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July 28, 2015

Mr. Michael Hinton
New York State Department of Environmental Conservation (NYSDEC)
Region 9
270 Michigan Avenue
Buffalo, New York 14203-2399

RE: Ekonol Polyester Resins Site (#V00653-9)
Performance Monitoring Report – April 2015

Dear Mr. Hinton:

Attached is the performance and quarterly monitoring report for the April 2015 monitoring event at the Ekonol Polyester Resins Site (Site). The performance and quarterly monitoring scope of work is defined in the February 2010 NYSDEC approved "Remedial Action Work Plan (RAWP) for *In Situ* Treatment Using Enhanced Bioremediation," and the NYSDEC-approved changes to the reporting scope and schedule. Documentation of well inspection and maintenance, and sub-slab depressurization system operations and maintenance is also provided in the report.

If you have any questions, please feel free to contact me at (716) 407-4990.

Sincerely,

George W. Hermance

George Hermance
Project Manager

Attachments

cc: M. Teeling, Atlantic Richfield Co.
S. Fiorenza, BP (e-copy)
M. Forcucci, NYSDOH (e-copy)
M. Kolar, Patriot (e-copy)
J. Sabbatis, Saint-Gobain (e-copy)
G. Brown, RT Environmental Services (e-copy)

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PERFORMANCE MONITORING REPORT
APRIL 2015
IN SITU TREATMENT USING ENHANCED BIOREMEDIATION

Ekonol Polyester Resins, NYSDEC # V00653-9
6600 Walmore Road
Town of Wheatfield, Niagara County, New York

SUBMITTED TO:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DIVISION OF HAZARDOUS WASTE REMEDIATION

SUBMITTED BY:

ATLANTIC RICHFIELD COMPANY

A BP affiliated company

201 Helios Way
Houston, TX 77079

PREPARED BY:

PARSONS

40 La Riviere Drive, Suite 350
Buffalo, New York 14202

JULY 2015

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1.0 INTRODUCTION

This report summarizes the April 2015 performance and routine monitoring following installation of the bioremediation systems at the Ekonol Polyester Resins Site (Site). The scope of work is defined in the February 2010 NYSDEC-approved "Remedial Action Work Plan (RAWP) for *In Situ* Treatment Using Enhanced Bioremediation," and the NYSDEC-approved (April 10, 2012) changes to the reporting scope and schedule. Additionally, this report includes discussion on site management activities such as well inspection and maintenance, and sub-slab depressurization system operations and maintenance.

2.0 BIOREACTOR AND INJECTION/MONITORING WELL INSPECTION

As part of the April 2015 event, the surface conditions above the bioreactor trenches were inspected for settlement, and the protective casings were inspected for integrity. Inspection records are provided in Attachment A. In March 2015, necessary repairs and maintenance to the protective casings and wells associated with the bioreactor were documented. Repairs to these wells are expected to be completed in Summer 2015.

Well headspace concentrations were monitored for methane and hydrogen sulfide vapor concentrations within source area wells in March 2015. Locations that exhibited elevated levels of methane and/or hydrogen sulfide (within the well casings) were documented (Attachment B). In March 2015, each well that exhibited elevated methane and/or hydrogen sulfide levels had a vented plug already installed.

3.0 SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE

During the April 2015 sampling event, the sub-slab depressurization (SSD) system was inspected in accordance with NYSDEC-approved operations and maintenance plan dated December 5, 2011. However, the SSD system had previously been shut down due to a malfunctioning fan. While the inspection included a visual inspection of the system's interior and exterior components only, recording of the U-Tube manometer measurements and smoke stick testing were not performed as the system was not operating. The April 2015 inspection checklist for the SSD system is included in Attachment A. Subsequently, on April 9, 2015, repairs were made to the malfunctioning SSD fan unit, and the system was back online and in working order.

4.0 PERFORMANCE AND QUARTERLY MONITORING

In addition to the operations, monitoring and maintenance (OM&M) activities discussed above, the first of two groundwater sampling events scheduled for 2015 was completed from March 23 – April 3 in accordance with the approved work plans and previously

reported procedures. In addition to monitoring the overall groundwater conditions, performance monitoring was completed to assist in evaluating the effectiveness of the groundwater remediation from the bioreactor and in the bedrock groundwater treatment area. The following activities were completed as part of the sampling event:

- a complete round of water levels was collected from the monitoring wells, and
- wells were purged by low-flow techniques and sampled for field and laboratory analytes.

The water levels, sampling matrix, and sampling records are provided in Attachment B. The analytical results for these samples were reviewed for usability with respect to NYSDEC quality assurance and quality control requirements. The data are provided in the data usability report included in Attachment C. The data are considered valid for their intended use.

5.0 BIOREACTOR PERFORMANCE AND MONITORING RESULTS

This section presents the most recent concentrations and data trends for the overburden bioreactor and site overburden wells through the April 2015 sampling event. Analytical data tables for all site overburden wells can be found in Attachment D. Data trends for selected wells are discussed herein.

OVERBURDEN OBSERVATIONS INSIDE THE BIOREACTOR TRENCHES

With the exception of OR-6SM, CVOC concentrations within the bioreactor trenches remain decreased (Figure 1) compared to samples taken within the first three to six months after installation of the bioreactors (April 2011). TCE, the primary CVOC, was generally depleted from the shallow groundwater within approximately the first six months of completion of the bioreactor installations. In April 2015, TCE was below detection limits at all locations, with the exception of OR-6SM (11 µg/L) and OR-14SM (1.3 µg/L). Concentrations of cis-1,2 DCE and VC declined during the first year of monitoring and have remained below pre-treatment concentrations, with the exception of OR-6SM and OR-10SM.

At OR-6SM, cis-1,2 DCE increased from 2,400 µg/L in December 2014 to 15,000 µg/L in April 2015, and has shown a cyclical increase and corresponding decrease in DCE concentrations from April 2013 to present. VC has shown a similar trend in this well as it has increased from 590 µg/L in December 2014 to 3,700 µg/L in April 2015, with the same cyclical increase and decrease since April 2013 (see Attachment D). A similar, but less pronounced pattern can be seen in OR-10SM. Concentrations of both cis-1,2 DCE and VC in OR-10SM increased from below the detection limit in December 2014 to 290 µg/L in April 2015. An increase and subsequent decrease in DCE and VC concentrations were seen in October 2013 in OR-10SM (see Figure 1). This cyclical

pattern of CVOC concentrations has been observed at other locations in the overburden.

In April 2015, microbial counts of *Dehalococcoides* (DHC), which degrade chlorinated solvent compounds, ranged from one to four orders of magnitude higher than concentrations measured after bioreactor installation in July 2011. The DHC data results are included in Attachment D.

The geochemical conditions in the bioreactor wells indicate that the bioreactors remain anaerobic. Average ORP in April 2015 was -237 mV, a decrease from an average ORP of -223 mV in December 2014 (Attachment D). Average sulfate concentration in the bioreactor wells was 207 mg/L in April 2015, an increase from an average sulfate concentration of 82 mg/L in December 2014 (see Attachment D). TOC concentrations in the bioreactor wells have decreased substantially from initial concentrations in July 2011 (an average of 1,325 mg/L) to April 2015 (an average of 30 mg/L) (see Attachment D). The increase in sulfate concentration in conjunction with the low TOC concentrations in the bioreactor wells indicate an environment that is becoming less conducive for the anaerobic biodegradation of chlorinated solvents. Supplemental substrate injection within the bioreactor trenches may be contemplated pending continued monitoring results.

OVERBURDEN OBSERVATIONS OUTSIDE THE BIOREACTOR TRENCHES

In all overburden performance monitoring wells (PMW) outside the bioreactors, the total molar concentration of chlorinated ethenes (sum of TCE, DCE, and VC) in overburden groundwater decreased from 1,960 µM in July 2011 (which is three months after bioreactor installation because not all wells were installed prior to the bioreactor trench startup), to 810 µM in April 2015. At individual PMW wells, CVOC concentrations are variable, with some wells showing increases, some showing decreases and others remaining relatively unchanged (Figure 2).

At several wells between and downgradient of the bioreactors, a decreasing trend in TOC concentrations has been observed. Previously elevated TOC concentrations (including PMW-1S, PMW-2S, and PMW-6S) have correlated with chlorinated ethene reductions and ethene increases in these overburden wells since July 2011 (see Figure 2 and Attachment D). When TOC concentrations were elevated in the months following bioreactor installation, decreases in DCE were generally observed and TCE was absent. In April 2015, at locations where TOC remained low, such as at wells PMW-9S and PMW-11S, TCE, DCE, and VC concentrations have been persistent or have decreased at a slow rate (PMW-5S).

Due to the low hydraulic conductivity of the fine-grained soils (less than 0.5 feet/day), horizontal transport of TOC and associated lateral expansion of the treatment zone was anticipated to be slow. Empirical data have demonstrated this to be the case; however, due to mounding in the former excavation area (observed throughout the investigation

and remediation) the calculated transport rates are variable, and therefore variations in the horizontal expansion of the treatment zone could also be variable.

The highest and most persistent CVOC concentrations in the overburden remain:

- at well MW-2S, approximately 8 feet north of the bioreactor trenches and immediately south of the former secondary containment excavation,
- at selected locations between the bioreactor trenches, particularly PMW-5S, PMW-9S, and PMW-11S, which have exhibited low TOC concentrations (Attachment D), and
- at selected locations downgradient of the southernmost trench, specifically PMW-3S, PMW-4S and PMW-6S.

Due to the higher persistent CVOC concentrations in these areas, the declining concentrations of TOC in the overburden, and the variable transport rates of the substrate in the bioreactor, additional substrate injections in the overburden treatment area may be contemplated.

OVERBURDEN OBSERVATIONS - OTHER WELLS

Down-gradient wells MW-11S and MW-12S show a decreasing CVOC trend over the long term (Figure 3A and 3B). The ORP of MW-11S and MW-12S decreased after each bedrock injection event (Figures 3A and 3B). Methane increases were noted at MW-11S and MW-12S in the months following the bedrock injection events (Figures 3A and 3B).

At MW-1S, located approximately 150 feet upgradient of the overburden reactors, concentrations of DCE and VC show an order of magnitude decrease in the last 3 sampling events (since August 2014) relative to historical concentrations (Attachment D). Geochemical parameters at MW-1S are within historical ranges, with the exception of sulfate, which also decreased by an order of magnitude since August 2014 relative to historical concentrations (Attachment D).

6.0 BEDROCK REMEDIATION PERFORMANCE AND QUARTERLY MONITORING RESULTS

This section presents observations of the bedrock remediation system through the April 2015 sampling event. Laboratory analytical results for all site bedrock wells can be found in Attachment D.

BEDROCK BIOREMEDIATION PERFORMANCE SUMMARY

Figure 4 provides time-series plots (from July 2011 to present) of key CVOCs, total ethene and/or ethane, and TOC concentrations for the bedrock injection and monitoring wells.

The data indicate a continuation of CVOC biodegradation attributed to the November 2012 substrate injection (see Figure 4 and Attachment D). The degradation pattern, decreasing TCE accompanied by an increase in DCE, VC, and increasing ethane/ethene (E+E), that was initially observed in December 2012 has continued. Wells that show CVOC biodegradation include INJ-7D, INJ-8D, INJ-9D, INJ-10D, INJ-13D, PMW-9D, PMW-10D, PMW-13D, PMW-14D, and PMW-15D. Many of these wells are located immediately downgradient of the November 2012 injection locations.

Figure 5 illustrates wells with increases in E+E concentrations (one to three orders of magnitude) from September 2012 (prior to the November 2012 injections) to April 2015. These wells are within and immediately downgradient of the injection area (INJ-07D, INJ-08D, INJ-09D, INJ-12D, INJ-13D, PMW-9D, PMW-10D, PMW-12D, PMW-13D, PMW-14D, PMW-15D, PMW-16D, and RMW-2D).

DHC concentrations (sampled from wells INJ-07D, INJ-09D, INJ-10D, PMW-11D, PMW-15D, PMW-17D, and RMW-2D) have also increased (one to three orders of magnitude) in the bedrock treatment area after the November 2012 injections (see Figure 6).

Within the source area, the average total molar chlorinated CVOC concentrations have generally increased since remediation began in July 2011 (see Table 1, Group 1). These average increases are not as high as past events (+109.9 µmol/L in April 2015 from +891.5 µmol/L in December 2014) and are mostly controlled by elevated CVOCs in the farthest upgradient well INJ-07D and source-area well RMW-2D, likely attributed to: (1) increased solubility, (2) changes in distribution of mass, and (3) potential presence of DNAPL. At wells about 50 feet downgradient (Table 1, Group 2), the average total molar concentrations decreased in April 2015 for the second time since remediation began. Slightly further downgradient wells show a decreasing average total molar concentration since remediation was initiated (Table 1, Group 3). The farthest downgradient wells (Table 1, Group 4) continue to show decreased average total molar chlorinated ethene and ethane concentrations since the first substrate applications in July 2011.

Over the long term, ethene and ethane concentrations and DHC populations are providing an important demonstration of bioremediation progress at the site. At multiple locations, E+E concentrations have increased by orders of magnitude over the last 3 years, indicating that although the CVOC concentrations are currently higher than baseline conditions, the degradation is continuing in the source area.

Groundwater elevation data (see Figure 7 and Attachment B) indicate the horizontal groundwater flow conditions have remained similar since the initial June 2011 substrate injections. Groundwater flow is generally southerly across the site with no apparent changes since bioremediation began.

PERFORMANCE ENHANCEMENT TESTING

Previous sampling results indicated that bedrock remediation was limited by geochemical conditions (low pH and elevated hydrogen sulfide). Wells with the highest degradation rates had a pH above approximately 6.5 SU and/or hydrogen sulfide approximately less than 30 mg/L. As previously discussed, tests were conducted during the November 2012 substrate injections to mitigate potential limitations to the performance of the bedrock remediation system. The tests included additional vegetable oil substrate and calcium carbonate buffer (instead of sodium bicarbonate) throughout the 2012 injection area to raise the pH, and the addition of iron at INJ-7D to remove hydrogen sulfide. The following observations are relevant to these 2012 injections:

- **pH:** The additional calcium carbonate appeared to lack sufficient buffering capacity to prevent the initial pH drop (5.5 – 6.0; Figure 8). The pH of most wells in April 2015 has recovered and is above 6.5 SU, with the exceptions of PMW-9D (5.07 SU), PMW-12D (6.26 SU), PMW-13D (5.97 SU), and PMW-14D (6.01 SU).

- **TOC:** TOC concentrations above 100 mg/L, which could be indicative of both added substrate and degradation intermediates, have persisted since the November 2012 injection except at PMW-11D and INJ-10D (Figure 8).

- **Iron and Sulfide Concentration:** Injection of iron (soluble and mineral sources) in INJ-7D during the November 2012 substrate injection event resulted in an increase in iron and a decrease in sulfide at INJ-7D and the downgradient wells PMW-9D, PMW-12D, and RMW-2D (Figures 9A and 9B). April 2015 data suggest iron concentrations at these locations are beginning to deplete. Sulfide concentrations are increasing slightly at RMW-2D, which contained the lowest iron concentrations (~ 4-8 mg/L) between these wells beginning in April 2014. There is also evidence that the iron migrated downgradient based on increases in iron and decreases in sulfide concentrations in INJ-02 and INJ-04 (see Attachment D). In April 2015, INJ-04 returned to previous concentrations of iron and sulfide, suggesting depletion of iron downgradient as well. Further downgradient (wells PMW-4D, RMW-4D, MW-7D, INJ-1, INJ-5, PMW-8D) sulfide concentrations have remained elevated, along with DCE concentrations. The November 2012 iron injections in INJ-7D may have influenced iron and sulfide concentrations in side-gradient well PMW-1D. Concentrations of iron increased and concentrations of sulfide decreased from pre-November 2012 levels at PMW-1D (see Attachment D).

- **Ethene and Ethane Concentration:** Ethene plus ethane increased in INJ-7D as well as locations downgradient of this well (INJ-9D, INJ-13D, PMW-9D, PMW-10D, PMW-12D, PMW-14D, PMW-15D, PMW-16D, and RMW-2D) (see Figure 5 and Attachment D). The increased ethene and ethane concentration indicates biodegradation of VC, despite the increased VC concentration in some of these wells. Based on the continued results from the iron injections at INJ-7D, it appears that sulfide can be effectively controlled with iron, and that iron improves the rate of CVOC biodegradation.

The iron injection demonstratively affected the geochemistry and has had a positive effect on biodegradation. Use of iron injection will be considered for optimization of the remedy (see below).

7.0 GENERAL SITE CONCLUSIONS AND ANTICIPATED FUTURE ACTIVITIES

Bioreactor: The April 2015 data indicate CVOCs are mostly depleted in the bioreactor. The addition of bioremediation treatments to the bioreactor trenches and/or other selected locations with elevated and persistent CVOC concentrations is contemplated while monitoring continues. Methane and hydrogen sulfide will continue to be monitored.

Bedrock Bioremediation Area: The data to date continue to suggest that biodegradation is improving, but can be further optimized. The iron injection test demonstrated that sulfide can be effectively controlled, thus improving CVOC biodegradation. Increasing downgradient concentrations of DHC and E+E, combined with decreasing concentrations of CVOCs downgradient, indicate an overall positive performance of the bedrock remediation system. Sulfide concentrations remain elevated in the vicinity of INJ-01 and INJ-04 extending to PMW-7D and DCE concentrations are elevated and stable in these wells. Iron injections are contemplated in this area to control sulfide concentrations. Methane and hydrogen sulfide will continue to be monitored.

FIGURES

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SCALE IN FEET

LEGEND:

- RAILROAD TRACKS
- NEW BORING WELL (POST 2010)
- REPLACEMENT BEDROCK INVESTIGATION WELL
- OLD BORING WELL (PRE 2010)
- FW — FIRE WATER LINE
- G — GAS LINE
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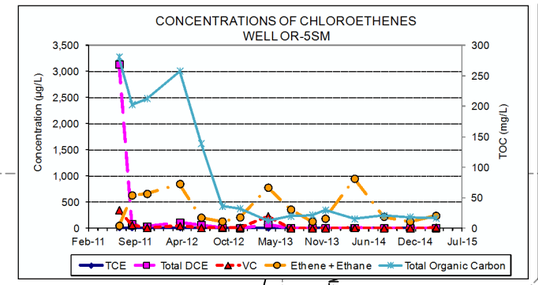
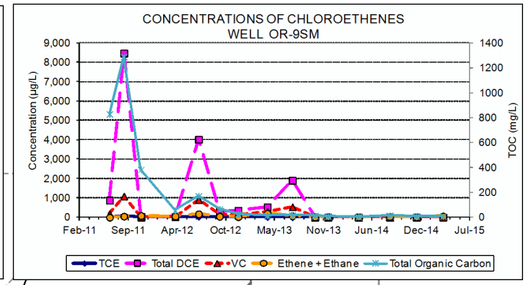
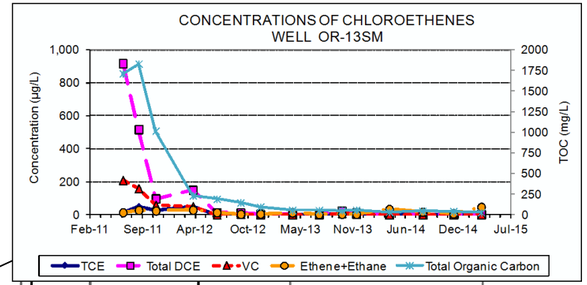
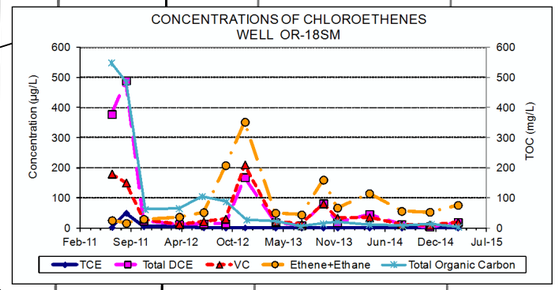
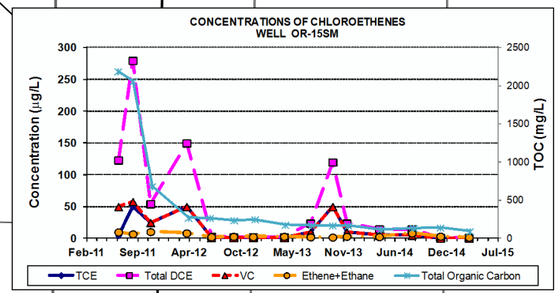
- STM — STORM LINE
- CB — CATCH BASIN
- MH — MANHOLE
- MULCH AND GRAVEL BIOREACTOR
- EDGE OF NEW ASPHALT

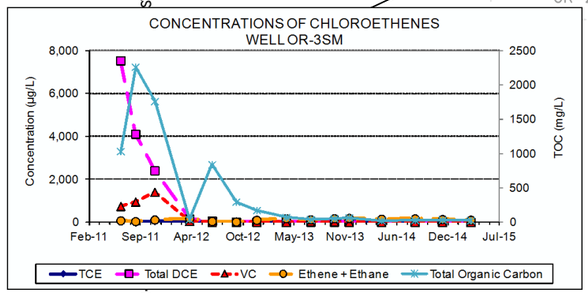


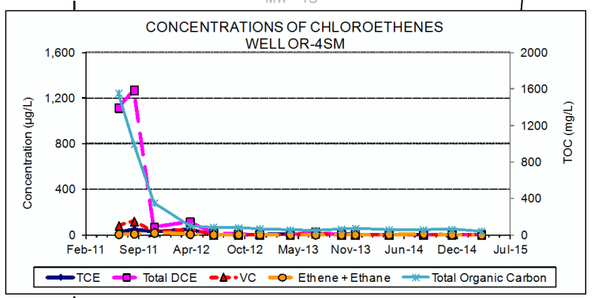


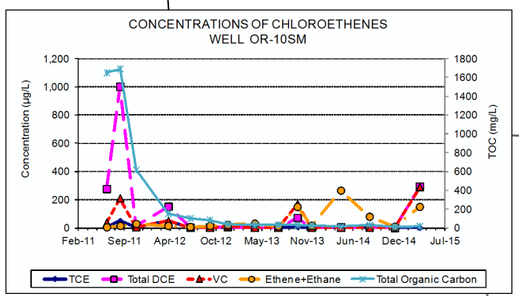


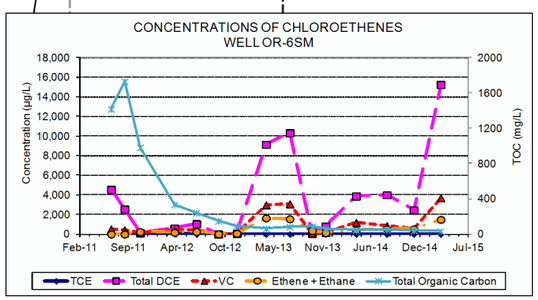


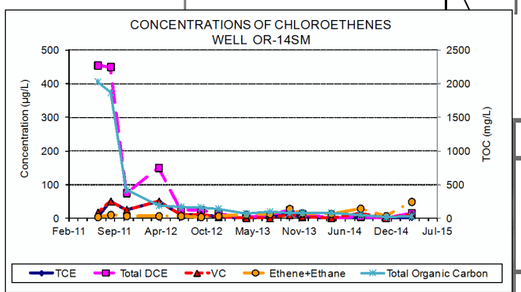












SLIDING BAY DOOR

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MW-2S MW-1S OR-1SI OR-3SM OR-5SM OR-7SI OR-9SM OR-11SI OR-13SM OR-17SI OR-15SM OR-18SM MW-10S PMW-11S OR-16SI PMW-5S PMW-2S PMW-7S PMW-9S OR-2SI OR-4SM OR-6SM OR-8SI OR-12SI OR-10SM OR-14SM PMW-6SI PMW-3S PMW-8S PMW-10S PMW-4S MW-9S MW-3S MW-4S MW-7S MH CB

SAN STM FW GAS

LEGEND

- TCE
- Total DCE
- VC
- Ethene + Ethane
- Total Organic Carbon

NOTES:
UTILITY LOCATIONS ARE APPROXIMATE OTHER UTILITIES MAY EXIST
PILOT TEST INJECTIONS PERFORMED IN JUNE 2008, REMEDIATION INJECTIONS IN JULY 2011, BEDROCK INJECTIONS IN NOV 2012

ATLANTIC RICHFIELD COMPANY

EKONOL POLYESTER
6600 WALMORE ROAD
NIAGARA FALLS, NY

FIGURE 1
OVERBURDEN BIOREACTOR TIME SERIES PLOTS

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40 LA RIVIERE DR, SUITE 350, BUFFALO, NY 14202 PHONE: 716-541-0730

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SCALE IN FEET

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- REPLACEMENT BEDROCK INVESTIGATION WELL
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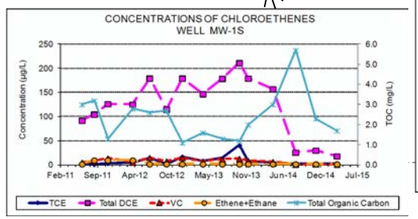
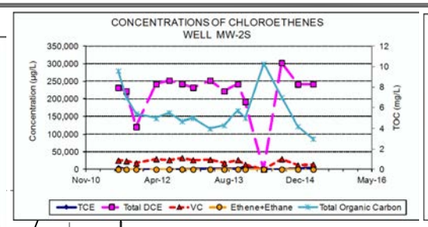
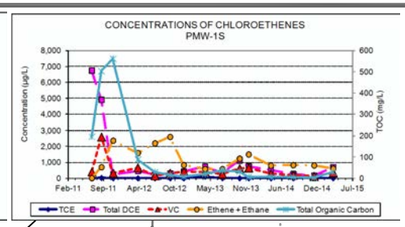
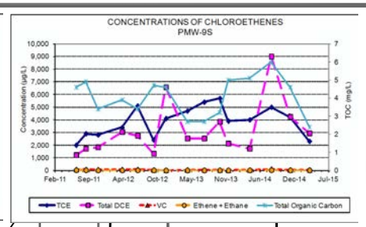


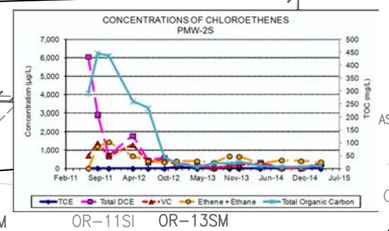


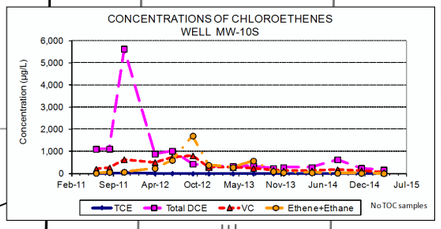


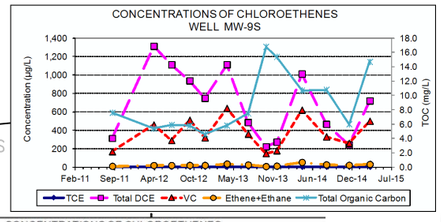


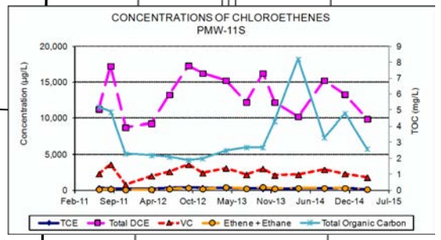
PREVIOUS EXCAVATION AREA

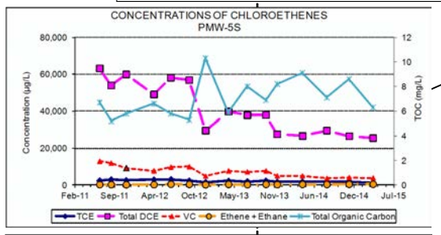
SLIDING BAY DOOR

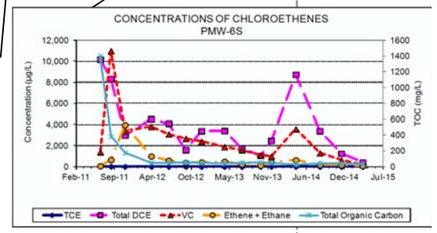


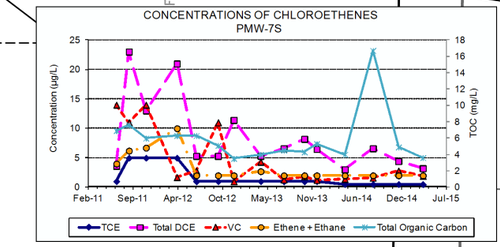


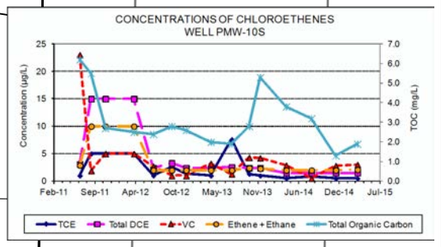


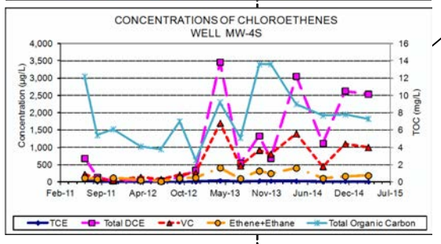


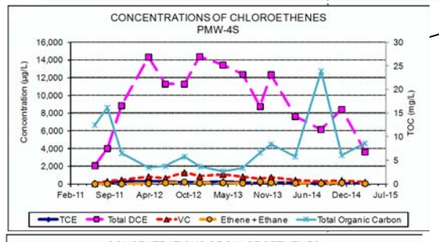


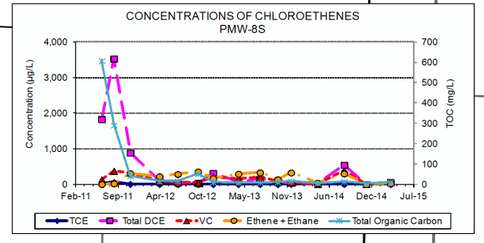


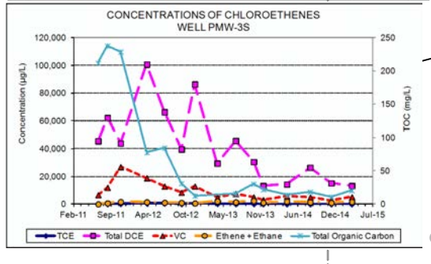


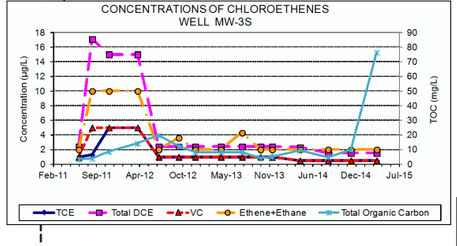


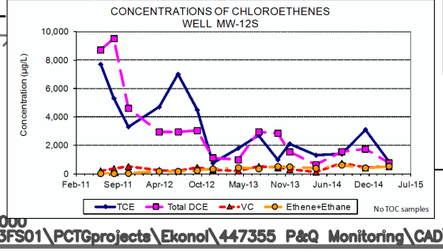


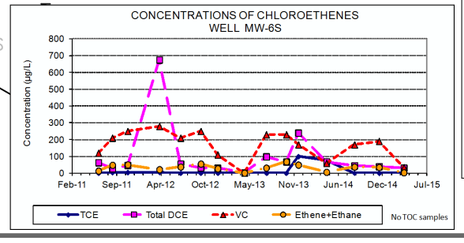


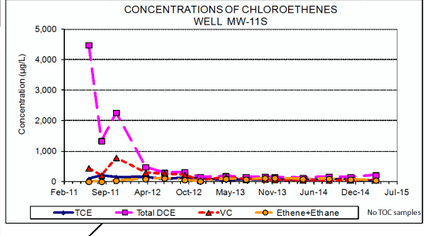












LEGEND

- TCE
- Total DCE
- VC
- Ethene + Ethane
- Total Organic Carbon

NOTES:
UTILITY LOCATIONS ARE APPROXIMATE OTHER UTILITIES MAY EXIST
PILOT TEST INJECTIONS PERFORMED IN JUNE 2008, REMEDIATION INJECTIONS IN JULY 2011, BEDROCK INJECTIONS IN NOV 2012

