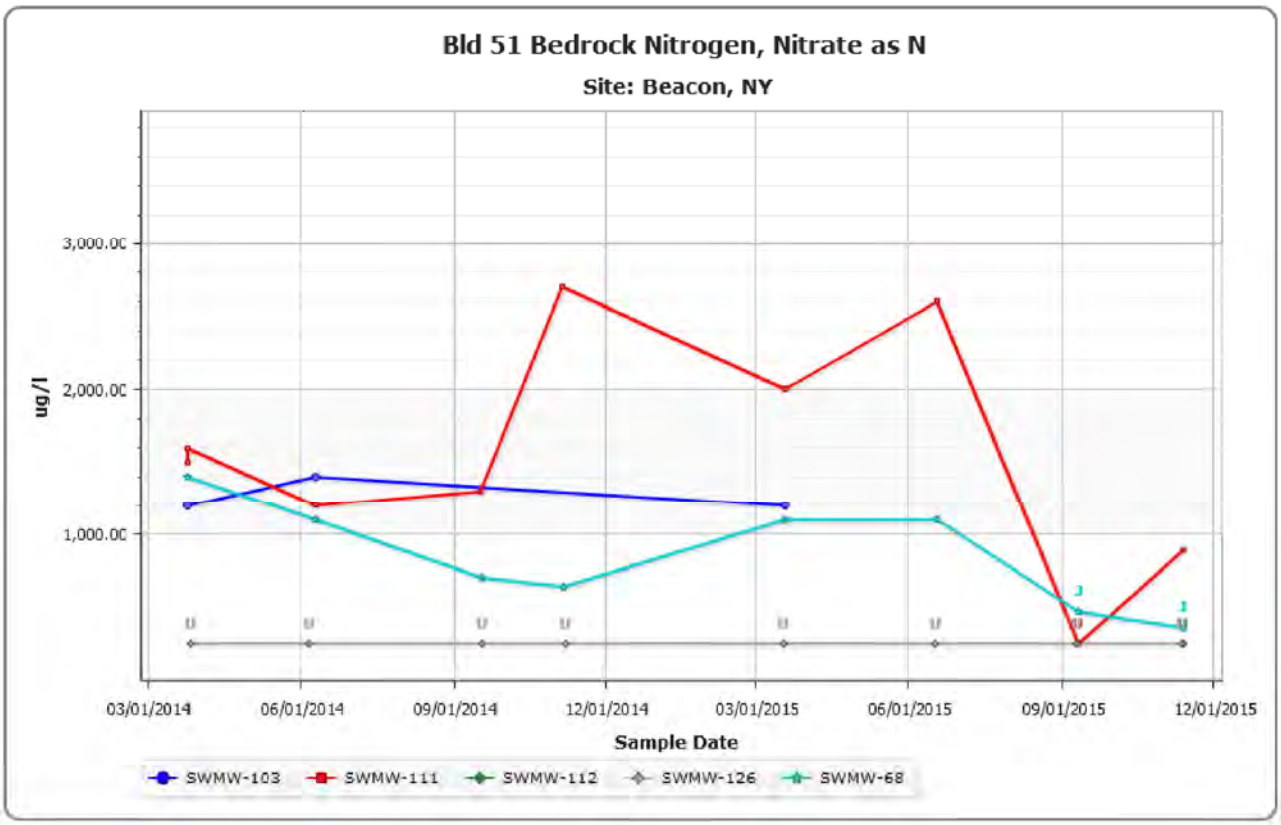

Bld 51 Bedrock Ethane
Site: Beacon, NY
5.00
4.00
3.00
2.00
1.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

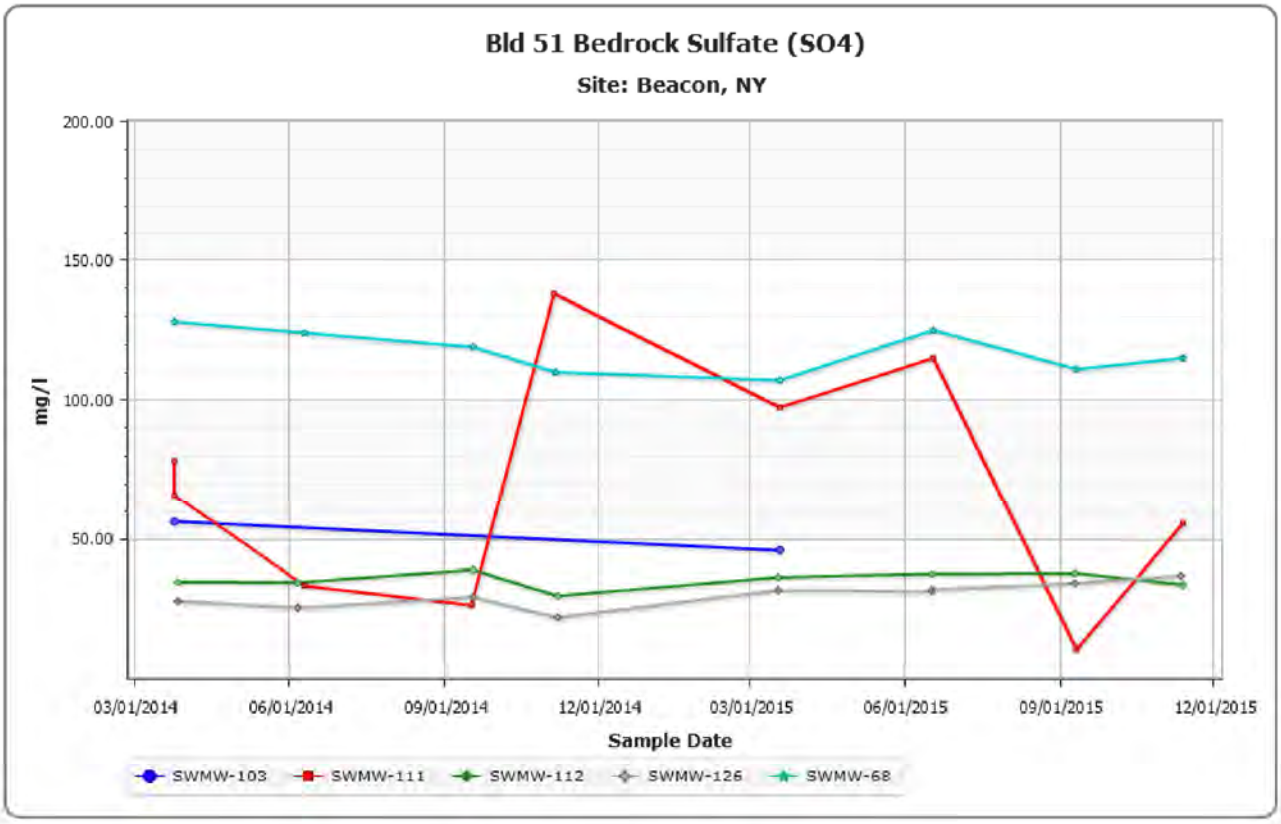

Bld 51 Bedrock Ethene
Site: Beacon, NY
1.20
1.10
1.00
0.90
0.80
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

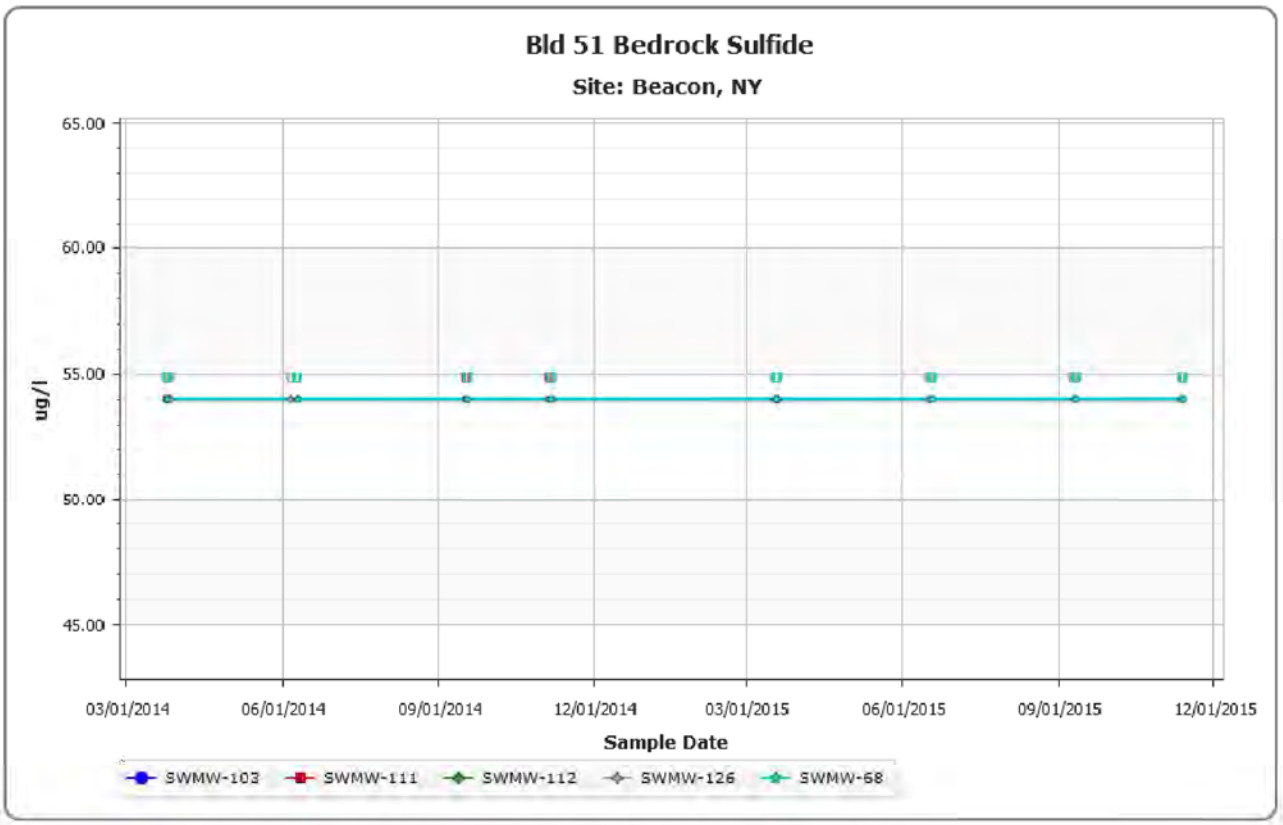

Bld 51 Bedrock Ferrous Iron
Site: Beacon, NY
150.00
100.00
50.00
ug/l
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

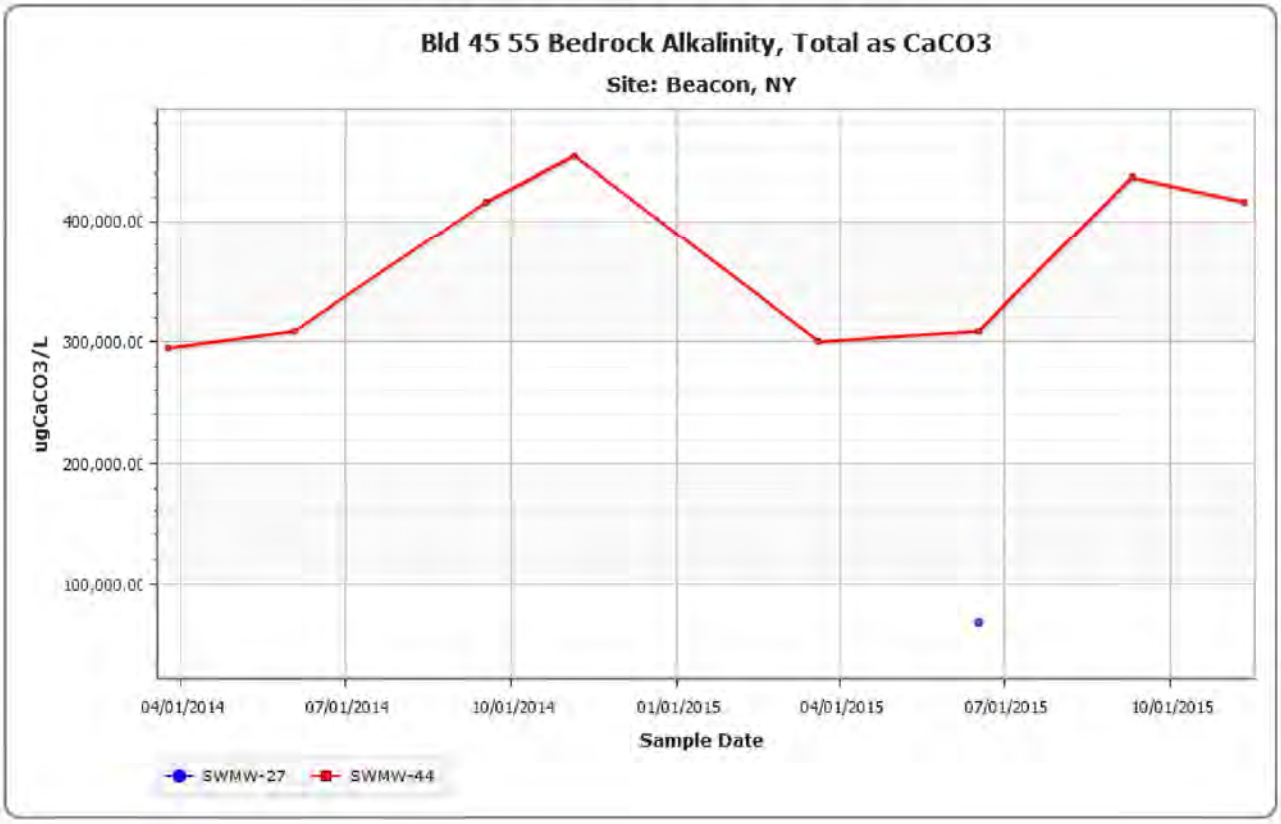

Bld 51 Bedrock Manganese
Site: Beacon, NY
mg/l
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

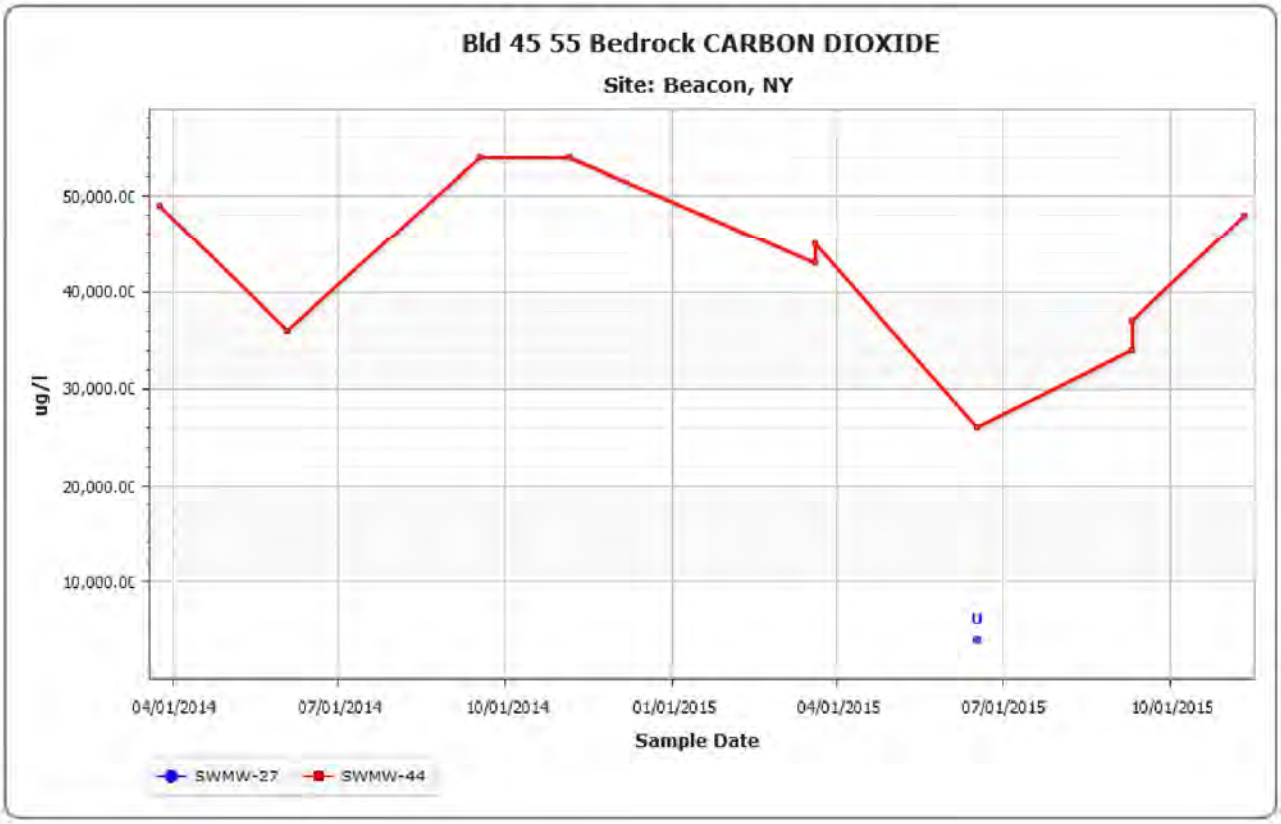

Bld 51 Bedrock Methane
Site: Beacon, NY
ug/l
600.00
500.00
400.00
300.00
200.00
100.00
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