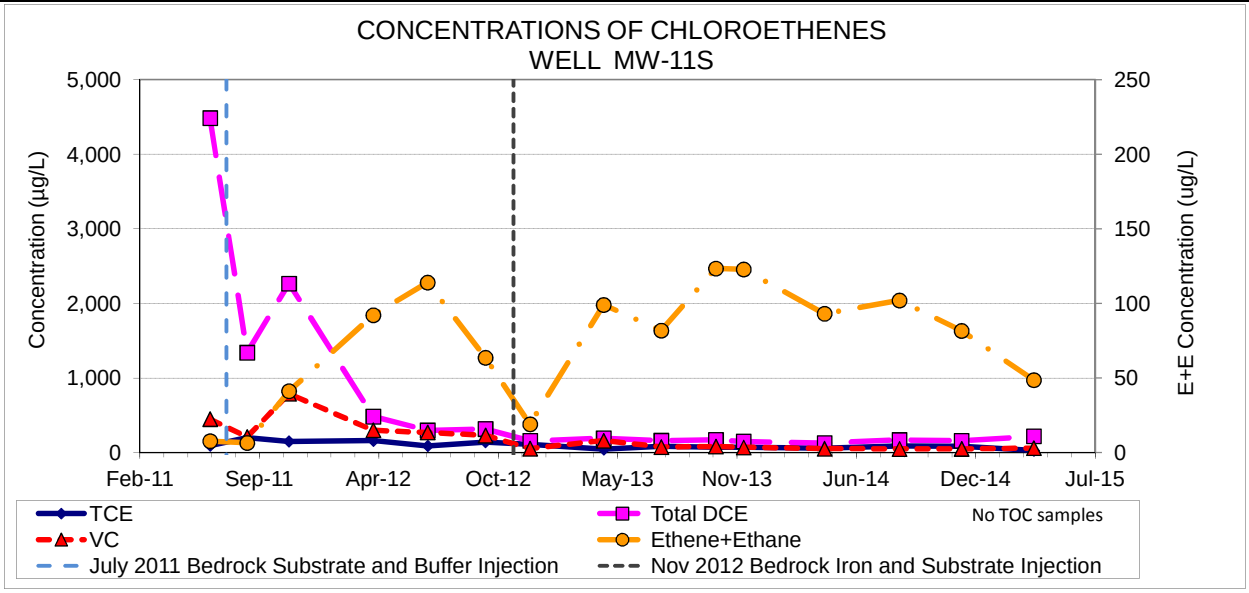
ATLANTIC RICHFIELD COMPANY

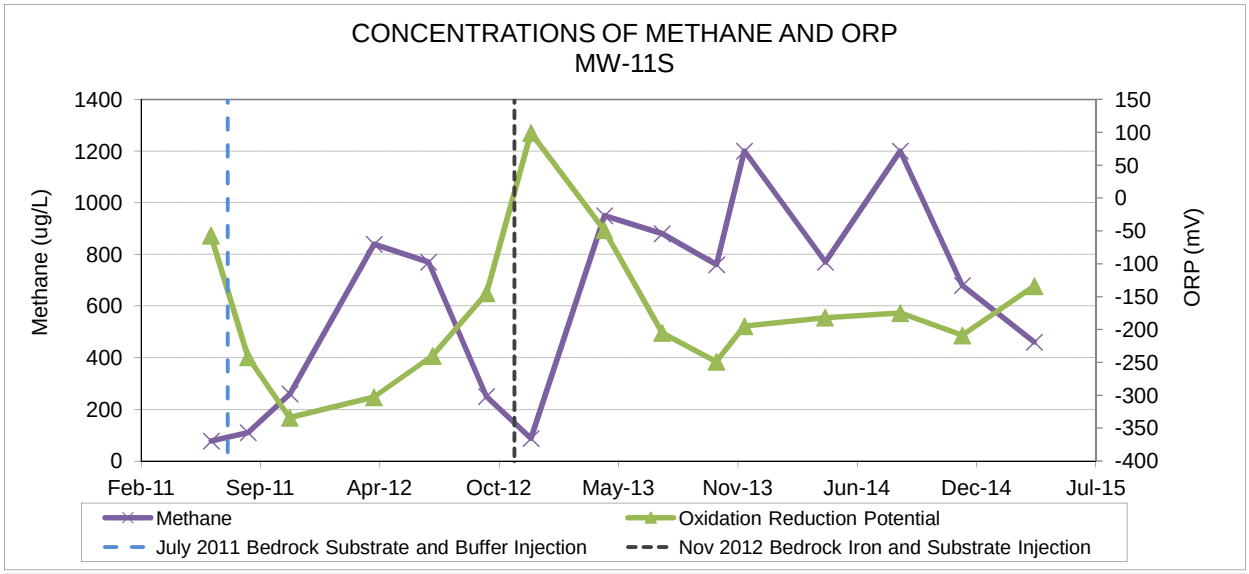
EKONOL POLYESTER
6600 WALMORE ROAD
NIAGARA FALLS, NY

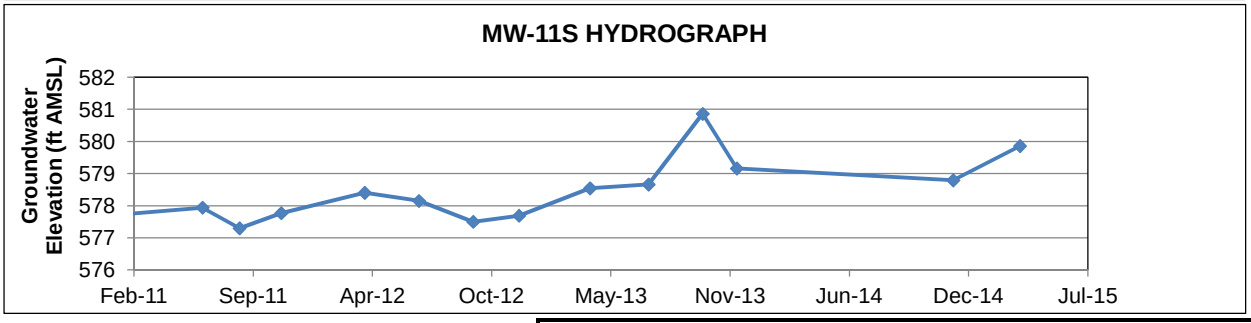
FIGURE 2
OVERBURDEN TIME SERIES PLOTS

PARSONS
40 LA RIVIERE DR, SUITE 350, BUFFALO, NY 14202 PHONE: 716-541-0730

447355.02000
\\NYBUF03FS01\PCTGprojects\Ekonol\447355 P&G Monitoring\CAD\Ekonol Oct 2013 rem area - updated links.dwg







EKONOL POLYESTER RESINS, WHEATFIELD, NY

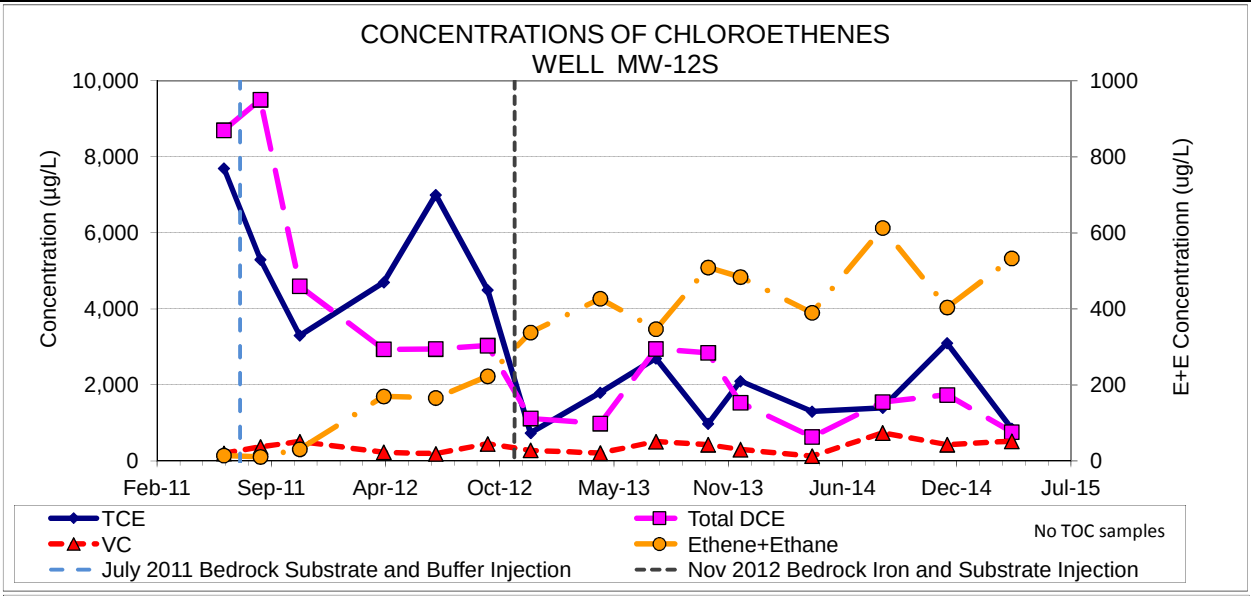
Time Series Plots

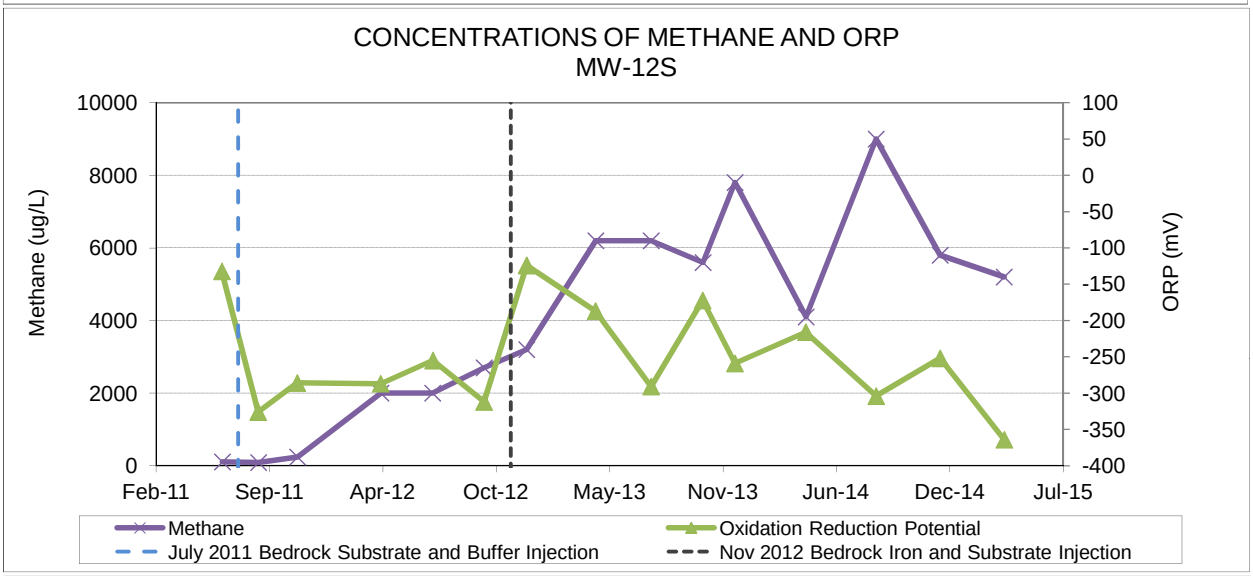
MW-11S

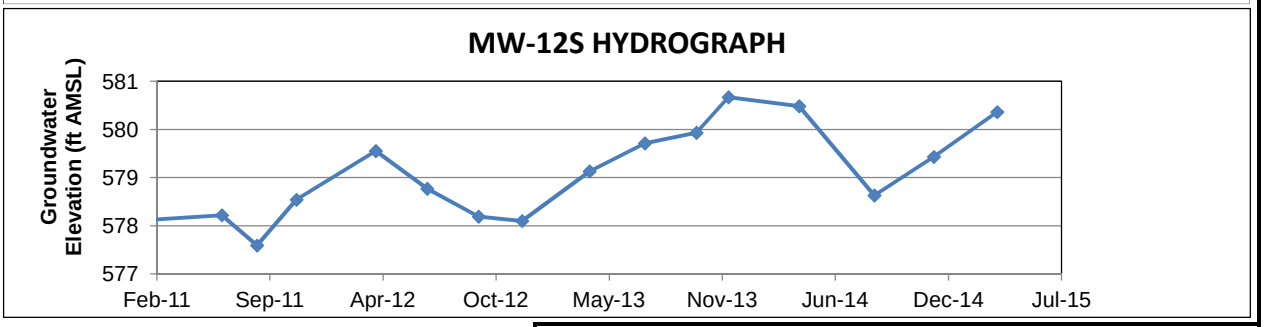
PARSONS

40 LA RIVIERE DRIVE · SUITE 350 ·BUFFALO, NY 14202 · (716) 541-0730

April 2015 | **FIGURE 3A**







EKONOL POLYESTER RESINS, WHEATFIELD, NY

Time Series Plots

MW-12S

PARSONS

40 LA RIVIERE DRIVE · SUITE 350 ·BUFFALO, NY 14202 · (716) 541-0730

April 2015	**FIGURE 3B**

N

30 15 0 30

SCALE IN FEET

LEGEND:

- RAILROAD TRACKS
- NEW BORING WELL (POST 2010)
- REPLACEMENT BEDROCK INVESTIGATION
- OLD BORING WELL (PRE 2010)
- FW — FIRE WATER LINE
- G — GAS LINE
- SAN — SANITARY LINE
- STM — STORM LINE
- CB — CATCH BASIN
- MH — MANHOLE
- MULCH AND GRAVEL BIOREACTOR
- EDGE OF NEW ASPHALT

ILDING No. 4

VIOUS EXCAVATION AREA

SLIDING BAY DOOR

BLD. EXT.

INJ-11D

INJ-7D

INJ-8D

INJ-13D

INJ-6D

RMW-2D

PMW-1D

PMW-9D

PMW-10D

PMW-11D

INJ-9D

INJ-10D

INJ-12D

PMW-12D

PMW-13D

PMW-14D

PMW-15D

PMW-17D

INJ-03

INJ-02

PMW-2D

PMW-8D

INJ-01

INJ-04

INJ-05

PMW-3D

RMW-3D

PMW-16D

RMW-4D

PMW-4D

PMW-5D

PMW-6D

PMW-7D

MW-7D

MW-11D

CB

SAN

STM

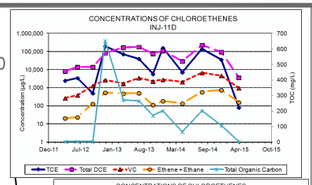
FW

G

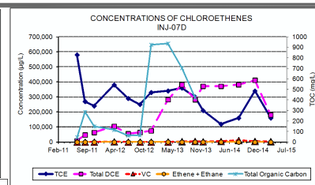
GAS

MORE

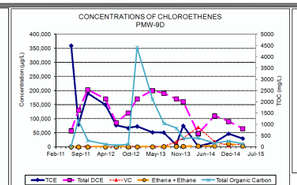
CONCENTRATIONS OF CHLOROETHENES INJ-11D



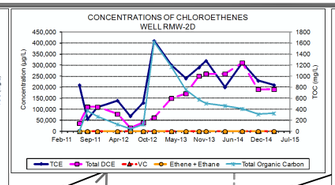
CONCENTRATIONS OF CHLOROETHENES INJ-07D



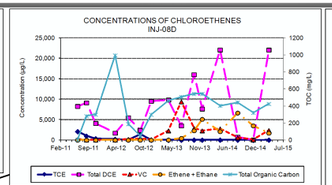
CONCENTRATIONS OF CHLOROETHENES PMW-9D



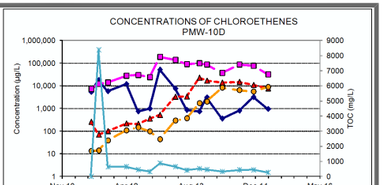
CONCENTRATIONS OF CHLOROETHENES WELL RMW-2D



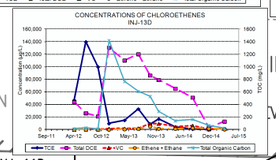
CONCENTRATIONS OF CHLOROETHENES INJ-08D



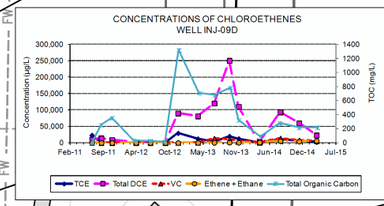
CONCENTRATIONS OF CHLOROETHENES PMW-10D



CONCENTRATIONS OF CHLOROETHENES INJ-13D



CONCENTRATIONS OF CHLOROETHENES WELL INJ-09D



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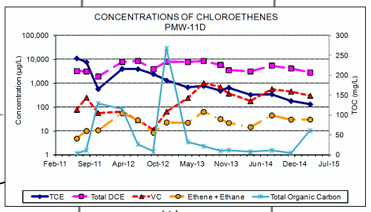

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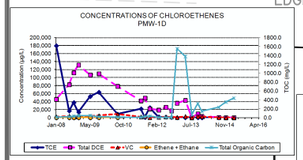
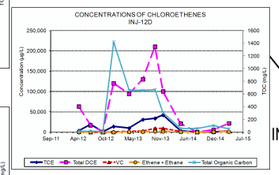
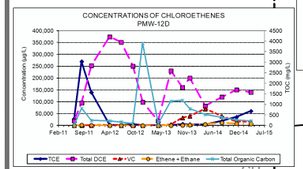


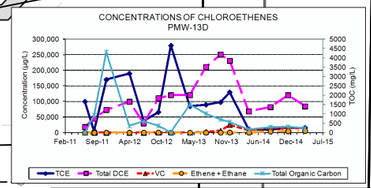
CONCENTRATIONS OF CHLOROETHENES INJ-12D



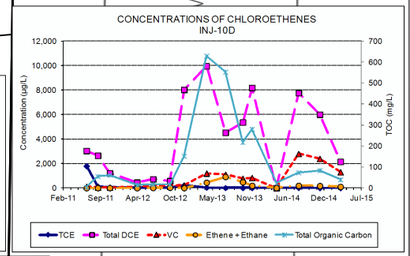
CONCENTRATIONS OF CHLOROETHENES PMW-12D



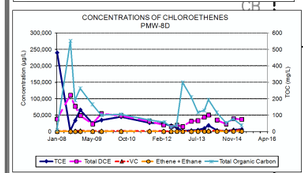
CONCENTRATIONS OF CHLOROETHENES PMW-13D



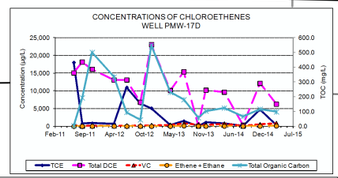
CONCENTRATIONS OF CHLOROETHENES INJ-10D



CONCENTRATIONS OF CHLOROETHENES PMW-8D



CONCENTRATIONS OF CHLOROETHENES WELL PMW-17D



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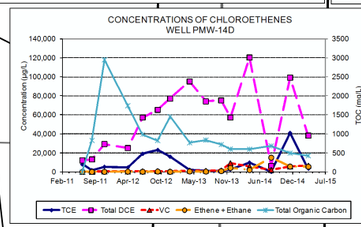
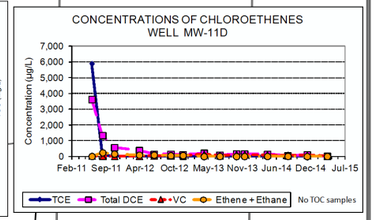
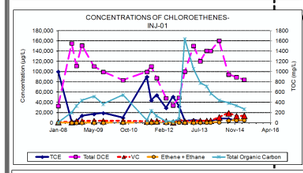


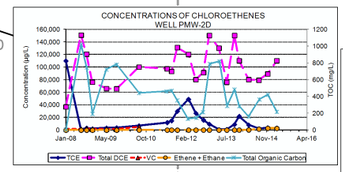
CONCENTRATIONS OF CHLOROETHENES WELL MW-11D



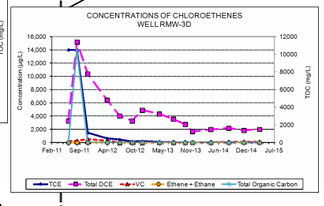
CONCENTRATIONS OF CHLOROETHENES- INJ-01



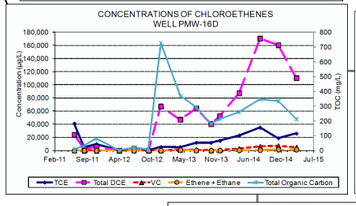
CONCENTRATIONS OF CHLOROETHENES WELL PMW-8D



CONCENTRATIONS OF CHLOROETHENES WELL RMW-3D



CONCENTRATIONS OF CHLOROETHENES WELL PMW-16D



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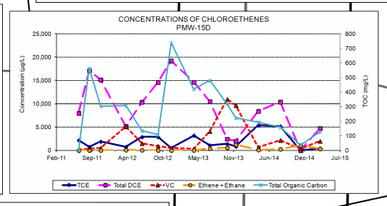
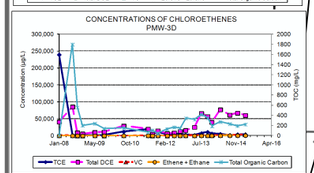
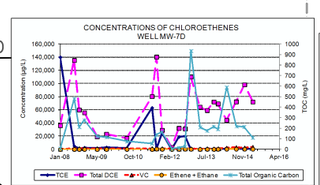


CONCENTRATIONS OF CHLOROETHENES PMW-3D



CONCENTRATIONS OF CHLOROETHENES WELL MW-7D



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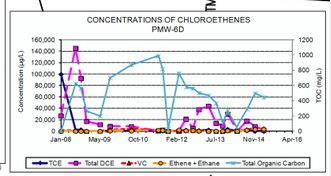

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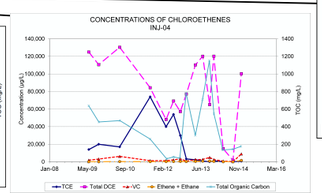

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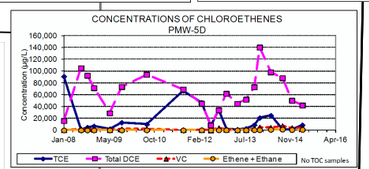

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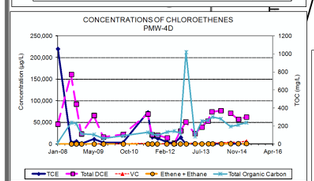
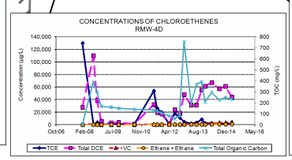


CONCENTRATIONS OF CHLOROETHENES RMW-4D



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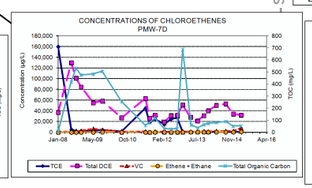
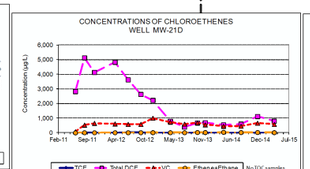
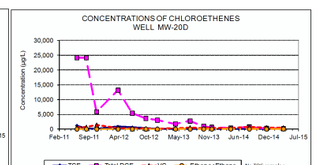


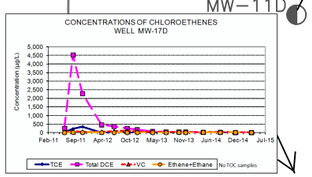
CONCENTRATIONS OF CHLOROETHENES WELL MW-21D



CONCENTRATIONS OF CHLOROETHENES WELL MW-20D



CONCENTRATIONS OF CHLOROETHENES WELL MW-17D



LEGEND

- TCE
- Total DCE
- VC
- Ethene + Ethane
- Total Organic Carbon

NOTES:
UTILITY LOCATIONS ARE APPROXIMATE OTHER UTILITIES MAY EXIST
PILOT TEST INJECTIONS PERFORMED IN JUNE 2008,
REMEDIATION INJECTIONS IN JULY 2011, BEDROCK INJECTIONS IN NOV 2012

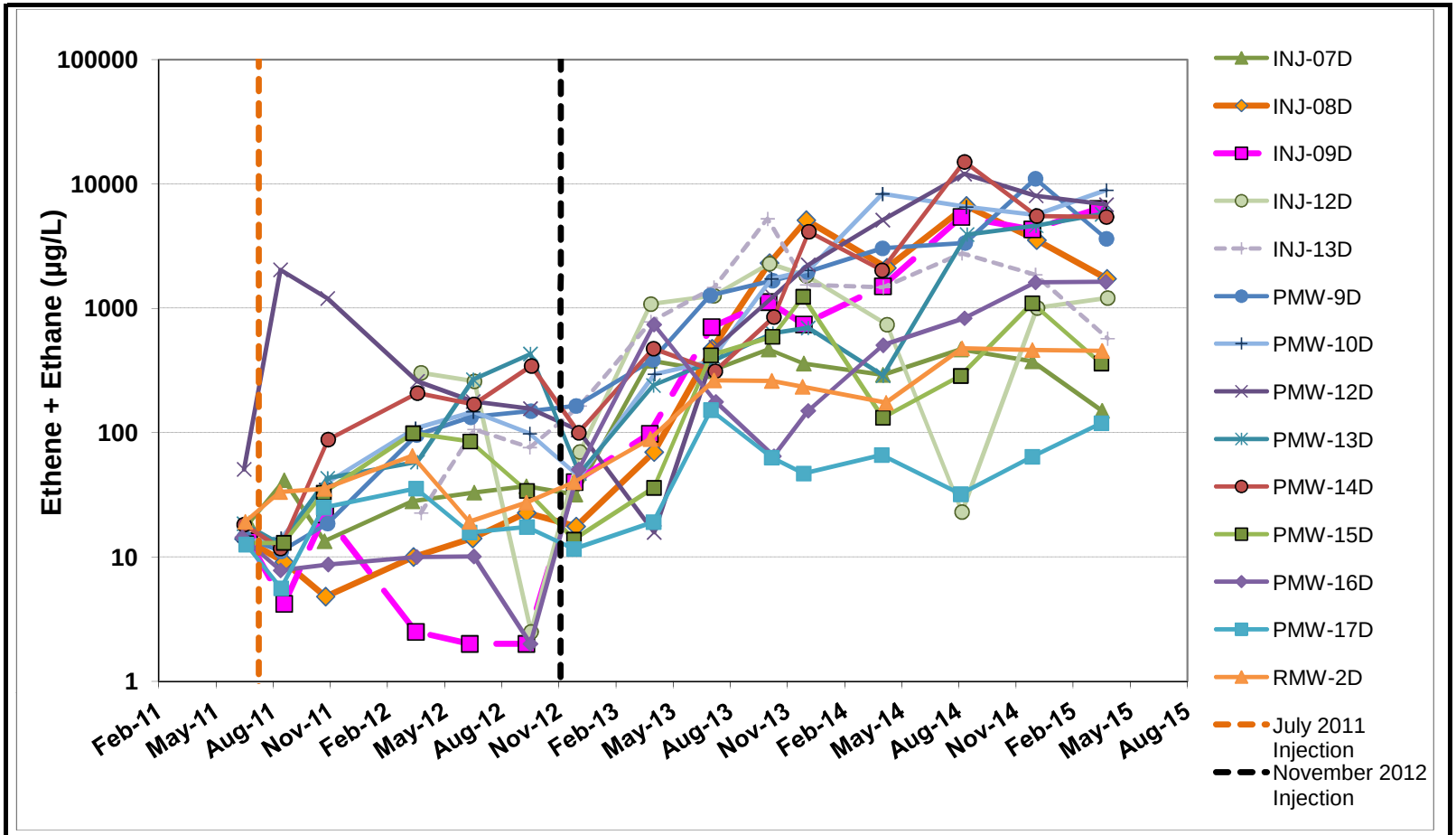
ATLANTIC RICHFIELD COMPANY

EKONOL POLYESTER
6600 WALMORE ROAD
NIAGARA FALLS, NY

FIGURE 4
BEDROCK WELL
TIME SERIES PLOTS

PARSONS
40 LA RIVIERE DR, SUITE 350, BUFFALO, NY 14202 PHONE: 716-541-0730

447355.02000
\\NYBUF03FS01\PCTGprojects\Ekonol\447355 P&Q Monitoring\CAD\Ekonol Oct 2013 rem area - updated links.dwg



EKONOL POLYESTER RESINS, WHEATFIELD, NY

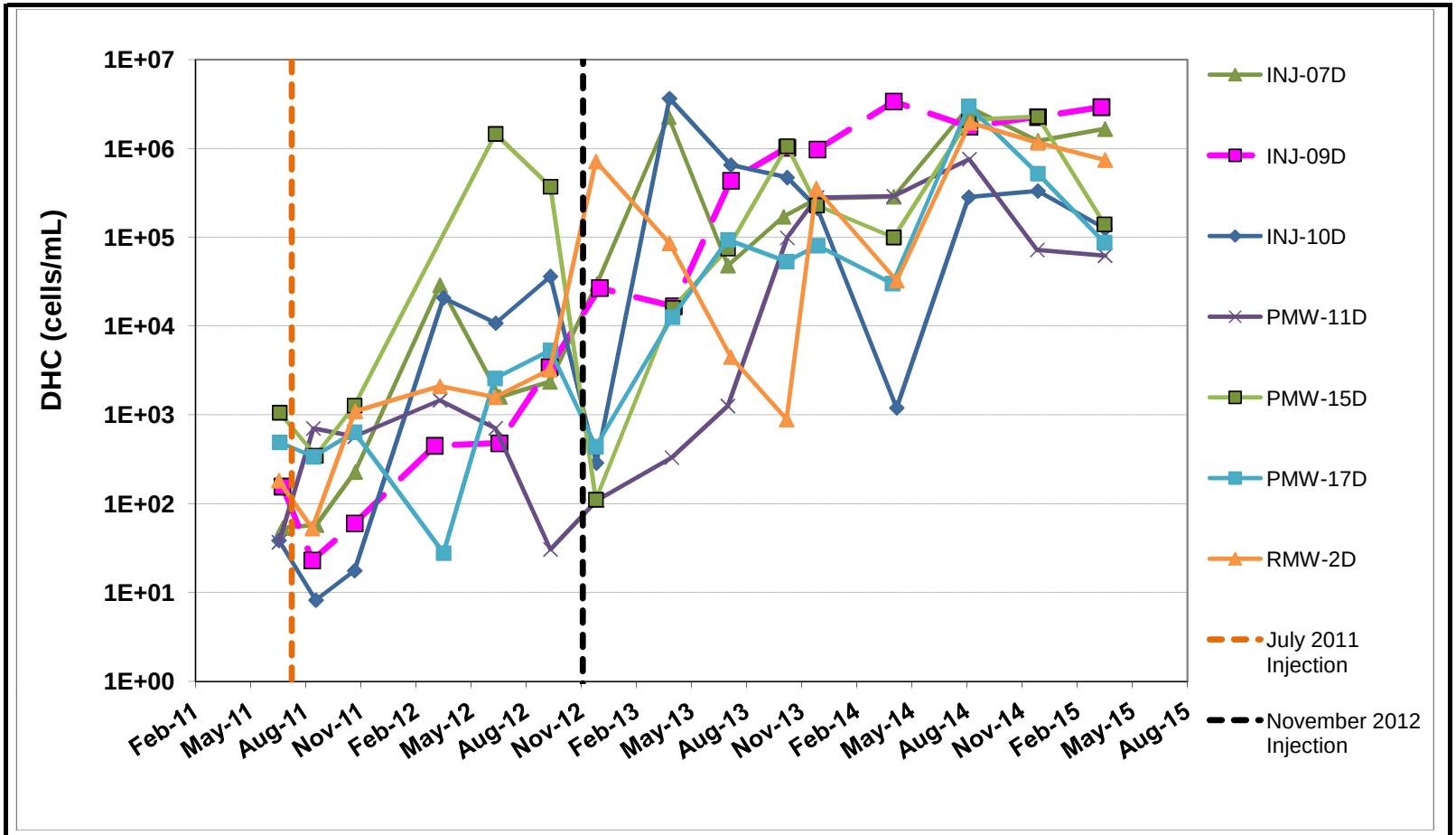
Time Series Plots

Ethene and Ethane

PARSONS

40 LA RIVIERE DRIVE · SUITE 350 ·BUFFALO, NY 14202 · (716) 541-0730

April 2015	FIGURE 5



EKONOL POLYESTER RESINS, WHEATFIELD, NY

Time Series Plots

***Dehalococcoides* (DHC) Concentration**

PARSONS
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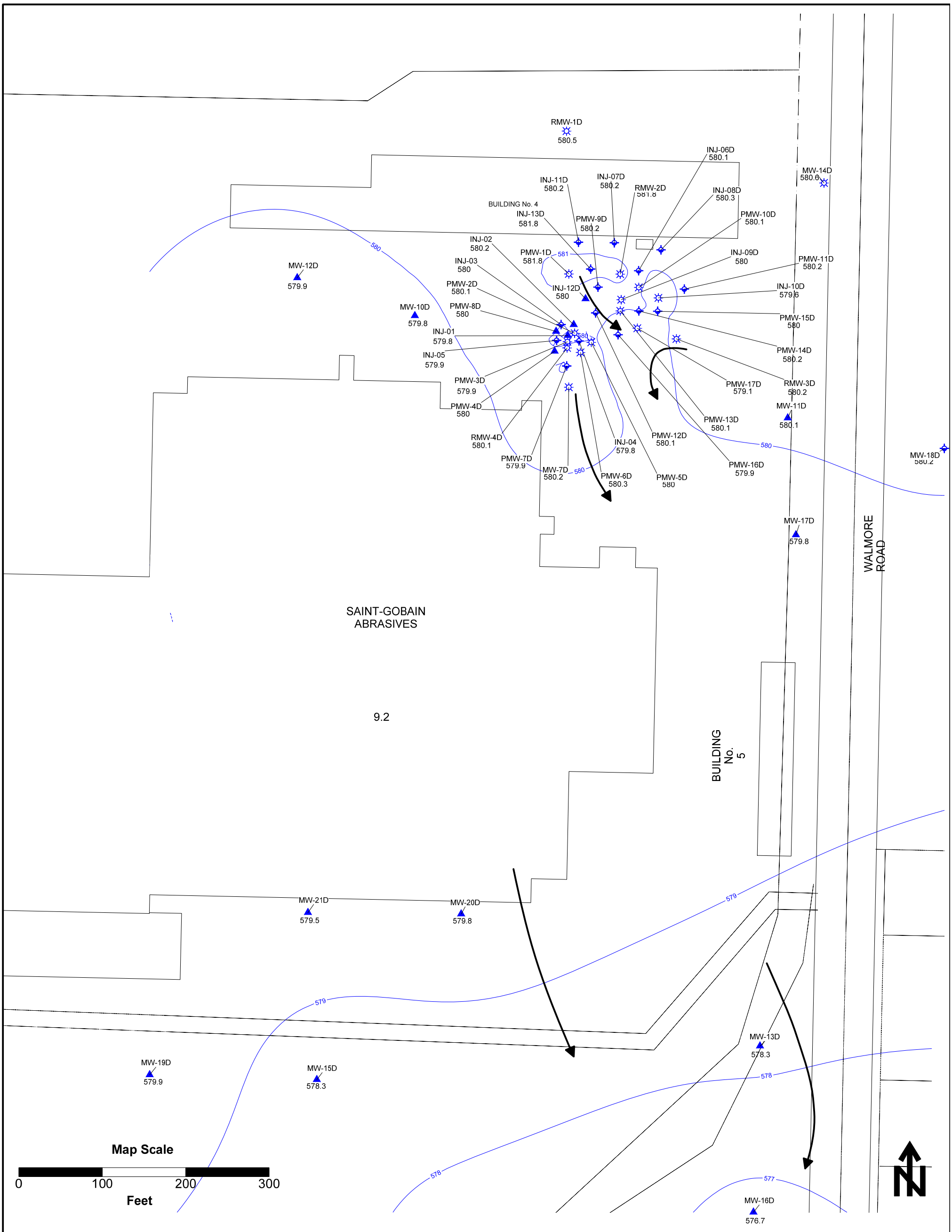
April 2015	FIGURE 6