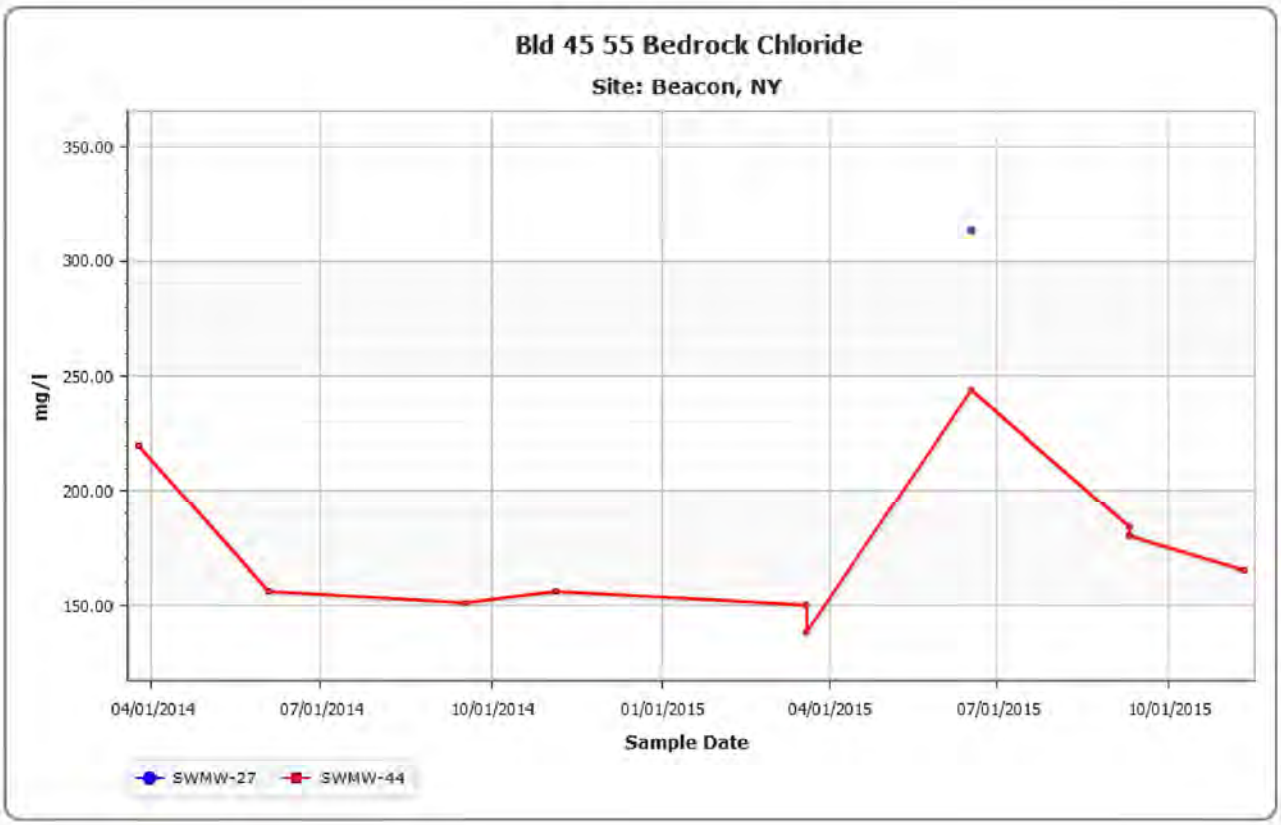

Bld 51 Bedrock Nitrogen, Nitrate as N
Site: Beacon, NY
ug/l
3,000.00
2,000.00
1,000.00
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

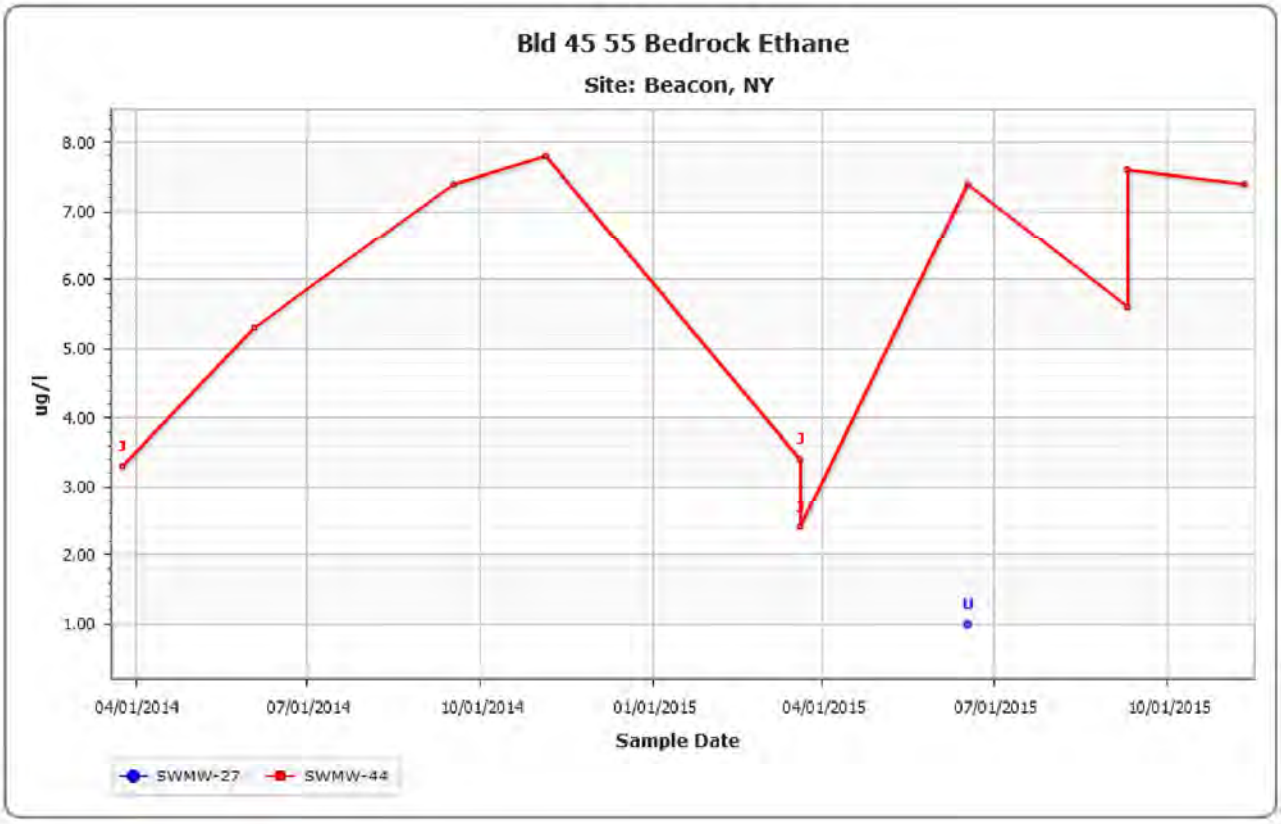

Bld 51 Bedrock Sulfate (SO4)
Site: Beacon, NY
mg/l
200.00
150.00
100.00
50.00
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

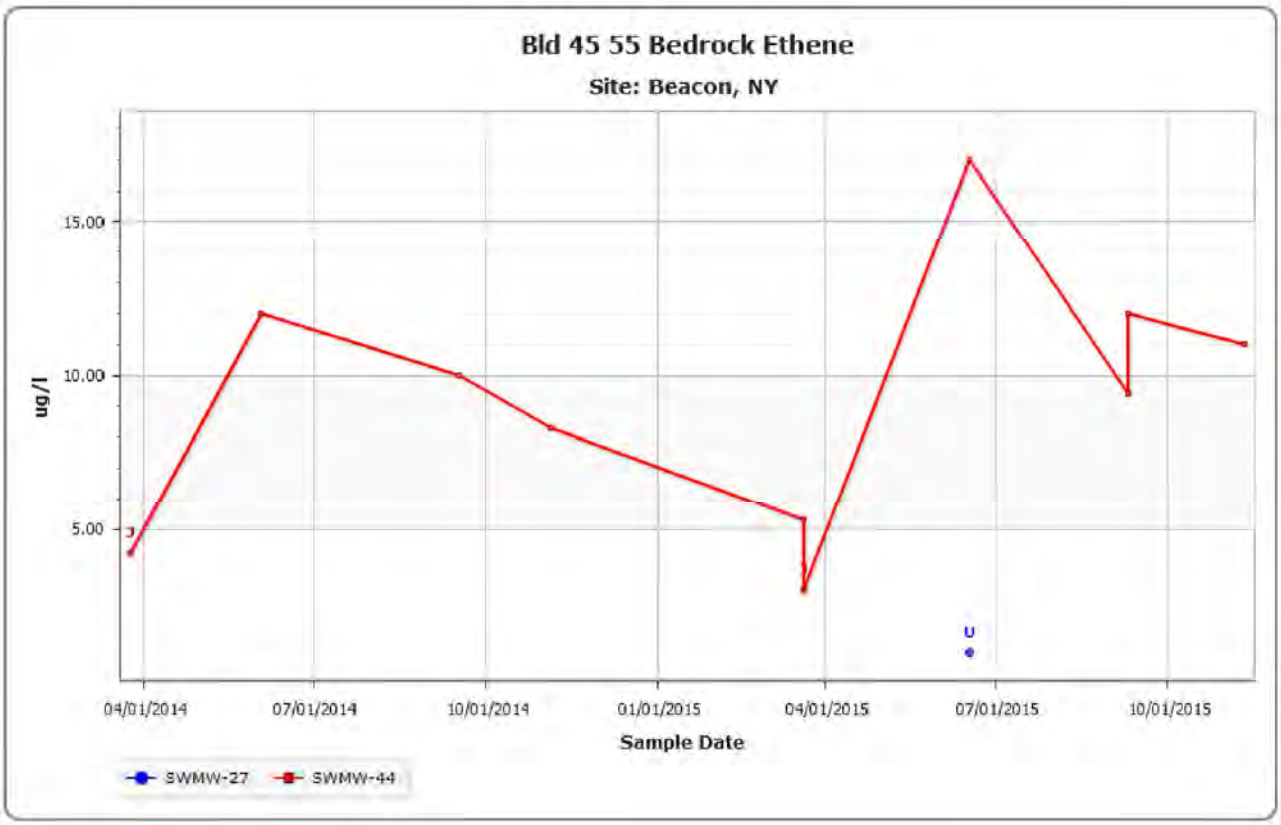

Bld 51 Bedrock Sulfide
Site: Beacon, NY
65.00
60.00
55.00
50.00
45.00
ug/l
U
03/01/2014
06/01/2014
09/01/2014
12/01/2014
03/01/2015
06/01/2015
09/01/2015
12/01/2015
Sample Date
SWMW-103
SWMW-111
SWMW-112
SWMW-126
SWMW-68

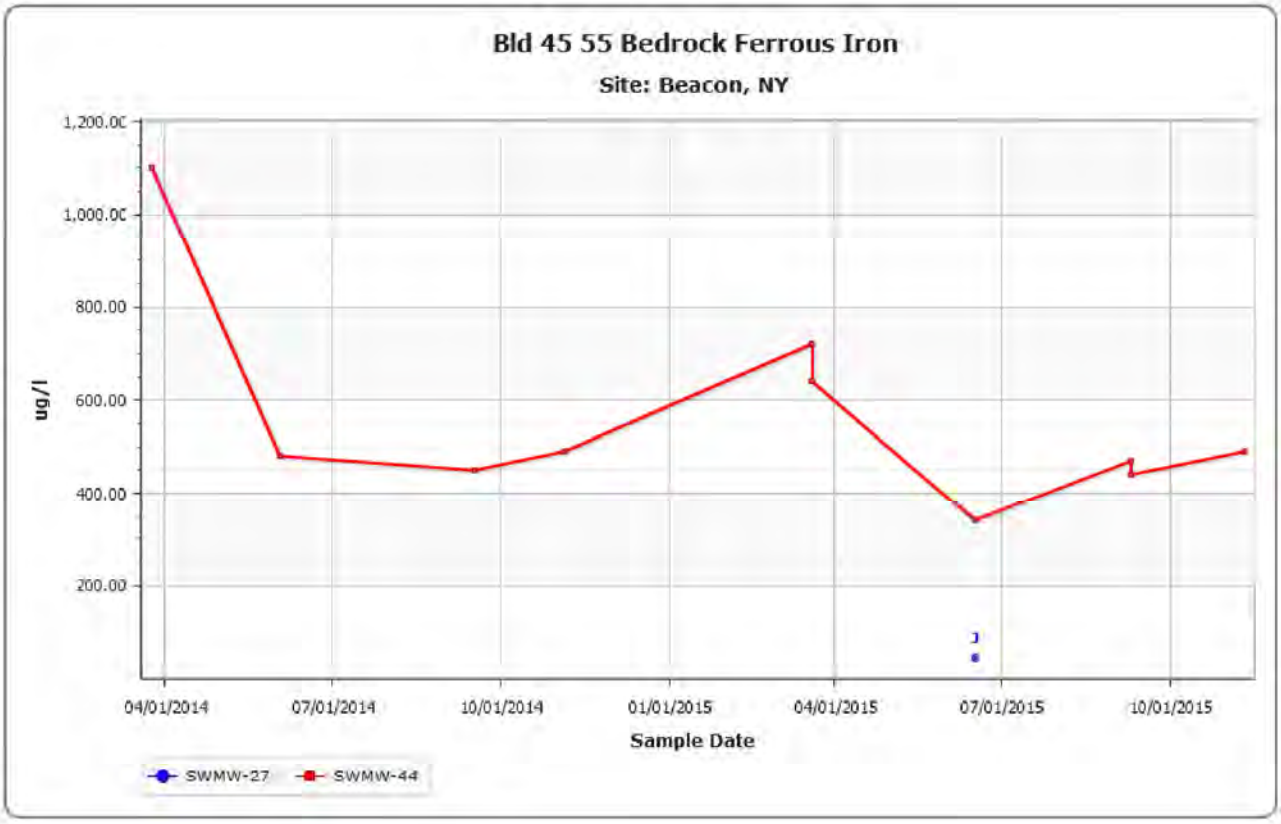

Bld 45 55 Bedrock Alkalinity, Total as CaCO3
Site: Beacon, NY
ugCaCO3/L
400,000.0(
300,000.0(
200,000.0(
100,000.0(
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

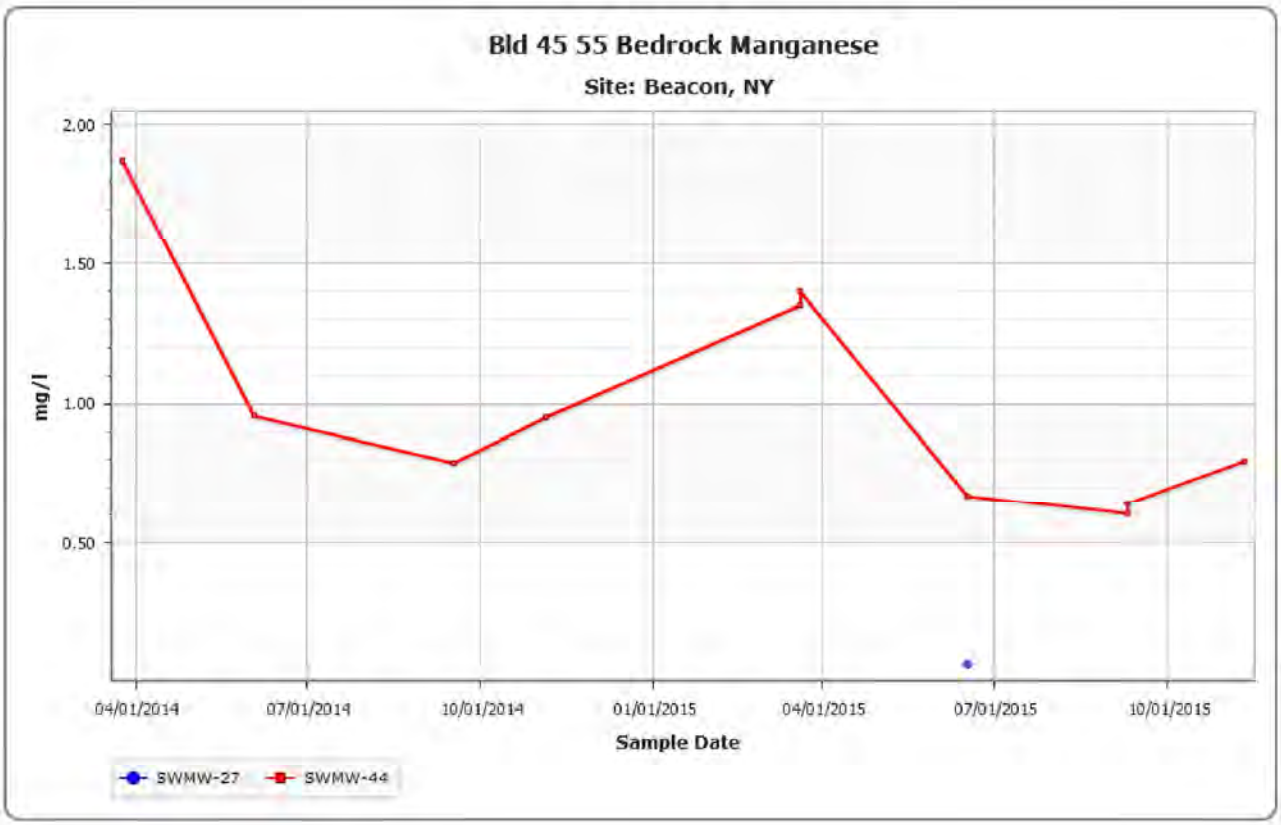

Bld 45 55 Bedrock CARBON DIOXIDE
Site: Beacon, NY
ug/l
50,000.0(
40,000.0(
30,000.0(
20,000.0(
10,000.0(
U
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