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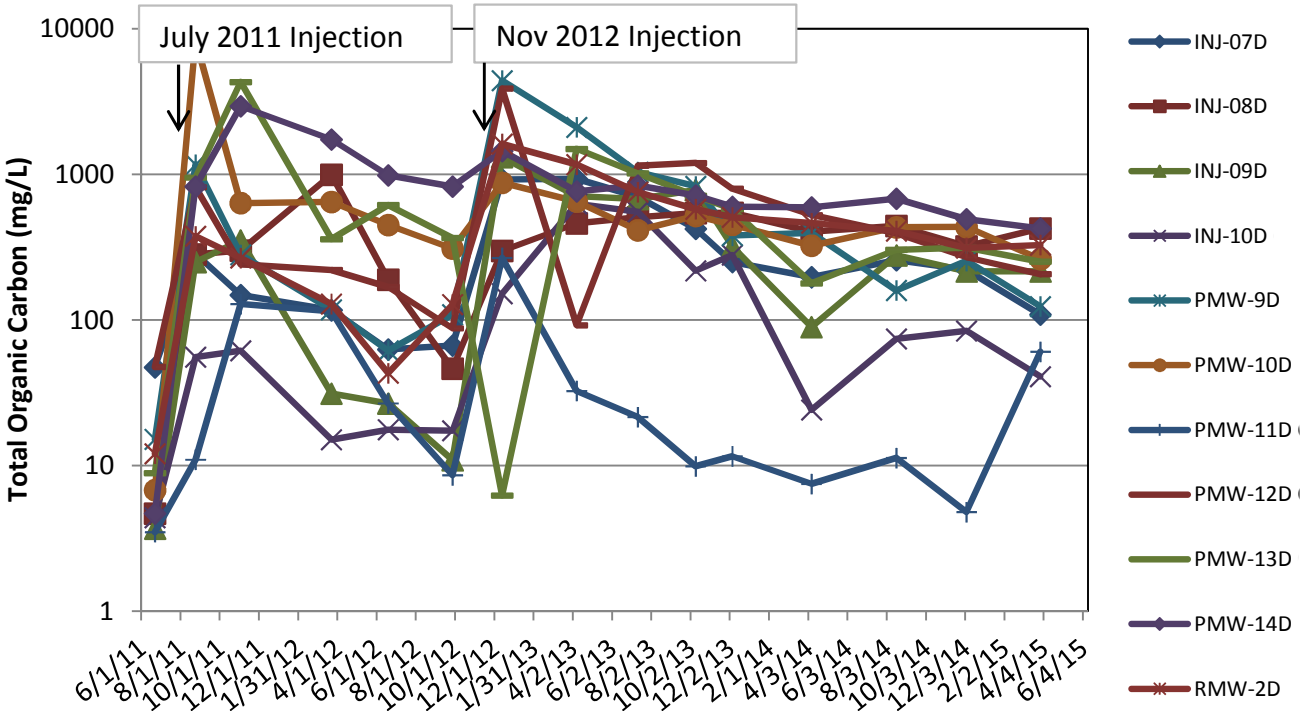
40 La Riviere Dr, Suite 350
Buffalo, NY 14202
(716) 541-0730

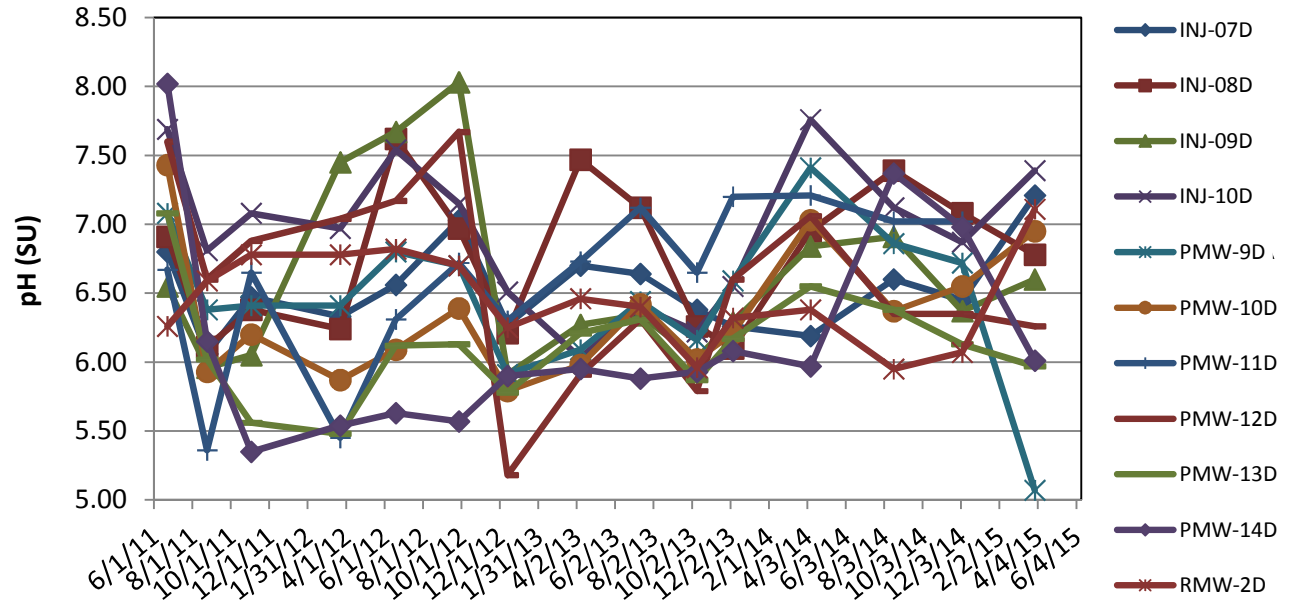
Created by: DU	Date: 4-10-15	Project Manager: GWH	Date: 7-01-15
Checked by: RBP	Date: 7-01-15	Job number: 448816.02000	

LEGEND

- BUILDING
- INJECTION WELL
- SITE INVESTIGATION WELL
- PERFORMANCE MONITORING WELL
- GROUNDWATER CONTOUR
- GROUNDWATER FLOW

FIGURE 7
POTENTIOMETRIC SURFACE MAP
BEDROCK - MARCH 23, 2015
EKONOL SITE, WHEATFIELD, NY





EKONOL POLYESTER, NY

TIME-SERIES PLOTS

Total Organic Carbon and pH

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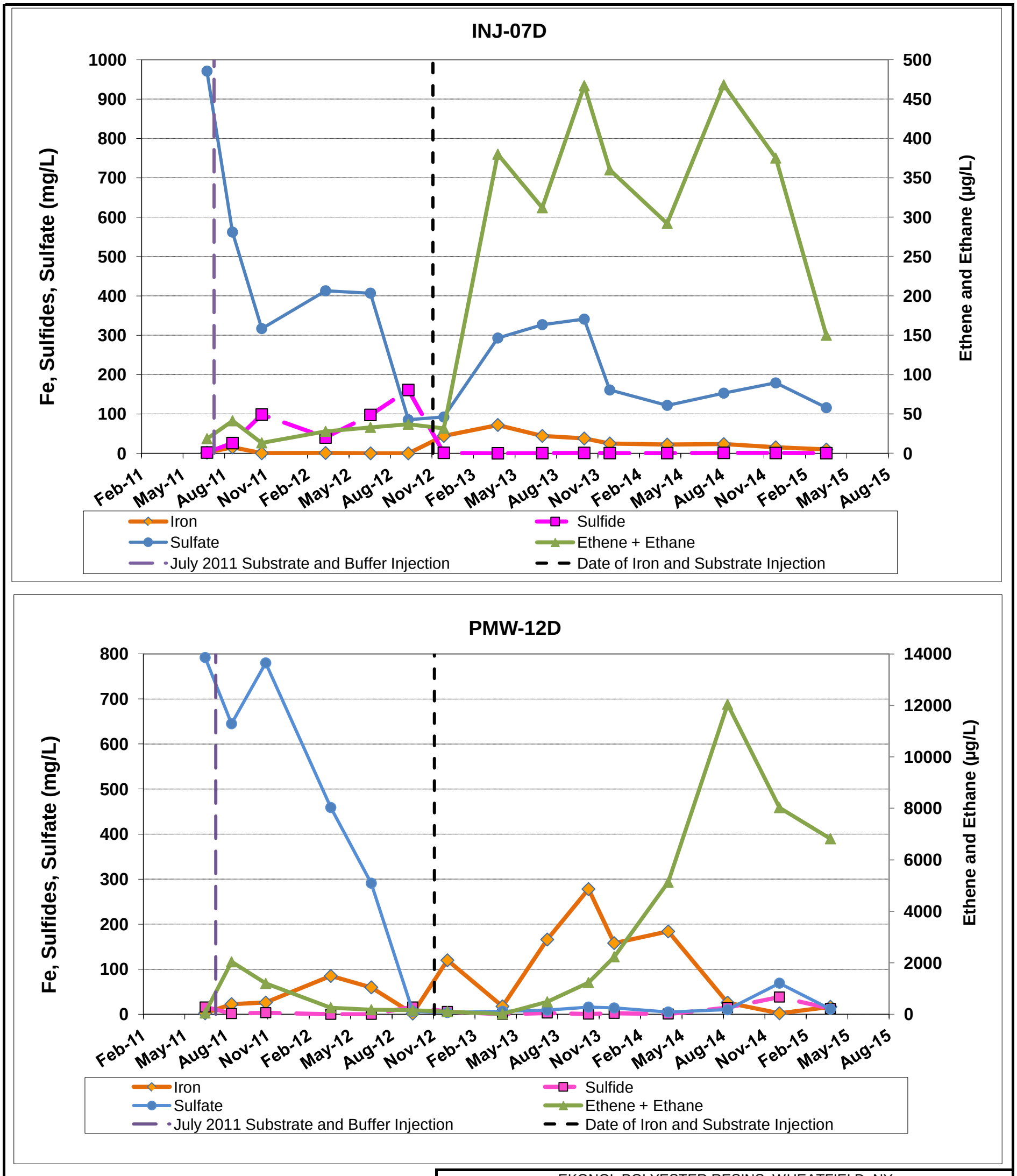
April 2015

FIGURE 8



EKONOL POLYESTER RESINS, WHEATFIELD, NY

Time Series Plots

Iron, Sulfides, Sulfate, Ethene and Ethane

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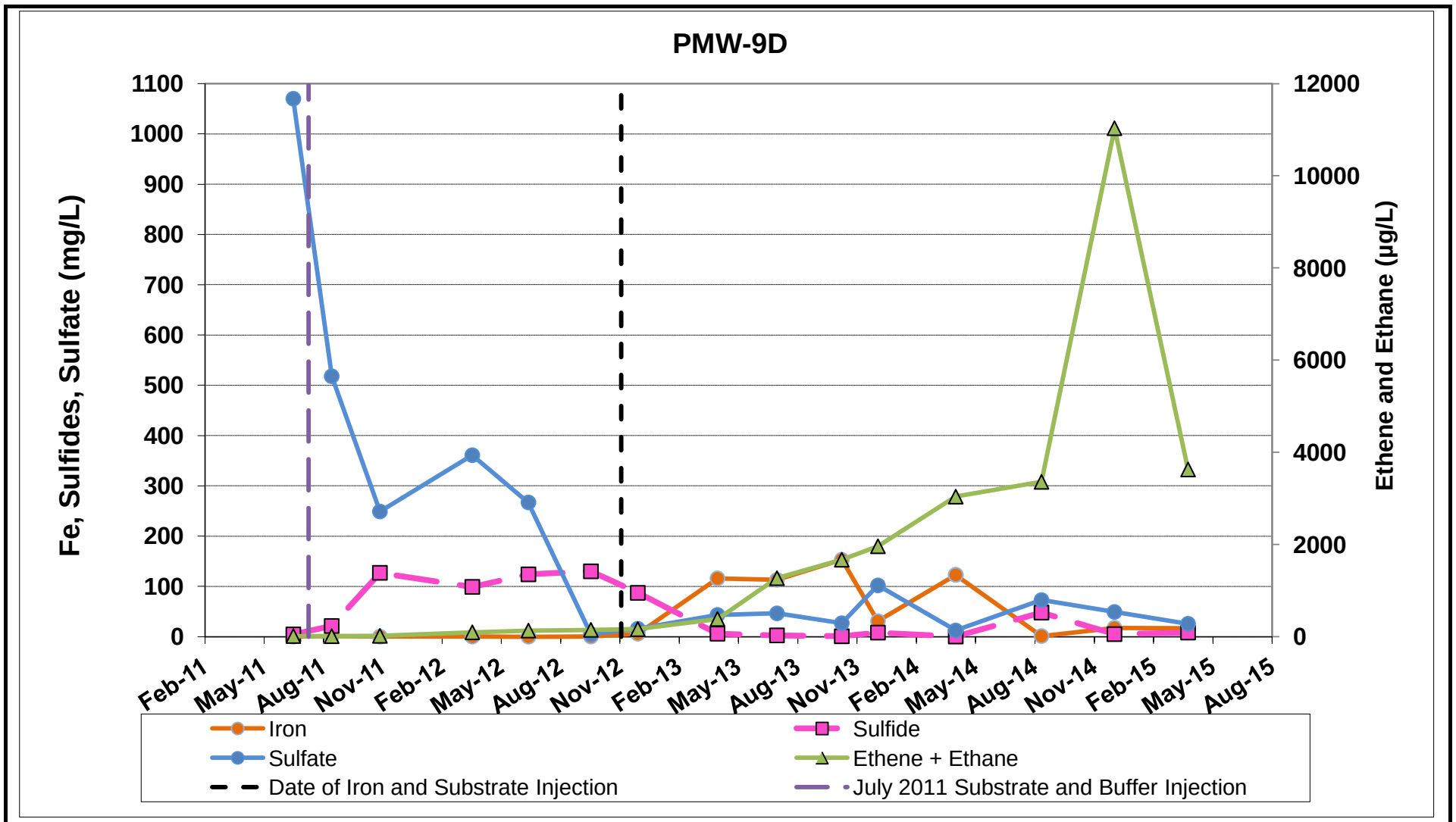
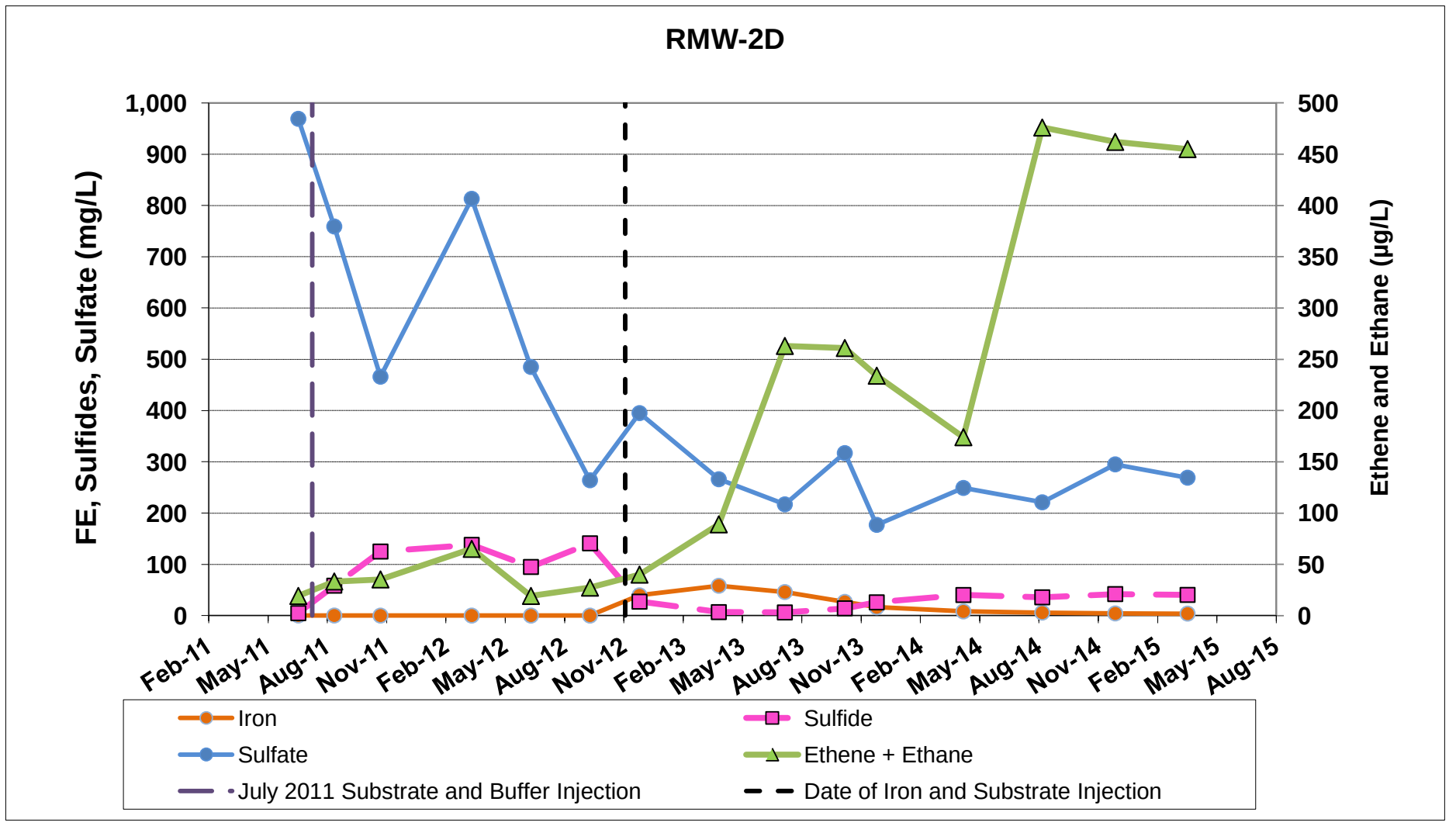
April 2015 | **FIGURE 9A**





EKONOL POLYESTER RESINS, WHEATFIELD, NY

Time Series Plots

Iron, Sulfides, Sulfate, Ethene and Ethane

PARSONS

40 LA RIVIERE DRIVE · SUITE 350 ·BUFFALO, NY 14202 · (716) 541-0730

April 2015 | **FIGURE 9B**

Fe, sulfide, sulfate, e+e PLOTS.xlsx

TABLE

TABLE 1: AVERAGE DIFFERENCE IN CHLORINATED ETHENE AND CHLORINATED ETHANE CONCENTRATIONS FROM BASELINE SAMPLING EVENT (JULY 2011)

TABLE 1

AVERAGE DIFFERENCE IN CHLORINATED ETHENE AND CHLORINATED ETHANE CONCENTRATIONS

FROM BASELINE SAMPLING EVENT (JULY 2011)

Sampling Date	Group 1*	Group 2*	Group 3*	Group 4*
July 2011	0.0	0.0	0.0	0.0
August 2011	-390.4	106.3	-232.1	9.7
November 2011	-383.0	731.1	-290.8	-89.6
March 2012	-126.2	762.1	-431.8	-25.2
June 2012	-547.9	310.8	-411.4	-49.3
September 2012	-480.4	363.6	-483.0	-81.6
December 2012	601.1	411.6	-176.2	-93.6
April 2013	824.6	118.5	-287.7	-123.9
July 2013	988.9	574.8	-107.8	-119.0
October 2013	1275.1	573.8	-326.4	-135.8
December 2013	1044.2	685.9	-218.0	-140.4
April 2014	463.5	313.0	-120.1	-145.0
August 2014	1054.4	-19.3	170.8	-134.6
December 2014	891.5	168.3	141.2	-141.3
April 2015	109.9	-10.7	-53.2	-145.7

*Average total molar chlorinated ethene and ethane concentration in µmols per liter (µM).

Notes:

Group 1 includes Source Area Wells:	*INJ-7D*	*INJ-10D*
	INJ-8D	*PMW-10D*
	INJ-9D	*RMW-2D*
Group 2 includes Downgradient wells:	*PMW-9D*	*PMW-13D*
	PMW-11D	*PMW-14D*
	PMW-12D	*PMW-15D*
Group 3 includes Further Downgradient wells:	*PMW-16D*	
	PMW-17D	
	RMW-3D	
Group 4 includes Far Downgradient wells:	*MW-20D*	
	MW-21D	

Negative number means a decrease in total CVOC concentrations relative to July 2011.

Positive number means an increase in total CVOC concentrations relative to July 2011.

ATTACHMENT A

INSPECTION RECORDS

EKONOL SITE PAVEMENT INSPECTION FORM
WHEATFIELD, NEW YORK

Date of Inspection: 4/3/2015 **Time: 14:00**

Inspector(s) Name/Title: Rob Piurek / Senior Geologist

Inspection of	Condition Present?		Action Required?		Comments/Location	Correction Date
	Yes	No	Yes	No		
1. Site Pavement						
A. Surface cracks		X		X		
B. Pits/divots		X		X		
C. Sinking		X		X		
2. Well curb boxes						
A. Cracks		X		X		
B. Loose		X		X		
C. Well caps missing	X		X		Curb box and cap missing at MW-7S.	To Be Determined
D. Settlement		X		X		

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

Date: 4/1/15

Checklist Completed By: R. Piuser

Project Number: 448816

Property Location: Elkton

System Installation Date: _____

The purpose of this form is to document the operation and maintenance of the sub-slab depressurization system to provide assurance that the system is functioning as designed or identify and execute any actions required to achieve the mitigation of subsurface vapor intrusion of volatile organic compounds to indoor air

1. MITIGATION SYSTEM INSPECTION

Occupant Interview

Any concerns identified by the building occupants? (YES) NO

Comments / Action Items

FAN TURNED OF DUE TO MALFUNCTION

Occupant's Initials: _____

External Piping

Vent pipes securely fastened to building	(YES)	NO
Are there any visible openings or breaks in the pipe system	YES	(NO)
Is the rain cap present and intact at discharge point	(YES)	NO N/A
Inspection of the exhaust point verified that no air intakes have been located nearby	(YES)	NO
The sealing/caulking around wall penetrations is intact	(YES)	NO

Comments / Action Items

Mitigation Fan

Fan is mounted securely to building (no excessive vibrations during operation)	(YES)	NO
Fan cover is installed	(YES)	NO
No visible damage to fan or cover	(YES)	NO

Comments / Action Items

FAN CURRENTLY NOT RUNNING

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

Internal Piping

Vertical and horizontal pipe runs are secured, including at all penetration points	YES	NO	
The sealing/caulking is intact around the extraction point or points through the basement floor, crawlspace floor, and/or crawlspace/basement wall interface.	YES	NO	
Vibration dampener installed and intact (pertains to fan mount)	YES	NO	N/A
Mitigation system operation placard present and visible/legible	YES	NO	
Contains description of major components, valid contact number and instructions for occupant inquiries and/or system failure	YES	NO	
Mitigation system maintenance tag present and filled out	YES	NO	
Date of last inspection shown on tag:_____			
U-tube manometer present and intact at each extraction point	YES	NO	

Comments / Action Items

Electrical

Electrical connections secured	YES	NO	
Junction boxes are closed	YES	NO	
Conduit is supported	YES	NO	
Circuit breakers controlling the mitigation fan and alarm circuits operate and are labeled "Mitigation System"	YES	NO	
Power switch tagged with intact tamper proof seal	YES	NO	
Audible alarm present	YES	NO	
Audible alarm switch in "on" position (light on alarm is green)	YES	NO	

Comments / Action Items

CURRENTLY NO POWER TO FAN / ALARM SYSTEM

Water Sumps (skip this section if no sump(s) present)

Sump present	YES	NO	
Number of sumps and locations are all shown on as-built drawing	YES	NO	
Sump pit is sealed to minimize influx of conditioned air	YES	NO	N/A
Penetrations to sump covers to accommodate electrical wiring, water injection pipes or vent pipes are sealed	YES	NO	N/A
Sump pits used as suction pits are identified with a label that reads; "This cover must be properly sealed for effective operation of the mitigation system - Contact Geosyntec Consultants (toll free 1-800-695-4436) for instructions on the correct procedure for replacement and sealing if removal or modification for any reason is performed"	YES	NO	N/A

Comments / Action Items

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

2. OPERATIONAL CHECKS

Fan is operating

Noise and Vibration within normal range	YES	NO (circled)	
Alarm sounds when fan is turned off	YES	NO	
U-Tube manometer indicating negative sub slab pressure	YES	NO	

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

U-Tube Manometer Reading: Location:________ Vacuum ________ in H_20

Smoke test performed on internal penetrations and pipe joints

Smoke test indicated no leaks	YES	NO	N/A (circled)
Smoke test confirms air flow into sump	YES	NO	N/A (circled)
Back draft test confirms proper air flow at combustion appliances	YES	NO	N/A (circled)
Smoke test indicated no leaks	YES	NO	N/A (circled)

3. MAINTENANCE

Fan last replaced on (date): ________

Fan due to be replaced; APRIL 2015

Additional Maintenance Action Items Performed

FAN TO BE REPLACED IN APRIL 2015.

4. ADDITIONAL ACTION ITEMS/ COMMENTS/COMPLETION DATES

5. CERTIFICATION

I certify that the information on this form is true, accurate and complete (all blanks filled in) to the best of my knowledge and ability, and that I have the appropriate training and experience to perform this monitoring/inspection:

Name: Rob [illegible] Affiliation: Parsons

Signature: [signature] Date (dd/mm/yy): 01/04/15 / 12 am/pm (pm circled)

ATTACHMENT B

WATER LEVEL MEASUREMENT, SAMPLING MATRIX AND SAMPLING RECORDS

EKONOL WATER LEVELS AND 4-GAS METER READINGS
MARCH 23, 2015

Well ID	LEL (%)	H2S (ppm)	CO (ppm)	O2 (%)	VOCs (ppb)	Water Level (ft BTOC)	Comments
INJ-01	0.00	1.00	0.00	20.9	55.50	5.88	
INJ-02	0.00	0.00	0.00	21.9	25.20	5.39	
INJ-03	0.00	0.00	0.00	21.9	8.00	5.39	
INJ-04	0.00	0.00	0.00	20.9	24.60	5.76	
INJ-05	0.00	0.00	0.00	20.9	2.67	5.70	
INJ-06D	0.00	0.00	0.00	20.9	0.00	5.54	
INJ-07D	0.00	0.00	0.00	20.9	153.00	5.70	
INJ-08D	0.00	0.00	68.00	20.9	7.20	5.60	
INJ-09D	0.00	0.00	20.00	20.9	39.20	5.71	
INJ-10D	0.00	0.00	0.00	20.2	0.00	5.63	
INJ-11D	0.00	0.00	0.00	20.9	16.70	5.51	
INJ-12D	0.00	0.00	7.00	19.2	0.00	5.59	
INJ-13D	0.00	0.00	0.00	20.9	0.00	4.02	
MW-1S	0.00	0.00	2.00	20.9	1.20	2.12	
MW-2S	60.00	0.00	2.00	20.9	329.00	1.99	Needs venting
MW-3S	0.00	0.00	0.00	20.4	0.00	4.61	
MW-4S	0.00	0.00	0.00	20.9	33.10	5.49	
MW-5S	0.00	0.00	0.00	20.9	2.50	5.16	
MW-6S	0.00	0.00	0.00	20.9	0.00	4.90	
MW-7D	0.00	0.00	0.00	21.3	171.00	5.98	
MW-7S	0.00	0.00	0.00	20.9	17.60	5.02	Roadbox damaged no cap
MW-8S	0.00	0.00	0.00	20.9	0.00	5.76	
MW-9S	0.00	0.00	0.00	19.8	0.00	5.86	Roadbox damaged no cap
MW-10D	0.00	0.00	0.00	19.5	0.00	5.63	
MW-10S	0.00	0.00	23.00	20.9	0.00	3.90	
MW-11D	0.00	0.00	0.00	20.9	0.00	8.35	
MW-11S	0.00	0.00	0.00	20.9	0.00	6.14	No cap
MW-12D	0.00	0.00	0.00	20.9	0.00	5.99	
MW-12S	0.00	0.00	0.00	20.9	0.00	5.75	
MW-13D	0.00	0.00	0.00	20.9	9.70	9.59	
MW-14D	0.00	0.00	0.00	20.4	4.20	7.10	
MW-15D	0.00	0.00	0.00	20.9	0.00	7.46	
MW-16D	0.00	0.00	0.00	20.9	0.00	10.30	
MW-17D	0.00	0.00	0.00	20.9	0.00	7.54	
MW-18D	0.00	0.00	0.00	19.8	0.00	6.90	
MW-19D	0.00	0.00	0.00	20.9	0.00	5.51	
MW-20D	0.00	0.00	0.00	20.9	0.00	6.41	
MW-21D	0.00	0.00	0.00	20.9	0.00	6.35	
OR-1SI	0.00	0.00	4.00	20.9	0.80	2.00	
OR-2SI	0.00	0.00	3.00	20.9	0.00	2.40	
OR-3SM	0.00	0.00	6.00	20.9	0.00	2.02	
OR-4SM	0.00	0.00	7.00	20.9	41.00	2.51	
OR-5SM	0.00	0.00	6.40	22.5	0.00	1.92	
OR-6SM	0.00	0.00	0.00	20.9	0.00	3.96	
OR-7SI	4.00	0.00	9.00	20.9	0.80	1.96	
OR-8SI	0.00	0.00	0.00	20.9	0.00	3.81	
OR-9SM	10.30	0.00	4.00	20.9	7.00	4.00	
OR-10SM	0.00	0.00	0.00	20.9	11.20	4.11	
OR-11SI	10.00	0.00	0.00	20.9	0.00	3.99	
OR-12SI	0.80	0.00	0.00	20.9	0.00	4.03	No cap
OR-13SM	0.40	0.00	0.00	20.9	0.00	4.13	
OR-14SM	42.00	0.00	0.00	20.9	0.00	4.40	

EKONOL WATER LEVELS AND 4-GAS METER READINGS
MARCH 23, 2015

Well ID	LEL (%)	H2S (ppm)	CO (ppm)	O2 (%)	VOCs (ppb)	Water Level (ft BTOC)	Comments
OR-15SM	0.00	0.00	0.00	20.9	0.00	3.93	
OR-16SI	85.00	0.00	3.00	20.9	3.40	4.11	
OR-17SI	0.00	0.00	1.00	20.9	0.00	3.96	
OR-18SM	0.00	0.00	0.00	19.6	0.00	4.07	
PMW-1D	0.00	0.00	0.00	20.9	0.00	3.85	
PMW-1S	0.00	0.00	21.00	20.9	1.20	1.92	
PMW-2D	0.00	207.00	0.00	20.9	209.00	5.71	
PMW-2S	0.00	0.00	0.00	20.9	0.00	2.14	
PMW-3D	0.00	21.00	143.00	23.3	76.00	6.06	
PMW-3S	0.00	1.00	3.00	20.9	0.00	4.30	
PMW-4D	0.00	207.00	1284.00	20.9	21.50	5.70	
PMW-4S	0.00	0.00	0.00	20.9	0.00	3.95	
PMW-5D	0.00	585.00	0.00	20.9	4.60	5.71	
PMW-5S	0.00	0.00	22.00	20.9	188.00	2.69	
PMW-6D	0.00	2.00	0.00	20.9	37.20	5.60	
PMW-6S	0.00	0.00	42.00	20.9	0.00	3.50	
PMW-7D	0.00	0.00	0.00	20.9	19.70	5.90	
PMW-7S	0.00	0.00	0.00	20.9	7.00	4.03	
PMW-8D	0.00	0.00	0.00	22.3	160.00	5.43	
PMW-8S	0.00	0.00	6.40	20.9	11.80	4.29	
PMW-9D	0.00	0.00	42.00	20.9	81.80	5.75	
PMW-9S	0.00	0.00	0.00	20.9	0.00	4.04	
PMW-10S	0.00	0.00	2.00	21.5	0.00	4.05	
PMW-10D	10.00	1960.00	0.00	20.9	4.20	5.62	
PMW-11D	0.00	0.00	5.00	20.9	10.70	5.60	
PMW-11S	0.00	0.00	0.00	23.1	12.20	3.56	
PMW-12D	0.00	0.00	1.70	19.5	3.80	5.81	
PMW-13D	0.00	0.00	0.00	20.9	31.20	5.61	
PMW-14D	0.00	0.00	0.00	20.9	0.00	5.60	
PMW-15D	0.00	0.00	0.00	20.9	15.00	5.64	
PMW-16D	0.00	0.00	0.00	20.9	10.30	5.60	
PMW-17D	0.00	0.00	0.00	20.9	0.00	6.71	
RMW-1D	0.00	0.00	0.00	22.5	0.00	5.46	
RMW-2D	0.00	35.00	29.00	20.9	703.00	4.39	
RMW-3D	0.00	0.00	0.00	20.9	0.00	5.82	
RMW-4D	0.00	12.00	613.00	21.1	31.40	5.64	
TP-1						5.76	
TP-2						5.92	

Notes:

ppm = parts per million

ppb = parts per billion

ft BTOC = feet measured below top of well casing

TABLE 2
SUMMARY OF PROPOSED MONITORING
EKONOL POLYESTER RESINS, WHEATFIELD, NEW YORK

Location	Synoptic Water Level Measurement[g/]	VOCs[a/] (SW8260B)	Methane, Ethane, Ethene (Lab SOP)	Sulfate [b/] (E300.1)	Dissolved Inorganics [b/c/] (SW6010B)	Sulfide [b/] (MS 4500-S2-F)	Total Organic Carbon (SW9060)	Microbial Population [d/] (Lab SOP)	Acetylene	Real time Analyses [e/]	Mobile Lab Analysis [f/]
Overburden Bioreactor Monitoring Wells											
OR-3SM	1	1	1	1	1	1	1			1	1
OR-4SM	1	1	1	1	1	1	1			1	1
OR-5SM	1	1	1	1	1	1	1	1	1	1	1
OR-6SM	1	1	1	1	1	1	1	1	1	1	1
OR-9SM	1	1	1	1	1	1	1			1	1
OR-10SM	1	1	1	1	1	1	1			1	1
OR-13SM	1	1	1	1	1	1	1	1	1	1	1
OR-14SM	1	1	1	1	1	1	1	1	1	1	1
OR-15SM	1	1	1	1	1	1	1			1	1
OR-18SM	1	1	1	1	1	1	1			1	1
PMW-1S	1	1	1	1	1	1	1	1	1	1	1
PMW-2S	1	1	1	1	1	1	1	1	1	1	1
PMW-3S	1	1	1	1	1	1	1	1	1	1	1
PMW-4S	1	1	1	1	1	1	1			1	1
PMW-5S	1	1	1	1	1	1	1			1	1
PMW-6S	1	1	1	1	1	1	1			1	1
PMW-7S	1	1	1	1	1	1	1			1	1
PMW-8S	1	1	1	1	1	1	1			1	1
PMW-9S	1	1	1	1	1	1	1	1	1	1	1
PMW-10S	1	1	1	1	1	1	1	1	1	1	1
PMW-11S	1	1	1	1	1	1	1			1	1
Bedrock Injection/Withdrawal Wells											
INJ-7D	1	1	1	1	1	1	1	1	1	1	1
INJ-8D	1	1	1	1	1	1	1			1	1
INJ-9D	1	1	1	1	1	1	1	1	1	1	1
INJ-10D	1	1	1	1	1	1	1	1	1	1	1
INJ-11D	1	1	1	1	1	1	1			1	1
INJ-12D	1	1	1	1	1	1	1			1	1
INJ-13D	1	1	1	1	1	1	1			1	1
Bedrock Monitoring Wells											
PMW-9D	1	1	1	1	1	1	1			1	1
PMW-10D	1	1	1	1	1	1	1			1	1
PMW-11D	1	1	1	1	1	1	1	1	1	1	1
PMW-12D	1	1	1	1	1	1	1			1	1
PMW-13D	1	1	1	1	1	1	1			1	1
PMW-14D	1	1	1	1	1	1	1			1	1
PMW-15D	1	1	1	1	1	1	1	1	1	1	1
PMW-16D	1	1	1	1	1	1	1			1	1
PMW-17D	1	1	1	1	1	1	1	1	1	1	1
Pilot Test Wells											
PMW-1D	1	1	1	1	1	1	1			1	1
INJ-01	1	1	1	1	1	1	1			1	1
PMW-2D	1	1	1	1	1	1	1	1		1	1
PMW-3D	1	1	1	1	1	1	1			1	1
PMW-4D	1	1	1	1	1	1	1			1	1
PMW-6D	1	1	1	1	1	1	1	1		1	1
RMW-4D	1	1	1	1	1	1	1			1	1
PMW-7D	1	1	1	1	1	1	1			1	1
MW-7D	1	1	1	1	1	1	1			1	1
Site Investigation Wells											
MW-1S	1	1	1	1	1	1	1			1	1
MW-2S	1	1	1	1	1	1	1	1		1	1
MW-3S	1	1	1	1	1	1	1			1	1
MW-4S	1	1	1	1	1	1	1			1	1
MW-6S	1	1	1							1	1
MW-10S	1	1	1							1	1
MW-11S	1	1	1							1	1
MW-12S	1	1	1							1	1
RMW-2D	1	1	1	1	1	1	1	1		1	1
RMW-3D	1	1	1	1	1	1	1			1	1
MW-11D	1	1	1							1	1
MW-17D	1	1	1							1	1
MW-20D	1	1	1							1	1
MW-21D	1	1	1							1	1
Investigative Monitoring Wells											
RMW-1D	1	1	1	1	1	1	1			1	
PMW-5D	1	1	1	1	1	1	1			1	
PMW-8D	1	1	1	1	1	1	1			1	
MW-15D	1	1	1	1	1	1	1			1	
MW-16D	1	1	1	1	1	1	1			1	
MW-18D	1	1	1	1	1	1	1			1	
MW-19D	1	1	1	1	1	1	1			1	
MW-12D	1	1	1	1	1	1	1			1	
MW-13D	1	1	1	1	1	1	1			1	
MW-9S	1	1	1	1	1	1	1			1	
MW-7S	1	1	1	1	1	1	1			1	
INJ-02	1	1	1	1	1	1	1			1	
INJ-04	1	1	1	1	1	1	1			1	
INJ-05	1	1	1	1	1	1	1			1	
Monitoring Subtotal	74	74	74	66	66	66	66	19	15	74	60
QA/QC											
Duplicates		4	4	4	4		4				
Matrix Spike		4									
Matrix Spike Duplicate		4									
Trip Blanks		15									
TOTAL PER SAMPLING EVENT:		101	78	70	70	66	70	19	15	74	60

[a/] VOCs = volatile organic compounds, including aromatic and chlorinated aliphatic hydrocarbons. If present, an oil sample will also be collected and analyzed for VOCs.