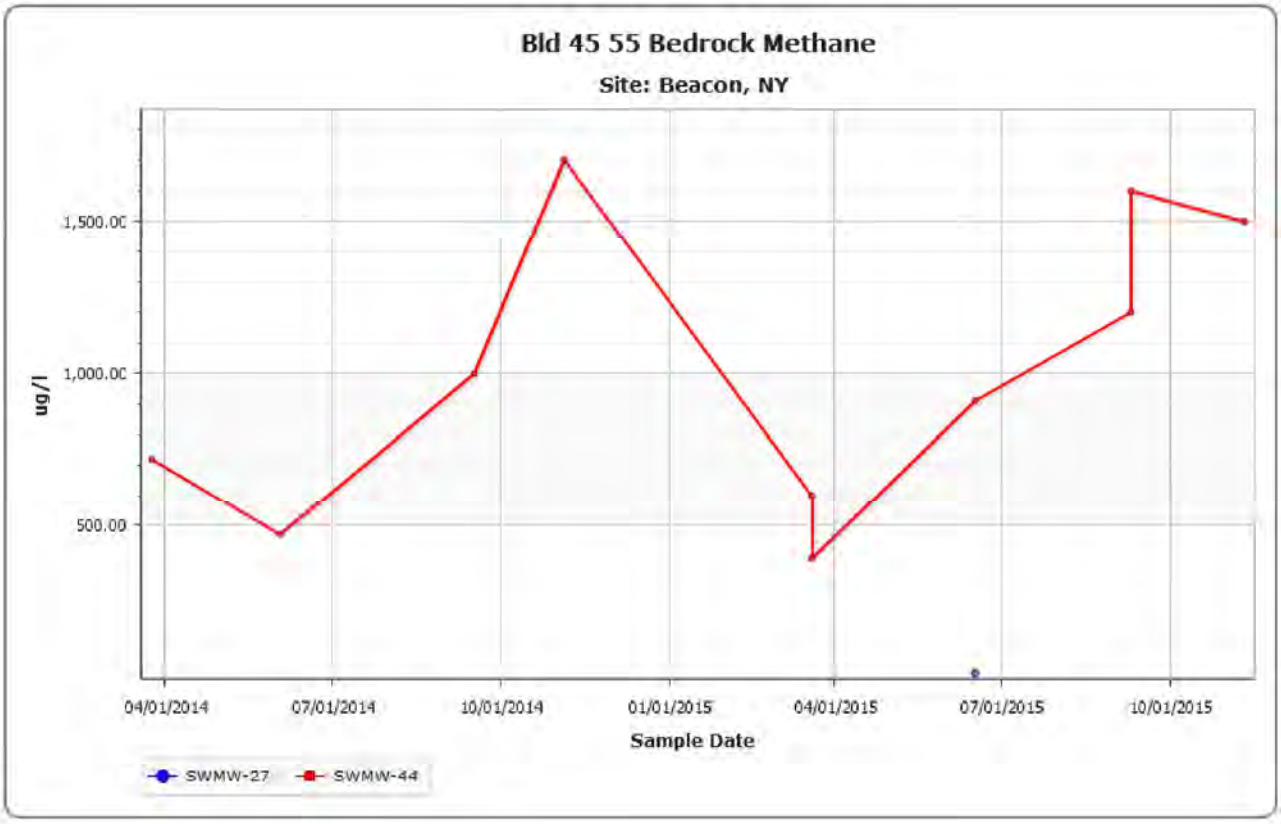

Bld 45 55 Bedrock Chloride
Site: Beacon, NY
350.00
300.00
250.00
200.00
150.00
mg/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

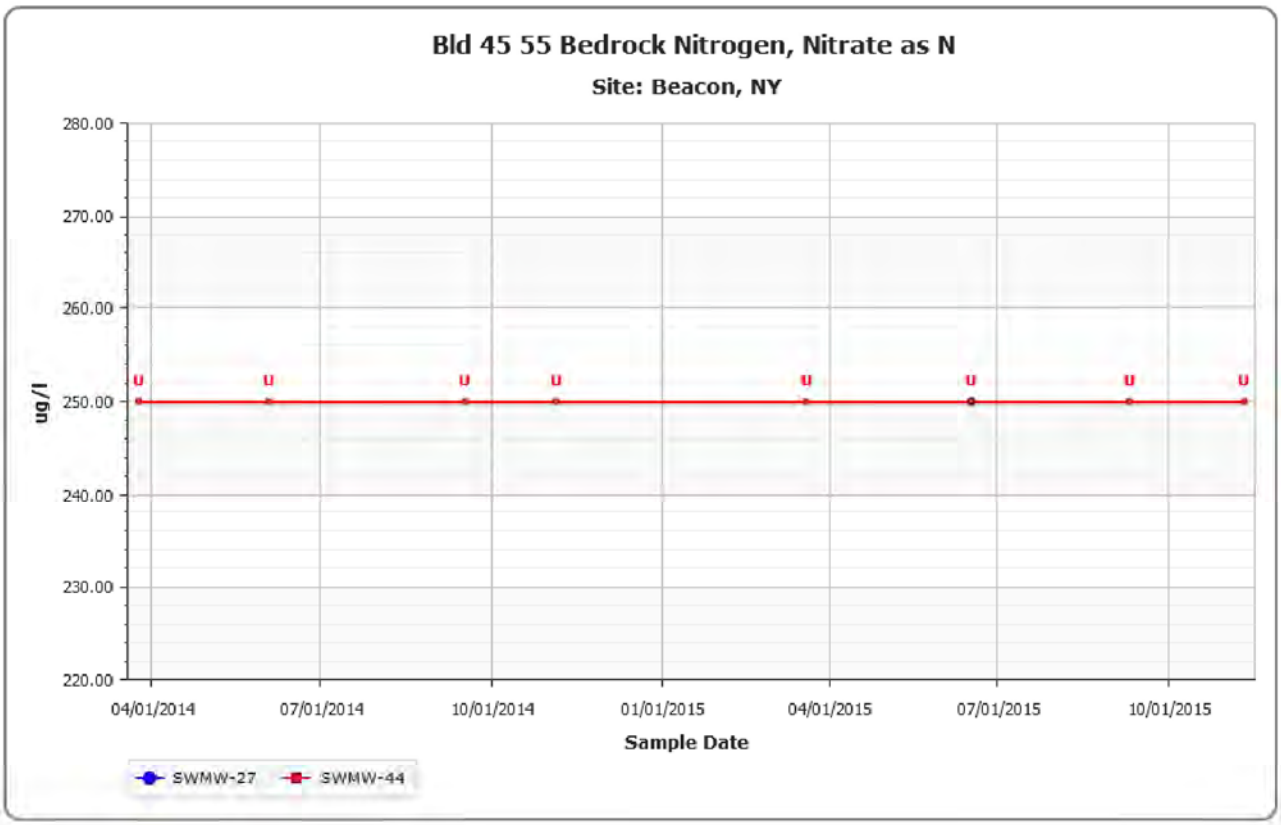

Bld 45 55 Bedrock Ethane
Site: Beacon, NY
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
ug/l
J
J
U
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

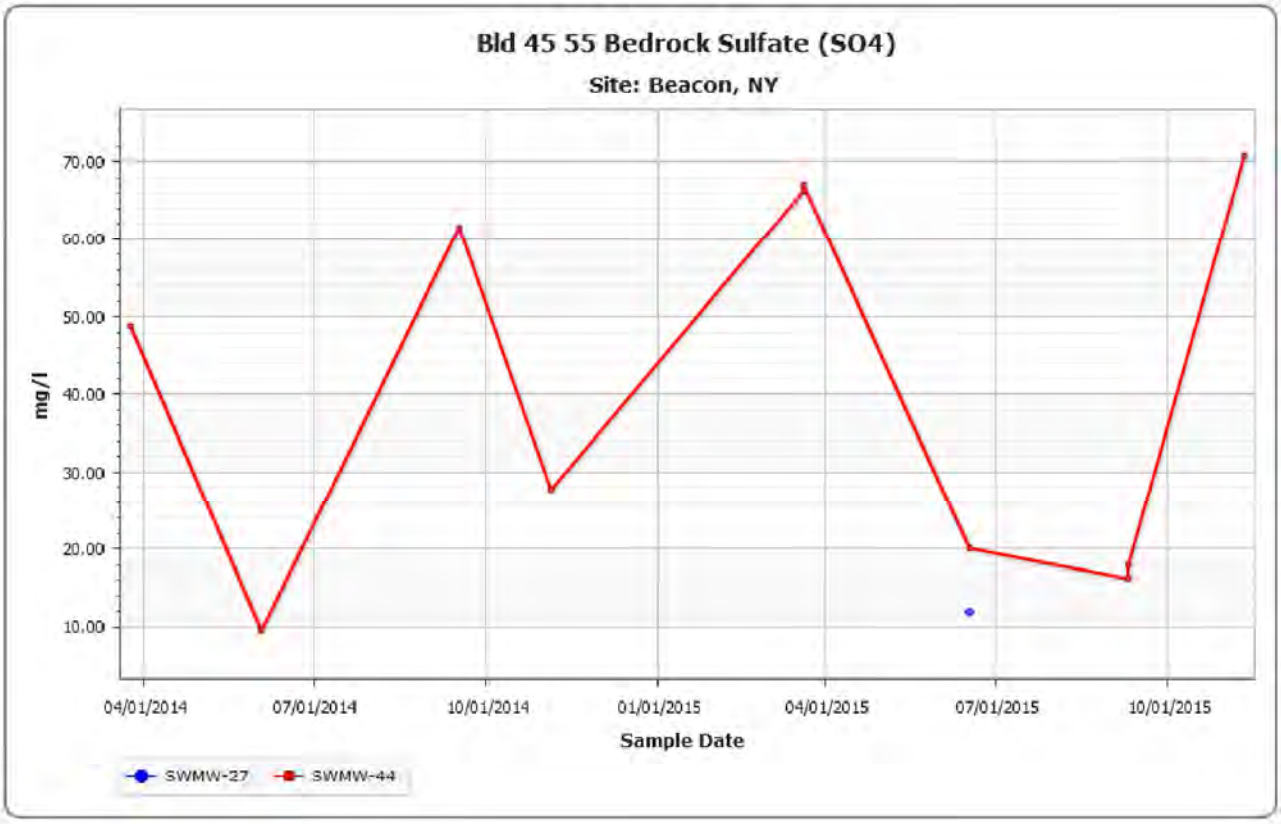

Bld 45 55 Bedrock Ethene
Site: Beacon, NY
15.00
10.00
5.00
ug/l
J
U
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

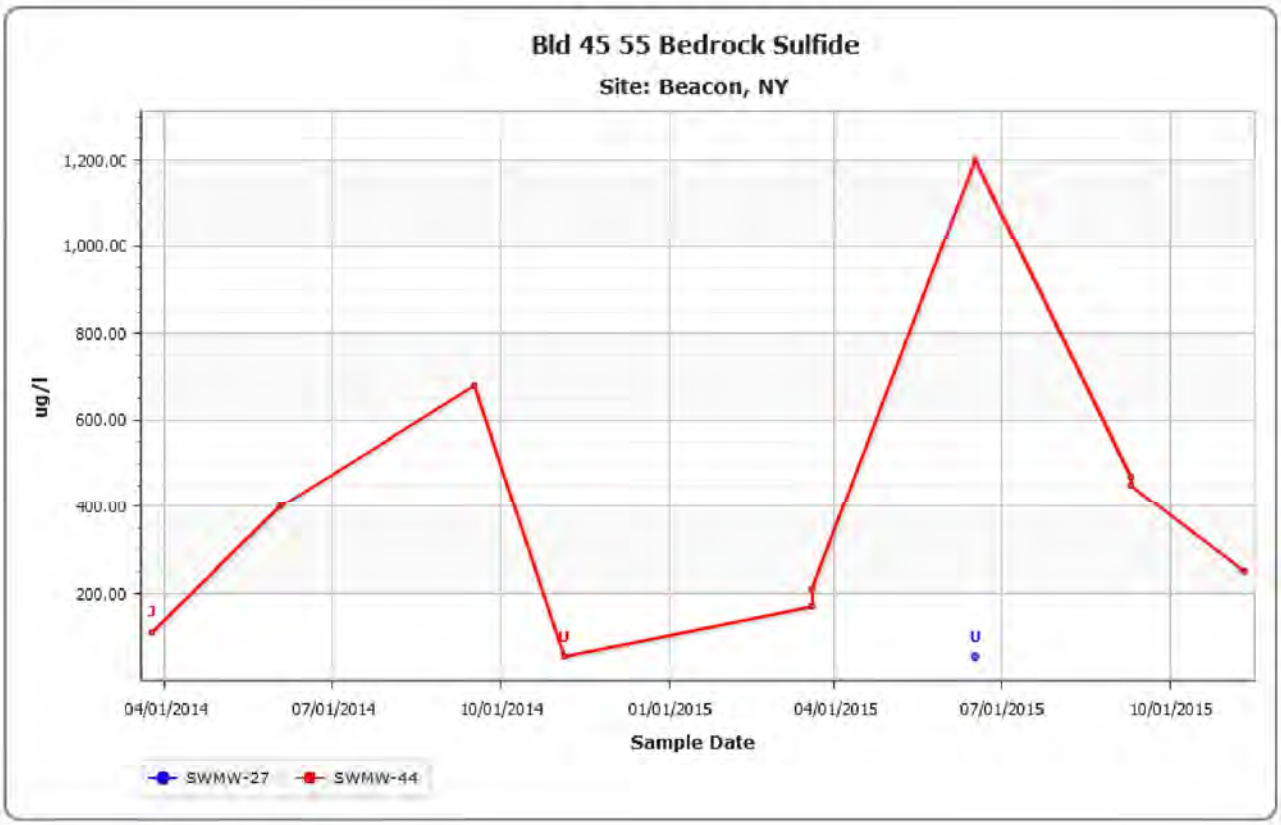

Bld 45 55 Bedrock Ferrous Iron
Site: Beacon, NY
1,200.00
1,000.00
800.00
600.00
400.00
200.00
ug/l
J
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