[b/] All metal and cation samples must be field-filtered and immediately preserved (Al, Ca, Fe, K, Mg, Mn)

[c/] Dissolved inorganic compounds will consist of aluminum (Al), calcium (Ca), iron (Fe), potassium (K), magnesium (Mg), and manganese(Mn). Samples will be field filtered.

[d/] Analysis of microbial population composition will include concentration measurements of dehalococcoides (DHC) and dehalobacter (DHB) species in cells per milliliter as well as DHC functional genes

[e/] Well head analyses include dissolved oxygen, oxidation-reduction potential, pH, temperature, electrical conductivity, and visual appearance.

[f/] Mobile lab analyses include carbon dioxide, alkalinity, sulfide, ferrous iron, and manganese.

[g/] For the baseline monitoring round, all Site Water Levels will be recorded

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-01

Manual Entry:

Samplers: Bill Simons

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.35

Depth to Well Bottom (ft):

Date: 03/30/2015

Time: 1425 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1435	7	200	.5	6.26	1.58	34	5.44	11.63	3.41	-436	turbidity measured w/ ho...
1445	7.53	200	1	6.17	1.57	44	5.41	11.58	3.43	-435	
1455	7.81	200	1.5	6.16	1.54	262	6.4	11.39	4.05	-502	
1505	7.89	200	2	6.2	1.53	311	7.21	11.2	4.55	-511	
1510	7.89	200	2.3	6.24	1.53	327	7.41	10.99	4.67	-513	
1515	7.9	200	2.6	6.28	1.56	332	7.4	10.73	4.67	-509	
1520	7.91	200	2.9	6.29	1.58	348	7.51	10.49	4.73	-506	
1525	7.94	200	3.2	6.3	1.56	337	7.45	10.58	4.69	-488	
1540	8	200	4.7	6.3	1.53	357	7.55	10.78	4.76	-474	
15q50	8.01	200	5.3	6.31	1.5	317	7.58	10.97	4.77	-453	
1600	8.05	200	5.8	6.31	1.49	38.7	7.6	11.13	4.70	-435	
1610	8.1	200	6.3	6.32	1.47	40.9	7.62	11.28	4.8	-426	
16w...	8.13	200	6.8	6.32	1.47	63.8	7.59	11.18	4.78	-414	
1630	8.14	200	7.3	6.32	1.46	68.1	7.54	11.21	4.75	-405	
1640	8.19	200	7.8	6.32	1.44	12	7.36	11.49	4.63	-403	

Sampling Data

Method: Dedicated tubing

Date: 03/30/2015

Time: *(hhmm)* 1640

Total Volume of Water Purged: 7.8 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.32	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	7.36	Carbon dioxide (mg/L)	
Turbidity (NTU)	12	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	5
Temp.(°C)	11.49	DTW (ft)	8.19
TDS (g/L)	4.63		
ORP (mv)	-403		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0
oxidized black, H2S only.
h2s >5

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-02

Manual Entry:

Samplers: Other

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.61

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 08:13 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
08:15	6.61	200	0.0	5.74	3.32	3.0	4.20	12.53	2.69	-71	Clear, not oxidizing, no vis...
08:25	6.64	200	0.5	6.11	3.13	9.2	4.20	11.66	2.69	-111	Same
08:35	7.11	200	1.0	6.18	3.04	5.58	4.17	11.64	2.67	-117	Same
08:40	7.23	200	1.2	6.19	2.96	5.48	4.12	11.68	2.64	-121	Same
08:45	7.32	200	1.5	6.21	2.89	6.95	4.12	11.83	2.64	-126	Same
08:50	7.44	200	1.7	6.24	2.85	6.55	4.10	12.16	2.59	-148	Same
08:55	7.56	200	2.0	6.28	2.81	6.96	4.06	12.15	2.60	-145	Same
09:00	7.60	200	2.2	6.35	2.77	7.31	4.02	12.22	2.57	-162	Starting to oxidize to black
09:05	7.58	200	2.5	6.40	2.64	6.53	4.00	12.24	2.56	-173	Same
09:10	7.60	200	2.7	6.43	2.59	5.99	3.99	12.27	2.56	-181	Same
09:15	7.62	200	3.0	6.45	2.50	4.92	4.02	12.42	2.58	-187	Same
09:20	7.63	200	3.2	6.45	2.44	5.55	4.06	12.47	2.60	-195	Same
09:25	7.65	200	3.5	6.45	2.37	6.09	4.10	12.50	2.63	-200	Same
09:30	7.65	200	3.7	6.44	2.29	5.22	4.12	12.59	2.64	-201	Same

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 09:30

Total Volume of Water Purged: 3.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.44	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	4.12	Carbon dioxide (mg/L)	
Turbidity (NTU)	5.22	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0.1
Temp.(°C)	12.59	DTW (ft)	7.65
TDS (g/L)	2.64		
ORP (mv)	-201		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0. Water turned dark (blue/green hue when diluted)I so only h2s Hach kit done.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-04

Manual Entry:

Samplers: Bill Simons

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.35

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 1310 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1335	7.25	200	1.2	6.36	1.52	5.4	17.9	14.85	11.1	-412	turb measured w horiba
1345	7.35	200	1.7	6.28	2.4	9.5	17	15.04	10.5	-480	
1355	7.41	200	2.3	6.24	3.38	29.5	16.2	15.11	10	-524	
1405	7.23	200	2.8	6.22	4.09	48.5	15.6	14.69	9.65	-527	
1415	7.11	200	3.3	6.25	4.17	32.5	14.7	15.1	9.17	-527	
1425	7..1	200	3.8	6.31	4.07	36.1	14.1	14.41	8.78	-524	
1435	7.1	200	4.3	6.3	3.8	56.4	14	14.93	8.61	-506	
1445	7.12	200	4.8	6.32	3.77	40	13.4	14.07	8.26	-505	
1455	7.12	200	5.3	6.32	3.72	43	13.1	13.58	8.12	-502	
1505	7.12	200	5.8	6.32	3.61	43.3	13.8	13.5	7.95	-493	
1515	7.12	200	6.3	6.33	3.47	45.1	12.6	13.1	7.8	-482	
1525	7.12	200	6.8	6.35	3.29	37.9	12.1	13.02	7.49	-470	
1535	7.12	200	7.3	6.37	3.24	34.3	11.1	13.17	6.9	-458	
1545	7.12	200	7.8	6.38	3.08	35.3	11	13.12	6.83	-454	
1555	7.12	200	8.3	6.39	2.75	31.9	10.6	12.97	6.56	-444	
1558	7.12	200	8.4	6.39	2.71	32.8	10.5	13.06	6.54	-442	
1601	7.12	200	8.5	6.39	2.68	31.9	10.5	13.1	6.53	-441	

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 1601

Total Volume of Water Purged: 8.5 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.39	Alkalinity (g/g)	560
Spec. Cond. (mS/cm)	10.5	Carbon dioxide (mg/L)	434
Turbidity (NTU)	31.9	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	5
Temp.(°C)	13.1	DTW (ft)	7.12
TDS (g/L)	6.53		
ORP (mv)	-441		

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0
h2s >5

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-05

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.2

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 08:10 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
08:10	6.20	200	0.0	6.69	2.42	407	13.5	10.65	8.58	-133	Black strong odor
08:20	6.75	200	0.5	6.60	0.47	335	16.8	11.45	10.5	-175	Clear
08:30	7.24	200	1.0	6.60	0.42	53.4	17.4	12.08	10.8	-235	Water oxidizing
08:40	7.65	200	1.5	6.65	0.43	16.9	16.9	12.52	10.5	-365	Same
08:50	7.85	200	2.0	6.49	0.41	5.8	15.6	12.91	9.66	-554	Suspended solids
08:55	7.90	200	2.2	6.50	0.40	-70	15.2	12.95	9.41	-559	Same
09:00	7.94	200	2.4	6.50	0.38	-35	14.7	12.99	9.16	-561	Same
09:05	8.03	200	2.7	6.50	0.35	0.0	14.2	13.13	8.80	-568	
09:10	8.10	200	2.9	6.50	0.35	5.6	13.6	13.23	8.32	-572	
09:15	8.19	200	3.1	6.54	0.34	-25	13.1	13.33	8.08	-578	
09:20	8.15	200	3.4	6.53	0.34	-25	12.6	13.46	7.89	-586	
09:25	8.28	200	3.6	6.57	0.33	-30	12.2	13.57	7.56	-590	
09:30	8.34	200	3.8	6.58	0.32	-25	12.0	13.62	7.45	-591	
09:35	8.32	200	4.1	6.60	0.31	-25	12.3	13.69	7.62	-595	Same

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 09:35

Total Volume of Water Purged: 4.1 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.60	Alkalinity (g/g)	0
Spec. Cond. (mS/cm)	12.3	Carbon dioxide (mg/L)	0
Turbidity (NTU)	-25	Ferrous Iron (mg/L)	
DO (mg/L)	0.31	Hydrogen sulfide (mg/L)	4.5
Temp.(°C)	13.69	DTW (ft)	8.32
TDS (g/L)	7.62		
ORP (mv)	-595		

Comments:

water turned black. Could not complete HACH kits

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-10D

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.36

Depth to Well Bottom (ft):

Date: 03/25/2015

Time: 09:35 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
09:35	5.36	200	0	7.72	9.50	270	12.0	8.77	7.56	-168	Black
09:45	6.04	200	0.5	8.67	1.21	200	12.0	9.60	7.50	-196	Substrate
09:55	6.60	200	1.0	9.55	0.0	169	12.0	10.70	7.45	-238	Clear
10:05	6.70	200	1.5	9.07	0.0	146	11.8	10.78	7.33	-246	
10:10	6.82	200	1.7	8.78	0.0	103	11.2	10.84	7.02	-274	
10:15	6.94	200	1.9	8.46	0.0	76.3	10.6	11.00	6.75	-280	
10:20	7.09	200	2.2	7.99	0.0	58.6	9.87	11.07	6.18	-283	
10:25	7.17	200	2.5	7.49	0.0	47.0	9.15	11.14	5.73	-285	
10:30	7.19	200	2.7	7.46	0.0	39.8	8.63	11.20	5.40	-284	
10:35	7.21	200	2.9	7.42	0.0	31.5	8.01	11.27	5.04	-284	
10:40	7.23	200	3.2	7.40	0.0	27.2	7.37	11.24	4.77	-283	Same
10:45	7.23	200	3.4	7.40	0.0	22.2	7.31	11.28	4.61	-284	
10:50	7.24	200	3.7	7.39	0.0	18.2	7.18	11.17	4.33	-288	

Sampling Data

Method: Dedicated tubing

Date: 03/25/2015

Time: *(hhmm)* 10:50

Total Volume of Water Purged: 3.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.39	Alkalinity (g/g)	0
Spec. Cond. (mS/cm)	7.18	Carbon dioxide (mg/L)	0
Turbidity (NTU)	18.2	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	3.5
Temp.(°C)	11.17	DTW (ft)	7.24
TDS (g/L)	4.33		
ORP (mv)	-288		

Comments:

water too dark for analysis

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	320 ml each filter		
Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Bill Simons

Well ID: INJ-11D

Manual Entry:

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.98

Depth to Well Bottom (ft):

Date: 04/01/2015

Time: 1440 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1500	6.25	200	1	6.18	2.88	47.3	0.59	15.15	0.378	-267	
1510	6.28	200	1.5	6.17	2.92	27.3	0.604	14.9	0.386	-276	
1520	6.28	200	2	6.2	2.72	29.5	0.621	14.69	0.399	-285	
1530	6.28	200	2.5	6.23	2.52	36.1	0.625	14.59	0.401	-297	
1540	6.28	200	3	6.23	2.05	40.7	0.639	14.78	0.408	-305	
1543	6.28	200	3.2	6.24	2.01	42.9	0.637	14.67	0.408	-315	
1546	6.28	200	3.4	6.25	1.96	43.9	0.654	14.67	0.420	-319	
1549	6.28	200	3.6	6.25	1.94	46.9	0.7	14.65	0.448	-329	
1552	6.28	200	3.8	6.27	1.96	43.4	0.728	14.54	0.468	-336	
1555	6.28	200	4	6.25	1.98	41.8	0.755	14.48	0.483	-344	
1558	6.28	200	4.2	6.23	1.98	41.6	0.764	14.42	0.490	-349	
1601	6.28	200	4.4	6.19	1.96	42.6	0.775	14.44	0.496	-351	

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 1601

Total Volume of Water Purged: 4.4 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.19	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	0.775	Carbon dioxide (mg/L)	
Turbidity (NTU)	42.6	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	
Temp.(°C)	14.44	DTW (ft)	6.28
TDS (g/L)	0.496		
ORP (mv)	-351		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0
oxidized black, h2s only

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-12D

Manual Entry:

Samplers: Other

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 7

Depth to Well Bottom (ft):

Date: 04/03/2015

Time: 08:22 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
08:25	7.00	200	0.0	5.29	5.78	409	0.454	12.13	0.294	-35	Clear with some small soli...
08:35	5.95	200	0.5	6.32	2.32	59.9	0.433	11.33	0.282	-235	Same
08:45	6.12	200	1.0	6.63	2.53	18.4	0.457	10.94	0.297	-253	Clear, colorless, solids cle...
08:50	6.20	200	1.2	6.75	2.66	11.4	0.577	10.82	0.373	-222	Same
08:55	6.20	200	1.5	6.76	2.96	9.34	0.662	10.76	0.430	-263	Same
09:00	6.24	200	1.7	6.97	3.55	11.2	0.832	10.43	0.674	-339	Same
09:05	6.26	200	2.0	7.33	3.93	12.0	1.01	10.48	0.652	-337	Same
09:10	6.26	200	2.2	7.40	3.92	12.4	1.07	10.42	0.688	-339	Same
09:15	6.25	200	2.5	7.47	3.85	11.3	1.14	10.38	0.739	-340	Same
09:20	6.27	200	2.7	7.45	3.75	10.66	1.31	10.24	0.840	-345	Same
09:25	6.28	200	3.0	7.43	2.39	10.12	1.96	10.11	1.26	-346	Same
09:30	6.33	200	3.2	7.37	2.40	9.22	2.02	10.12	1.30	-347	Same
09:35	6.34	200	3.5	7.34	2.37	8.19	2.03	10.27	1.31	-349	Same
09:40	6.35	200	3.7	7.30	2.32	6.34	2.38	10.07	1.53	-353	Same
09:45	6.36	200	4.0	7.28	2.30	8.32	2.46	10.14	1.77	-364	Seeing some minor oxidiz...
09:50	6.37	200	4.2	7.25	2.26	10.15	2.68	10.20	1.74	-364	Same
09:55	6.38	200	4.5	7.20	2.26	12.7	2.84	10.10	1.82	-364	Same
10:00	6.39	200	4.7	7.17	2.25	9.96	3.00	10.16	1.92	-368	Same
10:05	6.39	200	5.0	7.13	2.37	9.73	3.12	10.13	2.00	-372	Same
10:10	6.40	200	5.2	7.07	2.40	9.25	3.18	10.38	2.04	-374	Same
10:15	6.40	200	5.5	7.06	2.40	8.78	3.26	10.37	2.08	-380	Same
10:20	6.40	200	5.7	7.01	2.37	6.40	3.29	10.39	2.24	-381	Same
10:25	6.41	200	6.0	7.00	2.33	7.75	3.31	10.49	2.29	-384	Same

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	04/03/2015	10:25	6.0 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.00	Alkalinity (g/g)	180
Spec. Cond. (mS/cm)	3.31	Carbon dioxide (mg/L)	70
Turbidity (NTU)	7.75	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	4
Temp.(^{o}C)	10.49	DTW (ft)	6.41
TDS (g/L)	2.29		
ORP (mv)	-384		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-13D

Manual Entry:

Samplers: Bill Simons

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 3.35

Depth to Well Bottom (ft):

Date: 04/03/2015

Time: 0810 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0830	4.95	200	1	7.75	3.27	45.3	0.397	9.33	0.256	-10	turb measured w horiba
0840	5.62	200	1.5	8.43	3.33	38.1	0.372	8.64	0.242	-39	
0850	6.2	200	2	8.35	3.39	36.1	0.362	8.31	0.235	-48	
0900	6.65	200	2.5	8.87	3.34	38.2	0.368	8.29	0.239	-62	
0910	6.93	200	3	8.84	3.21	38.2	0.397	8.23	0.26	-114	
0920	7.22	200	3.5	8.25	3.15	38.4	0.438	8.25	0.286	-138	
0930	7.51	200	4	8.33	3.13	39.7	0.497	8.34	0.321	-156	
0950	7.8	200	5	8.21	3.12	40.3	0.573	8.61	0.371	-175	
1010	7.95	200	6	8	3.01	31.1	0.776	9.1	0.5	-205	
1030	8.06	200	7	7.9	3.11	27	0.890	9.64	0.57	-231	
1035	8.07	200	7.2	7.88	2.96	27.1	0.902	9.75	0.575	-235	
1040	8.07	200	7.4	7.87	2.84	30	0.925	9.8	0.593	-240	
1045	8.07	200	7.6	7.84	3.01	30.1	0.983	9.78	0.629	-249	
1050	8.07	200	7.8	7.83	3.04	30	1.31	9.76	0.839	-257	
1055	8.08	200	8	7.81	3.01	27.6	1.37	9.75	0.875	-263	
1100	8.08	200	8.2	7.8	2.99	27.5	1.42	9.71	0.907	-268	
1105	8.08	200	8.4	7.79	2.94	25	1.45	9.65	0.946	-272	
1110	8.08	200	8.6	7.77	2.93	23	1.55	9.61	0.989	-273	
1115	8.8	200	8.8	7.76	2.91	27.2	1.56	9.59	0.999	-275	
1120	8.8	200	9	7.75	2.91	22.4	1.54	9.57	0.985	-276	

Sampling Data

Method: Dedicated tubing

Date: 04/03/2015

Time: *(hhmm)* 1120

Total Volume of Water Purged: 9 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.75	Alkalinity (g/g)	180
Spec. Cond. (mS/cm)	1.54	Carbon dioxide (mg/L)	82
Turbidity (NTU)	22.4	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	3
Temp.(°C)	9.57	DTW (ft)	8.8
TDS (g/L)	0.985		
ORP (mv)	-276		

Comments:

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

DO and ORP values conflict. DO > 0.5 and ORP < 0	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-7D

Manual Entry:

Samplers: Doruk Ucak

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.05

Depth to Well Bottom (ft):

Date: 03/25/2015

Time: 1212 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1215	6.3	200	0.53	8.23	0.88	16.4	2.01	10.09	1.25	-221	
1225	6.56	200	1.06	8.02	0.86	6,44	1.53	10.41	0.983	-256	
1230	6.73	200	1.70	7.89	0.92	11.4	1.7	10.36	1,09	-260	
1240	6.82	200	1.97	7.67	0.91	10.8	2.01	10.12	1.22	-265	
1245	6.85	100	2.1	7.56	0.87	13.3	2.34	10.03	1.51	-269	
1250	6.9	100	2.23	7.46	0.88	-23	2.61	10.49	1.68	-277	
1255	6.97	100	2.36	7.4	0.87	-23	3.14	10.21	1.77	-281	
1300	6.99	100	2.49	7.33	0.86	-23	3.08	10.23	1.98	-287	
1305	7	100	2.36	7.28	0.89	-23	3.41	10.25	2.19	-288	
1310	7.01	100	2.49	7.23	0.95	-23	3.86	10.21	2.52	-290	
1315	7.03	100	2.62	7.2	0.89	-23	4.11	10.20	2.66	-290	
1320	7.04	100	3.01	7.19	0.89	-23	4.36	10.12	2.81	-291	
1325	7.03	100	3.14	7.18	0.9	-23	4.42	10.18	2.87	2.92	
1330	7.03	100	3.27	7.17	0.9	14.3	4.59	10.21	2.94	-293	clear
1335	7.03	100	3.4	7.19	0.9	12.8	4.58	10.28	2.93	-293	
1340	6.8	100	3.53	7.2	0.53	10.4	4.41	10.45	2.82	-294	Rain
1345	6.83	100	3.66	7.21	0.52	10.3	4.22	10.56	2.7	-294	
1350	6.84	100	3.8	7.21	0.49	10.2	4.03	10.58	2.56	-294	
1400	6.84	100	3.93	7.21	0.5	8.66	3.9	10.45	2.49	-292	
1405	6.85	100	4.06	7.21	0.48	-23	3.84	10.42	2.45	-292	Particles
1410	6.85	100	4.2	7.21	0.48	12.3	3.8	10.4	2.43	-292	

Sampling Data

Method: Dedicated tubing

Date: 03/25/2015

Time: *(hhmm)* 1410

Total Volume of Water Purged: 4.2 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.21	Alkalinity (g/g)	380
Spec. Cond. (mS/cm)	3.8	Carbon dioxide (mg/L)	350
Turbidity (NTU)	12.3	Ferrous Iron (mg/L)	
DO (mg/L)	0.48	Hydrogen sulfide (mg/L)	2
Temp.(^{O}C)	10.4	DTW (ft)	6.85
TDS (g/L)	2.43		
ORP (mv)	-292		

Comments

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	1000 mL		
Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: INJ-8D

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.1

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 10:20 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
10:20	6.10	200	0.0	8.34	1.55	47	2.89	14.65	1.84	-257	Clear
10:30	6.75	200	0.5	8.47	0.42	12.8	2.81	12.87	1.80	-308	Substrate
10:40	6.90	200	1.0	8.50	0.37	4.2	2.78	13.00	1.78	-318	And h2s odor
10:50	6.97	200	1.5	8.45	0.36	4.3	2.77	13.15	1.77	-315	Same
10:55	7.02	200	1.7	8.40	0.35	10.5	2.76	13.30	1.77	-313	Same
11:00	7.05	200	1.9	8.35	0.35	6.7	2.75	13.44	1.76	-313	Same
11:05	7.08	200	2.1	8.28	0.35	3.2	2.75	13.50	1.75	-313	SMe
11:10	7.09	200	2.4	8.21	0.34	8.8	2.74	13.58	1.75	-314	Same
11:15	7.07	200	2.6	7.92	0.34	2.8	2.75	13.65	1.75	-314	Same
11:20	7.05	200	2.8	7.87	0.34	5.3	2.75	13.71	1.76	-313	Same
11:25	7.05	200	3.0	7.58	0.36	4.7	2.78	13.74	1.78	-327	Same
11:30	7.04	200	3.3	7.45	0.35	7.6	2.81	13.77	1.80	-342	Same
11:35	7.05	200	3.5	7.26	0.35	10.2	2.81	13.72	1.80	-385	Same
11:40	7.05	200	3.7	6.90	0.36	15.6	2.82	13.68	1.80	-426	Same
11:45	7.05	200	4.0	6.78	0.36	12.9	2.82	13.65	1.80	-462	Same
11:50	7.04	200	4.2	6.77	0.35	6.6	2.83	13.60	1.81	-463	
11:55	7.06	200	4.5	6.78	0.34	7.2	2.79	13.69	1.78	-463	Same

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 11:55

Total Volume of Water Purged: 4.5 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.78	Alkalinity (g/g)	620
Spec. Cond. (mS/cm)	2.79	Carbon dioxide (mg/L)	8.46
Turbidity (NTU)	7.2	Ferrous Iron (mg/L)	
DO (mg/L)	0.34	Hydrogen sulfide (mg/L)	5
Temp.(°C)	13.69	DTW (ft)	7.06
TDS (g/L)	1.78		
ORP (mv)	-463		

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Select...

Well ID: MW-10S

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 3.16

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: 0830 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0830	3.26	200	0.27	5.58	4.21	1066	0.795	6.58	na	179	
0835	3.36	200	0.53	6.41	2.51	117.2	0.795	6.62	na	10	
0840	3.26	200	0.80	6.62	2.41	81.17	0.738	6.66	na	-17	
0845	3.26	200	1.06	6.85	2.32	40.71	0.666	6.65	na	-32	
0855	3.26	200	1.34	6.93	2.28	25.03	0.669	6.72	na	-41	
0905	3.26	200	1.61	7.06	2.21	12.65	0.671	6.83	na	-48	
0910	3.26	200	1.88	7.02	2.18	10.83	0.720	6.83	na	-50	
0915	3.26	200	2.15	7.00	2.16	12.51	0.763	6.70	na	-56	
0920	3.26	200	2.42	6.99	2.14	10.31	0.775	6.73	na	-60	
0925	3.26	200	2.70	6.98	2.15	8.83	0.788	6.45	na	-61	
0930	3.26	200	2.87	6.98	2.14	9.13	0.791	6.48	na	-61	
0935	3.26	200	3.14	6.98	2.14	12.5	0.792	6.47	na	-61	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015

Time: *(hhmm)* 0935

Total Volume of Water Purged: 3.14 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.98	Alkalinity (g/g)	180
Spec. Cond. (mS/cm)	0.792	Carbon dioxide (mg/L)	130
Turbidity (NTU)	12.5	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0
Temp.(°C)	6.47	DTW (ft)	3.26
TDS (g/L)			
ORP (mv)	-61		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Bill Simons

Well ID: MW-11D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 9

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 0805 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0815	9.04	200	.5	6.67	1.53	0	2.05	11.6	1.31	-271	turb measured w horiba
0825	9.04	200	1	6.76	1.29	0	2.04	11.59	1.3	-288	
0835	9.04	200	1.5	6.78	1.26	0	2.05	11.42	1.31	-292	
0845	9.04	200	2	6.79	1.14	0	2.05	11.18	1.31	-292	
0855	9.04	200	2.5	6.75	1.05	0	2.06	11	1.32	-292	
0905	9.04	200	3	6.72	0.98	0	2.06	10.99	1.32	-292	
0910	9.04	200	3.2	6.71	0.95	0	2.06	10.99	1.32	-292	

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 0910

Total Volume of Water Purged: 3.2 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.71	Alkalinity (g/g)	260
Spec. Cond. (mS/cm)	2.06	Carbon dioxide (mg/L)	180
Turbidity (NTU)	0	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	1
Temp.(°C)	10.99	DTW (ft)	9.04
TDS (g/L)	1.32		
ORP (mv)	-292		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Doruk Ucak

Well ID: MW-11S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.71

Depth to Well Bottom (ft):

Date: 03/25/2015

Time: 1620 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1620	6.67	300	0.4	7.97	2.50	12.4	6.11	8.41	1.03	-77	
1625	6.67	300	0.8	7.42	0.57	2.33	5.73	9.23	3.60	-110	
1630	6.67	300	1.2	7.41	0.53	15.3	5.55	9.25	3.49	-120	
1635	6.67	300	1.6	7.42	0.56	11.3	5.46	9.28	3.44	-123	
1640	6.67	300	2.00	7.42	0.53	14.7	5.34	9.25	3.36	-126	
1645	6.67	300	2.4	7.43	0.49	10.3	5.26	9.26	3.31	-128	
1650	6.67	300	2.8	7.43	0.51	2.44	5.17	9.30	3.26	-131	
1655	6.67	300	3.2	7.44	0.52	5.44	5.10	9.42	3.20	-133	
1700	6.67	300	3.6	7.44	0.51	4.18	5.06	9.40	3.18	-134	

Sampling Data

Method: Dedicated tubing

Date: 04/03/2015

Time: *(hhmm)* 1700

Total Volume of Water Purged: 3.6 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.44	Alkalinity (g/g)	280
Spec. Cond. (mS/cm)	5.06	Carbon dioxide (mg/L)	200
Turbidity (NTU)	4.18	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	2
Temp.(°C)	9.40	DTW (ft)	6.67
TDS (g/L)	3.18		
ORP (mv)	-134		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: Manual Entry: MW-12D

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.62

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: 14:50 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
14:50	5.62	200	0.0	8.63	0.0	71.4	1.02	8.68	0.800	-246	
15:00	5.70	200	0.5	7.87	0.0	37.4	2.66	10.62	1.70	-327	
15:10	5.78	200	1.0	7.15	0.0	18.6	2.67	10.71	1.71	-327	
15:20	5.77	200	1.5	7.15	0.0	3.6	2.62	10.87	1.68	-326	
15:25	5.77	200	1.8	7.15	0.0	8.7	2.62	10.90	1.68	-326	
15:30	5.76	200	2.0	7.14	0.0	0.0	2.62	10.92	1.67	-327	
15:35	5.76	200	2.2	7.15	0.0	1.9	2.60	10.76	1.66	-327	
15:40	5.76	200	2.5	7.16	0.0	2.8	2.58	10.65	1.65	-328	
15:45	5.76	200	2.7	7.16	0.0	4.3	2.56	10.61	1.64	-328	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015 Time: *(hhmm)* 15:45

Total Volume of Water Purged: 2.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.16	Alkalinity (g/g)	260
Spec. Cond. (mS/cm)	2.56	Carbon dioxide (mg/L)	130
Turbidity (NTU)	4.3	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	5
Temp.(°C)	10.61	DTW (ft)	5.76
TDS (g/L)	1.64		
ORP (mv)	-328		

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Select...

Well ID: MW-12S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.28

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 12:45 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
12:45	6.28	200	0.0	8.40	2.25	55.7	20.3	18.61	12.7	-255	Clear
12:55	6.63	200	0.5	8.34	0.45	22.3	20.3	14.63	12.5	-273	Very light odor
13:05	7.10	200	1.0	8.06	0.39	11.4	15.1	14.06	9.36	-308	Same
13:15	7.15	200	1.5	7.98	0.39	3.2	13.6	13.80	8.65	-320	Same
13:25	7.18	200	2.0	7.90	0.38	4.6	12.9	13.69	7.97	-338	Same
13:30	7.15	200	2.2	7.82	0.38	7.6	12.6	13.83	7.71	-340	Same
13:35	7.16	0200	2.4	7.65	0.37	3.7	12.1	13.90	7.36	-347	Same
13:40	7.15	200	2.7	7.59	0.37	8.8	11.5	14.03	7.12	-359	Same
13:45	7.16	200	2.9	7.58	0.36	10.5	11.1	13.94	7.01	-360	Same
13:50	7.14	200	3.1	7.54	0.37	4.1	10.9	13.95	6.73	-362	
13:55	7.13	200	3.3	7.52	0.36	9.9	10.8	14.00	6.63	-364	

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 13:55

Total Volume of Water Purged: 3.3 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.52	Alkalinity (g/g)	360
Spec. Cond. (mS/cm)	10.8	Carbon dioxide (mg/L)	198
Turbidity (NTU)	9.9	Ferrous Iron (mg/L)	
DO (mg/L)	0.36	Hydrogen sulfide (mg/L)	3
Temp.(°C)	14.00	DTW (ft)	7.13
TDS (g/L)	6.63		
ORP (mv)	-364		

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Other

Well ID: Manual Entry: MW-13D

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 10.01

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 15:42 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^{o}C)	TDS (g/L)	ORP (mV)	Comments
15:45	10.01	200	0.0	7.54	8.39	5.1	3.86	11.93	2.49	-308	Clear, colorless, no solids,...
15:55	10.38	200	0.5	6.47	4.95	2.64	3.99	12.27	2.55	-365	Same
16:05	10.36	200	1.0	6.34	3.61	2.15	4.08	12.59	2.61	-362	Same
16:10	10.32	200	1.2	6.32	3.32	1.34	4.07	12.87	2.60	-360	Same
16:15	10.30	200	1.5	6.38	3.17	0.88	4.05	13.13	2.59	-360	Same
16:20	10.31	200	1.7	6.32	2.99	1.02	3.99	13.73	2.55	-359	Same
16:25	10.31	200	2.0	6.31	2.94	0.83	3.95	13.99	2.53	-359	Same
16:30	10.30	200	2.2	6.34	2.88	0.65	3.75	14.04	2.39	-355	Same
16:35	10.29	200	2.5	6.37	2.81	1.65	3.40	14.10	2.17	-352	Same
16.40	10.29	200	2.7	6.40	2.73	1.07	3.17	14.14	2.02	-353	Same
16.45	10.29	200	3.0	6.44	2.68	0.58	2.91	14.22	1.86	-347	Same
16:50	10.32	200	3.2	6.48	2.60	1.36	2.79	14.33	1.79	-349	Same
16:55	10.26	200	3.5	6.47	2.53	1.14	2.74	14.42	1.76	-350	Same
17:00	10.27	200	3.7	6.47	2.47	1.07	2.71	14:52	1.73	-350	Same

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 17:00

Total Volume of Water Purged: 3.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.47	Alkalinity (g/g)	320
Spec. Cond. (mS/cm)	2.71	Carbon dioxide (mg/L)	130
Turbidity (NTU)	1.07	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	4
Temp.(^{o}C)	14:52	DTW (ft)	10.27
TDS (g/L)	1.73		
ORP (mv)	-350		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: MW-15D

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.9

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: 10:20 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
10:20	6.90	200	0	7.82	0.0	6.6	3.99	3.84	2.71	-134	
10:30	7.20	200	0.5	7.29	0.0	3.1	3.72	10.83	2.38	-268	
10:40	7.45	200	1.0	7.25	0.0	4.3	3.68	11.44	2.36	-292	
10:50	7.45	200	1.5	7.24	0.0	2.1	3.71	11.44	2.37	-300	
10:55	7.45	200	1.7	7.24	0.0	1.5	3.70	11.42	2.37	-302	
11:00	7.44	200	1.9	7.23	0.0	3.2	3.69	11.39	2.36	-306	
11:05	7.44	200	2.2	7.22	0.0	1.4	3.67	11.38	2.35	-308	
11:10	7.44	200	2.4	7.22	0.0	0.6	3.66	11.36	2.35	-310	
11:15	7.45	200	2.7	7.22	0.0	0.4	3.68	11.36	2.36	-314	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015

Time: *(hhmm)* 11:15

Total Volume of Water Purged: 2.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.22	Alkalinity (g/g)	300
Spec. Cond. (mS/cm)	3.68	Carbon dioxide (mg/L)	144
Turbidity (NTU)	0.4	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	4
Temp.(°C)	11.36	DTW (ft)	7.45
TDS (g/L)	2.36		
ORP (mv)	-314		

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: MW-16D

Manual Entry:

Samplers: Other

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 11.25

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 11:22 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
11:25	11.25	200	0.0	6.68	3.60	49.9	2.84	15.09	1.85	-235	Clear, no visible solids
11:35	12.31	200	0.5	7.08	1.94	4.98	3.09	13.68	1.97	-307	Same
11:45	12.27	200	1.0	7.09	1.97	4.54	2.09	12.77	1.33	-293	Oxidizing black But transl...
11:50	12.32	200	1.2	7.10	1.94	2.01	1.90	12.81	1.22	-284	Same
11:55	12.32	200	1.5	7.08	1.92	2.06	1.89	12.60	1.21	-280	Same
12:00	12.32	200	1.7	7.07	1.85	0.99	1.91	13.21	1.22	-281	Water clear, oxidizing no l...
12:05	12.32	200	2.0	7.05	1.83	1.15	1.92	13.40	1.23	-281	Same
12:10	12.30	200	2.2	7.04	1.79	1.32	1.93	13.65	1.24	-281	Same
12:15	12.31	200	2.5	7.03	1.81	1.75	1.95	13.51	1.25	-285	Same
12:20	12.32	200	2.7	7.02	1.79	1.55	1.95	13.53	1.25	-286	Same

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 12:20

Total Volume of Water Purged: 2.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.02	Alkalinity (g/g)	320
Spec. Cond. (mS/cm)	1.95	Carbon dioxide (mg/L)	154
Turbidity (NTU)	1.55	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	2
Temp.(°C)	13.53	DTW (ft)	12.32
TDS (g/L)	1.25		
ORP (mv)	-286		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Bill Simons

Well ID: MW-17D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 8.12

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 0950 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1000	8.22	200	0.5	7.69	2.6	0	1.23	10.35	0.787	-245	turb measured w horiba
1010	8.23	200	1	6.9	1.36	0	2.35	10.46	1.51	-289	
1020	8.23	200	1.5	6.8	1.17	0	2.4	10.6	1.54	-306	
1030	8.23	200	2	6.79	1.04	0	2.41	10.77	1.55	-309	
1040	8.23	200	2.5	6.79	0.92	0	2.4	11.18	1.54	-312	
1050	8.23	200	3	6.79	0.83	0	2.4	11.53	1.54	-314	
1100	8.23	200	3.5	6.8	0.75	0	2.37	12.39	1.52	-316	
1110	8.23	200	4	6.8	0.69	0	2.35	12.89	1.5	-318	
1120	8.23	200	4.5	6.81	0.65	0	2.33	13.18	1.5	-318	
1130	8.23	200	5	6.8	0.62	0	2.33	13.4	1.49	-318	
1135	8.23	200	5.2	6.8	0.61	0	2.31	13.44	1.48	-319	

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 1135

Total Volume of Water Purged: 5.2 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.8	Alkalinity (g/g)	340
Spec. Cond. (mS/cm)	2.31	Carbon dioxide (mg/L)	284
Turbidity (NTU)	0	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0.4
Temp.(°C)	13.44	DTW (ft)	8.23
TDS (g/L)	1.48		
ORP (mv)	-319		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Bill Simons

Well ID: MW-18D

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 7.3

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 1120 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1130	7.33	200	0.5	6.92	3.11	0	1.68	8.58	1.08	-289	turb measured w horiba
1140	7.33	200	1	6.87	2.79	0	1.68	8.81	1.08	-292	
1150	7.33	200	1.5	6.84	2:41	0	1.69	8.88	1.08	-292	
1200	7.33	200	2	6.83	2.3	0	1:68	8.88	1.08	-293	
1210	7.33	200	2.5	6.82	2.21	0	1.68	8.94	1.08	-293	
1215	7.33	200	2.8	6.82	2.17	0	1.69	9.01	1.08	-293	

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 1215

Total Volume of Water Purged: 2.8 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.82	Alkalinity (g/g)	360
Spec. Cond. (mS/cm)	1.69	Carbon dioxide (mg/L)	254
Turbidity (NTU)	0	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0.3
Temp.(°C)	9.01	DTW (ft)	7.33
TDS (g/L)	1.08		
ORP (mv)	-293		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: MW-19D

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.51

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: 08:10 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
08:10	5.51	200	0.0	6.53	0.0	0.0	5.69	8.13	3.60	99	Clear
08:20	5.65	200	0.5	6.74	0.0	195	5.64	10.16	3.56	50	No odor
08:30	5.81	200	1.0	6.70	0.0	41.1	5.58	9.97	3.51	49	Same
08:40	5.84	200	1.5	6.81	0.0	42.1	3.58	10.17	2.27	56	Same
08:45	5.85	200	1.7	6.84	0.0	35.6	3.50	10.03	2.23	62	Same
08:50	5.86	200	2.0	6.87	0.0	30.0	3.41	9.89	2.19	67	Same
08:55	5.85	200	2.3	6.83	0.0	24.3	3.51	9.85	2.25	67	Same
09:00	5.84	200	2.5	6.84	0.0	15.6	3.61	9.83	2.32	68	Same
09:05	5.84	200	2.7	6.82	0.0	17.8	3.65	9.84	2.41	62	
09:10	5.83	200	2.9	6.80	0.0	24.4	3.70	9.87	2.34	60	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015

Time: *(hhmm)* 09:10

Total Volume of Water Purged: 2.9 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.80	Alkalinity (g/g)	440
Spec. Cond. (mS/cm)	3.70	Carbon dioxide (mg/L)	226
Turbidity (NTU)	24.4	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	0
Temp.(°C)	9.87	DTW (ft)	5.83
TDS (g/L)	2.34		
ORP (mv)	60		

Comments:

Collected dip mw-190d@ 12:01

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: MW-1S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 3.2

Depth to Well Bottom (ft):

Date: 03/26/2015

Time: 11:20 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
11:20	3.20	200	0.0	6.50	0.0	11.5	0.520	11.65	0.324	16	Clear
11:30	6.00	200	0.5	7.29	0.0	4.1	0.469	9.49	0.305	-26	Same
11:40	6.00	200	1.0	7.10	0.0	5.0	0.508	8.87	0.326	-29	
11:50	6.5	200	1.5	7.08	0.0	3.5	0.560	8.71	0.360	-30	
11.55	6.8	150	1.7	7.07	0.0	6.3	0.587	8.66	0.372	-30	
12:00	7.0	150	1.8	7.05	0.0	4.1	0.613	8.61	0.393	-31	
12:05	7.30	150	2.0	7.05	0.0	3.7	0.634	8.60	0.411	-37	
12:10	7,55	120	2.1	7.05	0.0	4.3	0.665	8.59	0.426	-43	
12:15	7.62	120	2.2	7.06	0.0	3.6	0.676	8.57	0.432	-45	
12:20	7.80	120	2.3	7.07	0.0	7.2	0.686	8.55	0.439	-47	
12:25	7.85	120	2.4	7.07	0.0	4.9	0.690	8.56	0.441	-48	
12:30	7.90	120	2.5	7.08	0.0	6.3	0.693	8.57	0.444	-49	
12:35	7.96	120	2.6	7.10	0.0	8.6	0.698	8.58	0.447	-51	
12:40	8.02	120	2.7	7.12	0.0	5.8	0.704	8.60	0.449	-53	
12:45	8.07	120	2.8	7.14	0.0	5.2	0.708	8.68	0.454	-54	

Sampling Data

Method: Dedicated tubing

Date: 03/26/2015

Time: *(hhmm)* 12:45

Total Volume of Water Purged: 2.8 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.14	Alkalinity (g/g)	160
Spec. Cond. (mS/cm)	0.708	Carbon dioxide (mg/L)	108
Turbidity (NTU)	5.2	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	0
Temp.(°C)	8.68	DTW (ft)	8.07
TDS (g/L)	0.454		
ORP (mv)	-54		

Comments:

Duplicate collected. MW-100s_2015-03-26. @1201.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: MW-21D

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.5

Depth to Well Bottom (ft):

Date: 04/03/2015

Time: 10:50 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
10:50	6.50	200	0.0	7.99	11.25	121	0.894	9.95	1.04	-131	Clear
11:00	6.53	200	0.5	8.76	0.63	19.9	1.34	9.95	0.851	-273	No odor
11:10	6.54	200	1.0	8.24	0.64	17.6	1.39	9.96	0.885	-261	Same
11.:20	6.55	200	1.5	8.22	0.55	16.8	1.46	10.05	0.939	-273	
11:25	6.55	200	1.7	8.21	0.55	17.1	1.54	10.09	0.958	-275	
11:30	6.56	200	1.9	8.21	0.54	17.0	1.59	10.20	1.02	-278	Same
11:35	6.54	200	2.2	8.21	0.53	14.8	1.65	10.26	1.05	-279	
11:40	6.53	200	2.4	8.21	0.53	13.2	1.68	10.32	1.08	-280	
11:45	6.53	200	2.6	8.21	0.53	10.7	1.74	10.41	1.11	-281	
11:50	6.52	200	2.8	8.19	0.53	9.8	1.79	10.57	1.15	-282	Same
11:55	6.52	200	3.0	8.19	0.49	10.5	1.82	10.67	1.17	-285	
12:00	6.50	200	3.2	8.19	0.49	11.2	1.91	10.73	1.23	-289	
12:05	6.50	200	3.4	8.19	0.48	6.7	2.01	10.86	1.29	-291	
12:10	6.50	200	3.6	8.16	0.47	12,8	2.02	11.27	1.30	-296	Sun coming out
12:15	6.50	200	3.8	8.15	0.47	14.7	2.03	11.31	1.30	-297	Same

Sampling Data

Method: Dedicated tubing

Date: 04/03/2015

Time: *(hhmm)* 12:15

Total Volume of Water Purged: 3.8 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.15	Alkalinity (g/g)	200
Spec. Cond. (mS/cm)	2.03	Carbon dioxide (mg/L)	130
Turbidity (NTU)	14.7	Ferrous Iron (mg/L)	
DO (mg/L)	0.47	Hydrogen sulfide (mg/L)	0.5
Temp.(°C)	11.31	DTW (ft)	6.5
TDS (g/L)	1.3		
ORP (mv)	-297		

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: MW-2S

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 2.44

Depth to Well Bottom (ft):

Date: 03/25/2015

Time: 12:00 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
12:00	2.44	200	0	8.60	2.78	24.2	6.41	7.95	4.13	-7	Clear
12:10	5.64	200	0.5	7.14	0.0	7.2	6.88	7.32	4.35	-16	No odor
12:20	7.70	200	1.0	7.04	0.0	14.1	6.87	7.33	4.35	-18	Same
12:30	7.70	200	1.5	6.99	0.0	5.5	6.66	7.61	4.18	-18	Same
12:35	7.70	200	1.7	6.99	0.0	4.3	6.10	7.50	4.02	-20	Same
12:40	8.00	200	1.9	6.98	0.0	3.5	6.13	7.39	3.86	-22	Same
12:45	8.30	200	2.2	6.99	0.0	3.4	5.91	7.31	3.72	-17	
12:50	8.78	150	2.3	6.98	0.0	3.6	6.28	7.51	3.99	-18	
12:55	9.34	150	2.5	6.97	0.0	3.8	6.59	7.76	4.12	-19	
13:00	9.95	150	2.7	6.96	0.0	3.9	6.91	7.82	4.35	-20	
13:05	10.30	150	2.9	6.96	0.0	4.4	6.94	7.97	4.37	-20	
13:10	10.65	120	3.0	6.96	0.0	10.7	6.99	8.35	4.39	-19	
13:15	Dry		0	0	0	0	0	0	0	0	

Sampling Data

Method: Dedicated tubing

Date: 03/26/2015

Time: *(hhmm)* 10:30

Total Volume of Water Purged: 3.0 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Alkalinity (g/g)	140
Spec. Cond. (mS/cm)		Carbon dioxide (mg/L)	108
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Hydrogen sulfide (mg/L)	0
Temp.(°C)		DTW (ft)	
TDS (g/L)			
ORP (mv)			

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	700 and 300		
Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: MW-3S

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 3.8

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 14:40 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
14:40	3.80	200	0.0	9.24	7.59	26.8	44.8	10.67	26.8	-301	
14:50	7.48	200	0.5	11.03	1.16	123	13.9	8.83	8.63	-188	
15:00	7.60	200	1.0	11.04	1.21	78.4	13.8	8.74	8.54	-172	
15:10	8.40	200	1.5	10.75	1.00	29.1	13.8	8.86	8.56	-251	
15:15	8.55	200	1.7	10.50	0.83	16.8	13.9	8.99	8.62	-262	
15:20	8.90	200	1.9	10.25	0.69	5.4	14.0	9.12	8.68	-275	
15:25	9.25	100	2.0	9.99	0.61	3.7	14.5	9.21	8.84	-260	
15:30	9.52	100	2.1	9.83	0.53	6.8	15.0	9.30	9.34	-250	
15:35	9.67	100	2.2	9.61	0.49	4.6	15.8	9.36	9.81	-240	
15:40	9.88	100	2.3	9.49	0.45	7.2	16.6	9.41	10.3	-232	
15:45	10.05	100	2.4	9.39	0.44	9.3	17.0	9.40	10.5	-223	
15:50	10.30	100	2.5	9.30	0.43	6.7	17.4	9.39	10.8	-217	
15:55	10.35	100	2.6	9.24	0.43	10.2	17.7	9.41	11.0	-210	
16:00	10.40	100	2.7	9.18	0.43	12.6	18.0	9.42	11.2	-207	
16:05	Dry		0	O	O	O	O	O	O	O	

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 16:00

Total Volume of Water Purged: (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Alkalinity (g/g)	140
Spec. Cond. (mS/cm)		Carbon dioxide (mg/L)	102
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Hydrogen sulfide (mg/L)	0
Temp.(°C)		DTW (ft)	
TDS (g/L)			
ORP (mv)			

Comments:

well ran dry and was sampled the next day. DO is 0.57. ORP is -183.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Doruk Ucak

Well ID: MW-4S

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.94

Depth to Well Bottom (ft):

Date: 03/30/2015

Time: 0835 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0835	6.54	200	0.27	7.22	1.65	40.5	8.23	10.29	5.09	-211	Turb thru horiba
0840	8.00	200	0.53	7.22	1.24	0.0	6.13	9.07	3.86	-231	
0850	8.09	200	0.80	7.66	2.18	0	5.93	8.70	3.74	-228	
0900	8.17	200	1.07	7.65	2.49	0	5.92	8.54	3.72	-258	
0905	8.30	200	1.34	7.65	2.58	0	5.91	8.53	3.72	-252	
0910	8.41	200	1.61	7.66	2.26	0	5.91	8.43	3.73	-284	
0915	8.52	100	1.74	7.66	2.10	0	5.93	8.38	3.74	-295	
0920	8.53	100	1.90	7.66	2.04	0	5.92	8.30	3.73	-302	
0925	8.55	100	2.03	7.67	1.81	0	5.99	8.13	3.78	-313	
0930	8.56	100	2.16	7.67	1.80	0	6.00	8.08	3.78	-318	
0935	8.57	100	2.30	7.65	1.64	0	5.98	8.16	3.77	-320	
0940	8.57	200	2.43	7.62	1.58	0	5.97	8.20	3.76	-323	
0945	8.58	100	2.56	7.61	1.61	0	5.93	8.24	3.73	-323	

Sampling Data

Method: Dedicated tubing

Date: 03/30/2015

Time: *(hhmm)* 0945

Total Volume of Water Purged: 2.56 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.61	Alkalinity (g/g)	520
Spec. Cond. (mS/cm)	5.93	Carbon dioxide (mg/L)	452
Turbidity (NTU)	0	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	5
Temp.(°C)	8.24	DTW (ft)	8.58
TDS (g/L)	3.73		
ORP (mv)	-323		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: MW-6S

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.2

Depth to Well Bottom (ft):

Date: 04/01/2015

Time: 07:50 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
07:50	5.20	200	0	6.35	1.47	Or	23.1	9.87	14.2	97	Muddy
08:00	6.75	200	0.5	8.11	0.97	564	22.2	9.93	13.7	41	Muddy
08:10	8.34	200	1.0	8.80	0.97	589	21.8	9.66	13.4	-100	Dirty no odor
08:20	9.52	200	1.5	9.65	0.96	640	21.3	9.47	13.2	-205	Clearing
08:25	9.58	200	1.7	9.63	0.93	589	21.7	9.53	13.4	-211	Clearing
08:30	9.58	200	2.0	9.54	0.92	455	21.0	9.74	12.9	-181	ClearIng
08:35	9.58	200	2.2	9.44	0.91	430	20.3	9.92	12.5	-163	Same
08:40	9.58	200	2.4	9.03	0.86	218	19.4	9.96	11.8	-147	Same
08:45	9.59	200	2.6	8.78	0.79	107	18.5	9.99	11.1	-125	Same
08:50	9.60	200	2.9	8.43	0.74	53.3	17.6	10.03	10.9	-102	Clear
08:55	9.61	200	3.1	8.35	0.88	47.6	17.2	10.07	10.7	-96	
09:00	9.65	200	3.3	8.31	1.16	12.2	16.7	10.09	10.3	-90	
09:05	9.68	200	3.5	8.30	1.18	21.3	16.5	10.14	10.3	-85	
09:10	9.71	200	3.8	8.28	1.20	25.0	16.4	10.16	10.2	-81	

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 09:10

Total Volume of Water Purged: 3.8 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.28	Alkalinity (g/g)	140
Spec. Cond. (mS/cm)	16.4	Carbon dioxide (mg/L)	148
Turbidity (NTU)	25.0	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0
Temp.(°C)	10.16	DTW (ft)	9.71
TDS (g/L)	10.2		
ORP (mv)	-81		

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0. Collected ms/msd

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Other

Well ID: Manual Entry: MW-7D

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.52

Depth to Well Bottom (ft):

Date: 04/02/2015

Time: 13:24 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
14:00	6.52	200	0.0	7.45	1.80	72.9	9.96	19.16	6.27	-205	Water dark with sheen pr...
14:10	6.63	200	0.5	7.45	1.63	82.6	9.66	16.95	6.07	-276	Water too dark and too m...
14:20	6.65	200	1.0	7.05	1.68	78.7	9.40	15.44	5.92	-310	Same
14:25	6.65	200	1.2	6.97	1.68	76.1	9.32	15.38	5.87	-321	Same
14:30	6.64	200	1.5	6.88	1.67	74.7	9.15	14.98	5.74	-338	Same
14:35	6.65	200	1.7	6.86	1.70	76.5	9.29	14.57	5.85	-350	Same
14:40	6.63	200	2.0	6.80	1.66	65.5	9.05	14.74	5.70	-363	Same
14:45	6.63	200	2.2	6.79	1.64	63.3	8.96	14.74	5.65	-365	Same
14:50	6.63	200	2.5	6.79	1.64	61.4	8.96	14.73	5.64	-364	Same
14:55	6.64	200	2.7	6.78	1.69	57.5	8.87	13.89	5.59	-364	Same
15:00	6.64	200	3.0	6.77	1.71	56.2	8.81	13.57	5.54	-365	Water clearing significantly.
15:05	6.63	200	3.2	6.77	1.70	9.29	8.76	13.47	5.51	-364	LaMotte working now for ...
15:10	6.63	200	3.5	6.76	1.71	10.25	8.71	13.28	5.49	-364	Same
15:15	6.63	200	3.7	6.76	1.72	6.91	8.69	13.23	5.47	-364	Same

Sampling Data

Method: Dedicated tubing

Date: 04/02/2015

Time: *(hhmm)* 15:15

Total Volume of Water Purged: 3.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.76	Alkalinity (g/g)	860
Spec. Cond. (mS/cm)	8.69	Carbon dioxide (mg/L)	436
Turbidity (NTU)	6.91	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	4
Temp.(°C)	13.23	DTW (ft)	6.63
TDS (g/L)	5.47		
ORP (mv)	-364		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0. Very faint change in manganese test toward very faint orange.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☐	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: MW-7S

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.98

Depth to Well Bottom (ft):

Date: 03/30/2015

Time: 08:00 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
08:00	4.98	200	0.0	6.82	0.0	145	19.3	10.01	12.0	2	Dirty no odor
08:10	6.25	200	0.5	6.97	0.0	4.3	14.7	9.66	9.03	21	Clear
08:20	7.85	150	1.0	6.90	0.0	2.6	10.7	8.84	6.61	30	
08:30	7.91	150	1.4	6.94	0.0	3.6	10.7	8.42	6.65	-2	
08:35	8.24	150	1.6	6.94	0.0	4.7	10.8	8.55	6.68	-31	
08:40	8.66	150	1.8	6.93	0.0	2.1	10.8	8.70	6.71	17	
08:40	8.95	150	1.8	6.92	0.0	1.9	10.5	8.48	6.49	28	
08:50	9.10	150	2.2	6.91	0.0	3.1	10.3	8.25	6.39	39	
08:55	9.23	120	2.3	6.90	0.0	2.7	10.6	8.02	6.48	36	
09:00	9.46	120	2.4	6.91	0.0	3.8	10.8	7.88	6.71	32	
09:05	9.60	120	2.6	6.91	0.0	4.7	10.8	7.92	6.73	31	
09:10	9.85	120	2.8	6.91	0.0	2.9	10.9	8.00	6.76	29	
09:15	10.00	110	2.9	6.91	0.0	3.5	11.1	7.94	6.82	27	
09:20	10.15	110	3.0	6.91	0.0	4.8	11.2	7.88	6.93	26	
09:25	10.40	110	3.1	6.91	0.0	2.6	11.6	7.52	7.22	25	
09:30	10.65	110	3.2	6.91	0.0	1.4	11.9	7.30	7.43	25	
09:35	Dry	0	0	0	0	0	0	0	0	0	

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 08:30

Total Volume of Water Purged: (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon dioxide (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Hydrogen sulfide (mg/L)	
Temp.(°C)		DTW (ft)	
TDS (g/L)			
ORP (mv)			

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

Comments:

do: 5.50. Orp: 110. Well ran dry and sampled next day.

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Doruk Ucak

Well ID: MW-9S

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
14.35	6.11	100	0.13	7.59	4.36	0	2.42	4.61	1.58	-160	Turb thru horiba
1440	6.69	100	0.27	7.71	2.97	800	2.06	5.20	1.32	-166	
1445	7	100	0.40	7.69	2.78	792	2.28	5.13	1.46	-150	
1450	7.10	100	0.53	7.60	2.54	454	2.12	5.71	1.49	-148	
1455	7.11	100	0.66	7.58	2.43	311	2.26	5.84	1.53	-135	
1500	7.13	100	0.84	7.56	2.31	295	2.48	5.97	1.59	-128	
1505	7.14	100	0.97	7.53	2.25	201	2.67	5.67	1.66	-120	
1510	7.15	100	1.07	7.49	2.16	188	2.74	5.53	1.75	-112	
1515	7.16	100	1.20	7.42	2.08	183	2.83	5.64	1.81	-105	
1520	7.17	100	1.33	7.37	2.01	177	2.96	5.86	1.90	-106	
1524	7.17	100	1.46	7.24	1.95	170	3.03	6.18	1.91	-131	
1530	7.18	109	1.60	7.25	1.85	164	3.13	6.53	1.91	-141	
1435	7.18	100	1.83	7.23	1.83	169	3.17	6.32	1.79	-165	
1545	7.18	100	1.96	7.22	1.80	172	3.26	6.34	2.09	-165	
1550	7.18	100	2.09	7.21	179	165	3.32	6.15	2.13	-172	
1555	7.18	100	2.23	7.20	1.78	161	3.38	5.93	2.17	-181	
1600	7.18	100	2.38	7.17	1.74	155	3.44	5.79	2.20	-201	
1605	7.18	100	2.52	7.15	1.73	146	3.49	5.69	2.23	-214	
1610	7.18	100	2.65	7.14	1.72	142	3.50	5.67	2.24	-214	
1615	7.18	100	2.78	7.13	1.72	141	3.54	5.66	2.27	-221	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015

Time: *(hhmm)* 1615

Total Volume of Water Purged: 2.78 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.13	Alkalinity (g/g)	200
Spec. Cond. (mS/cm)	3.54	Carbon dioxide (mg/L)	190
Turbidity (NTU)	141	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	1
Temp.(°C)	5.66	DTW (ft)	7.18
TDS (g/L)	2.27		
ORP (mv)	-221		

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

DO and ORP values conflict. DO > 0.5 and ORP < 0	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: OR-10SM

Manual Entry:

Samplers: Select...

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.02

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: 11:30 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
11:30	4.02	200	0.0	8.71	5.48	193	1.36	7.04	0.866	-100	clear, no visible solids
11:40	4.43	200	0.5	7.95	2.87	77.0	2.25	7.00	1.46	-125	same
11:50	4.47	200	1.0	7.55	1.15	43.0	3.96	6.98	2.59	-172	same
11.55	4.49	200	1.2	7.51	0.83	28.5	4.83	6.95	3.15	-192	same
12:00	4.51	200	1.5	7.48	0.58	19.1	5.94	6.88	3.78	-215	same
12:05	4.52	200	1.7	7.44	0.48	12.5	6.83	6.84	4.34	-236	same
12:10	4.54	200	2.0	7.42	0.41	9.54	7.87	6.80	4.99	-265	same
12:15	4.56	200	2.2	7.40	0.38	8.34	8.58	6.79	5.43	-287	same
12:20	4.58	200	2.5	7.39	0.36	6.29	9.67	6.72	6.10	-317	same
12:25	4.60	200	2.7	7.42	0.34	6.00	10.3	6.65	6.41	-334	oxidizing black
12:30	4.53	200	3.0	7.41	0.34	4.35	11.0	6.53	6.82	-345	same
12:35	4.53	200	3.2	7.40	0.35	3.99	11.2	6.54	6.96	-345	same
12:40	4.54	200	3.5	7.39	0.35	3.92	11.4	6.50	7.07	-345	same
12:45	4.53	200	3.7	7.36	0.33	3.75	11.7	6.47	7.28	-341	same
12:50	4.54	200	4.0	7.33	0.34	3.77	12.1	6.48	7.50	-344	same
12:55	4.54	200	4.2	7.29	0.33	3.39	12.4	6.49	7.69	-349	same
13:00	4.55	200	4.5	7.26	0.32	2.90	12.6	6.46	7.81	-353	same
13.05	4.56	200	4.7	7.20	0.30	3.52	13.0	6.52	8.06	-360	same
13:10	4.56	200	5.0	7.19	0.30	2.82	13.1	6.50	8.12	-362	same
13:15	4.57	200	5.2	7.19	0.30	3.60	13.2	6.50	8.19	-367	same

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015

Time: *(hhmm)* 13:15

Total Volume of Water Purged: 5.2 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.19	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	13.2	Carbon dioxide (mg/L)	
Turbidity (NTU)	3.60	Ferrous Iron (mg/L)	
DO (mg/L)	0.30	Hydrogen sulfide (mg/L)	4
Temp.(^{o}C)	6.50	DTW (ft)	4.57
TDS (g/L)	8.19		
ORP (mv)	-367		

Comments:

sample in mason jar turned black.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: OR-13SM

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.46

Depth to Well Bottom (ft):

Date: 03/24/2015

Time: 12:20 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
12:20	4.46	200	0	7.94	10.91	272	0.002	11.17	0.56	-53	Clear
12:30	4.87	200	0.5	7.35	5.43	56.8	4.69	10.54	1.21	-90	No odor
12:40	5.01	200	1.0	6.87	1.54	35.6	6.07	9.99	3.68	-146	Same
12:50	5.22	200	1.5	6.36	0.0	29.1	6.57	9.04	4.14	-171	Same
13:00	5.23	200	2.0	6.35	0	31.1	6.71	9.11	4.23	-182	
13:05	5.21	200	2.2	6.38	0.0	33.0	6.78	9.10	4.27	-187	
13:10	5.21	200	2.4	6.39	0.0	33.7	6.80	9.12	4.29	-190	
13:15	5.20	200	2.7	6.35	0.0	35.6	6.87	9.24	4.33	-194	

Sampling Data

Method: Dedicated tubing

Date: 03/24/2015

Time: *(hhmm)* 13:15

Total Volume of Water Purged: 2.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.35	Alkalinity (g/g)	0
Spec. Cond. (mS/cm)	6.87	Carbon dioxide (mg/L)	0
Turbidity (NTU)	35.6	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	4
Temp.(°C)	9.24	DTW (ft)	5.2
TDS (g/L)	4.33		
ORP (mv)	-194		

Comments:

water too dark to analyze

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	1: 360. 2: 100		
Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: OR-18SM

Manual Entry:

Samplers:

Other

DDT

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Date: 03/26/2015

Time: 1415 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
14:20	3.87	200	0	7.78	2.65	129	3.89	6.65	2.5	-318	clear colorless
14:30	3.83	200	0.5	7.83	0.43	24.2	4.07	6.22	2.6	-325	
14:40	3.82	200	1.0	7.37	0.34	14.3	4.03	6.33	2.58	-354	
14:45	3.82	200	1.2	7.3	0.33	14.1	4.02	6.37	2.57	-359	
14:50	3.82	200	1.5	7.3	0.33	7.1	4.05	6.44	2.59	-364	
14:55	3.78	200	1.7	7.25	0.34	5.5	4.02	6.33	2.57	-367	
15:00	3.76	200	2.0	7.22	0.34	4.97	4.05	6.3	2.6	-366	
15:05	3.75	200	2.2	7.23	0.34	4.98	4.07	6.34	2.6	-368	
15.1	3.73	200	2.5	7.23	0.34	4.59	4.06	6.36	2.6	-369	
15:15	3.72	200	2.7	7.23	0.34	5.56	4.05	6.38	2.59	-369	

Sampling Data

Method: Dedicated tubing

Date: 03/26/2015

Time: *(hhmm)* 15:15

Total Volume of Water Purged: 2.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.23	Alkalinity (g/g)	280
Spec. Cond. (mS/cm)	4.05	Carbon dioxide (mg/L)	274
Turbidity (NTU)	5.56	Ferrous Iron (mg/L)	
DO (mg/L)	0.34	Hydrogen sulfide (mg/L)	5
Temp.(°C)	6.38	DTW (ft)	3.72
TDS (g/L)	2.59		
ORP (mv)	-369		

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: OR-3SM

Manual Entry:

Samplers: Doruk Ucak

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 2.45

Depth to Well Bottom (ft):