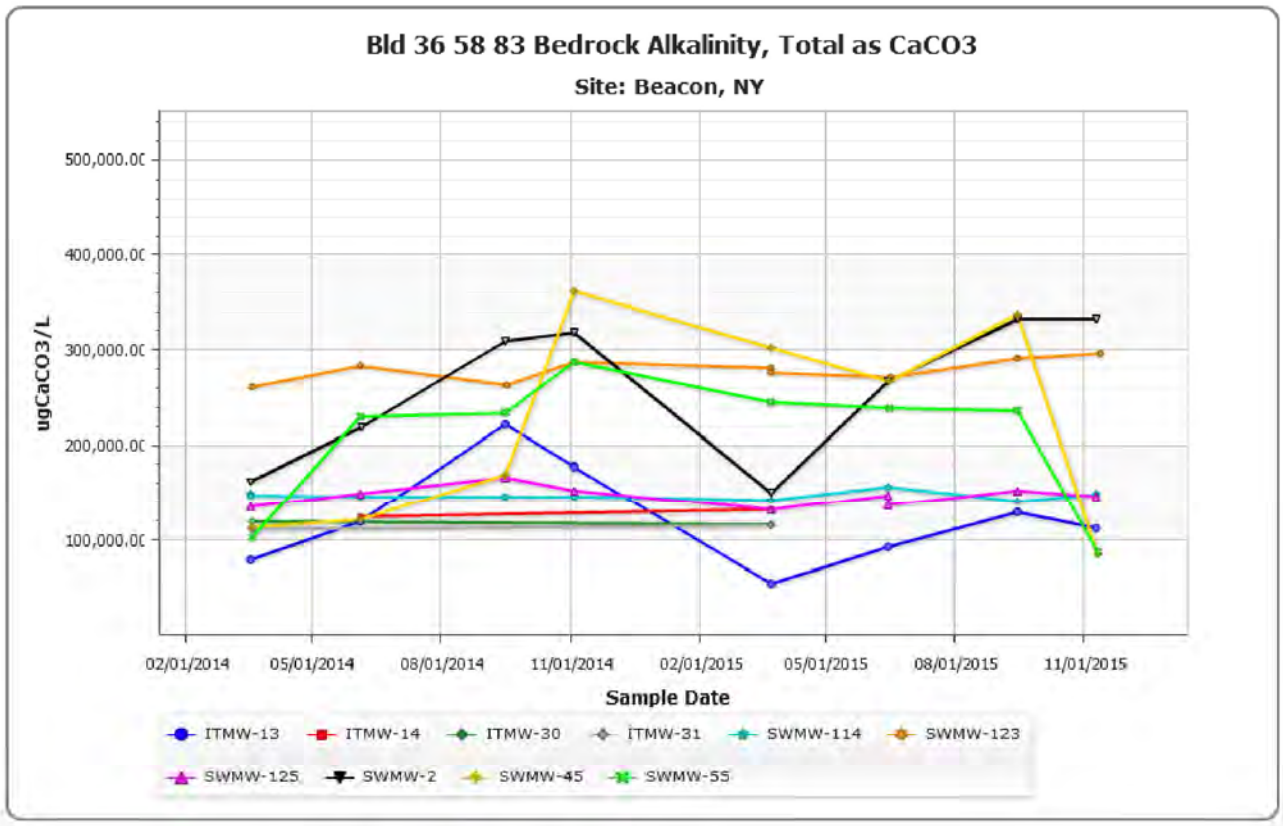

Bld 45 55 Bedrock Manganese
Site: Beacon, NY
2.00
1.50
1.00
0.50
mg/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

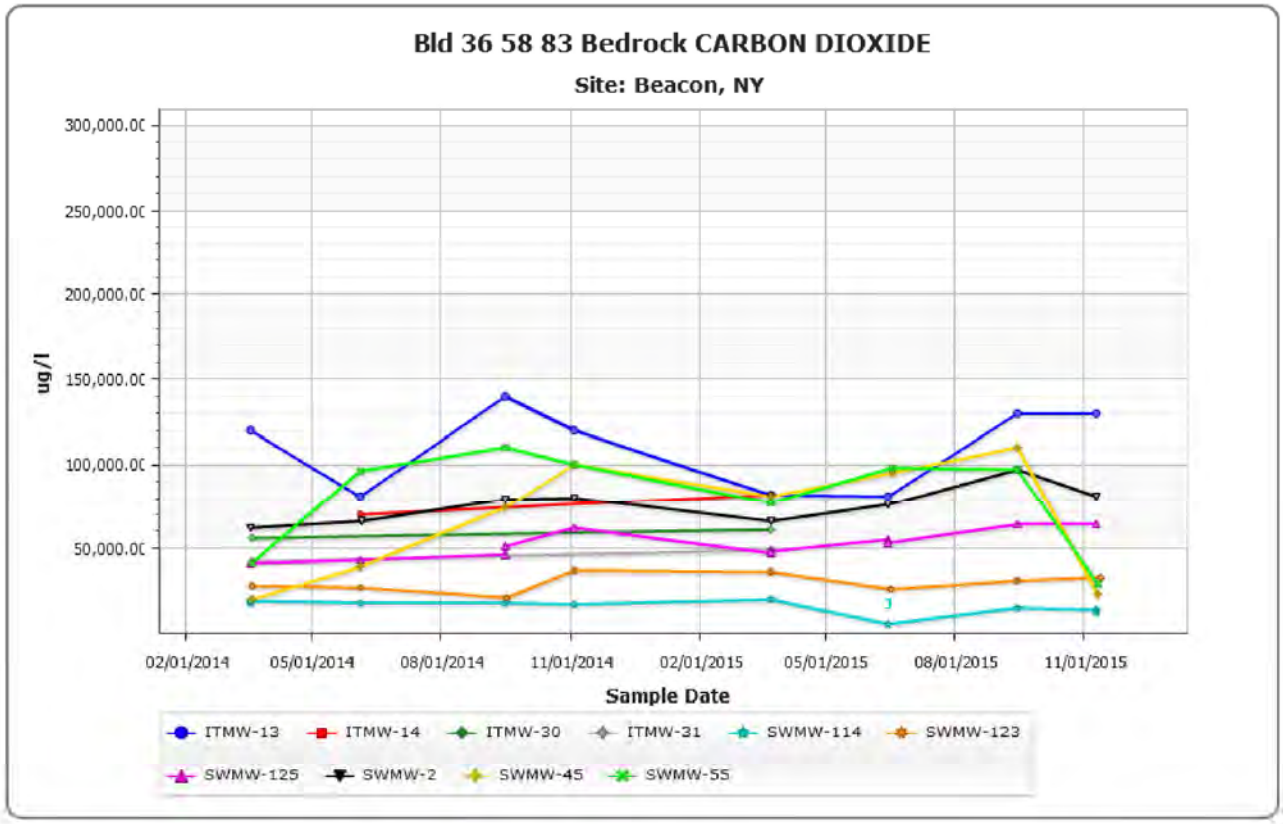

Bld 45 55 Bedrock Methane
Site: Beacon, NY
1,500.00
1,000.00
500.00
ug/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

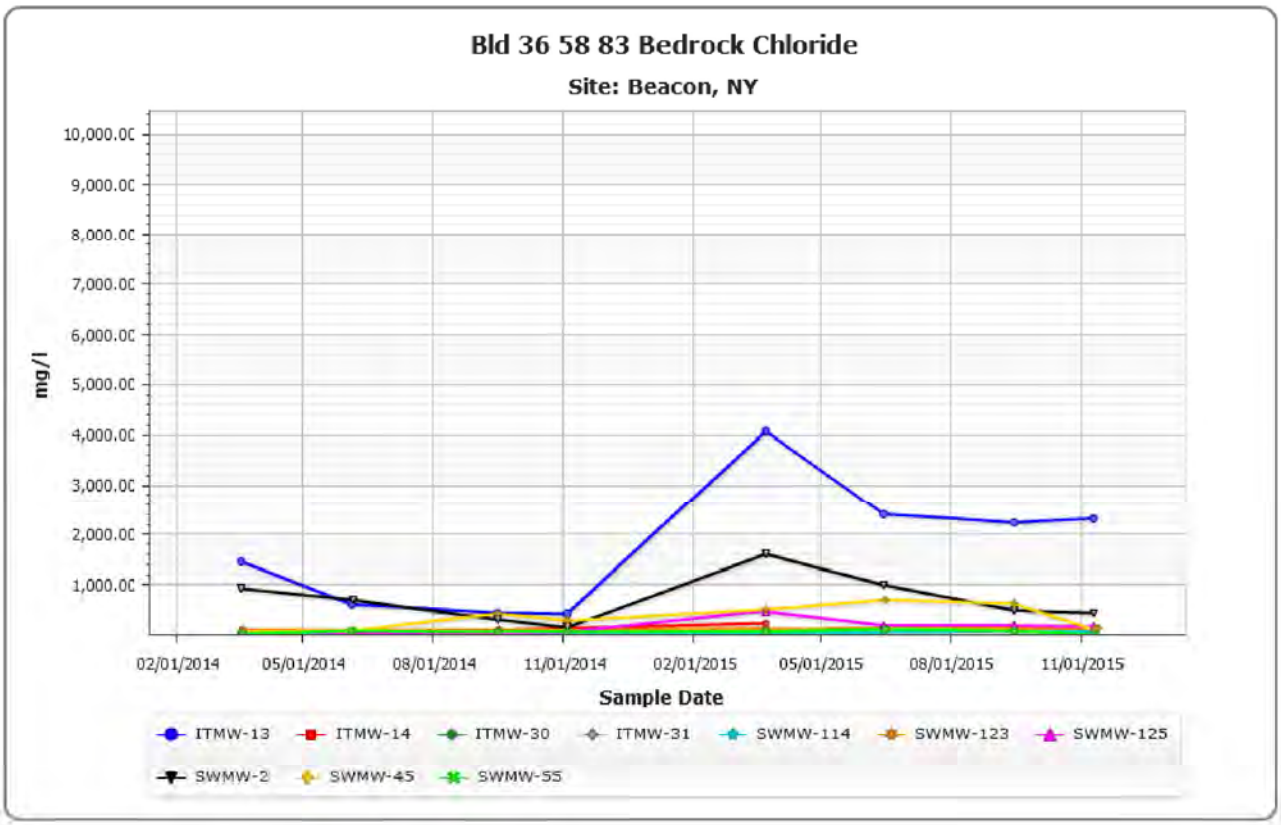

Bld 45 55 Bedrock Nitrogen, Nitrate as N
Site: Beacon, NY
280.00
270.00
260.00
250.00
240.00
230.00
220.00
ug/l
U
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

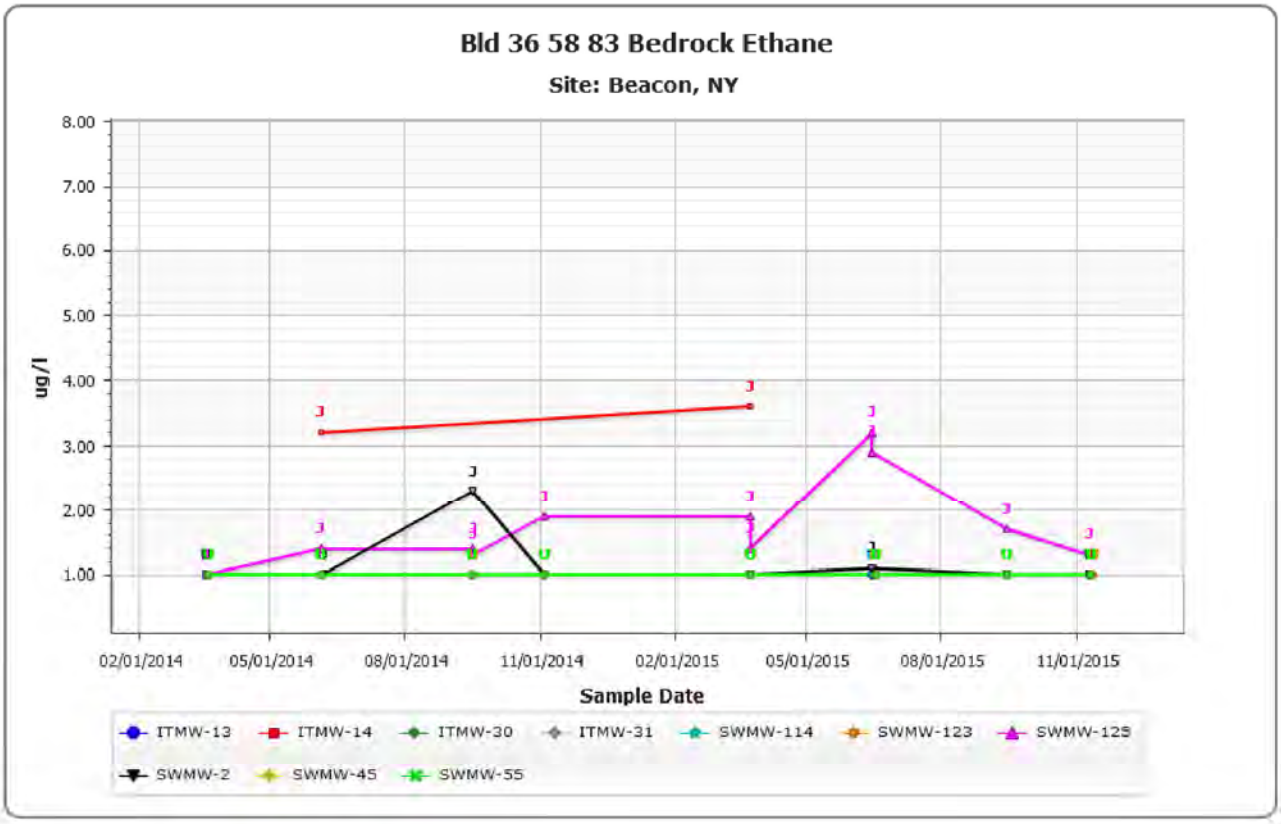

Bld 45 55 Bedrock Sulfate (SO4)
Site: Beacon, NY
70.00
60.00
50.00
40.00
30.00
20.00
10.00
mg/l
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

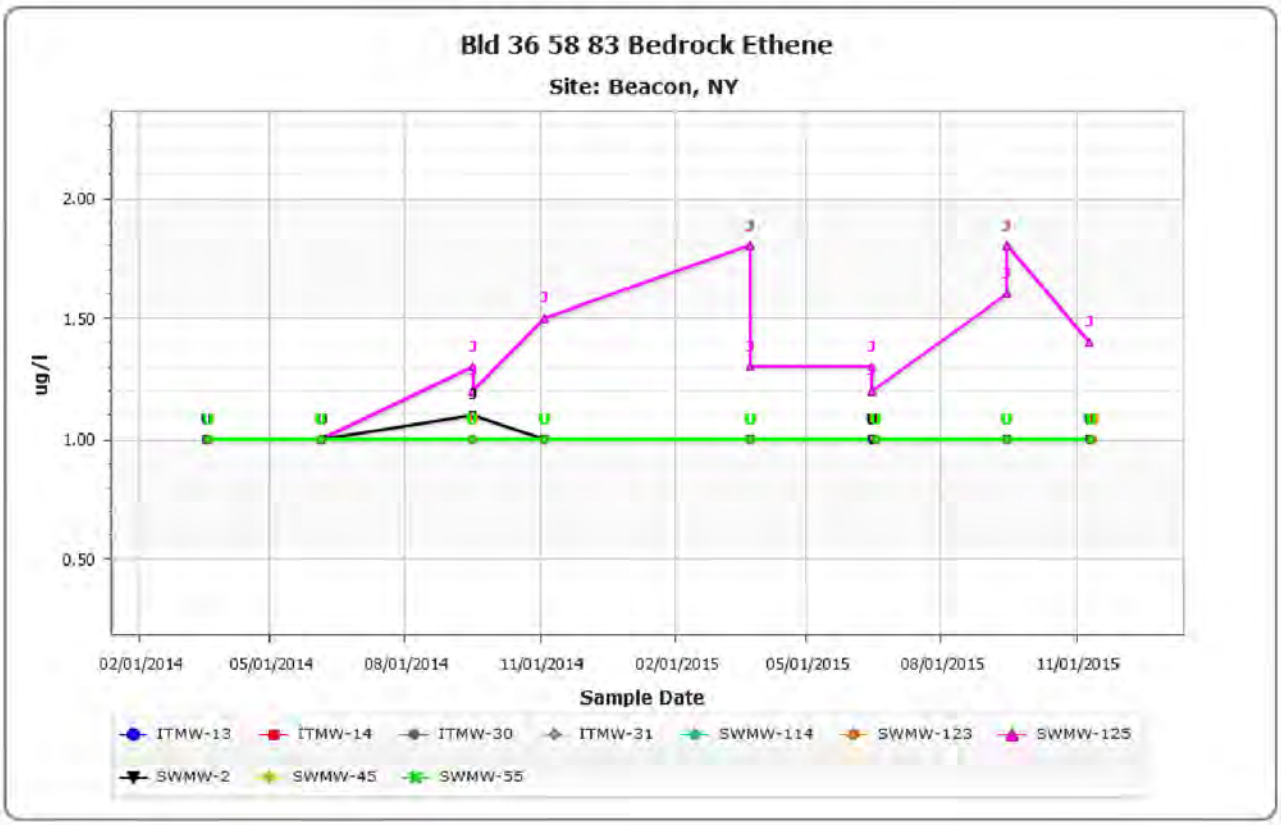

Bld 45 55 Bedrock Sulfide
Site: Beacon, NY
1,200.00
1,000.00
800.00
600.00
400.00
200.00
ug/l
J
U
U
04/01/2014
07/01/2014
10/01/2014
01/01/2015
04/01/2015
07/01/2015
10/01/2015
Sample Date
SWMW-27
SWMW-44