Date: 03/26/2015

Time: 1310 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1310	3.05	100	0.13	6.47	2.05	7.32	7.97	6.00	5.00	-170	
1320	3.12	100	0.40	6.31	1.67	12.54	8.01	6.88	5.05	-194	
1330	3.17	100	0.67	6.21	1.52	-23	8.08	7.24	5.09	-204	
1335	3.21	100	0.80	6.18	1.51	2.22	8.10	7.31	5.11	-205	
1340	3.21	100	1.07	6.16	1.50	-23	8.12	7.37	5.12	-208	
1350	3.22	100	1.34	6.12	1.45	-23	8.22	7.70	5.18	-217	
1400	3.23	100	1.61	6.10	1.40	-23	8.24	7.77	5.19	-222	
1405	3.25	100	1.74	6.10	1.40	-23	8.25	7.90	5.20	-221	
1410	3.27	100	1.87	6.09	1.3	-23	8.28	7.96	5.22	-222	
1415	3.30	100	2.00	6.09	1.40	-23	8.29	8.01	5.22	-223	
1420	3.30	100	2.13	6.08	1.41	2.34	8.31	8.04	5.23	-222	
1430	3.30	100	2.26	6.08	1.41	4.33	8.31	8.04	5.24	-222	
1435	3.31	100	2.40	6.08	1.42	6.22	8.30	7.97	5.23	-221	
1440	3.31	100	2.53	6.08	1.42	4.33	8.26	7.92	5.23	-221	
1445	3.31	100	2.66	6.08	1.42	3.21	8.24	7.87	5.23	-220	
1450	3.31	100	2.76	6.08	1.42	6.82	8.24	7.85	5.22	-220	
1455	3.31	100	2.90	6.08	1.41	4.28	8.25	7.83	5.20	-220	

Sampling Data

Method: Dedicated tubing

Date: 03/26/2015

Time: *(hhmm)* 1455

Total Volume of Water Purged: 2.90 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.08	Alkalinity (g/g)	580
Spec. Cond. (mS/cm)	8.25	Carbon dioxide (mg/L)	459
Turbidity (NTU)	4.28	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	
Temp.(°C)	7.83	DTW (ft)	3.31
TDS (g/L)	5.2		
ORP (mv)	-220		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

Ms msd

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Doruk Ucak

Well ID: OR-4SM

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 2.52

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: (hhmm)

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1115	2.67	200	0.27	6.38	3.69	24.5	2.09	5.23	1.37	-40	
1120	2.71	200	0.53	6.23	2.44	3.81	2.34	5.64	1.50	-68	
1130	2.73	200	1.07	6.21	2.01	2.17	2.46	6.41	1.53	-102	
1135	2.75	200	1.30	6.19	1.77	-23	2.45	7.32	1.57	-131	Small particles
1145	2.75	200	1.53	6.19	1.68	12.44	2.47	7.48	1.58	-155	
1150	2.75	200	1.80	6.19	1.65	-23	2.48	7.52	1.59	-171	
1155	2.77	200	1.93	6.19	1.62	-23	2.48	7.59	1.59	-182	
1200	2.77	200	2.20	6.20	1.60	0.12	2.48	7.60	1.58	-194	
1210	2.78	200	2.47	6.20	1.58	8.33	2.48	7.62	1.59	-207	
1215	2.78	200	2.74	6.20	1.56	6.85	2.48	7.67	1.59	-214	
1220	2.79	200	3.01	6.20	1.55	5.34	2.47	7.67	1.58	-220	
1225	2.80	200	3.28	6.20	1.55	4.32	2.47	7.68	1.58	-227	
1230	2.80	200	3.55	6.20	1.55	2.14	2.47	7.64	1.58	-229	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015

Time: *(hhmm)* 1230

Total Volume of Water Purged: 3.55 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.20	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	2.47	Carbon dioxide (mg/L)	
Turbidity (NTU)	2.14	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0
Temp.(°C)	7.64	DTW (ft)	2.8
TDS (g/L)	1.58		
ORP (mv)	-229		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

Water turned black

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

WELL SAMPLING RECORD

Site Name: Ekonol Facility

Samplers: Dan Chamberland

Well ID: OR-5SM

Manual Entry:

MW PI

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Well Diameter: 2 in

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 2.22

Depth to Well Bottom (f

Date: 03/24/2015

Time: 08:00 *(HH:MM)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=

Enter turbidity limit: 50 NTU

SC = Stabilization check

Time HH:MM (24hrs)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)		Comments
08:00	2.22	200	0.0	5.96	12.15	36.2	8.89	5.42	6.70	15		Clear
08:10	2.28	200	0.5	6.15	9.55	17.7	8.76	5.81	5.54	9		No odor
08:20	2.28	200	1.0	6.23	8.78	6.36	8.56	6.22	5.37	14		Same
08:30	2.25	200	1.5	6.23	8.19	6.60	7.99	5.99	5.03	14		Same
08:35	2.25	200	1.7	6.23	7.86	6.33	7.95	5.95	5.01	13		Same
08:40	2.25	200	1.9	6.24	7.71	5.9	7.93	5.93	4.99	12		Same
08:45	2.25	200	2.1	6.24	7.52	12.87	7.89	6.08	4.97	10		Same
08:50	2.25	200	2.4	6.24	7.39	14.6	7.85	6.12	4.95	9		Same
08:55	2.25	200	2.6	6.26	7.18	7.10	7.85	6.17	4.95	6		
09:00	2.26	200	2.9	6.28	6.99	4.7	7.85	6.22	4.94	1		Same

Sampling Data

Method: Dedicated tubing

Date: 03/24/2015

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

Total Volume of Water Pur: 2.9 (gal)

STABILIZED	HACH TEST KITS

SAMPLE SET				
Parameter		Bottle	Pres.	Method

PARAMETERS			
pH	6.28	Alkalinity (mg/L)	660
Spec. Cond. (mS/cm)	7.85	Carbon dioxide (mg/L)	490
Turbidity (NTU)	4.7	Ferrous Iron (mg/L)	0.8
DO (mg/L)	6.99	Manganese (mg/L)	0.5
Temp.(^{O}C)	6.22	Hydrogen sulfide (mg/L)	0.5
ORP (mv)	1	DTW (ft)	2.26
TDS (g/L)	4.94	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	1 filter 880 mll		
Acetylene	☑			

PARSONS

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S S

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: OR-6SM

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.2

Depth to Well Bottom (ft):

Date: 03/24/2015

Time: 10:10 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
10:10	4.20	200	0	6.87	13.79	254	6.99	6.84	0.127	-5	Clear
10:20	5.64	200	0.5	6.58	0.00	14.5	9.04	5.61	5.67	-53	No odor
10:30	5.71	200	1.0	6.48	0.0	7.6	7.80	6.32	4.91	-160	Water turning
10:40	5.84	200	1.5	6.49	0.0	5.6	7.30	6.81	4.59	-187	Black
10:45	5.79	200	1.7	6.48	0.0	4.9	7.12	7.00	4.46	-193	Same
10:50	5.71	200	2.0	6.46	0.0	4.3	6.84	7.19	4.35	-199	Same
10:55	5.72	200	2.3	6.45	0.0	4.2	6.73	7.22	4.26	-203	Same
11:00	5.76	200	2.5	6.44	0.0	4.1	6.64	7.26	4.17	-208	Same
11:05	5.78	200	2.8	6.42	0.0	8.0	6.53	7.35	4.03	-212	Same

Sampling Data

Method: Dedicated tubing

Date: 03/24/2015

Time: *(hhmm)* 11:05

Total Volume of Water Purged: 2.8 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.42	Alkalinity (g/g)	289
Spec. Cond. (mS/cm)	6.53	Carbon dioxide (mg/L)	976
Turbidity (NTU)	8.0	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	5
Temp.(°C)	7.35	DTW (ft)	5.78
TDS (g/L)	4.03		
ORP (mv)	-212		

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑			
Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: OR-9SM

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 3.41

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: 12:25 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
12:25	3.41	200	0.0	6.76	0.0	Or	14.9	4.73	8.82	-249	Black strong odor
12:35	3.76	200	0.5	6.79	0.0	544	8.37	4.67	5.28	-283	Same
12:45	3.60	200	1.0	6.81	0.0	232	7.51	4.68	4.72	-299	Gray with substrate odor
12:55	3.60	200	1.5	6.83	0.0	93.5	7.19	4.61	4.53	-304	Clear lt odor
13:00	3.59	200	1.7	6.86	0.0	56.1	7.04	4.42	4.43	-306	Clear
13:05	3.58	200	1.9	6.87	0.0	44.8	6.93	4.58	4.37	-307	Clear
13:10	3.58	200	2.2	6.87	0.0	33.6	6.86	4.56	4.32	-308	Same
13:15	3.58	200	2.4	6.87	0.0	29.3	6.87	4.61	4.27	-308	
13:20	3.57	200	2.7	6.87	0.0	20.50	6.71	4.76	4.22	-309	
13:25	3.58	200	2.9	6.87	0.0	16.1	6.87	4.80	4.18	-309	
13:30	3.58	200	3.1	6.87	0.0	9.1	6.78	4.79	4.14	-309	
13:35	3.60	200	3.3	6.86	0.0	9.5	6.75	4.78	4.12	-308	

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015

Time: *(hhmm)* 13:35

Total Volume of Water Purged: 3.3 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.86	Alkalinity (g/g)	380
Spec. Cond. (mS/cm)	6.75	Carbon dioxide (mg/L)	304
Turbidity (NTU)	9.5	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	5
Temp.(°C)	4.78	DTW (ft)	3.6
TDS (g/L)	4.12		
ORP (mv)	-308		

Comments:

collect duplicate or-90sm @ 12:01

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-10D

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.2

Depth to Well Bottom (ft):

Date: 04/01/2015

Time: 11:15 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
11:15	6.20	200	0.0	8.38	0.45	961	7.44	11.17	4.69	-285	Black
11:25	7.10	200	0.5	8.35	0.43	824	8.82	11.29	5.64	-232	Strong odor
11:35	7.72	200	1.0	7.37	0.43	614	12.0	11.84	7.43	-230	Same
11:45	7.76	200	1.5	7.31	0.43	569	13.5	11.93	3.56	-255	Clearing
11:55	7.85	200	2.0	7.20	0.42	458	13.1	12.27	8.11	-311	Clearing
12:00	7.80	200	2.2	7.16	0.40	430	12.8	12.34	7.98	-320	Same
12:05	7.96	200	2.4	7.09	0.39	400	12.6	12.39	7.83	-334	Clear
12:10	8.00	200	2.7	7.06	0.38	10.7	12.4	12.41	7.69	-342	Strong odor
12:15	8.03	200	3.0	7.04	0.37	14.6	12.3	12.40	7.63	-344	Same
12:20	8.05	200	3.2	7.02	0.40	10.8	12.2	12.46	7.52	-353	Same
12:25	8.08	200	3.5	7.01	0.42	7.3	12.0	12.52	7.43	-362	Same
12:30	8.09	200	3.7	6.99	0.40	6.9	11.6	12.53	7.26	-374	Same
12:35	8.10	200	3.9	6.97	0.38	4.7	11.3	12.54	7.02	-398	
12:40	8.13	200	4.1	6.96	0.37	9.8	11.4	12.51	7.03	-402	
12:45	8.18	200	4.4	6.95	0.36	12.6	11.3	12.60	7.00	-407	

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 12:45

Total Volume of Water Purged: 4.4 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.95	Alkalinity (g/g)	0
Spec. Cond. (mS/cm)	11.3	Carbon dioxide (mg/L)	0
Turbidity (NTU)	12.6	Ferrous Iron (mg/L)	
DO (mg/L)	0.36	Hydrogen sulfide (mg/L)	5
Temp.(°C)	12.60	DTW (ft)	8.18
TDS (g/L)	7		
ORP (mv)	-407		

Comments:

water turned black. Too dark for analysis.

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: PMW-10S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.42

Depth to Well Bottom (ft):

Date: 03/25/2015

Time: 08:15 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
08:25	4.42	200	0.0	6.31	4.12	11.6	18.4	5.74	11.4	210	Clear
08:35	6.05	200	0.5	6.88	4.24	11.0	20.5	5.78	12.9	178	No odor
08:45	7.13	200	1.0	7.02	4.55	10.2	21.8	5.82	14.0	147	Same
08:55	8.30	200	1.5	7.38	4.74	9.0	23.5	5.86	15.0	137	Same
09:00	8.93	200	1.7	7.21	3.69	9.2	23.6	6.87	15.0	160	
09:05	9.67	200	1.9	7.09	2.87	9.4	24.2	8.39	15.1	183	
Dry	11.8		0	0	0	0	0	0	0	0	

Sampling Data

Method: Dedicated tubing

Date: 03/26/2015

Time: *(hhmm)* 08:30

Total Volume of Water Purged: 1.9 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Alkalinity (g/g)	380
Spec. Cond. (mS/cm)		Carbon dioxide (mg/L)	290
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Hydrogen sulfide (mg/L)	
Temp.(°C)		DTW (ft)	
TDS (g/L)			
ORP (mv)			

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	1000 ml		
Acetylene	☑			

Comments:

went dry and sampled the next day

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-11S

Manual Entry:

Samplers:

Other

DDT

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.2

Depth to Well Bottom (ft):

Date: 03/26/2015

Time: 11:45 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
11:45	6.2	200	0	7.92	0.64	58.6	5.09	7.08	3.21	-224	
11:55	7.52	200	0.5	7.76	0.66	29.1	5.12	6.82	3.22	-226	
12:05	7.58	200	1.0	7.7	0.72	5.1	5.13	6.52	3.22	-227	
12:10	7.6	200	1.2	7.6	0.88	14.8	5.11	6.31	3.22	-229	
12:15	7.7	200	1.5	7.57	0.8	10.52	5.15	6.43	3.24	-230	
12:20	7.7	200	1.7	7.55	0.78	8.21	5.15	6.36	3.25	-231	
12:25	7.68	200	2.0	7.52	0.72	10.16	5.21	6.51	3.28	-233	
12:30	7.73	200	2.2	7.49	0.65	9.03	5.22	6.57	3.29	-235	
12:35	7.73	200	2.5	7.45	0.61	8.17	5.27	6.51	3.32	-236	
12:40	7.78	200	2.7	7.43	0.62	7.33	5.32	6.44	3.34	-238	
12:45	7.82	200	3.0	7.42	0.61	6.43	5.32	6.43	3.35	-238	

Sampling Data

Method: Dedicated tubing

Date: 03/26/2015

Time: *(hhmm)* 12:45

Total Volume of Water Purged: 3.0 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.42	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	5.32	Carbon dioxide (mg/L)	
Turbidity (NTU)	6.43	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	
Temp.(°C)	6.43	DTW (ft)	7.82
TDS (g/L)	3.35		
ORP (mv)	-238		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0 MS/MSD

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-12D

Manual Entry:

Samplers: Other

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.33

Depth to Well Bottom (ft):

Date: 04/01/2015

Time: 11:40 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
11:50	6.68	200	0.0	7.03	3.18	269	6.22	12.37	3.93	-235	Black water, opaque, load...
12:00	7.32	200	0.5	6.42	1.78	310	6.30	12.39	3.96	-308	Water clearing, but a lot ...
12:10	7.80	200	1.0	6.07	1.73	117	5.29	12.46	3.33	-397	Same
12:15	7.94	200	1.2	6.01	1.70	239	5.16	12.52	3.24	-427	Same
12:20	8.02	200	1.5	5.97	1.70	123	5.10	12.50	3.22	-449	Same
12:25	8.09	200	1.7	6.01	1.69	149	5.09	12.42	3.21	-466	Same
12:30	8.12	200	2.0	6.10	1.69	138	5.07	12.28	3.19	-473	Same
12:35	8.14	200	2.2	6.17	1.68	138	4.92	12.10	3.11	-463	Same
12:40	8.16	200	2.5	6.26	1.65	138	4.71	11.95	3.01	-464	Same
12:45	8.18	200	2.7	6.27	1.65	102	4.51	11.91	2.88	-460	Same
12:50	8.18	200	3.0	6.33	1.65	85	4.42	11.88	2.83	-455	Same, LaMotte unit still n...
12:55	8.18	200	3.2	6.33	1.64	23.7	4.31	11.85	2.76	-448	Same
13:00	8.20	200	3.5	6.35	1.64	22.5	4.25	11.82	2.72	-440	Same
13:05	8.19	200	3.7	6.35	1.62	21.9	4.19	11.90	2.68	-432	Same
13:10	8.20	200	4.0	6.31	1.62	23.6	4.15	11.93	2.65	-431	Same

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 12:40

Total Volume of Water Purged: 2.5 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.26	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	4.71	Carbon dioxide (mg/L)	
Turbidity (NTU)	138	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	2
Temp.(°C)	11.95	DTW (ft)	8.16
TDS (g/L)	3.01		
ORP (mv)	-464		

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑			
Acetylene	☑			

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-13D

Manual Entry:

Samplers: Other — Doug Taylor

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Date: 03/25/2015

Time: 1202 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
12.05	6.25	200	0	7.03	2.84	442	5.67	10.74	3.59	-174	
12:15	7.12	200	0.5	6.97	2.17	40.7	5.8	11.67	3.65	-194	
12.25	7.8	200	1	6.86	1.94	84.3	7.01	11.21	4.48	-184	
12:30	7.95	200	1.2	6.8	1.9	61	7.87	11.21	4.99	-189	
12:35	8.14	200	1.5	6.45	1.82	5.7	8.32	11.2	5.26	-251	
12:40	8.2	200	1.7	6.37	1.83	12.6	8.45	11.13	5.34	-279	
12:45	8.27	200	2	6.28	1.79	13.2	8.69	11.05	5.48	-315	
12:50	8.32	200	2.2	6.32	1.79	10.27	9	10.82	5.7	-335	
12:55	8.42	200	2.5	6.05	1.76	49.8	9.48	10.89	5.96	-382	
13:00	8.44	200	2.7	6.02	1.75	49.2	9.32	10.8	5.89	-392	
13:05	8.49	200	3	5.99	1.76	12.5	9.35	10.74	5.89	-399	
13:10	8.52	200	3.2	5.98	1.75	21	9.40	10.68	5.92	-402	
13:15	8.57	200	3.5	5.97	1.75	29.3	9.31	10.62	5.87	-405	

Sampling Data

Method: Dedicated tubing

Date: 03/25/2015

Time: *(hhmm)* 13:15

Total Volume of Water Purged: 3.5 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.97	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	9.31	Carbon dioxide (mg/L)	
Turbidity (NTU)	29.3	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	
Temp.(°C)	10.62	DTW (ft)	8.57
TDS (g/L)	5.87		
ORP (mv)	-405		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

water too dar

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-14D

Manual Entry:

Samplers: Other

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.16

Depth to Well Bottom (ft):

Date: 04/01/2015

Time: 08:38 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
08:40	6.50	200	0.0	6.18	2.82	196	6.55	10.64	4.17	-200	Dark Black color, visible s...
08:50	7.09	200	0.5	6.68	2.25	88.4	7.16	10.63	4.50	-216	Same
09:00	7.80	200	1.0	6.75	2.14	49.7	6.13	11.07	3.83	-223	Water clearing, though sti...
09:05	8.20	200	1.2	6.76	2.14	12.1	5.11	11.12	3.21	-237	Same
09:10	8.50	200	1.5	6.71	2.11	10.9	4.65	11.29	2.97	-253	Water continuing to clear...
09:15	8.84	200	1.7	6.60	2.10	3.5	4.40	11.27	2.82	-290	Same
09:20	9.04	200	2.0	6.56	2.09	14.1	4.39	11.21	2.81	-319	Same
09:25	9.47	200	2.2	6.42	2.06	25.2	4.28	11.26	2.74	-375	Same
09:30	9.67	200	2.5	6.39	2.06	34.3	4.26	11.27	2.73	-387	Same
09:35	9.74	200	2.7	6.27	2.05	79.9	4.24	11.27	2.71	-425	Same
09:40	9.92	200	3.0	6.20	2.04	125	4.26	11.27	2.72	-440	Water turning black right ...
09:45	10.18	200	3.2	6.13	2.03	165	4.29	11.35	2.74	-466	Same
09:50	10.44	200	3.5	6.07	2.01	201	4.31	11.42	2.75	-488	Same
09:55	10.68	200	3.7	6.00	1.99	244	4.33	11.49	2.77	-500	Same
10:00	10.80	200	4.0	5.99	1.98	247	4.36	11.54	2.79	-506	Same
10:05	10.93	200	4.2	5.99	1.94	254	4.36	11.54	2.79	-508	Same
10:10	11.05	200	4.5	5.98	1.93	263	4.37	11.55	2.80	-511	Same
10:15	11.18	200	4.7	5.96	1.94	266	4.43	11.51	2.84	-513	Same
10:20	11.28	200	5.0	5.97	1.93	266	4.50	11.53	2.89	-515	Same
10:25	11.40	200	5.2	5.97	1.89	278	4.56	11.57	2.92	-515	Same
10:30	11.50	200	5.5	5.99	1.88	307	4.61	11.61	2.95	-520	Same
10:35	11.56	200	5.7	6.00	1.88	309	4.66	11.58	2.99	-520	Same
10:40	11.58	200	6.0	6.03	1.87	307	4.76	11.55	3.05	-520	Same
10:45	11.67	200	6.2	6.02	1.86	310	4.81	11.60	3.13	-516	Same
10:50	11.75	200	6.5	6.01	1.83	312	4.83	11.63	3.12	-515	Same

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	04/01/2015	10:50	6.5 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.01	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	4.83	Carbon dioxide (mg/L)	
Turbidity (NTU)	312	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	2
Temp.(^{O}C)	11.63	DTW (ft)	11.75
TDS (g/L)	3.12		
ORP (mv)	-515		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0. Water black, unable to do Hach tests other than h2s. All turbidity done on Horiba.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-15D

Manual Entry:

Samplers: Doruk Ucak

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.76

Depth to Well Bottom (ft):

Date: 03/24/2015

Time: 0845 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0845	6.12	200	0	6.11	8.49	5.26	1.17	8.42	0.759	-360	
0855	6.19	200	0.53	6.09	2.48	3.40	1.25	9.05	0.797	-339	
0900	6.17	200	1.07	6.97	2.34	2.42	1.23	8.95	0.792	-326	
0910	6.15	100	1.34	6.99	2.30	2.13	1.24	9.07	0.794	-322	
0929	6.15	100	1.61	7.04	2.21	2.02	1.24	9.12	0.797	-313	
0930	6.15	100	1.88	7.06	2.14	1.43	1.25	9.32	0.800	-306	
0940	6.15	100	2.05	7.08	2.12	1.57	1.26	9.42	0.805	-304	
0950	6.16	100	2.31	7.09	2.14	1.44	1.24	9.51	0.796	-296	
0955	6.16	100	2.60	7.10	2.15	1.21	1.24	9.45	0.797	-294	
1000	6.16	100	2.73	7.11	2.05	1.24	1.24	9.55	0.793	-291	
1005	6.16	100	2.86	7.11	2.02	0.98	1.24	9.58	0.793	-289	
1010	6.16	100	3.00	7.11	1.98	1.56	1.24	9.60	0.792	-287	

Sampling Data

Method: Dedicated tubing

Date: 03/24/2015

Time: *(hhmm)* 1010

Total Volume of Water Purged: 3.00 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.11	Alkalinity (g/g)	240
Spec. Cond. (mS/cm)	1.24	Carbon dioxide (mg/L)	312
Turbidity (NTU)	1.56	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0
Temp.(°C)	9.60	DTW (ft)	6.16
TDS (g/L)	0.792		
ORP (mv)	-287		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	1L		
Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-16D

Manual Entry:

Samplers: Other

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.89

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 13:33 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
13:35	5.95	200	0.0	5.78	7.76	2200	1.73	12.26	1.23	-78	Very high suspended solids
13:45	5.93	200	0.5	5.88	5.56	290	9.38	12.13	5.91	-307	Same
13:55	5.91	200	1.0	6.12	5.89	247	10.5	12:57	6.39	-323	Same
14:00	5.93	200	1.2	5.92	5.72	230	10.5	12.79	6.52	-332	Same
14:05	5.93	200	1.5	5.91	5.84	236	10.7	12.76	6.64	-342	Same
14:10	5.93	200	1.7	5.92	6.67	226	11.2	13.07	6.93	-349	Same
14.15	5.94	200	2.0	5.93	6.45	10.92	11.2	13.22	6.98	-354	Water clearing, oxidizing i...
14.20	5.93	200	2.2	5.95	6.11	14.7	11.4	13.45	7.04	-362	Same
14:20	5.93	200	2.5	5.95	6.18	9.56	11.4	13.14	7.05	-367	Same
14:25	5.94	200	2.7	6.03	6.17	8.34	11.4	13.12	7.06	-368	Same

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 14:25

Total Volume of Water Purged: 2.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.03	Alkalinity (g/g)	560
Spec. Cond. (mS/cm)	11.4	Carbon dioxide (mg/L)	462
Turbidity (NTU)	8.34	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	5
Temp.(°C)	13.12	DTW (ft)	5.94
TDS (g/L)	7.06		
ORP (mv)	-368		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0. MS/MSD sample. manganese turned orange, not pink, hard to estimate concentration

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Doruk Ucak

Well ID: PMW-17D

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.58

Depth to Well Bottom (ft):

Date: 03/24/2015

Time: 1145 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1145	6.28	150	0.20	7.27	4.60	-60	13.8	9.02	8.60	-314	
1150	6.2	150	0.40	7.66	2.78	22.7	14.6	10.05	9.06	-310	
1205	6.21	150	1.0	7.69	2.39	14.8	14.7	10.28	9.11	-275	
1210	6.23	150	1.2	7.55	2.12	57.3	14.7	10.57	9.09	-272	
1220	6.25	150	1.60	7.34	2.06	50.3	14.4	10.82	8.89	-315	
1230	6.27	15	2.0	7.13	1.90	13.47	14.1	11.07	8.73	-332	
1240	6.28	150	2.	6.98	1.87	-65	13.5	11.07	8.41	-334	
1255	6.30	150	3	6.80	1.92	-65	13.4	10.88	8.25	-339	
1300	6.31	260	4	6.78	1.95	-65	13.0	10.82	8.10	-339	
1305	6.32	260	4.20	6.74	1.85	-65	12.6	11.23	7.81	-340	
1310	6.34	260	4.6	6.74	1.80	-65	12.6	11.40	7.78	-337	
1315	6.35	260	5.2	6.70	1.71	-65	12.3	11.35	7.56	-336	

Sampling Data

Method: Dedicated tubing

Date: 03/24/2015

Time: *(hhmm)* 1315

Total Volume of Water Purged: 5.2 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.70	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	12.3	Carbon dioxide (mg/L)	
Turbidity (NTU)	-65	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	4
Temp.(°C)	11.35	DTW (ft)	6.35
TDS (g/L)	7.56		
ORP (mv)	-336		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

Water too dark for hach

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	800 mL		
Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-1D

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.4

Depth to Well Bottom (ft):

Date: 04/03/2015

Time: 08:00 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
08:00	6.40	200	0.0	7.68	4.60	674	3.78	14.65	2.79	-250	Cloudy
08:10	7.80	200	0.5	8.03	0.42	375	4.73	10.75	3.03	-330	Substrate odor
08:20	7.78	200	1.0	8.22	0.41	263	4.78	10.57	3.06	-344	Clear
08:30	7.83	200	1.5	8.29	0.40	219	4.79	10.53	3.07	-345	Black suspended solids
08:35	7.84	200	1.7	8.30	0.40	175	4.80	10.46	3.07	-344	Same
08:40	7.85	200	1.9	8.32	0.39	168	4.81	10.39	3.08	-343	Same
08:45	7.88	200	2.2	8.33	0.39	137	4.80	10.34	3.07	-344	
08:50	7.91	200	2.4	8.35	0.40	117	4.80	10.28	3.07	-344	
08:55	7.97	200	2.6	8.36	0.40	85.6	4.81	10.30	3.07	-344	Same
09:00	8.04	200	2.9	8.38	0.40	69.6	4.81	10.31	3.08	-343	
09:05	8.07	200	3.1	8.39	0.41	37.4	4.81	10.18	3.08	-344	
09:10	8.10	200	3.4	8.40	0.41	20.8	4.81	10.05	3.08	-344	Same
09:15	8.14	200	3.6	8.39	0.41	17.6	4.80	9.99	3.07	-341	
09:20	8.17	200	3.8	8.38	0.41	15.7	4.80	9.94	3.07	-338	
09:25	8.24	200	4.1	8.37	0.41	13.4	4.82	9.77	3.08	-334	Same
09:30	8.26	200	4.3	8.35	0.40	12.8	4.80	9.96	3.06	-331	Lightly oxidizing
09:35	8.30	200	4.5	8.34	0.40	16.9	4.78	10.12	3.05	-329	Same

Sampling Data

Method: Dedicated tubing

Date: 04/03/2015

Time: *(hhmm)* 09:35

Total Volume of Water Purged: 4.5 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.34	Alkalinity (g/g)	160
Spec. Cond. (mS/cm)	4.78	Carbon dioxide (mg/L)	462
Turbidity (NTU)	16.9	Ferrous Iron (mg/L)	
DO (mg/L)	0.40	Hydrogen sulfide (mg/L)	
Temp.(°C)	10.12	DTW (ft)	8.3
TDS (g/L)	3.05		
ORP (mv)	-329		

Comments:

Water turned green after 80 drops of the co2 test.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-2D

Manual Entry:

Samplers: Doruk Ucak

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.9

Depth to Well Bottom (ft):

Date: 03/26/2015

Time: 0845 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0845	6.60	100	0.13	6.22	2.43	18.10	3.89	10.17	2.53	-308	
0850	7.40	100	0.27	6.52	1.94	23.22	4.25	10.32	2.78	-349	
0900	8.63	100	0.53	6.57	1.95	12.77	4.27	10.11	2.68	-343	
0905	9.41	100	0.66	6.60	1.96	5.56	4.29	9.53	2.54	-340	
0910	9.71	100	0.80	6.59	1.98	0	4.30	9.33	2.75	-346	Particles
0915	9.91	100	0.93	6.59	1.97	0	4.31	9.28	2.76	-346	
0920	10.03	100	1.06	6.57	1.97	8.33	4.41	9.07	2.87	-345	
0925	10.29	100	1.20	6.56	1.97	4.44	4.54	8.95	2.91	-345	
0930	10.75	100	1.33	6.50	1.96	4.80	4.81	8.29	3.08	-341	
0935	11.00	100	1.47	6.46	1.96	5.12	5.19	8.64	3.28	-338	
0945	11.33	100	1.60	6.43	1.96	5.41	5.32	8.47	3.41	-326	
0950	11.66	100	1.73	6.43	1.96	5.60	5.77	8.48	3.54	-335	
0955	11.98	100	1.86	6.40	1.96	8.33	5.96	8.29	3.69	-333	
1000	11	100	2.00	6.37	1.93	2.12	6.00	8.40	3.79	-329	
1005	11.62	100	2.13	6.37	1.90	6.33	6.06	8.49	3.62	-330	
1010	11.63	100	2.26	6.37	1.89	8.11	6.07	8.37	3.83	-326	
1015	11.71	100	2.40	6.36	1.85	12.33	6.11	8.41	3.85	-324	
1020	11.81	100	2.53	6.35	1.85	7.43	6.12	8.37	3.86	-323	
1030	12.09	100	2.80	6.36	1.85	6.86	6.13	8.66	3.86	-323	
1035	12.25	100	2.93	6.37	1.76	12.33	6.09	8.73	3.83	-323	
1040	12.36	100	3.06	6.38	1.75	10.4	6.05	8.76	3.80	-324	
1045	12.48	100	3.20	6.39	1.74	15.42	6.00	8.77	3.78	-324	
1050	12.54	100	3.33	6.38	1.72	10.06	6.04	8.74	3.80	-322	
1055	12.64	100	3.46	6.38	1.70	11.22	6.03	8.73	3.80	-322	
1100	12.71	100	3.60	6.38	1.69	10.3	6.03	8.72	3.81	-322	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	03/26/2015	1100	3.60 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.38	Alkalinity (g/g)	520
Spec. Cond. (mS/cm)	6.03	Carbon dioxide (mg/L)	450
Turbidity (NTU)	10.3	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	1.5
Temp.(^{O}C)	8.72	DTW (ft)	12.71
TDS (g/L)	3.81		
ORP (mv)	-322		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

Mn test turned orange

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	1-1000mL		
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-2S

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 3.72

Depth to Well Bottom (ft):

Date: 03/30/2015

Time: 11:30 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
11:30	3.72	200	0.0	6.81	0.0	4.3	10.3	6.50	6.42	-115	Clear
11:40	4.50	200	0.5	6.63	0.0	2.8	10.3	7.19	6.36	-127	Lt substrate odor
11:50	5.45	200	1.0	6.58	0.0	1.2	9.90	7.89	6.23	-130	Same
12:00	5.60	200	1.5	6.56	0.0	7.7	9.47	8.21	5.96	-132	Same
12:05	5.60	200	1.7	6.55	0.0	2.9	9.21	8.38	5.85	-132	Same
12:10	5.60	200	1.9	6.54	0.0	3.9	9.06	8.52	5.70	-133	Same
12:15	5.60	200	2.2	6.54	0.0	5.0	8.98	8.56	5.65	-134	Same
12:20	5.60	200	2.4	6.54	0.0	7.0	8.90	8.58	5.61	-135	Same
12:25	5.62	200	2.6	6.54	0.0	4.6	8.82	8.66	5.52	-136	
12:30	5.65	200	2.8	6.53	0.0	9.3	8.80	8.70	5.47	-138	

Sampling Data

Method: Dedicated tubing

Date: 03/30/2015

Time: *(hhmm)* 12:30

Total Volume of Water Purged: 2.8 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.53	Alkalinity (g/g)	520
Spec. Cond. (mS/cm)	8.80	Carbon dioxide (mg/L)	476
Turbidity (NTU)	9.3	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	0.5
Temp.(°C)	8.70	DTW (ft)	5.65
TDS (g/L)	5.47		
ORP (mv)	-138		

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	1 filter		
Acetylene	☑			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-3D

Manual Entry:

Samplers: Doruk Ucak

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.19

Depth to Well Bottom (ft):

Date: 03/30/2015

Time: 1100 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1100	6.92	200	0.27	7.77	1.04	24	20.3	6.91	11.6	-303	
1105	7.82	200	0.53	7.76	0.24	0	21.5	8.72	13.3	-416	
1110	8.19	200	0.80	7.96	0.15	0	21.1	8.62	13.1	-423	
1115	8.50	100	0.93	7.95	0.15	0	21.2	8.30	13.0	-426	
1120	8.71	100	1.06	7.58	0.16	0	20.8	7.52	12.9	-429	
1125	8.90	100	1.20	7.93	0.15	0	20.8	9.09	12.9	-430	
1130	9.24	100	1.33	7.92	0.15	0	20.8	9.20	12.9	-430	
1135	9.62	100	1.46	7.92	0.15	0	20.6	9.36	12.8	-431	
1140	9.76	100	1.60	7.90	0.15	0	20.5	9.53	12.9	-432	
1145	9.91	100	1.93	7.89	0.16	0	20.2	9.68	12.5	-432	
1150	9.89	100	2.06	7.88	0.16	0	20.0	9.59	12.4	-432	
1155	9.82	100	2.20	7.87	0.16	0	19.7	9.56	12.2	-432	
1200	9.83	100	2.33	7.83	0.16	0	19.1	9.59	11.8	-431	
1205	9.85	100	2.46	7.81	0.16	0	18.7	9.60	11.6	-431	
1210	9.85	100	2.60	7.81	0.15	0	18.4	9.54	11.4	-430	
1215	9.84	100	2.63	7.73	0.16	0	17.6	9.52	10.9	-428	
1220	9.84-	100	2.76	7.7	0.15	0	17.2	9.57	10.6	-427	
1225	9.85	100	Na	7.67	0.23	0	16.8	9.43	10.4	-426	Wmeter malfunction
1240	9.85	100	2.75	7.59	0.26	0	15.8	9.73	9.78	-422	Fixed
1240	9.85	100	2.88	7.57	0.26	0	15.3	9.93	9.53	-422	
1250	9.85	100	3.01	7.53	0.26	0	15.0	9.26	9.26	-421	
1255	9.85	100	3.14	7.52	0.26	0	14.7	10.16	9.09	-420	
1300	9.85	100	3.27	7.51	0.26	0	14.5	10.26	9.00	-420	
1305	9.85	100	3.40	7.50	0.26	0	14.4	10.35	8.91	-415	

Sampling Data

Method: Dedicated tubing

Date: 03/30/2015

Time: *(hhmm)* 1305

Total Volume of Water Purged: 3.40 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.50	Alkalinity (g/g)	880
Spec. Cond. (mS/cm)	14.4	Carbon dioxide (mg/L)	472
Turbidity (NTU)	0	Ferrous Iron (mg/L)	
DO (mg/L)	0.26	Hydrogen sulfide (mg/L)	5
Temp.(°C)	10.35	DTW (ft)	9.85
TDS (g/L)	8.91		
ORP (mv)	-415		

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F

Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

Comments:

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-3S

Manual Entry:

Samplers: Doruk Ucak

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.6

Depth to Well Bottom (ft):

Date: 03/24/2015

Time: (hhmm)

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1435Ij	5.2	100	0.13	6.91	4.39	25.4	4.92	9.64	3.15	-154	
1445	5.91	100	0.27	6.83	2.67	8.21	4.83	9.18	3.09	-179	
1455	6.02	100	0.40	6.70	2.34	4.62	4.78	9.41	3.06	-223	
1500	6.09	100	0.53	6.67	2.21	2.83	4.77	9.51	3.05	-249	
1505	6.15	100	1	6.68	2.11	2.98	4.77	9.67	3.05	-264	
1515	6.26	100	1.26	6.47	2.02	2.12	4.78	9.79	3.06	-275	
1520	6.29	100	1.40	6.47	1.98	2.09	4.78	9.82	3.06	-278	
1525	6.32	100	1.53	6.38	1.92	3.54	4.80	9.95	3.07	-280	
1530	6.32	100	1.66	6.36	1.89	1.45	4.81	10.10	3.08	-281	
1535	6.32	100	1.80	6.35	1.86	3.34	4.82	10.18	3.08	-283	
1545	6.37	100	2.06	6.31	1.79	2.87	4.84	10.40	3.10	-285	
1550	6.37	100	2.20	6.31	1.77	4.85	4.84	10.45	3.11	-285	
1555	6.38	100	2.33	6.30	1.76	3.22	4.84	10.42	3.11	-286	
1600	6.38	100	2.46	6.30	1.75	1.67	4.85	10.42	3.11	-287	
1605	6.40	100	2.60	6.29	1.73	2.55	4.87	10.56	3.12	-286	
1610	6.40	100	2.73	6.28	1.71	1.12	4.89	10.64	3.13	-286	
1615	6.40	100	2.86	6.28	1.71	1.34	4.89	10.62	3.13	-286	

Sampling Data

Method: Dedicated tubing

Date: 03/24/2015

Time: (hhmm) 1615

Total Volume of Water Purged: 2.86 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.28	Alkalinity (g/g)	14
Spec. Cond. (mS/cm)	4.89	Carbon dioxide (mg/L)	51
Turbidity (NTU)	1.34	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	4
Temp.(°C)	10.62	DTW (ft)	6.4
TDS (g/L)	3.13		
ORP (mv)	-286		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑			
Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Bill Simons

Well ID: PMW-4D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.05

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 0850 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0905	6.95	200	0.8	6.59	2.33	0	2.22	10.07	1.42	-359	turbidity measured w hori...
0915	6.9	200	1.3	6.53	2.29	0	2.32	10.22	1.49	-353	
0925	7.22	200	1.8	6.46	2.22	0	2.49	10.44	1.6	-347	
0935	7.27	200	2.3	6.43	2.15	0	2.68	10.62	1.72	-345	
0945	7.32	200	2.8	6.42	2.11	0	2.81	10.78	1.81	-343	
0955	7.32	200	3.3	6.42	2.05	0	2.99	10.96	1.92	-342	
1000	7.33	200	3.5	6.42	2.04	0	3.09	11.06	1.98	-342	
1005	7.33	200	3.8	6.43	2.02	0	3.15	11.07	2.02	-342	
1010	7.33	200	4	6.44	2	0	3.24	11.16	2	-342	
1015	7.33	200	4.3	6.45	1.96	0	3.36	11.4	2.15	-342	
1020	7.33	200	4.5	6.46	1.97	0	3.4	11.19	2.18	-342	
1025	7.34	200	4.8	6.46	1.98	0	3.44	11.18	2.21	-343	

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 1025

Total Volume of Water Purged: 4.8 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.46	Alkalinity (g/g)	860
Spec. Cond. (mS/cm)	3.44	Carbon dioxide (mg/L)	562
Turbidity (NTU)	0	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	5
Temp.(°C)	11.18	DTW (ft)	7.34
TDS (g/L)	2.21		
ORP (mv)	-343		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0
h2s >5

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-4S

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.2

Depth to Well Bottom (ft):

Date: 03/30/2015

Time: 13:35 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
13:35	4.20	200	0.0	7.39	3.67	54.1	0.737	8.27	0.449	-43	Light turbid
13:45	5.65	200	0.5	7.84	0.0	23.6	0.525	7.56	0.336	8	Clear
13:55	7.70	200	1.0	7.68	0.0	12.1	0.532	7.72	0.341	29	Lt odor
14:05	7.75	200	1.5	7.16	0.0	8.8	0.917	7.88	0.597	50	Same
14:10	7.81	200	1.7	7.08	0.0	5.0	1.34	7.85	1.21	51	Same
14:15	7.86	200	1.9	6.98	0.0	3.9	2.54	7.82	1.64	53	Same
14:20	7.94	200	2.1	6.98	0.0	4.8	2.86	7.81	1.90	52	Same
14:25	8.05	200	2.4	6.98	0.0	7.4	3.22	7.81	2.07	51	Same
14:25	8.17	200	2.6	7.0	0.0	9.3	3.40	7.82	2.17	50	Same
14:35	8.30	200	2.8	7.02	0.0	3.9	3.54	7.82	2.27	50	Same
14:40	8.30	200	3.0	7.02	0.0	4.0	3.60	7.67	2.30	51	
14:45	8.31	200	3.3	7.03	0.0	4.2	3.66	7.53	2.34	52	
14:50	8.47	200	3.5	7.02	0.0	3.3	3.63	7.62	2.33	58	
14:55	8.90	200	3.7	7.00	0.0	6.7	3.61	7.71	2.32	63	
15:00	8.96	200	3.9	7.00	0.0	4.9	3.89	7.64	2.51	68	
15:05	9.02	200	4.2	7.01	0.0	3.7	4.03	7.57	2.74	74	
15:10	9.10	200	4.6	7.01	0.0	5.2	4.07	7.47	2.78	77	
15:15	9.20	200	4.8	7.02	0.0	4.5	4.11	7.37	2.83	80	
15:20	9.30	200	5.0	7.03	0.0	3.6	4.09	7.28	2.87	84	
15:30	Dry		0	0	0	0	0	0	0	0	

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

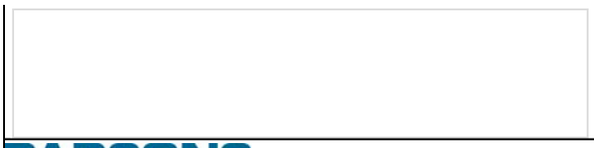
Time: *(hhmm)* 1400

Total Volume of Water Purged: (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon dioxide (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Hydrogen sulfide (mg/L)	
Temp.(°C)		DTW (ft)	
TDS (g/L)			
ORP (mv)			

Comments:

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			



PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-5D

Manual Entry:

Samplers: Doruk Ucak

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.1

Depth to Well Bottom (ft):

Date: 03/30/2015

Time: (hhmm)

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1440	6.71	100	0.13	10.10	1.10	0	13.1	8.86	8.46	-431	
1445	7.21	100	0.26	13.86	0.24	0	17.8	10.09	11	-506	
1455	7.64	100	0.531	14.00	0.26	0.0	17.7	9.89	11	-483	
1510	7.82	100	0.66	13.94	0.51	0	17	10.05	10.5	-436	
1515	7.82	100	0.80	13.81	0.30	0	16.6	9.69	10.3	-433	
1520	7.82	100	0.83	13.51	0.27	0	15.9	9.59	9.81	-431	
1530	7.82	100	0.96	12.21	0.26	0	14.7	9.74	7.85	-439	
1535	7.82	100	1.06	11.82	0.25	0	13.2	9.68	8.14	-438	
1540	7.82	100	1.20	11.52	0.25	0	11.9	9.77	7.37	-438	
1545	7.82	100	1.33	11.24	0.25	0	11.4	9.71	7.08	-437	
1550	7.82	100	1.46	11.03	0.25	0	10.9	9.67	6.78	-437	
1555	7.82	100	1.60	10.89	0.25	0	10.7	9.64	6.61	-435	
1600	7.82	100	1.88	10.71	0.25	0	10.3	9.77	6.34	-434	
1605	7.82	100	2.03	10.52	0.25	0	9.99	10.48	6.28	-436	
1610	7.82	100	2.16	10.13	0.24	0	9.63	10.61	6.05	-431	
1615	7.82	100	2.30	9.88	0.24	0	9.14	10.69	5.75	-428	
1620	7.82	200	2.57	9.46	0.24	0	9.02	10.78	5.59	-425	
1625	7.82	200	2.84	9.25	0.24	0	8.69	10.96	5.46	-423	
1630	7.82	200	3.11	8.78	1.23	0	8.17	11.21	5.14	-418	
1636	7.82	200	3.38	8.64	1.24	0	8.04	11.23	5.07	-417	
1640	7.82	200	3.65	8.53	1.22	0	7.97	11.26	5.02	-416	
1645	7.83	200	3.92	8.36	1.19	0	7.71	11.34	4.85	-414	
1650	7.83	200	4.20	8.24	1.19	0	7.46	11.36	4.66	-411	
1655	7.85	200	4.47	8.19	1.17	0	7.21	11.42	4.53	-410	
1700	7.85	200	4.74	8.12	1.15	0	6.91	11.48	4.44	-410	

1705	7.86	200	5.01	8.06	1.15	0	6.81	11.25	4.29	-408	
1710	7.86	200	5.28	8.04	1.15	0	6.82	11.25	4.30	-408	

Sampling Data

Method:	Date:	Time: *(hhmm)*	Total Volume of Water Purged:
Dedicated tubing	03/30/2015	1710	5.28 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	8.04	Alkalinity (g/g)	520
Spec. Cond. (mS/cm)	6.82	Carbon dioxide (mg/L)	176
Turbidity (NTU)	0	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	5
Temp.(^{O}C)	11.25	DTW (ft)	7.86
TDS (g/L)	4.3		
ORP (mv)	-408		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: PMW-5S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 3.18

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 09:25 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
09:25	3.18	200	0.0	7.89	3.28	26.5	5.70	6.50	3.48	-40	
09:35	5.26	200	0.5	7.39	0.50	0.0	4.06	6.90	2.60	-7	
09:45	7.00	200	1.0	7.36	0.56	0.0	3.93	7.15	2.51	-4	
09:55	7.85	100	1.5	7.33	1.32	30.5	3.78	7.22	2.42	15	
10:00	8.31	100	1.6	7.34	1.25	80.8	3.90	7.35	2.55	12	
10:05	8.96	100	1.7	7.33	1.18	145	4.16	7.50	2.67	7	
10:10	9.05	100	1.8	7.32	1.12	387	4.34	7.82	2.83	-3	
10:15	Dry		O	O	O	O	O	O	O	O	

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 10:00

Total Volume of Water Purged: (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon dioxide (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Hydrogen sulfide (mg/L)	
Temp.(°C)		DTW (ft)	
TDS (g/L)			
ORP (mv)			

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

Comments:

Do is 4.21. Orp is 14. Well was purged dry and sampled the next day

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-6D

Manual Entry:

Samplers: Other

DDT

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.01

Depth to Well Bottom (ft):

Date: 03/26/2015

Time: 0850 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
8:50	5.01	200	0	7.05	0.8	7	3.93	10.54	2.53	-337	
9:00	8.05	200	0.5	7.67	0.47	14.4	4.21	10.47	2.69	-365	
9:10	9.45	200	1.0	7.59	0.47	14.1	4.35	10.13	2.79	-374	
9:15	10.44	200	1.2	7.56	0.47	14.2	4.45	10.17	2.85	-378	
9:20	11.32	200	1.5	7.54	0.48	12.2	4.55	10.3	2.91	-380	
9:25	12.59	200	1.7	7.52	0.46	825	4.63	10.47	2.96	-383	
9:30	13.72	200	2.0	7.54	0.46	10.95	4.72	10.49	3.03	-385	
9:35	14.31	200	2.2	7.53	1.09	9.45	4.8	10.32	3.08	-387	
9:40	15.45	200	2.5	7.55	1.22	10.2	4.95	10.05	3.17	-390	
9:45	15.5	200	2.7	7.55	1.24	10.52	4.94	9.7	3.16	-391	
9:50	16.04	200	3.0	7.54	1.11	10.11	4.97	9.83	3.19	-388	
9:55	17.45	200	3.2	7.54	1.09	10.05	5.03	10.63	3.17	-390	
10:00	18.49	200	3.5	7.55	0.97	11.3	5.07	10.75	3.19	-391	
10:05	19.97	200	3.7	7.55	0.89	9.49	5.12	10.96	3.23	-393	
10:10	20.92	200	4	7.56	0.88	9.04	5.16	10.81	3.25	394	
10:15	21.97	200	4.2	7.57	0.82	8.76	5.17	10.83	3.26	-394	
10:20	22.85	200	4.5	7.57	0.75	10.9	5.16	10.93	3.25	-394	
10:25	23.72	200	4.7	7.55	0.73	9.21	5.21	10.64	3.27	-388	
10.3	dry	200	5	na	na	na	na	nan	nan	na	

Sampling Data

Method: Dedicated tubing

Date: 03/26/2015

Time: *(hhmm)* 10.3

Total Volume of Water Purged: 5 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon dioxide (mg/L)	

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260

Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)	12.74	Hydrogen sulfide (mg/L)	
Temp.(^{O}C)		DTW (ft)	
TDS (g/L)			
ORP (mv)	-207		

Comments:

ran dry.

MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: PMW-6S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.65

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 10:40 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
10:40	4.65	200	0.0	8.70	9.0	503	6.80	5.87	4.36	-183	Clear
10:50	6.10	200	0.5	7.17	6.57	27.9	3.95	7.72	2.52	-175	Lt odor
11:00	6.55	200	1.0	7.17	7.17	3.2	3.76	8.08	2.41	-183	Same
11:10	6.68	200	1.5	7.16	6.82	0.0	3.64	8.55	2.33	-190	Same
11:15	6.69	200	1.7	7.16	6.75	1.9	3.64	8.62	2.33	-193	Same
11:20	6.70	200	1.9	7.16	6.69	3.4	3.64	8.69	2.33	-196	Same
11:25	6.71	200	2.2	7.16	6.65	2.5	3.65	8.72	2.33	-197	
11:30	6.74	200	2.4	7.16	6.63	4.6	3.65	8.76	2.34	-199	
11:35	6.79	200	2.7	7.15	6.55	1.3	3.70	8.86	2.37	-202	

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 11:35

Total Volume of Water Purged: 2.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.15	Alkalinity (g/g)	1,220
Spec. Cond. (mS/cm)	3.70	Carbon dioxide (mg/L)	1,125
Turbidity (NTU)	1.3	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0.4
Temp.(°C)	8.86	DTW (ft)	6.79
TDS (g/L)	2.37		
ORP (mv)	-202		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Bill Simons

Well ID: PMW-7D

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.28

Depth to Well Bottom (ft):

Date: 04/01/2015

Time: 0830 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
0840	6.67	200	0.5	6.2	5.5	22	8.67	10.17	5.43	-379	turb measured w horiba
0850	6.78	200	1	5.74	3.46	16.9	8.45	10.77	5.32	-25	
0900	6.82	200	1.5	5.47	7.84	17.1	8.14	11.18	5.12	-11	
0910	6.84	200	2	5.41	6.1	15.1	7.88	11.26	4.96	-8	
0920	6.87	200	2.5	5.37	4.79	22.7	7.68	11.28	4.83	-6	
0930	6.87	200	3	5.36	4.02	10.9	7.64	11.35	4.81	-6	
0935	6.87	200	3.2	5.36	3.83	12.1	7.59	11.31	4.78	-5	
0940	6.87	200	3.5	5.34	3.68	9.6	7.54	11.22	4.76	-5	

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 0940

Total Volume of Water Purged: 3.5 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.34	Alkalinity (g/g)	760
Spec. Cond. (mS/cm)	7.54	Carbon dioxide (mg/L)	560
Turbidity (NTU)	9.6	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	5
Temp.(°C)	11.22	DTW (ft)	6.87
TDS (g/L)	4.76		
ORP (mv)	-5		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0
h2s >5

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-7S

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.52

Depth to Well Bottom (ft):

Date:

Time: 09:50 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
09:50	4.52	200	0	7.47	1.87	54.6	19.7	7.40	12.0	42	
10:00	7.41	200	0.5	7.43	0.0	12.8	5.04	6.74	3.19	68	
10:10	7.60	200	1.0	7.52	0.0	6.7	2.49	5.90	1.59	66	
10:20	8.36	200	1.5	7.33	0.0	1.8	3.02	6.12	1.94	63	
10:25	8.57	200	1.7	7.31	0.0	3.6	3.48	6.11	2.28	58	
10:30	8.82	200	1.9	7.30	0.0	4.3	3.76	6.11	2.41	54	
10:35	9.03	150	2.1	7.27	0.0	1.9	4.25	6.12	2,79	52	
10:40	9.14	150	2.3	7.25	0.0	3.7	4.68	6.13	3.02	51	
10:45	9.50	110	2.4	7.23	0.0	2.6	5.95	6.24	4.05	50	
10:50	9.81	110	2.5	7.21	0.0	4.9	7.80	6.37	4.99	49	
10:55	10.15	110	2.6	7.19	0.0	5.5	8.4	6.68	5.87	38	
11:00	10.40	110	2.7	7.17	0.0	3.8	13.7	6.95	9.40	22	
11:05	Dry		0	0	0	0	0	0	0	0	

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 09:30

Total Volume of Water Purged: (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon dioxide (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Hydrogen sulfide (mg/L)	
Temp.(°C)		DTW (ft)	
TDS (g/L)			
ORP (mv)			

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

Comments:

DO:3.90. ORP: -35. Well ran dry was sampled next day.

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: PMW-8D

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6

Depth to Well Bottom (ft):

Date: 04/01/2015

Time: 13:50 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
13:50	6.00	200	0.0	8.40	7.29	104	4.98	14.56	3.22	-421	Clear
14:00	6.57	200	0.5	8.27	6.42	51.3	5.21	14.02	3.32	-425	Substrate
14:10	6.82	200	1.0	7.91	5.05	36.8	5.43	13.51	3.42	-429	Odor
14:20	6.85	200	1.5	7.67	1.26	15.8	5.97	12.77	3.76	-420	Same
14:25	6.75	200	1.7	7.65	0.87	4.9	6.01	12.88	3.79	-418	Same
14:30	6.86	200	1.9	7.61	0.30	4.2	6.19	12.65	3.90	-420	
14:35	6.90	200	2.2	7.61	0.32	5.6	6.20	12.62	3.90	-419	
14:40	6.90	200	2.5	7.60	0.34	2.9	6.21	12.60	3.91	-419	
14:45	6.91	200	2.7	7.60	0.32	2.4	6.16	12.60	3.87	-417	

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 14:45

Total Volume of Water Purged: 2.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.60	Alkalinity (g/g)	720
Spec. Cond. (mS/cm)	6.16	Carbon dioxide (mg/L)	548
Turbidity (NTU)	2.4	Ferrous Iron (mg/L)	
DO (mg/L)	0.32	Hydrogen sulfide (mg/L)	1
Temp.(°C)	12.60	DTW (ft)	6.91
TDS (g/L)	3.87		
ORP (mv)	-417		

Comments:

manganese turned orange

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-8S

Manual Entry:

Samplers: Select...

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.18

Depth to Well Bottom (ft):

Date: 03/27/2015

Time: 14:35 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
14:40	4.18	200	0.0	9.35	4.17	57.5	0.761	7.13	0.477	-257	clear, no visible solids
14:50	6.58	200	0.5	9.12	2.82	55.3	0.631	6.55	0.404	-258	slightly milky-brown
13:00	6.93	200	1.0	8.97	1.97	75.2	0.688	6.34	0.446	-260	same
13:05	7.38	200	1.2	8.97	2.09	72.2	0.662	6.81	0.423	-258	same
13:10	7.65	200	1.5	8.93	2.00	59.4	0.697	6.72	0.453	-257	same
13.15	7.88	200	1.7	8.78	1.70	71.6	0.938	6.78	0.607	-257	same
13:20	8.07	200	2.0	8.70	1.44	79.5	1.17	6.88	0.756	-258	same
13:25	8.30	200	2.2	8.61	1.03	66.4	1.62	6.94	1.06	-261	same
13:30	8.49	200	2.5	8.50	0.76	45.0	2.04	7.03	1.33	-261	same
13:35	8.68	200	2.7	8.45	0.57	32.3	2.42	7.03	1.56	-263	same
13:40	8.85	200	3.0	8.30	0.45	20.7	2.83	7.24	1.82	-261	same
13:45	8.98	200	3.2	8.23	0.98	15.4	3.08	7.29	1.97	-263	same
13:50	9.13	200	3.5	8.09	0.99	12.9	3.30	7.39	2.12	-263	same
13:55	9.25	200	3.7	8.05	0.95	12.2	3.38	7.58	2.17	-267	same
14:00	9.36	200	4.0	7.99	0.94	12.5	3.48	7.56	2.23	-271	same
14:05	9.45	200	4.2	7.98	0.93	12.3	3.53	7.59	2.27	-273	same
14:10	9.52	200	4.5	7.96	0.93	12.1	3.55	7.60	2.30	-275	same
14:15	9.59	200	4.7	7.95	0.94	11.8	3.56	7.61	2.33	-276	same

Sampling Data

Method: Dedicated tubing

Date: 03/27/2015

Time: *(hhmm)* 14:15

Total Volume of Water Purged: 4.7 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.95	Alkalinity (g/g)	280
Spec. Cond. (mS/cm)	3.56	Carbon dioxide (mg/L)	194
Turbidity (NTU)	11.8	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0.3
Temp.(°C)	7.61	DTW (ft)	9.59
TDS (g/L)	2.33		
ORP (mv)	-276		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: PMW-9D

Manual Entry:

Samplers: Bill Simons

Well Diameter: 4 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.34

Depth to Well Bottom (ft):

Date: 04/01/2015

Time: 1050 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1100	7.2	200	0.5	5.98	4.92	30.3	3.67	9.68	2.35	-247	turb measured w horiba
1110	7.89	200	1	5.93	4.22	25.8	3.6	10.07	2.3	-38	
1120	8.4	200	1.5	5.93	3.6	25.7	3.56	10.26	2.28	-38	
1130	8.98	200	2	5.93	2.93	27.7	3.56	10.62	2.28	-38	
1140	9.37	200	2.5	5.93	2.55	28.6	3.54	10.9	2.27	-38	
1150	9.81	200	3	5.92	1.96	38.1	3.53	11.4	2.25	-38	
1200	10.19	200	3.5	5.91	1.68	36	3.53	11.81	2.26	-37	
1210	10.33	200	4	5.92	1.61	30.8	3.5	12.41	2.24	-37	
1220	10.42	200	4.5	5.89	1.55	33.9	3.82	12.94	2.45	-34	
1230	10.51	200	5	5.79	1.47	82.9	4.93	13.14	3.2	-29	
1240	10.6	200	5.5	5.73	1.61	87	7.37	13.63	4.68	-28	
1250	10.73	200	6	5.39	1.8	76	7.53	13.72	4.68	-6	
1300	10.86	200	6.5	5.1	1.88	73.3	7.03	13.89	4.39	-386	
1310	10.98	200	7	5.07	2.12	72.5	7.01	13.79	4.41	-439	
1320	11.08	200	7.5	5.11	2.44	66.7	7	14.52	4.4	-470	
1323	11.14	200	7.7	5.12	2.57	71	6.96	14.66	4.45	-476	
1326	11.15	200	7.9	5.12	2.55	68.8	6.87	14.69	4.33	-480	
1329	11.19	200	8.1	5.07	2.61	69	6.87	14.68	4.38	-482	

Sampling Data

Method: Dedicated tubing

Date: 04/01/2015

Time: *(hhmm)* 1329

Total Volume of Water Purged: 8.1 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	5.07	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	6.87	Carbon dioxide (mg/L)	
Turbidity (NTU)	69	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	0.3
Temp.(°C)	14.68	DTW (ft)	11.19
TDS (g/L)	4.38		
ORP (mv)	-482		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0
oxidized blac, h2s only

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: PMW-9S

Manual Entry:

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 4.75

Depth to Well Bottom (ft):

Date: 03/24/2015

Time: 14:00 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
14:00	4.75	200	0.0	7.41	0.0	8.7	32.9	7.98	20.1	-39	Clear
14:10	7.84	200	0.5	7.36	0.0	1.4	32.9	8.05	20.1	-35	No odor
14:20	8.21	200	1.0	7.33	0.0	1.0	32.4	8.19	19.6	-27	Same
14:30	8.10	200	1.5	7.31	0.0	4.08	30.5	8.42	18.6	-19	Same
14:35	8.10	200	1.7	7.29	0.0	2.96	29.9	8.43	18.5	-16	Same
14:40	8.11	200	1.9	7.25	0.0	3.74	29.4	8.45	18.2	-13	Same
14:45	8.11	200	2.1	7.23	0.0	4.15	28.6	8.54	17.7	-10	Same
14:50	8.12	200	2.3	7.20	0.0	2.56	28.1	8.63	17.4	-8	Same
14:55	8.13	200	2.5	7.17	0.0	3.99	27.0	8.65	17.0	-5	Same
15:00	8.14	200	2.8	7.14	0.0	4.67	26.7	8.68	16.5	-1	Same
15:05	8.17	200	3.0	7.10	0.0	5.56	26.3	8.77	16.1	4	Same

Sampling Data

Method: Dedicated tubing

Date: 03/24/2015

Time: *(hhmm)* 15:05

Total Volume of Water Purged: 3.0 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.10	Alkalinity (g/g)	102
Spec. Cond. (mS/cm)	26.3	Carbon dioxide (mg/L)	254
Turbidity (NTU)	5.56	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	0
Temp.(°C)	8.77	DTW (ft)	8.17
TDS (g/L)	16.1		
ORP (mv)	4		

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	1 filter		
Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Samplers: Dan Chamberland

Well ID: RMW-1D

Manual Entry:

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.4

Depth to Well Bottom (ft):

Date: 03/26/2015

Time: 14:10 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
14:10	5.40	200	0.0	7.68	0.0	4.8	1.91	8.53	1.21	-21	
14:20	5.42	200	0.5	7.10	0.0	1.0	2.21	10.39	1.41	-131	
14:30	5.42	200	1.0	7.11	0.0	2.3	2.13	10.43	1.37	-150	
14:40	5.42	200	1.5	7.24	0.0	0.0	2.08	10.28	1.33	-165	
14:45	5.43	200	1.7	7.24	0.0	3.4	2.07	10.17	1.33	-167	
14:50	5.44	200	1.9	7.23	0.0	1.9	2.07	10.08	1.32	-170	
14:55	5.44	200	2.2	7.22	0.0	4.6	2.06	10.13	1.32	-172	
15:00	5.45	200	2.4	7.22	0.0	7.3	2.06	10.18	1.32	-174	
15:05	5.45	200	2.6	7.22	0.0	7.3	2.06	10.24	1.31	-175	

Sampling Data

Method: Dedicated tubing

Date: 03/26/2015

Time: *(hhmm)* 15:05

Total Volume of Water Purged: 2.6 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.22	Alkalinity (g/g)	260
Spec. Cond. (mS/cm)	2.06	Carbon dioxide (mg/L)	146
Turbidity (NTU)	7.3	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	1.5
Temp.(°C)	10.24	DTW (ft)	5.45
TDS (g/L)	1.31		
ORP (mv)	-175		

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: RMW-2D

Manual Entry:

Samplers: Dan Chamberland

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 5.8

Depth to Well Bottom (ft):

Date: 03/25/2015

Time: 15:10 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
15:10	5.80	200	0.0	6.94	0.0	137	2.49	7.80	1.58	-115	Clear no odor
15:20	8.10	200	0.5	5.76	0.0	127	2.26	9.01	1.44	-130	Same
15:30	8.64	200	1.0	5.74	0.0	125	2.26	9.14	1.44	-132	Slow rate down
15:40	9.22	120	1.5	5.73	0.0	121	2.26	9.25	1.45	-134	Same
15:45	9.20	120	1.6	5.97	0.0	112	4.67	9.34	1.87	-176	
15:50	9.12	120	1.7	6.28	0.0	87.5	12.95	9.58	2.65	-254	
15:55	9.07	120	1.9	6.56	0.0	4.37	15.28	9.62	7.17	-277	
16:00	9.00	120	2.0	6.82	0.0	35.4	16.4	9.89	10.1	-289	
16:05	9.01	130	2.1	6.90	0.0	36.6	14.7	9.92	9.20	-300	
16:10	9.03	130	2.3	7.00	0.0	37.3	13.5	9.96	8.39	-308	
16:15	9.06	130	2.4	7.03	0.0	31.2	12.6	9.95	7.56	-310	
16:20	9.12	130	2.5	7.06	0.0	26.7	11.8	10.01	6.47	-313	
16:25	9.18	130	2.7	7.08	0.0	15.9	10.97	10.05	5.96	-315	
16:30	9.22	130	2.8	7.10	0.0	12.8	10.65	10.08	5.41	-318	
16:35	9.25	130	2.9	7.11	0.0	16.7	10.58	10.05	5.38	-319	
16:40	9.27	130	3.1	7.11	0.0	12.9	10.50	10.00	5.33	-320	

Sampling Data

Method: Dedicated tubing

Date: 03/25/2015

Time: *(hhmm)* 16:40

Total Volume of Water Purged: 3.1 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.11	Alkalinity (g/g)	0
Spec. Cond. (mS/cm)	10.50	Carbon dioxide (mg/L)	0
Turbidity (NTU)	12.9	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	4
Temp.(°C)	10.00	DTW (ft)	9.27
TDS (g/L)	5.33		
ORP (mv)	-320		

Comments:

water turned black

SAMPLE SET				
Parameter		**Bottle**	**Pres.**	**Method**
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☑	300 and 120		
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: RMW-3D

Manual Entry:

Samplers: Other

Well Diameter: inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.23

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 10:05 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
10:05	6.25	200	0.0	9.07	0.0	29.6	30.08	10.47	20.1	-380	Clear,colorless, no visible ...
10.15	6.23	200	0.5	9.08	0.0	35.9	21.9	10.20	13.6	-376	Oxidiziing to milky grey, s...
10.25	6.23	200	1.0	9.08	0.0	23.4	21.9	10.20	13.6	-376	Same
10.30	6.23	200	1.2	7.51	0.0	14.0	5.97	10.55	3.76	-331	Same
10:35	6.23	200	1.5	7.41	0.0	7.44	4.62	10.47	2.81	-338	Same
10:40	6.23	200	1.7	7.35	0.0	5.34	4.38	10.30	2.80	-338	Same
10.45	6.23	200	2.0	7.35	0.0	4.38	4.32	10.15	2.76	-340	Same
10.50	6.23	200	2.2	7.32	0.0	3.83	4.14	10.15	2.65	-342	Same
10.55	6.23	200	2.5	7.30	0.0	4.96	4.07	10.51	2.62	-341	Same
11:00	6.24	200	2.7	7.28	0.0	5.23	3.98	10.88	2.55	-341	Same
11:05	6.25	200	3.0	7.27	0.0	5.33	3.78	10.92	2.40	-342	Same
11:10	6.24	200	3.2	7.25	0.0	5.00	3.26	11.03	2.07	-342	Same
11:15	6.24	200	3.5	7.24	0.0	2.22	3.01	11.16	1.92	-343	Same
11:20	6.25	200	3.7	7.24	0.0	2.07	2.99	11.16	1.91	-343	Same
11:25	6.25	200	4.0	7.24	0.0	2.88	2.95	11.14	1.89	-344	Same

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 11:25

Total Volume of Water Purged: 4.0 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	7.24	Alkalinity (g/g)	280
Spec. Cond. (mS/cm)	2.95	Carbon dioxide (mg/L)	136
Turbidity (NTU)	2.88	Ferrous Iron (mg/L)	
DO (mg/L)	0.0	Hydrogen sulfide (mg/L)	5
Temp.(°C)	11.14	DTW (ft)	6.25
TDS (g/L)	1.89		
ORP (mv)	-344		

Comments:

DO not working on Horiba.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facillity

Well ID: RMW-4D

Manual Entry:

Samplers: Bill Simons

Well Diameter: 2 inches

WATER VOLUME CALCULATION

= (Total Depth of Well - Depth To Water) x Casing Volume per Foot

Purging Data

Method: Low flow

Initial Depth to Water (ft): 6.1

Depth to Well Bottom (ft):

Date: 03/31/2015

Time: 1340 *(hhmm)*

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

Time (hhmm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (°C)	TDS (g/L)	ORP (mV)	Comments
1350	7.4	200	0.5	6.94	3.3	0	1.95	10.3	1.25	-372	turb measuredw horiba
1400	8.00	200	1	6.94	2.7	0	1.92	11.07	1.23	-369	
1410	8.35	200	1.5	6.83	2.51	0	1.92	11.99	1.23	-367	
1420	8.41	200	2	6.71	2.27	0	1.56	12.41	0.994	-358	
1430	8.56	200	2.5	6.57	2.19	0	1.31	12.6	0.842	-346	
1440	8.59	200	3	6.55	2.07	0	1.29	12.7	0.825	-343	
1450	8.6	200	3.5	6.55	1.78	0	1.79	12.67	1.15	-350	
1500	9.15	200	4	6.56	1.97	0	1.95	12.51	1.25	-352	
1510	9.32	200	4.5	6.54	1.93	0	2.01	12.39	1.29	-351	
1520	9.41	200	5	6.53	1.89	0	2.18	12.64	1.4	-350	
1530	9.42	200	5.5	6.52	1.87	0	2.37	12.51	1.52	-350	
1540	9.36	200	6	6.53	1.83	0	2.65	12.44	1.69	-350	
1543	9.34	200	6.2	6.52	1.83	0	2.69	12.45	1.72	-350	
1546	9.34	200	6.4	6.52	1.8	0	2.76	12.53	1.76	-349	
1549	9.34	200	6.6	6.52	1.8	0	2.82	12.62	1.81	-349	
1552	9.34	200	6.8	6.52	1.81	0	2.85	12.6	1.82	-349	
1555	9.34	200	7	6.52	1.8	0	2.91	12.63	1.87	-349	
1558	9.34	200	7.2	6.52	1.8	0	2.92	12.62	1.88	-349	

Sampling Data

Method: Dedicated tubing

Date: 03/31/2015

Time: *(hhmm)* 1558

Total Volume of Water Purged: 7.2 (gal)

STABILIZED PARAMETERS		HACH TEST KITS	
pH	6.52	Alkalinity (g/g)	1,040
Spec. Cond. (mS/cm)	2.92	Carbon dioxide (mg/L)	670
Turbidity (NTU)	0	Ferrous Iron (mg/L)	
DO (mg/L)	err	Hydrogen sulfide (mg/L)	5
Temp.(°C)	12.62	DTW (ft)	9.34
TDS (g/L)	1.88		
ORP (mv)	-349		

Comments:

DO and ORP values conflict. DO > 0.5 and ORP < 0
h2s is >5

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-250 mL amber glass	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40 mL glass (Field Filtered)	None	lab specified
Sulfide	☑	1-250 mL glass (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40 mL amber glass vial	H3PO4	SW9060
Microbial Census	☐			
Acetylene	☐			

PARSONS

ATTACHMENT C

DATA USABILITY SUMMARY REPORT

DATA USABILITY SUMMARY REPORT

EKONOL FACILITY

Prepared For:

Atlantic Richfield Company

4850 East 49th Street
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Prepared By:

PARSONS

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JUNE 2015

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LIST OF ATTACHMENTS

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected for the 2015 1st Quarter Monitoring from the Ekonol Facility site in Wheatfield, New York from March 24, 2015 through April 3, 2015. Analytical results from these samples were reviewed by Parsons for usability with respect to the following requirements:

- Work Plan,
- NYSDEC Analytical Services Protocol (ASP), and
- USEPA Region II Standard Operating Procedures (SOPs).