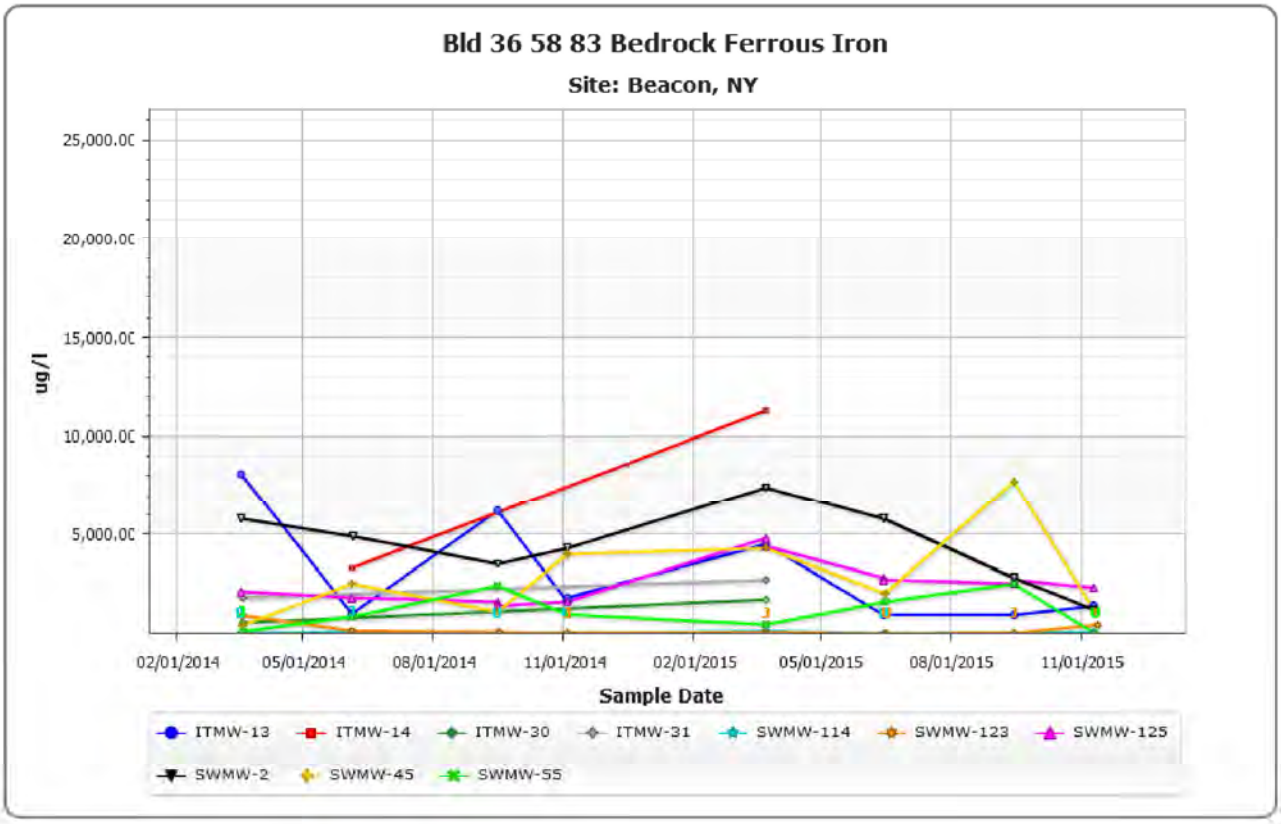

Bld 36 58 83 Bedrock Alkalinity, Total as CaCO3
Site: Beacon, NY
ugCaCO3/L
500,000.0C
400,000.0C
300,000.0C
200,000.0C
100,000.0C
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

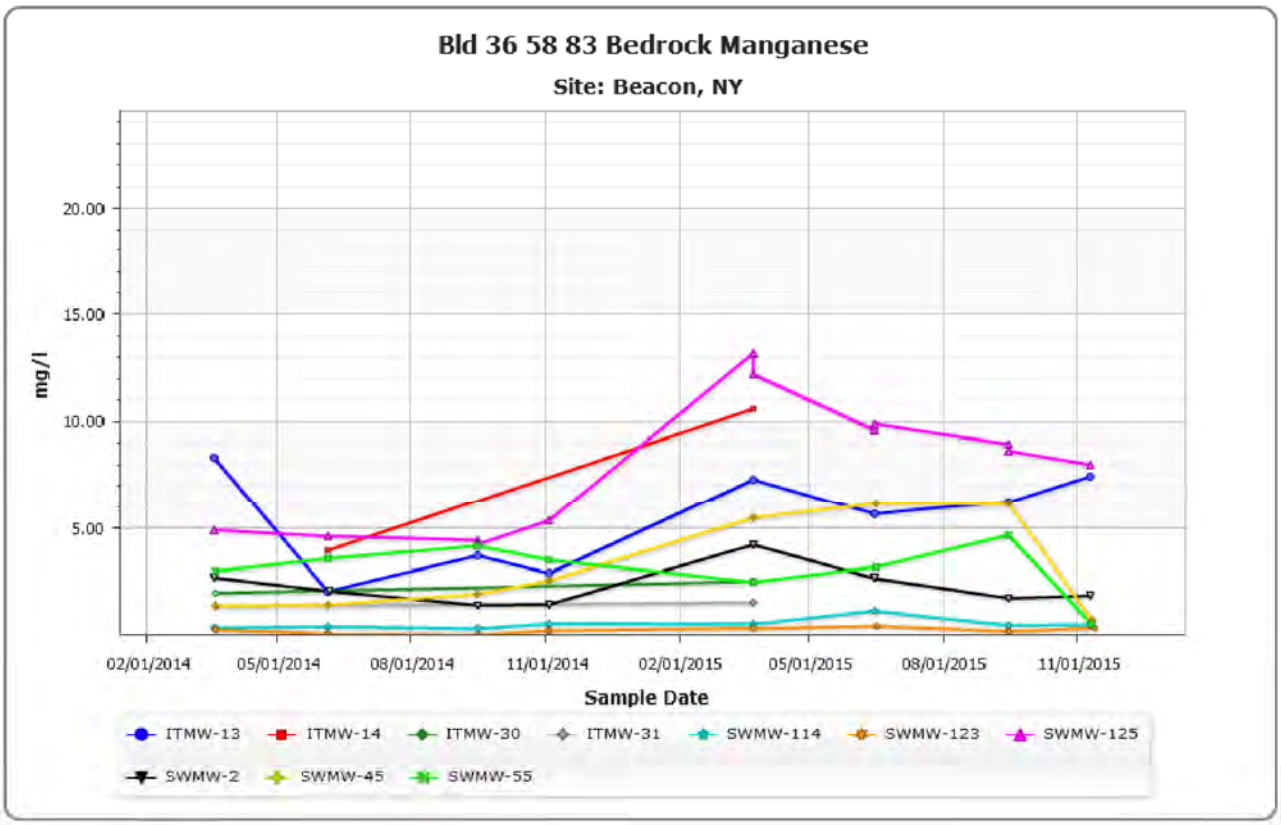

Bld 36 58 83 Bedrock CARBON DIOXIDE
Site: Beacon, NY
ug/l
300,000.0C
250,000.0C
200,000.0C
150,000.0C
100,000.0C
50,000.0C
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

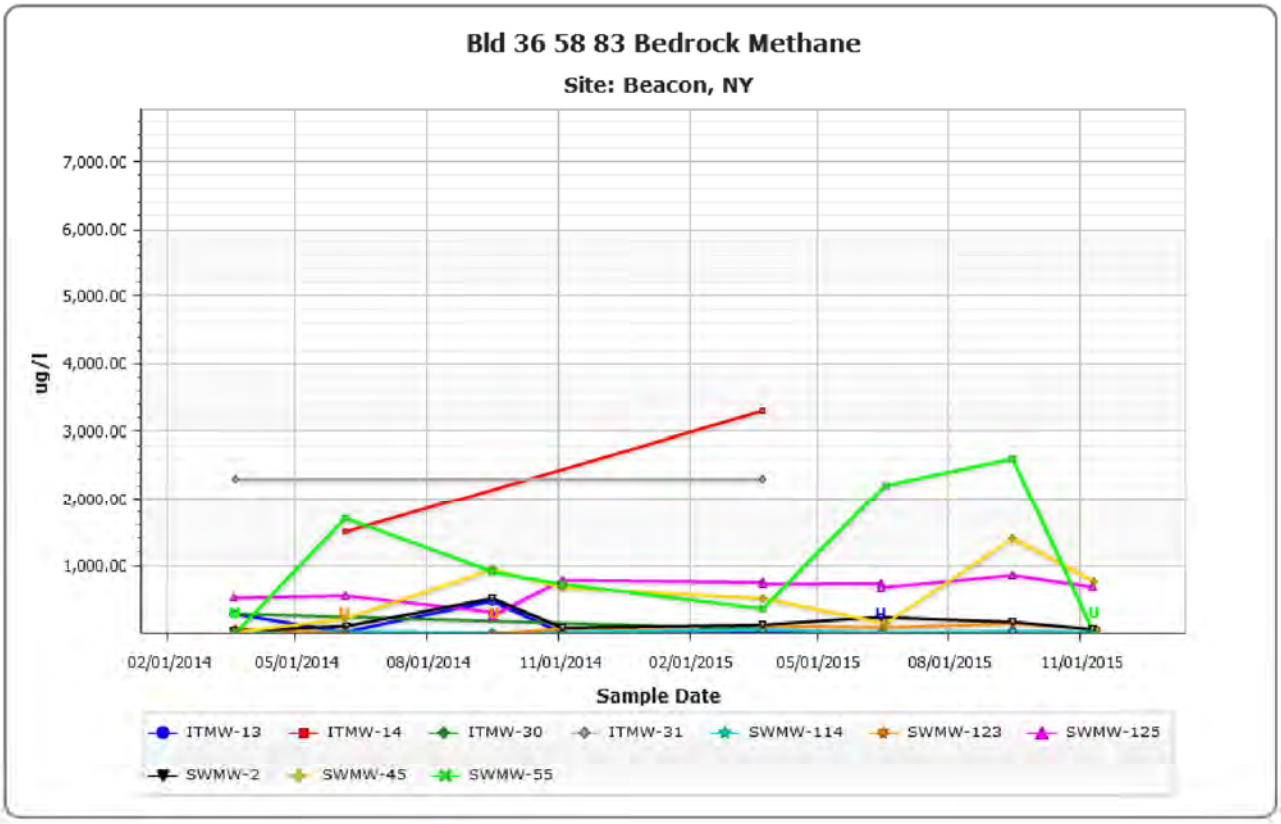

Bld 36 58 83 Bedrock Chloride
Site: Beacon, NY
10,000.00
9,000.00
8,000.00
7,000.00
6,000.00
5,000.00
4,000.00
3,000.00
2,000.00
1,000.00
mg/l
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

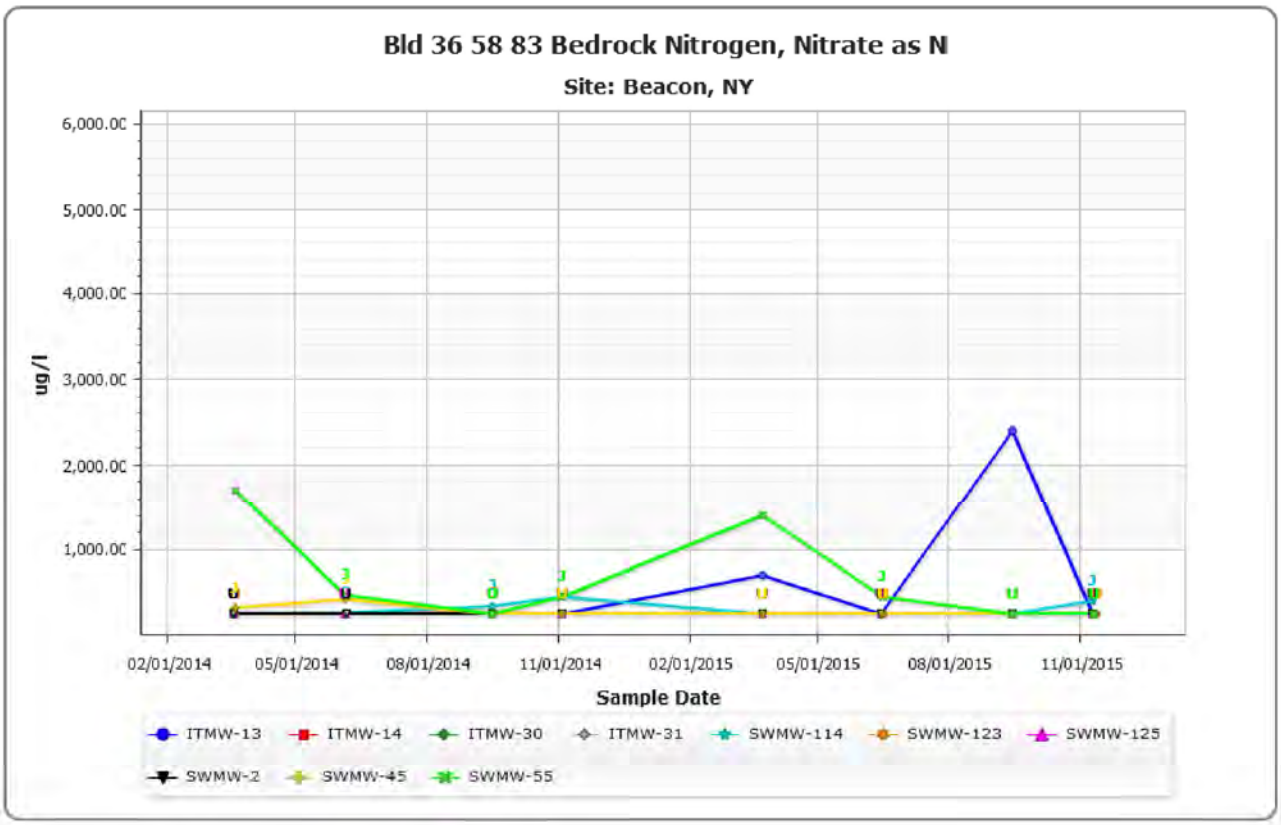

Bld 36 58 83 Bedrock Ethane
Site: Beacon, NY
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
ug/l
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

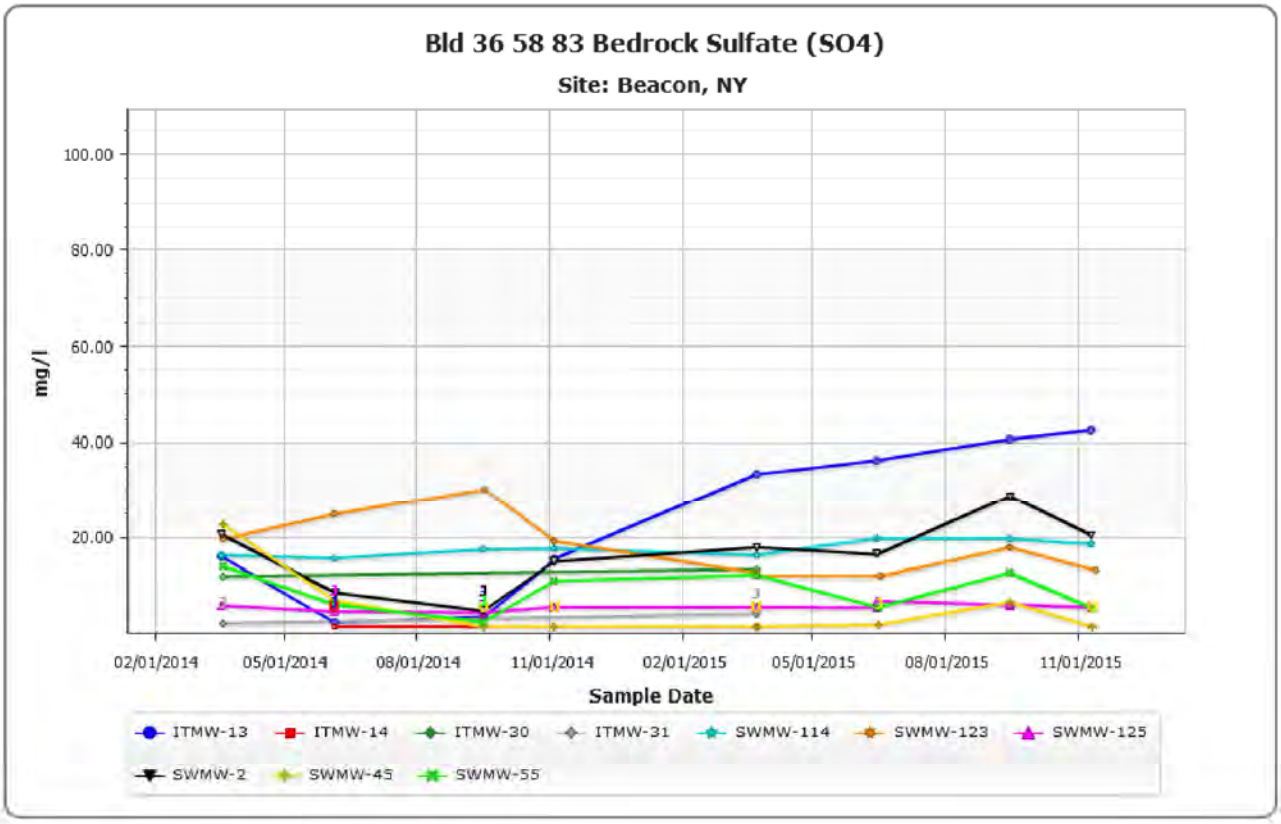

Bld 36 58 83 Bedrock Ethene
Site: Beacon, NY
2.00
1.50
1.00
0.50
ug/l
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

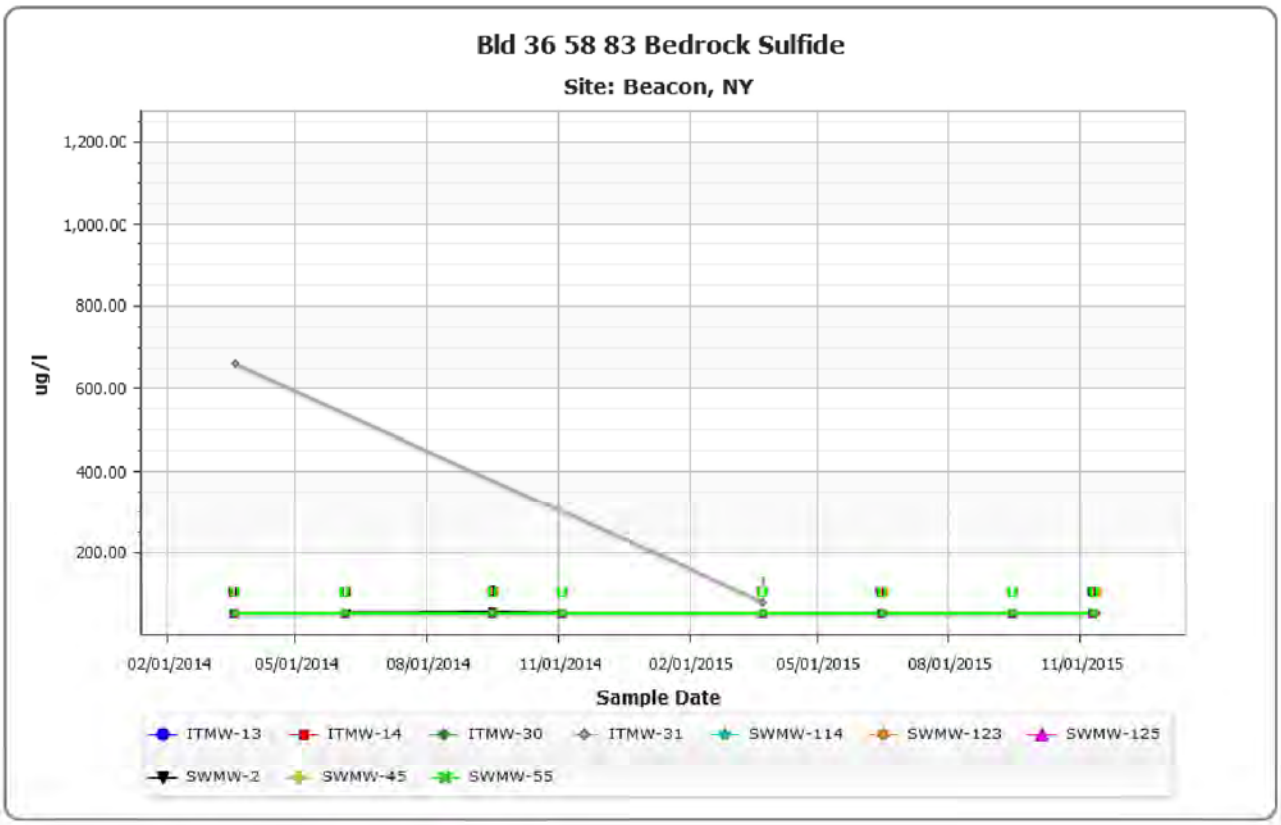

Bld 36 58 83 Bedrock Ferrous Iron
Site: Beacon, NY
25,000.00
20,000.00
15,000.00
10,000.00
5,000.00
ug/l
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55


Bld 36 58 83 Bedrock Manganese
Site: Beacon, NY
mg/l
20.00
15.00
10.00
5.00
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55


Bld 36 58 83 Bedrock Methane
Site: Beacon, NY
ug/l
7,000.00
6,000.00
5,000.00
4,000.00
3,000.00
2,000.00
1,000.00
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

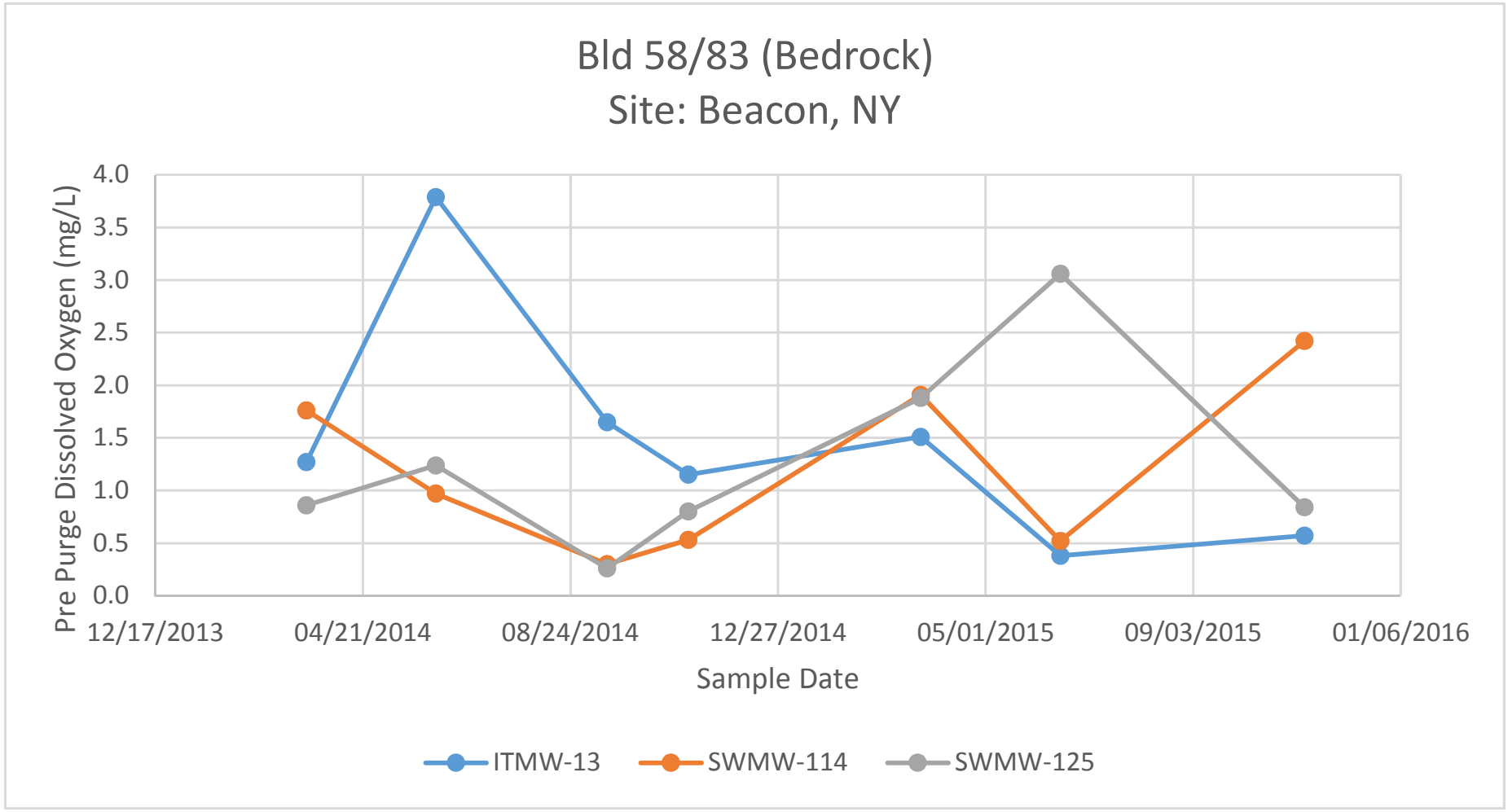

Bld 36 58 83 Bedrock Nitrogen, Nitrate as N
Site: Beacon, NY
6,000.00
5,000.00
4,000.00
3,000.00
2,000.00
1,000.00
ug/l
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

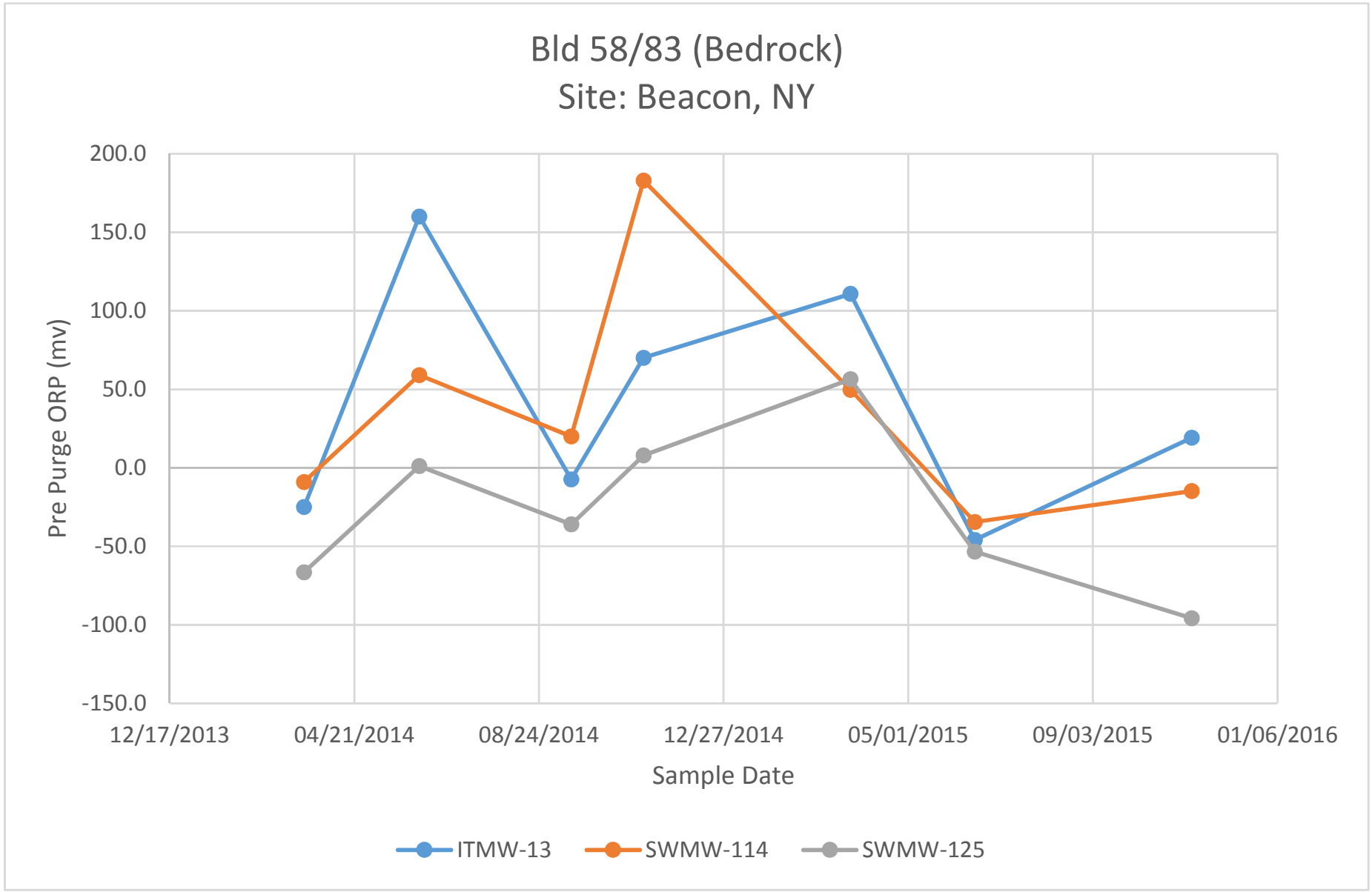

Bld 36 58 83 Bedrock Sulfate (SO4)
Site: Beacon, NY
100.00
80.00
60.00
40.00
20.00
mg/l
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

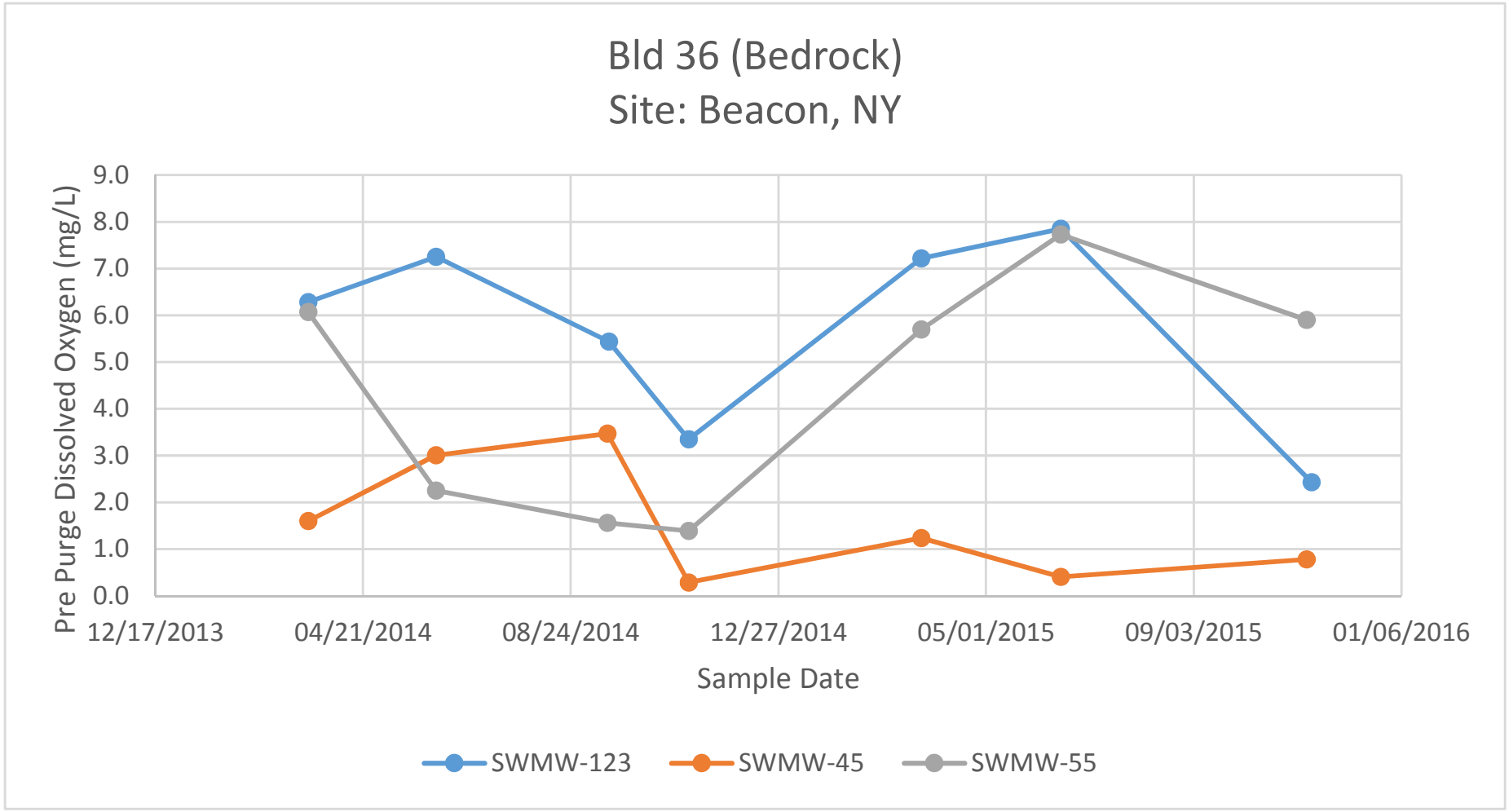

Bld 36 58 83 Bedrock Sulfide
Site: Beacon, NY
1,200.00
1,000.00
800.00
600.00
400.00
200.00
ug/l
02/01/2014
05/01/2014
08/01/2014
11/01/2014
02/01/2015
05/01/2015
08/01/2015
11/01/2015
Sample Date
ITMW-13
ITMW-14
ITMW-30
ITMW-31
SWMW-114
SWMW-123
SWMW-125
SWMW-2
SWMW-45
SWMW-55

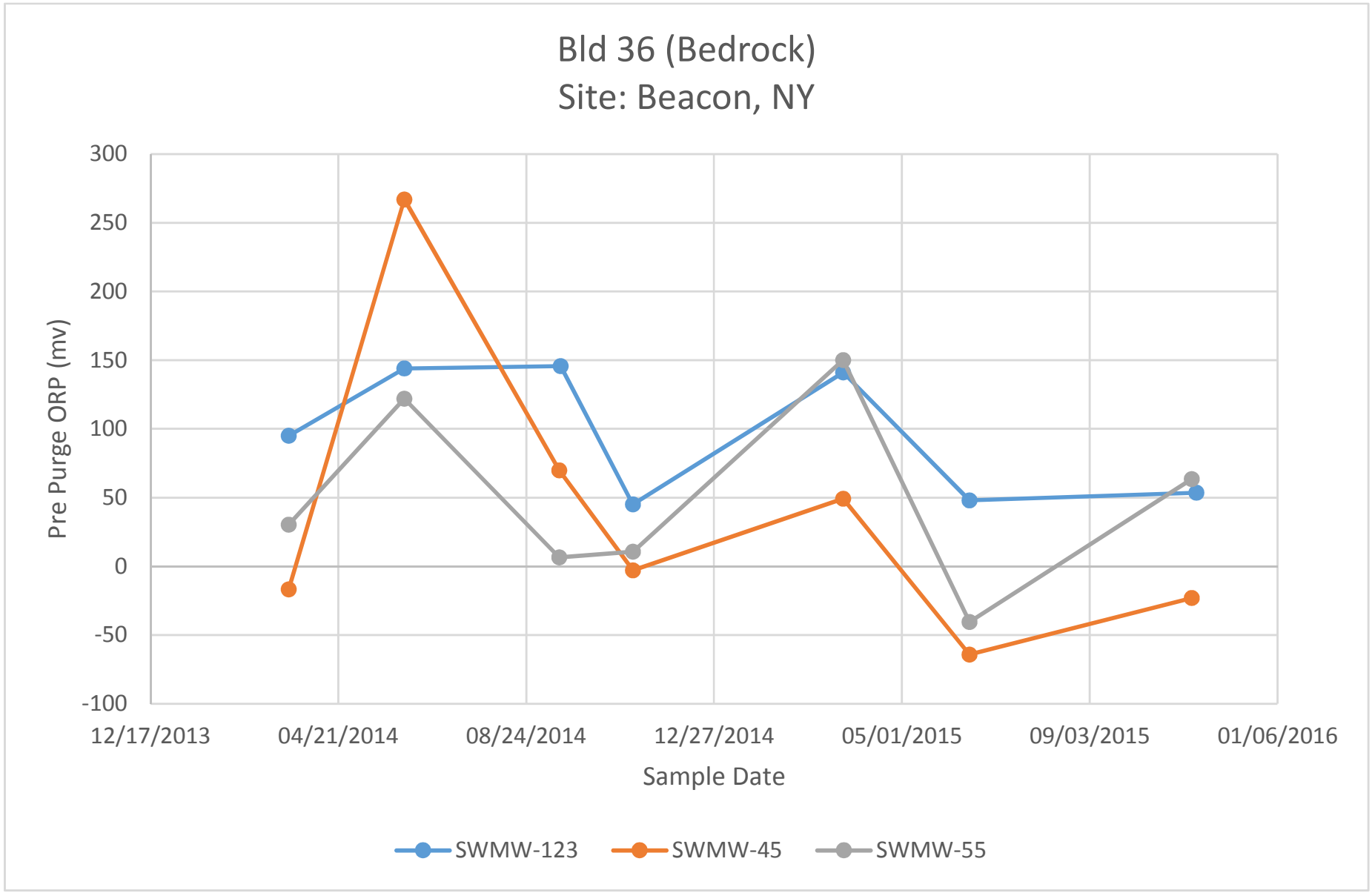
2014 THROUGH 2015 DO AND REDOX POTENTIAL SUMMARY GRAPHS WITH WELL GROUPINGS

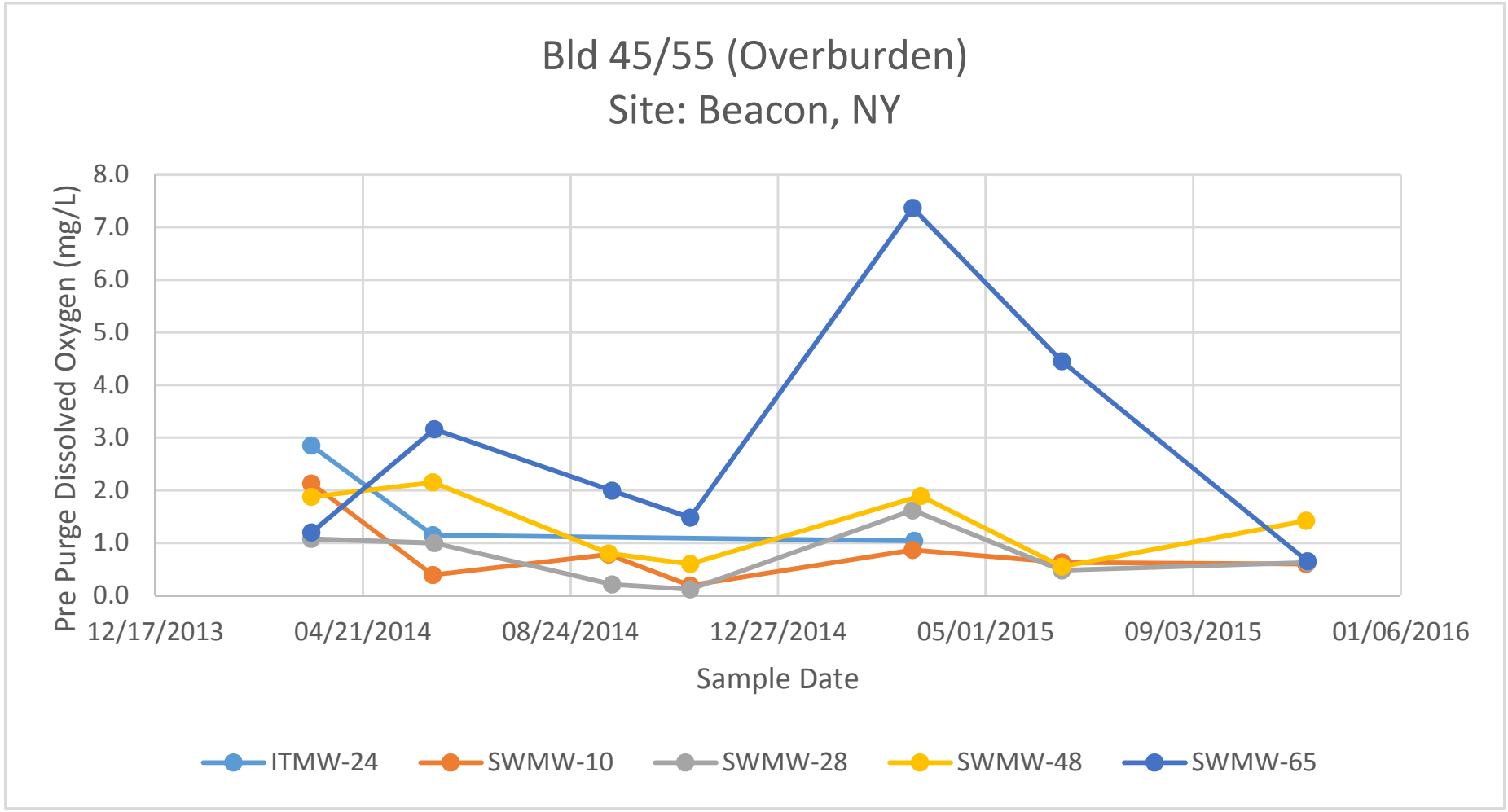
(OVERBURDEN AND BEDROCK WELLS)

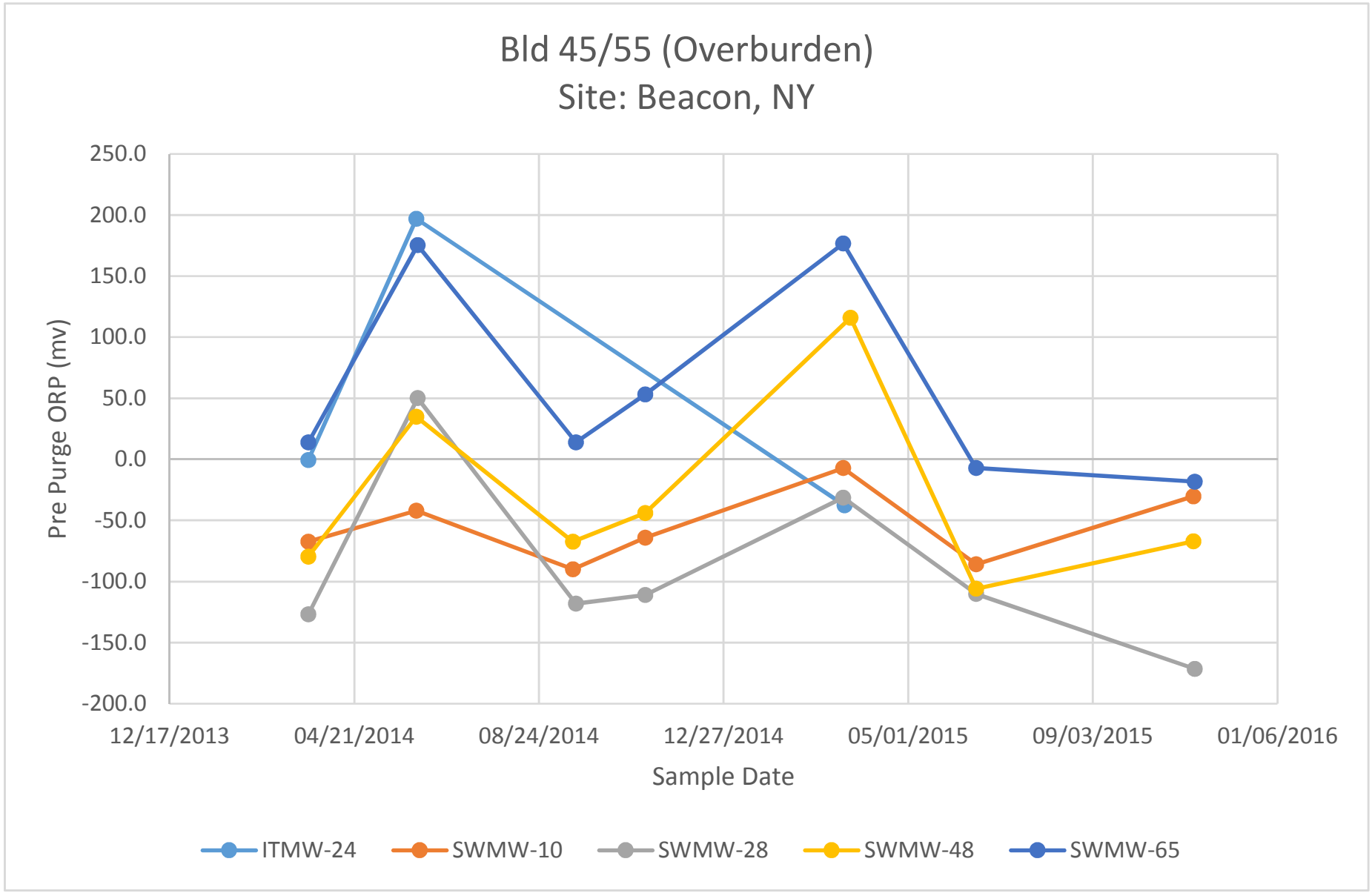

Bld 58/83 (Bedrock)
Site: Beacon, NY
Pre Purge Dissolved Oxygen (mg/L)
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
ITMW-13
SWMW-114
SWMW-125

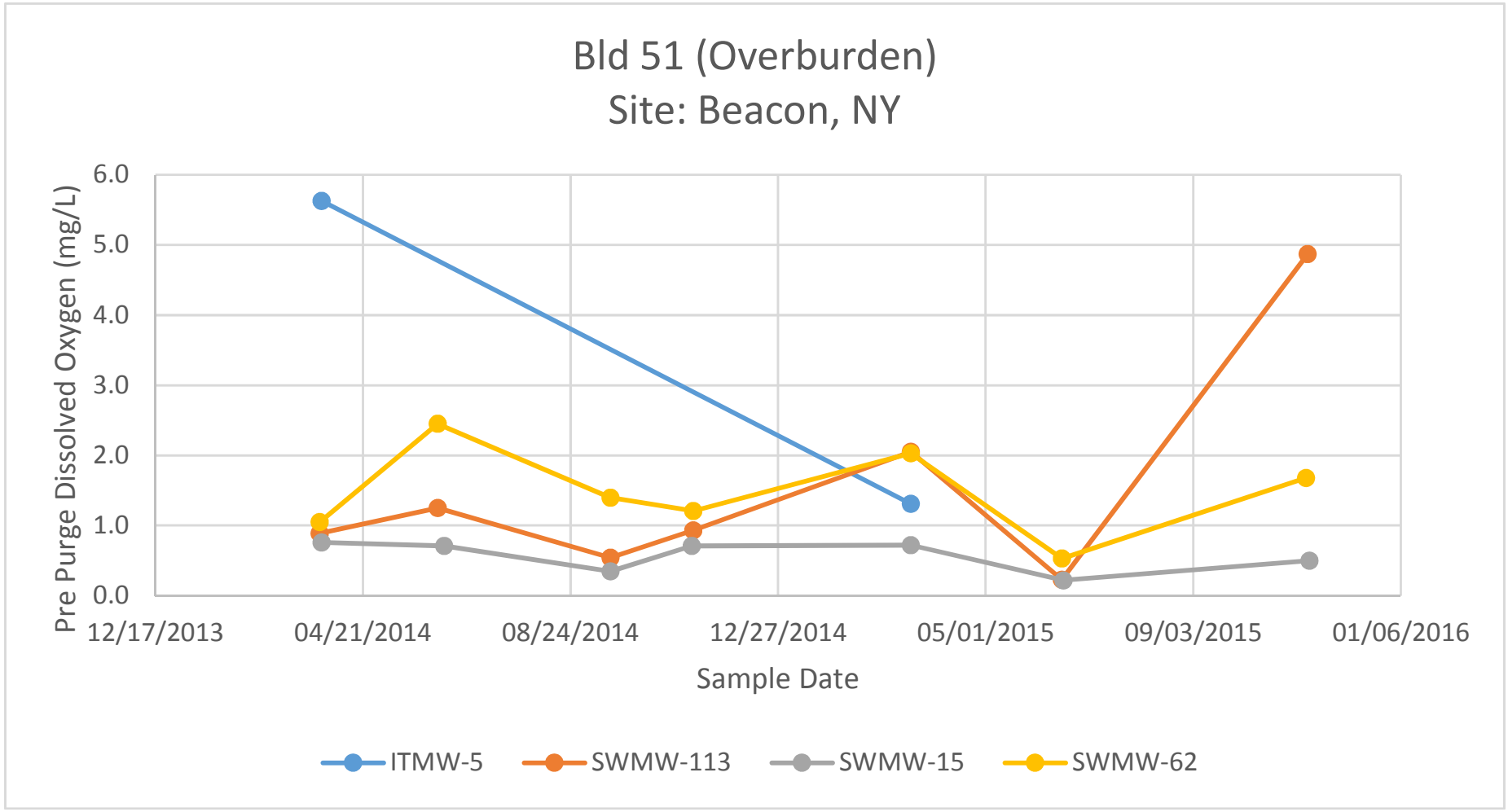

Bld 58/83 (Bedrock)
Site: Beacon, NY
Pre Purge ORP (mv)
200.0
150.0
100.0
50.0
0.0
-50.0
-100.0
-150.0
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
ITMW-13
SWMW-114
SWMW-125

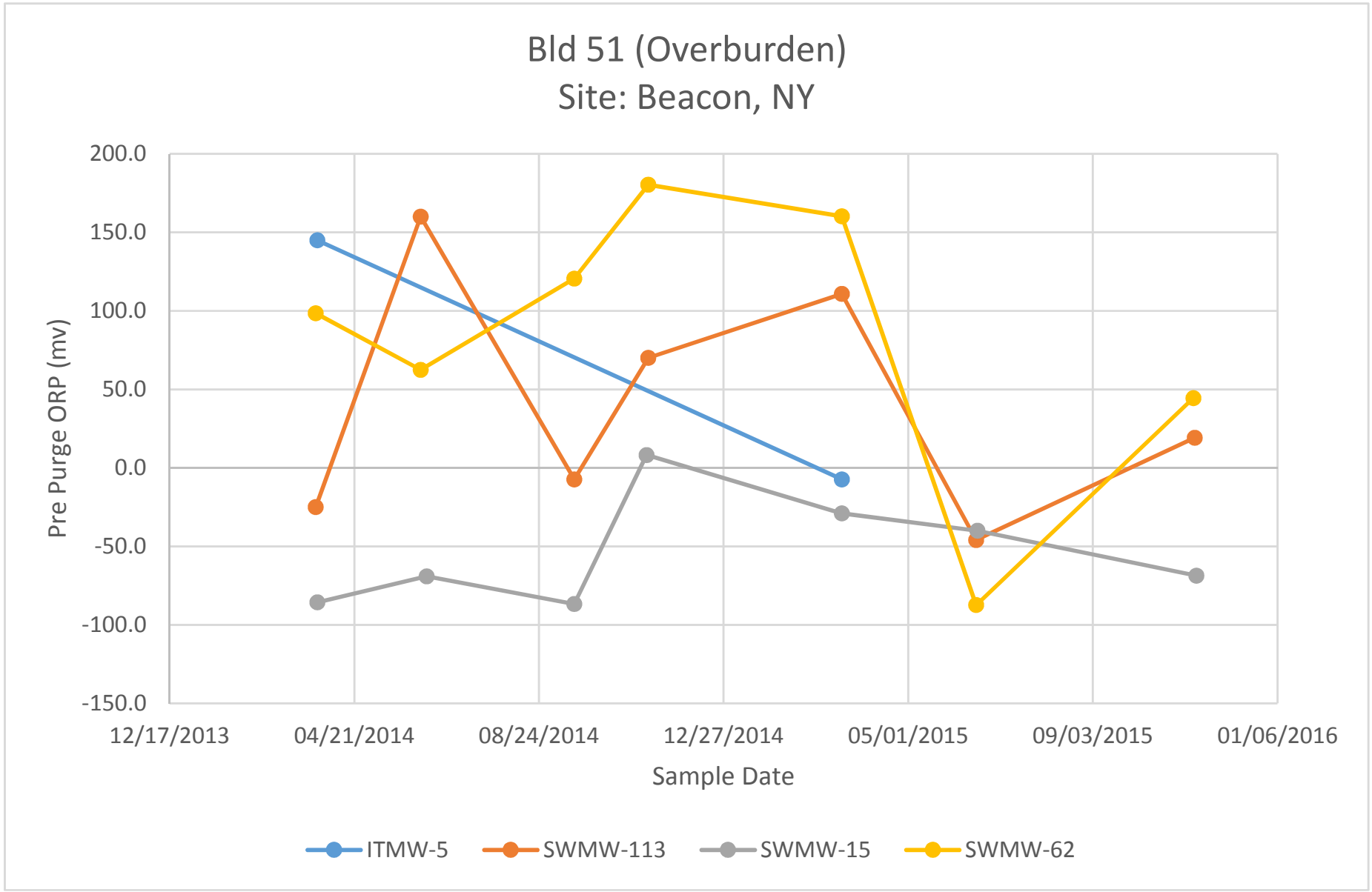

Bld 36 (Bedrock)
Site: Beacon, NY
Pre Purge Dissolved Oxygen (mg/L)
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
SWMW-123
SWMW-45
SWMW-55

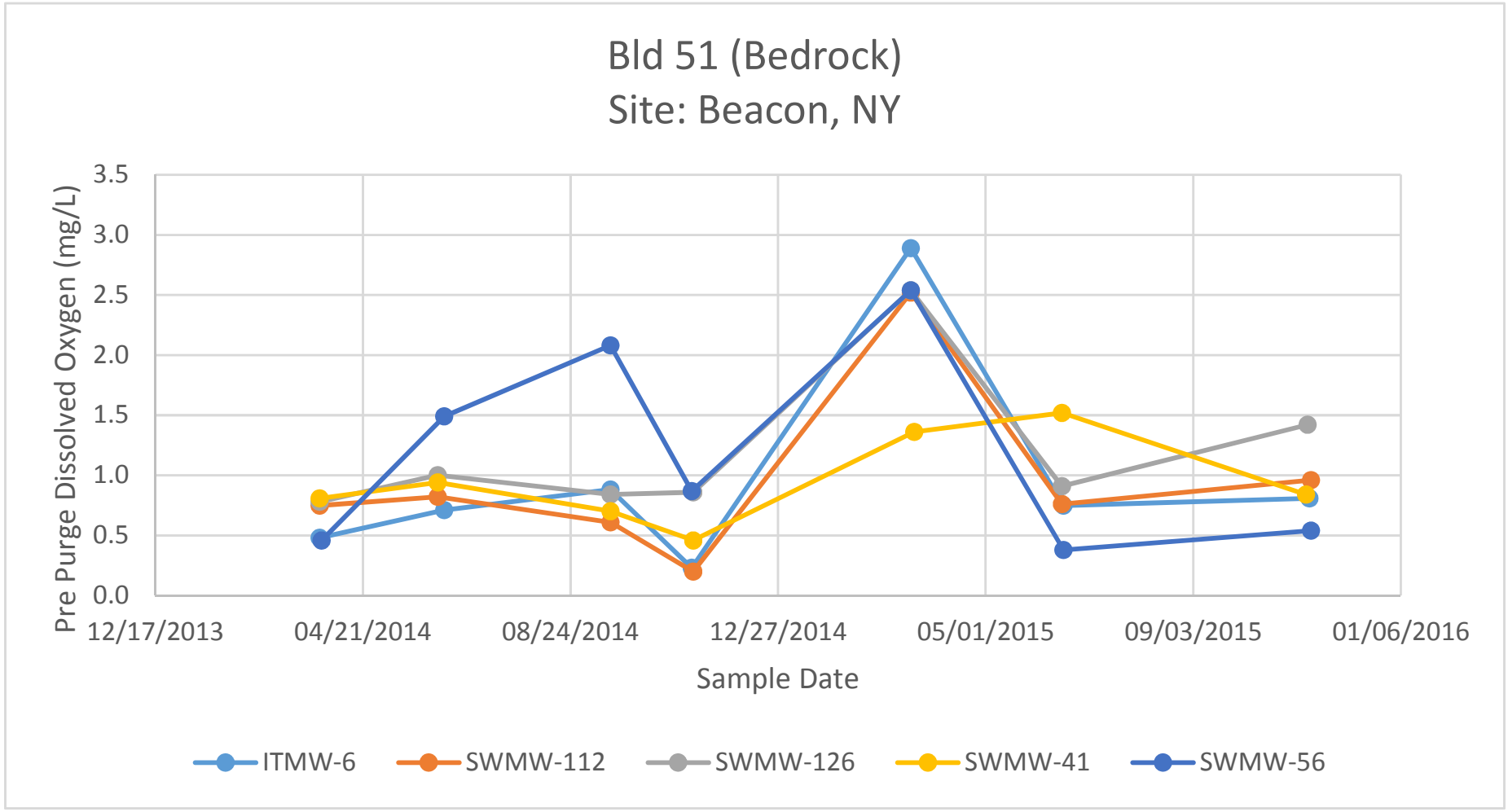

Bld 36 (Bedrock)
Site: Beacon, NY
Pre Purge ORP (mv)
300
250
200
150
100
50
0
-50
-100
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
SWMW-123
SWMW-45
SWMW-55

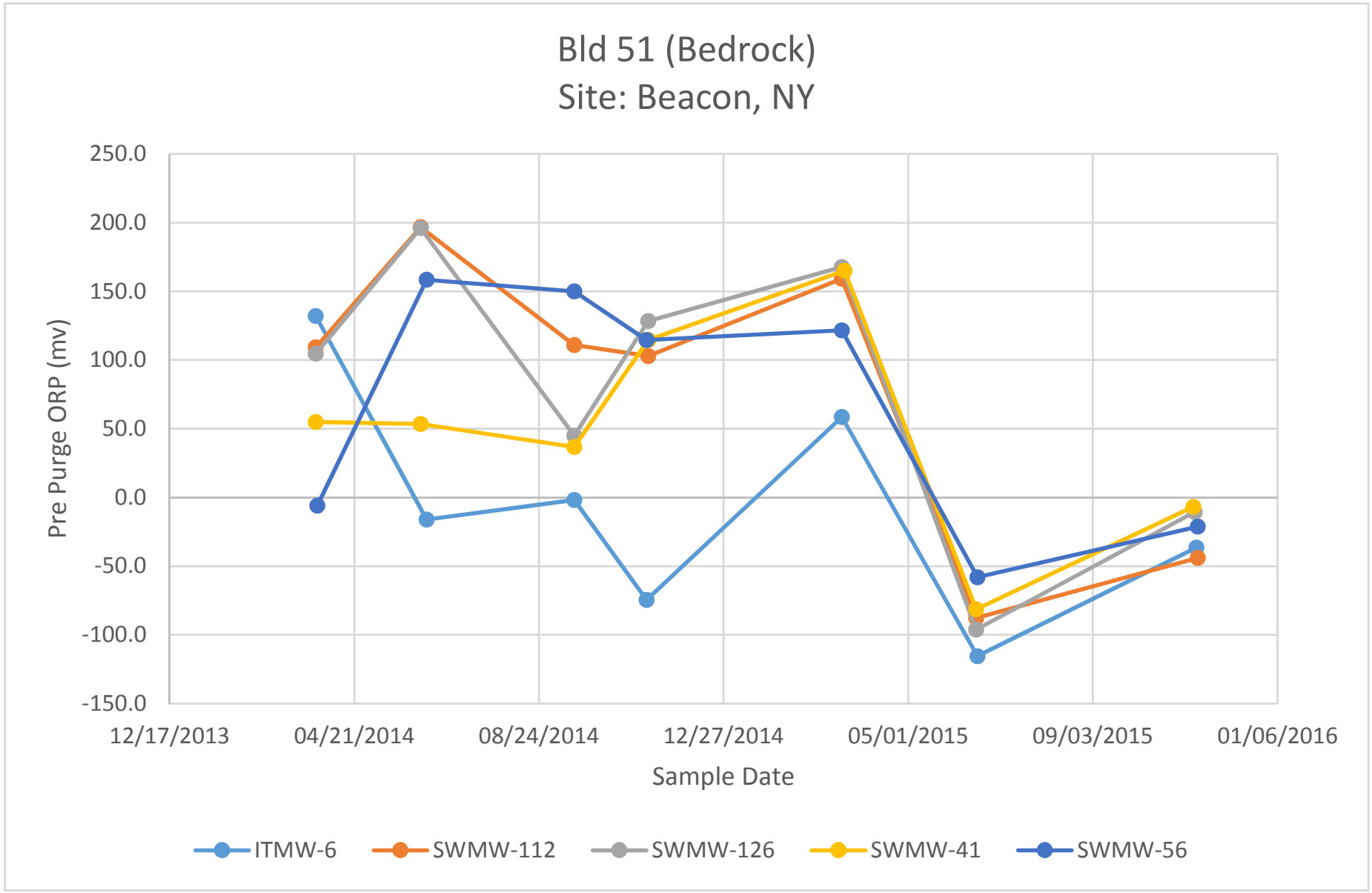

Bld 45/55 (Overburden)
Site: Beacon, NY
Pre Purge Dissolved Oxygen (mg/L)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
ITMW-24
SWMW-10
SWMW-28
SWMW-48
SWMW-65


Bld 45/55 (Overburden)
Site: Beacon, NY
Pre Purge ORP (mv)
250.0
200.0
150.0
100.0
50.0
0.0
-50.0
-100.0
-150.0
-200.0
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
ITMW-24
SWMW-10
SWMW-28
SWMW-48
SWMW-65


Bld 51 (Overburden)
Site: Beacon, NY
Pre Purge Dissolved Oxygen (mg/L)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-62


Bld 51 (Overburden)
Site: Beacon, NY
Pre Purge ORP (mv)
200.0
150.0
100.0
50.0
0.0
-50.0
-100.0
-150.0
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
ITMW-5
SWMW-113
SWMW-15
SWMW-62


Bld 51 (Bedrock)
Site: Beacon, NY
Pre Purge Dissolved Oxygen (mg/L)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
ITMW-6
SWMW-112
SWMW-126
SWMW-41
SWMW-56


Bld 51 (Bedrock)
Site: Beacon, NY
250.0
200.0
150.0
100.0
50.0
0.0
-50.0
-100.0
-150.0
Pre Purge ORP (mv)
12/17/2013
04/21/2014
08/24/2014
12/27/2014
05/01/2015
09/03/2015
01/06/2016
Sample Date
ITMW-6
SWMW-112
SWMW-126
SWMW-41
SWMW-56

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

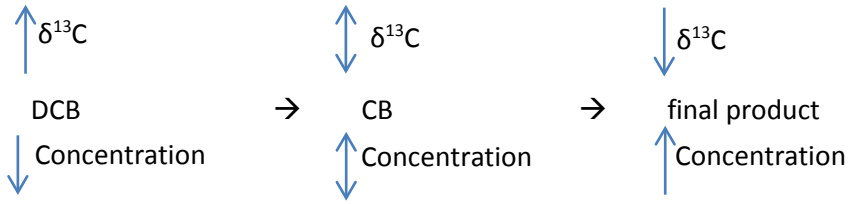
ETC has been working with the Beacon project team in evaluating groundwater monitoring data to assess if monitored natural attenuation (MNA) is a feasible alternative, particularly for chlorobenzene (CB). Based on the historical concentration data and additional quarterly monitoring in 2014, Compound-specific 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‰ in $\delta^{13}C$ 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 13C 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 $\delta^{13}C$ for CB may be suppressed by the presence and degradation of DCB as briefly discussed below.

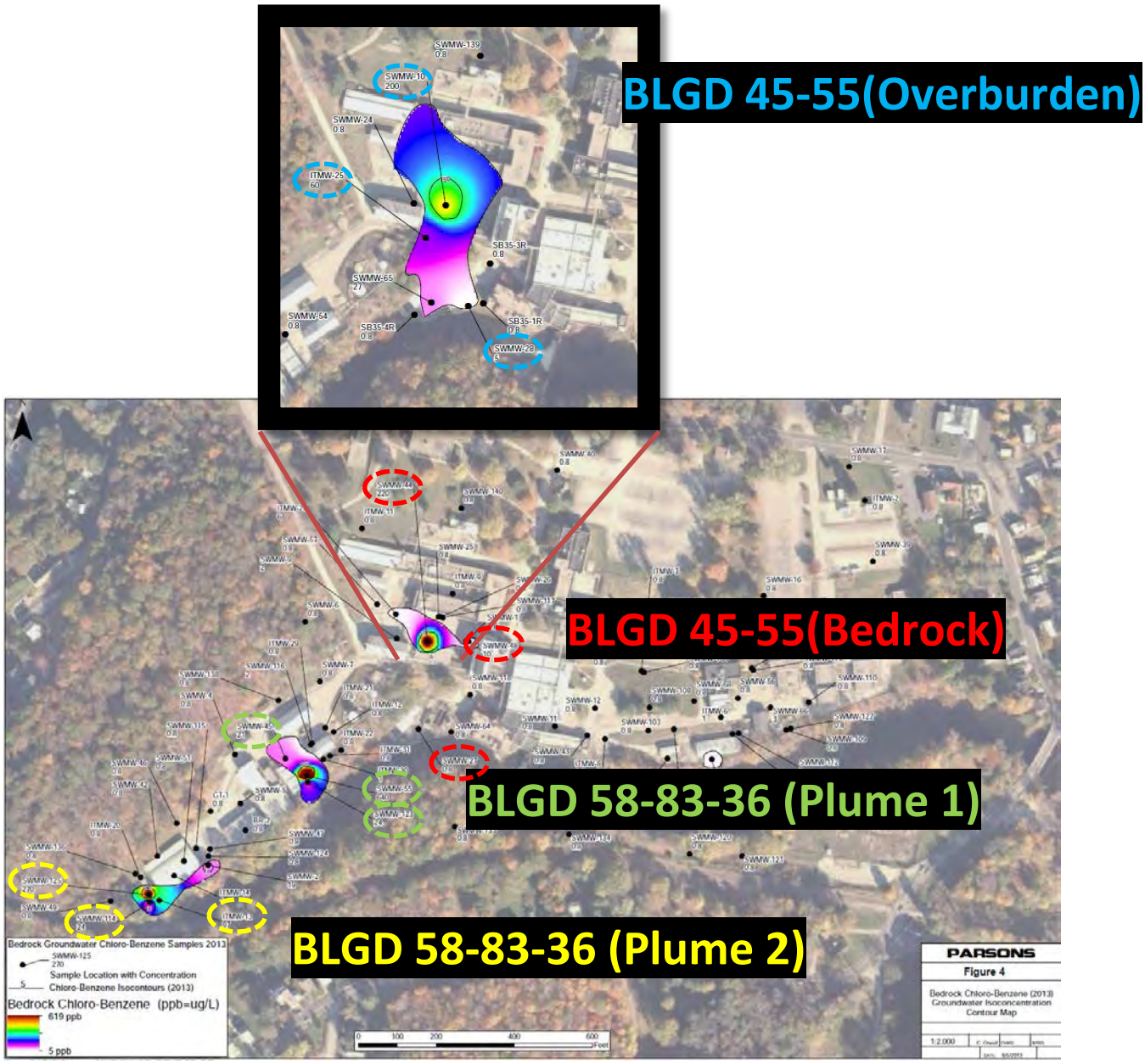


Figure 1: Illustration of the four chlorobenzene plumes 1) BLDG 45-55 (Overburden), 2) BLDG 45-55 (Bedrock), 3) BLDG 58-83-36 (Plume1), and 4) BLDG 58-83-36 (Plume2).

Table 1: Summary of concentration and isotopic data for CB

Location	Sample ID	Concentration (µg/L)	Isotope Results ($\delta^{13}C$, ‰)	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 $\delta^{13}C$ of -27.2. This value is enriched with respect to $\delta^{13}C$ 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 $\delta^{13}C$ 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 (µg/L)		Ratio	Isotope Results ($\delta^{13}C$, ‰)		Remarks
		CB	1,2-DCB	DCB/CB	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