The analytical laboratories for this project were Eurofins Laboratories, Inc. (Eurofins) and Microbial Insights (MI). Eurofins is approved to conduct project analyses through the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP).

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 26-29 days for the Ekonol samples. Comments on specific quality control (QC) and other requirements are discussed in detail in the attached data validation report.

1.2 SAMPLING AND CHAIN-OF-CUSTODY

The samples were collected, shipped under a COC record, and received at the laboratory within one day of sampling. All samples were received intact and in good condition at the laboratories. It was noted that the volatile samples OR-4SM, OR-15SM, and PMW-6S were received and analyzed at Eurofins with a pH between 5 and 7 which exceeds the pH<2 preservation requirement.

1.3 LABORATORY ANALYTICAL METHODS

The groundwater samples collected from the Ekonol site were analyzed for certain volatile organic compounds (VOCs) including methane, ethane, and ethene; dissolved metals; dissolved sulfate; dissolved sulfide; total organic carbon (TOC); and/or dechlorinating bacteria and functional genes. 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 review and statements on the laboratory analytical precision, accuracy, representativeness, completeness, and comparability (PARCC) are discussed for each analytical method in Section 2. 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 Including Methane, Ethane, and Ethene

The groundwater samples collected from the Ekonol site were analyzed for certain VOCs using the USEPA SW-846 8260C analytical method and methane, ethane, and ethene using the modified USEPA approved RSK-175 analytical method. Certain reported results for these samples were considered estimated based upon sample holding times and instrument calibrations. The reported VOC and methane, ethane, and ethene analytical results were 100% complete (i.e., usable) based upon the groundwater data presented by Eurofins. PARCC requirements were met.

1.3.2 Metals Analysis

Certain groundwater samples collected from the Ekonol site were analyzed for dissolved metals using the USEPA SW-846 6010C analytical method. Certain reported results for the metals samples were considered estimated based upon matrix spike recoveries, serial dilutions, and field duplicate precision. The reported metals analytical results were 100% complete (i.e., usable) based upon the groundwater data presented by Eurofins. PARCC requirements were met.

1.3.3 Other Parameters

The groundwater samples collected from the Ekonol site were analyzed for dissolved sulfate using the USEPA 300.0 analytical method; dissolved sulfide using the SM20 4500 analytical method; TOC using the SM20 5310C analytical method; and/or dechlorinating bacteria and functional genes using the MI SOP. Custody documentation, holding times, laboratory blanks, matrix spike/matrix spike duplicate, laboratory duplicate precision, laboratory control samples, instrument calibrations, quantitation limits, sample result identification, and field duplicate precision were reviewed for compliance. The reported results for these samples did not require qualification resulting from data validation. The reported analytical results for the wet chemistry parameters were 100% complete (i.e., usable) based upon the groundwater data presented by Eurofins and MI. PARCC requirements were met.

SECTION 2

DATA VALIDATION REPORT

2.1 1ST QUARTER MONITORING EVENT

Data review has been completed for data packages generated by Eurofins containing analytical data results from groundwater samples collected from the Ekonol Facility site during the 1st Quarter Monitoring event. All of these samples were shipped under a COC record and received intact by the analytical laboratory. Analytical results from the project samples were submitted by Eurofins within the following sample delivery groups (SDGs): BPX35, BPX36, BPX37, BPX38, BPX39, BPX40, BPX41, BPX42, BPX43, and BPX44. Data validation was performed for all samples in accordance with the most current editions of the USEPA Region II SOPs and the NYSDEC ASP for organic and inorganic data review. This data validation and usability report is presented by analysis type. The validated laboratory data are tabulated and presented in Attachment A.

2.1.1 Volatiles Including Methane, Ethane, and Ethene (MEE)

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
- Instrument performance
- Initial and continuing calibrations
- Internal standard responses
- 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, MS/MSD precision and accuracy, and initial and continuing calibrations as discussed below.

Holding Times

All analytical holding times were within the 14-day criteria for preserved volatile samples with the exception of the samples OR-4SM, OR-15SM, and PMW-6S. These samples were received by the laboratory at a pH between 5 and 7 and exceeded the 7-day analytical holding time criteria for unpreserved samples by three to five days. Therefore, results for these samples were considered estimated with positive results qualified "J" and nondetected results qualified "UJ".

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 MSD accuracy result for ethene (332%R; QC limit 35-162%R), the MS/MSD accuracy results for ethane (18%R/23%R; QC limit 53-122%R), and the high precision result for ethene (146%RPD; QC limit 0-20) during the spiked analyses of sample OR-3SM. Validation qualification of the parent sample was not required.

Initial and Continuing Calibrations

The initial calibration associated with all samples collected on 3/24/15, 3/26/15, and 3/27/15 exceeded the less than 30% relative standard deviation (RSD) criteria for methane (47%RSD). Therefore, methane results for these samples were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

The continuing calibration associated with sample INJ-7D exceeded the ±30 percent difference (%D) criteria for methane (35%D); and the continuing calibrations associated with samples INJ-13D, MW-20D, MW-21D, and all samples collected on 3/31/15 except MW-13D and TRIP BLANK2 exceeded the ±20%D criteria for 1,1,1-trichloroethane (-21%D, -24%D). Therefore, results for these compounds were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

Usability

All volatile groundwater sample results including methane, ethane, and ethene 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 groundwater presented were 100% (i.e., usable). The validated volatile laboratory data are tabulated and presented in Attachment A.

It was noted that many samples were diluted and reanalyzed due to the exceedance in instrument calibration ranges for cis-1,2-dichloroethene, 1,1-dichloroethane, trichloroethene,

1,1,1-trichloroethane, vinyl chloride, methane, and/or ethene. Therefore, the diluted result for these compounds was reported for these samples in the validated laboratory data table in Attachment A.

2.1.2 Dissolved Metals

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

- Custody documentation
- Holding times
- Initial and continuing calibration, and preparation blank contamination
- Initial and continuing calibration verifications
- Interference check sample (ICS) recoveries
- Matrix spike recoveries
- Laboratory duplicate precision
- Field duplicate precision
- Laboratory control sample recoveries
- Serial dilutions
- 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, serial dilutions, and field duplicate precision as discussed below.

Blank Contamination

The laboratory preparation blank associated with samples collected on 3/26/15 contained dissolved calcium below the reporting limit at a concentration of 72.82 µg/L; and the laboratory preparation blank associated with samples collected on 3/31/15 contained dissolved calcium and dissolved magnesium below the reporting limit at concentrations of 70.01 and 61.770 µg/L, respectively. Validation qualification of associated sample results was not required.

Matrix Spike Recoveries

All matrix spike recoveries were considered acceptable and within the 75-125%R QC limit for all analytes with the exception of the high matrix spike recoveries for dissolved potassium (126%R, 131%R) associated with samples collected on 3/25/15. Therefore, the positive dissolved potassium results for these samples were considered estimated, possibly biased high, and qualified "J+".

Serial Dilutions

All serial dilutions results were considered acceptable with %D less than 10% with the exception of the serial dilution for dissolved magnesium (16%D) associated with sample MW-

4S. Therefore, the positive dissolved magnesium result for this sample was considered estimated and qualified "J".

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the precision for dissolved iron (55%RPD) associated with sample OR-9SM and its field duplicate sample OR-90SM. Therefore, the dissolved iron results were considered estimated and qualified "J" for these samples.

Usability

All metals sample results were considered usable following data validation.

Summary

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

ATTACHMENT A

VALIDATED LABORATORY DATA

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	INJ-01 INJ-01_2015-03-30 7827846 LANCASTERLABS BPX40 WATER 3/30/2015 16:40 5/27/2015	INJ-02 INJ-02_2015-04-02 7833302 LANCASTERLABS BPX43 WATER 4/2/2015 9:30 5/27/2015	INJ-04 INJ-04_2015-04-02 7833309 LANCASTERLABS BPX43 WATER 4/2/2015 16:01 5/27/2015	INJ-05 INJ-05_2015-04-02 7833301 LANCASTERLABS BPX43 WATER 4/2/2015 9:35 5/27/2015	INJ-07D INJ-7D_2015-03-25 7823298 LANCASTERLABS BPX36 WATER 3/25/2015 14:10 5/27/2015	INJ-08D INJ-8D_2015-04-02 7833305 LANCASTERLABS BPX43 WATER 4/2/2015 11:55 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	25 U	25 U	50 U	50 U	25 U	680
75-34-3	1,1-DICHLOROETHANE	ug/l	45 J	25 U	50 U	50 U	25 U	910
75-35-4	1,1-DICHLOROETHENE	ug/l	150	49 J	100 J	85 J	430	26 J
75-00-3	CHLOROETHANE	ug/l	25 U	25 U	50 U	50 U	25 U	25 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	84000	24000	56000	73000	180000	22000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	30 J	92	50 U	110	400	25 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	210	91	160	97 J	180	37 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	4800	5100	1500	9800	160000	30 J
75-01-4	VINYL CHLORIDE	ug/l	14000	6600	16000	12000	3700	2400
74-85-1	ETHENE	ug/l	5200	4400	2700	1600	140	1700
74-84-0	ETHANE	ug/l	26	34	43	48	10	28
74-82-8	METHANE	ug/l	10000	8700	9400	6700	380 J	7100
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	331	159	257	305	227	371
7439-89-6	IRON	mg/l	1.21	118	0.494	4.78	9.81	1.07
7439-95-4	MAGNESIUM	mg/l	92.1	32.1	97.1	122	49	113
7439-96-5	MANGANESE	mg/l	0.686	0.773	0.665	1.18	0.463	0.742
9/7/7440	POTASSIUM	mg/l	11.4	7.36	9.55	13.1	8.03	11.3
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	269	396	152	479	109	426
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	17	4.4 J	8.4	60.5	116	57.4
18496-25-8	SULFIDE	mg/l	76	2.8	52.4	85.8	0.46	105
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL					483000	
DHBt	DHBt	cells/mL					7140	
DHC	DHC	cells/mL					1660000	
TCE	TCE	cells/mL					6190	
VCR	VCR	cells/mL					57200	

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	INJ-09D INJ-9D_2015-03-25 7823300 LANCASTERLABS BPX36 WATER 3/25/2015 16:50 5/27/2015	INJ-10D INJ-10D_2015-03-25 7823295 LANCASTERLABS BPX36 WATER 3/25/2015 10:50 5/27/2015	INJ-11D INJ-11D_2015-04-01 7832024 LANCASTERLABS BPX42 WATER 4/1/2015 16:01 5/27/2015	INJ-12D INJ-12D_2015-04-03 7834719 LANCASTERLABS BPX44 WATER 4/3/2015 10:25 5/27/2015	INJ-13D INJ-13D_2015-04-03 7834721 LANCASTERLABS BPX44 WATER 4/3/2015 11:20 5/27/2015	MW- 1S MW-1S_2015-03-26 7824034 LANCASTERLABS BPX37 WATER 3/26/2015 12:45 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	31	540	2.5 U	25 U	10 UJ	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	67	250	6.4	25 U	10 U	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	47	34	8.3	51	27	0.5 U
75-00-3	CHLOROETHANE	ug/l	10 U	0.98 J	2.5 U	25 U	10 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	23000	2100	3600	22000	13000	17
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	10 J	2.6	2.5 U	27 J	11 J	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	41	15	10	38 J	23	0.89 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	2400	3.9	81	2900	2000	2.4
75-01-4	VINYL CHLORIDE	ug/l	5500	1300	980	2500	1100	1 J
74-85-1	ETHENE	ug/l	6300	97	150	1200	560	1 U
74-84-0	ETHANE	ug/l	15	13	7.4	11	11	1 U
74-82-8	METHANE	ug/l	8700	5000	3100	4300	3800	3 UJ
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.113 J	0.0674 U	0.0999 J	0.0768 J	0.0674 U
7440-70-2	CALCIUM	mg/l	200	189	100	134	96.8	100
7439-89-6	IRON	mg/l	28.2	0.0409 J	0.386 J	1.07	0.173 J	0.24 J
7439-95-4	MAGNESIUM	mg/l	30.5	52	22.6	19.3	16.7	47.5
7439-96-5	MANGANESE	mg/l	1.31	0.132	0.366	0.285	0.25	0.0857
9/7/7440	POTASSIUM	mg/l	20 J+	7.51	12.5	6.03	4.61	2.57
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	216	40.9	5.3	50.8	24.1	1.6
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	33.5	46.3	22.7	8.4	18.8	254
18496-25-8	SULFIDE	mg/l	4.2	117	23.7	12.6	8.3	0.054 U
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL	339000	38700				
DHBt	DHBt	cells/mL	2190	5430				
DHC	DHC	cells/mL	2920000	125000				
TCE	TCE	cells/mL	13400	984				
VCR	VCR	cells/mL	309000	5040				

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)			Dup of MW-1S_2015-03-26					
		Location ID:	MW- 1S	MW- 2S	MW- 3S	MW- 4S	MW- 6S	MW- 7D
		Sample ID:	MW-100S_2015-03-26	MW-2S_2015-03-26	MW-3S_2015-04-01	MW-4S_2015-03-30	MW-6S_2015-04-01	MW-7D_2015-04-02
		Lab Sample Id:	7824036	7824035	7832026	7827843	7832014	7833308
		Source:	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS
		SDG:	BPX37	BPX37	BPX42	BPX40	BPX42	BPX43
		Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
		Sampled:	3/26/2015 12:01	3/26/2015 10:30	4/1/2015 16:00	3/30/2015 9:45	4/1/2015 9:10	4/2/2015 15:15
		Validated:	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	50 U	0.5 U	1 J	0.5 U	270
75-34-3	1,1-DICHLOROETHANE	ug/l	0.5 U	50 U	0.5 U	3.4	0.5 U	660
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	500	0.5 U	7.4	0.5 U	100 U
75-00-3	CHLOROETHANE	ug/l	0.5 U	50 U	0.5 U	1 U	0.5 U	100 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	17	240000	0.5 U	2500	30	72000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	82 J	0.5 U	1 U	0.5 U	100 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.89 J	1400	0.5 U	29	0.84 J	100 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	2.1	5300	0.5 U	8.6	1	320
75-01-4	VINYL CHLORIDE	ug/l	1	14000	0.5 U	1000	35	3500
74-85-1	ETHENE	ug/l	1 U	34	1 U	170	1 U	410
74-84-0	ETHANE	ug/l	1 U	7.6	1 U	16	2.7 J	58
74-82-8	METHANE	ug/l	3 UJ	140 J	17	4700	23	8000
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U		0.0674 U
7440-70-2	CALCIUM	mg/l	101	357	255	366		294
7439-89-6	IRON	mg/l	0.229 J	0.111 J	0.236 J	0.564		0.0579 J
7439-95-4	MAGNESIUM	mg/l	47.9	218	75.3	389 J		161
7439-96-5	MANGANESE	mg/l	0.0849	1.52	0.179	0.7		0.788
9/7/7440	POTASSIUM	mg/l	2.61	3.4	41.8	7.79		11
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	1.7	3	76.3	7.3		112
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	256	894	215	1950		7.1
18496-25-8	SULFIDE	mg/l		0.054 U	0.054 U	10.8		119
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL		375000				
DHBt	DHBt	cells/mL		12.7				
DHC	DHC	cells/mL		596000				
TCE	TCE	cells/mL		27.4				
VCR	VCR	cells/mL		115				

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW- 7S MW-7S_2015-03-31 7830333 LANCASTERLABS BPX41 WATER 3/31/2015 8:30 5/27/2015	MW- 9S MW-9S_2015-03-27 7826069 LANCASTERLABS BPX39 WATER 3/27/2015 16:15 5/27/2015	MW-10S MW-10S_2015-03-27 7826057 LANCASTERLABS BPX39 WATER 3/27/2015 9:35 5/27/2015	MW-11D MW-11D_2015-04-02 7833304 LANCASTERLABS BPX43 WATER 4/2/2015 9:10 5/27/2015	MW-11S MW-11S_2015-03-25 7823302 LANCASTERLABS BPX36 WATER 3/25/2015 17:00 5/27/2015	MW-12D MW-12D_2015-03-27 7826066 LANCASTERLABS BPX39 WATER 3/27/2015 15:45 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 UJ	19	0.5 U	68	1.6	24
75-34-3	1,1-DICHLOROETHANE	ug/l	0.5 U	18	0.5 U	23	17	4.8
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	5.1	0.5 U	0.98 J	1.6	2.1
75-00-3	CHLOROETHANE	ug/l	0.5 U	0.5 U	0.5 U	1.5	0.5 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.66 J	710	170	23	210	170
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.5 U	4.9	1.5	0.65 J	7.4	0.59 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.5 U	2	1.5	1.6	28	1.6
75-01-4	VINYL CHLORIDE	ug/l	0.5 U	500	49	40	60	70
74-85-1	ETHENE	ug/l	1 U	30	5.6	12	47	2.8 J
74-84-0	ETHANE	ug/l	1 U	1.6 J	1 U	7.7	1.6 J	26
74-82-8	METHANE	ug/l	3 U	100 J	200 J	150	460	140 J
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U				0.0674 U
7440-70-2	CALCIUM	mg/l	894	176				438
7439-89-6	IRON	mg/l	0.48	1.37				0.0334 U
7439-95-4	MAGNESIUM	mg/l	440	138				97.2
7439-96-5	MANGANESE	mg/l	0.509	0.244				0.0688
9/7/7440	POTASSIUM	mg/l	7.46	5.64				2.91
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	2.7	14.7				1.5
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	1620	892				1180
18496-25-8	SULFIDE	mg/l	0.054 U	2.6				23.7
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL						
DHBt	DHBt	cells/mL						
DHC	DHC	cells/mL						
TCE	TCE	cells/mL						
VCR	VCR	cells/mL						

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-12S MW-12S_2015-04-02 7833307 LANCASTERLABS BPX43 WATER 4/2/2015 13:55 5/27/2015	MW-13D MW-13D_2015-03-31 7830345 LANCASTERLABS BPX41 WATER 3/31/2015 17:00 5/27/2015	MW-15D MW-15D_2015-03-27 7826061 LANCASTERLABS BPX39 WATER 3/27/2015 11:15 5/27/2015	MW-16D MW-16D_2015-04-02 7833306 LANCASTERLABS BPX43 WATER 4/2/2015 12:20 5/27/2015	MW-17D MW-17D_2015-04-02 7833303 LANCASTERLABS BPX43 WATER 4/2/2015 11:35 5/27/2015	MW-18D MW-18D_2015-03-31 7830338 LANCASTERLABS BPX41 WATER 3/31/2015 12:15 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	10	0.5 U	280	0.5 U	23	0.5 UJ
75-34-3	1,1-DICHLOROETHANE	ug/l	19	6.2	97	6.7	15	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	1.9 J	0.68 J	8.2	1.1	0.5 U	0.5 U
75-00-3	CHLOROETHANE	ug/l	1 U	0.5 U	0.5 U	0.5 U	3.9	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	730	180	870	220	9.9	0.5 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	30	1.1	8.2	1.4	0.5 U	0.5 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	850	0.68 J	7.6	0.77 J	0.9 J	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	520	160	740	260	22	0.5 U
74-85-1	ETHENE	ug/l	500	62	22	37	8.2	1 U
74-84-0	ETHANE	ug/l	33	11	1.4 J	16	3.3 J	1 U
74-82-8	METHANE	ug/l	5200	1200	220 J	390	130	50
	METALS							
7429-90-5	ALUMINUM	mg/l		0.0674 U	0.0674 U	0.0674 U		0.0674 U
7440-70-2	CALCIUM	mg/l		293	264	417		505
7439-89-6	IRON	mg/l		0.133 J	0.098 J	0.117 J		0.0334 U
7439-95-4	MAGNESIUM	mg/l		141	116	131		172
7439-96-5	MANGANESE	mg/l		0.0686	0.156	0.0692		0.0842
9/7/7440	POTASSIUM	mg/l		3.83	5.95	4.13		2.35
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l		2.6	2.3	2.5		4
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l		641	763	1090		1470
18496-25-8	SULFIDE	mg/l		5.6	12.5	3.5		2.5
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL						
DHBt	DHBt	cells/mL						
DHC	DHC	cells/mL						
TCE	TCE	cells/mL						
VCR	VCR	cells/mL						

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-19D MW-19D_2015-03-27 7826058 LANCASTERLABS BPX39 WATER 3/27/2015 9:10 5/27/2015	Dup of MW-19D_2015-03-27 MW-19D MW-190D_2015-03-27 7826060 LANCASTERLABS BPX39 WATER 3/27/2015 12:01 5/27/2015	MW-20D MW-20D_2015-04-03 7834723 LANCASTERLABS BPX44 WATER 4/3/2015 13:05 5/27/2015	MW-21D MW-21D_2015-04-03 7834722 LANCASTERLABS BPX44 WATER 4/3/2015 12:15 5/27/2015	OR- 3SM OR-3SM_2015-03-26 7824045 LANCASTERLABS BPX38 WATER 3/26/2015 14:55 5/27/2015	OR- 4SM OW-4SM_2015-03-27 7826062 LANCASTERLABS BPX39 WATER 3/27/2015 12:30 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	0.5 U	560 J	86 J	0.5 U	0.5 UJ
75-34-3	1,1-DICHLOROETHANE	ug/l	0.5 U	0.5 U	78	26	0.5 U	0.5 UJ
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	0.5 U	6.2	7.2	0.5 U	0.5 UJ
75-00-3	CHLOROETHANE	ug/l	0.5 U	0.5 U	1 U	1 U	0.5 U	0.5 UJ
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	9.4	8.7	150	790	0.69 J	0.94 J
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 U	1.3 J	1 U	0.5 U	0.5 UJ
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.82 J	0.5 U	3.3	3.7	0.5 U	0.8 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.5 U	0.5 U	7.4	4.4	0.5 U	0.5 UJ
75-01-4	VINYL CHLORIDE	ug/l	0.52 J	0.52 J	500	580	0.5 U	1.4 J
74-85-1	ETHENE	ug/l	1 U	1 U	70	16	1 U	1 U
74-84-0	ETHANE	ug/l	1 U	1 U	3.9 J	1.7 J	100	1 U
74-82-8	METHANE	ug/l	9.1 J	8.5 J	360	72	23000	18000 J
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U			0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	381	376			460	548
7439-89-6	IRON	mg/l	0.333 J	0.311 J			22.7	17.9
7439-95-4	MAGNESIUM	mg/l	388	390			103	160
7439-96-5	MANGANESE	mg/l	0.12	0.111			2.45	5.14
9/7/7440	POTASSIUM	mg/l	5.1	5.08			31	24.8
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	5.9	6.4			24.6	42
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	1960	1970			148	122
18496-25-8	SULFIDE	mg/l	0.054 U				0.71	3
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL						
DHBt	DHBt	cells/mL						
DHC	DHC	cells/mL						
TCE	TCE	cells/mL						
VCR	VCR	cells/mL						

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	OR- 5SM OR-5SM_2015-03-24 7820101 LANCASTERLABS BPX35 WATER 3/24/2015 9:00 5/27/2015	OR- 6SM OR-6SM_2015-03-24 7820103 LANCASTERLABS BPX35 WATER 3/24/2015 11:05 5/27/2015	OR- 9SM OR-9SM_2015-03-27 7826064 LANCASTERLABS BPX39 WATER 3/27/2015 13:35 5/27/2015	Dup of OR-9SM_2015-03-27 OR- 9SM OR-90SM_2015-03-27 7826065 LANCASTERLABS BPX39 WATER 3/27/2015 12:01 5/27/2015	OR-10SM OR-10SM_2015-03-27 7826063 LANCASTERLABS BPX39 WATER 3/27/2015 13:15 5/27/2015	OR-13SM OR-13SM_2015-03-24 7820104 LANCASTERLABS BPX35 WATER 3/24/2015 13:15 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	2.5 U	0.5 U	0.5 U	1.1	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	0.65 J	9.1	0.77 J	0.78 J	6.3	1.3
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	14	0.5 U	0.5 U	1.3	0.5 U
75-00-3	CHLOROETHANE	ug/l	0.5 U	2.5 U	0.5 U	0.5 U	1.3	4.3
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	4.5	15000	3.2	3	290	1.3
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.93 J	250	0.54 J	0.61 J	3	0.84 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.5 U	11	0.5 U	0.5 U	0.5 U	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	13	3700	8.1	7.8	290	2.5
74-85-1	ETHENE	ug/l	42	780	26	24	120	17
74-84-0	ETHANE	ug/l	200	730	40	37	30	30
74-82-8	METHANE	ug/l	10000 J	17000 J	14000 J	15000 J	15000 J	18000 J
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.162 J	0.0834 J	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	394	563	291	291	301	403
7439-89-6	IRON	mg/l	14.1	1.53	0.67 J	0.379 J	14.2	10.5
7439-95-4	MAGNESIUM	mg/l	71.6	191	64.7	64.1	110	128
7439-96-5	MANGANESE	mg/l	1.9	3.47	0.615	0.606	1.38	3.12
9/7/7440	POTASSIUM	mg/l	14.9	20.2	11.1	11.1	8.43	22.3
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	17	33.2	9.4	9.1	18	26.9
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	73.5	259	304	318	363	211
18496-25-8	SULFIDE	mg/l	0.56	32.3	12.5		7	6.1
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL	2820	9340				77.9
DHBt	DHBt	cells/mL	112	141				813
DHC	DHC	cells/mL	11000	314000				14600
TCE	TCE	cells/mL	25.5	2800				122
VCR	VCR	cells/mL	1000	29400				740

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	OR-14SM OR-14SM_2015-03-24 7820107 LANCASTERLABS BPX35 WATER 3/24/2015 15:00 5/27/2015	OR-15SM OR-15SM_2015-03-27 7826059 LANCASTERLABS BPX39 WATER 3/27/2015 9:30 5/27/2015	OR-18SM OR-18SM_2015-03-26 7824041 LANCASTERLABS BPX37 WATER 3/26/2015 15:15 5/27/2015	PMW- 1D PMW-1D_2015-04-03 7834720 LANCASTERLABS BPX44 WATER 4/3/2015 9:35 5/27/2015	PMW- 1S PMW-1S_2015-03-25 7823296 LANCASTERLABS BPX36 WATER 3/25/2015 10:00 5/27/2015	PMW- 2D PMW-2D_2015-03-26 7824042 LANCASTERLABS BPX37 WATER 3/26/2015 11:00 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	25 U
75-34-3	1,1-DICHLOROETHANE	ug/l	0.5 U	0.5 UJ	0.5 U	15	2.4	37 J
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	2	130
75-00-3	CHLOROETHANE	ug/l	0.5 U	0.5 UJ	0.5 U	1.7	2.7	25 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	14	0.5 UJ	18	3.6	670	110000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 UJ	0.5 U	0.5 U	0.5 U	35 J
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.5 U	0.5 UJ	0.99 J	9.2	20	220
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1.3	0.5 UJ	0.5 U	0.5 U	6.1	3300
75-01-4	VINYL CHLORIDE	ug/l	10	0.5 UJ	19	22	340	17000
74-85-1	ETHENE	ug/l	16	1 U	36	5500	430	2800
74-84-0	ETHANE	ug/l	33	1 U	40	88	180	34
74-82-8	METHANE	ug/l	16000 J	19000 J	16000 J	20000	7700	11000 J
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0784 J	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	358	598	352	199	241	316
7439-89-6	IRON	mg/l	1.28	62.7	0.0334 U	113	0.787	0.0409 J
7439-95-4	MAGNESIUM	mg/l	183	109	90.1	38.5	36.6	100
7439-96-5	MANGANESE	mg/l	2.3	7.87	0.758	1.47	0.618	0.315
9/7/7440	POTASSIUM	mg/l	20.1	87.4	15	15.6	13.3	10.1
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	33.1	93.1	4.4	442	28.6	220
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	159	5.1	414	3.3 J	79.5	51.5
18496-25-8	SULFIDE	mg/l	61.7	0.12 J	20.4	0.1 J	0.77	120
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL	141				25800	345000
DHBt	DHBt	cells/mL	387				85.8	362
DHC	DHC	cells/mL	3540				352000	1120000
TCE	TCE	cells/mL	15.1				616	13300
VCR	VCR	cells/mL	284				86400	31700

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW- 2S PMW-2S_2015-03-30 7827844 LANCASTERLABS BPX40 WATER 3/30/2015 12:30 5/27/2015	PMW- 3D PMW-3D_2015-03-30 7827845 LANCASTERLABS BPX40 WATER 3/30/2015 13:05 5/27/2015	PMW- 3S PMW-3S_2015-03-24 7820109 LANCASTERLABS BPX35 WATER 3/24/2015 16:20 5/27/2015	PMW- 4D PMW-4D_2015-03-31 7830335 LANCASTERLABS BPX41 WATER 3/31/2015 10:25 5/27/2015	PMW- 4S PMW-4S_2015-03-31 7830339 LANCASTERLABS BPX41 WATER 3/31/2015 14:00 5/27/2015	PMW- 5D PMW-5D_2015-03-30 7827847 LANCASTERLABS BPX40 WATER 3/30/2015 17:10 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	25 U	2.5 U	50 UJ	1 UJ	10 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1.1	33 J	9.8	80 J	5.2	30
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	76	21	91 J	8	100
75-00-3	CHLOROETHANE	ug/l	2.2	25 U	2.5 U	50 U	1 U	10 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	230	60000	13000	62000	3500	42000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	25 U	2.5 U	50 U	1 U	61
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	16	95	300	130	110	100
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	2	3800	28	190	76	8700
75-01-4	VINYL CHLORIDE	ug/l	290	4100	5300	6700	210	3600
74-85-1	ETHENE	ug/l	200	840	1300	940	25	1000
74-84-0	ETHANE	ug/l	160	19	440	35	41	28
74-82-8	METHANE	ug/l	18000	8200	12000 J	9400	2300	8200
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0719 J	0.0674 U
7440-70-2	CALCIUM	mg/l	359	363	500	350	274	165
7439-89-6	IRON	mg/l	5.36	0.0334 U	0.709	0.0334 U	0.23 J	0.0334 U
7439-95-4	MAGNESIUM	mg/l	61.2	112	161	166	111	55.3
7439-96-5	MANGANESE	mg/l	1.44	0.319	2.08	0.374	0.188	0.197
9/7/7440	POTASSIUM	mg/l	15.2	23.6	11.8	9.37	20.1	20.4
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	12	223	20.7	238	8.6	16.7
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	123	114	503	103	519	66.1
18496-25-8	SULFIDE	mg/l	0.79	201	16.5	197	0.054 U	67.3
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL	22400		189000			
DHBt	DHBt	cells/mL	108		228			
DHC	DHC	cells/mL	251000		496000			
TCE	TCE	cells/mL	710		2500			
VCR	VCR	cells/mL	42400		53700			

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW- 5S PMW-5S_2015-04-01 7832018 LANCASTERLABS BPX42 WATER 4/1/2015 10:00 5/27/2015	PMW- 6D PMW-6D_2015-03-26 7824048 LANCASTERLABS BPX38 WATER 3/26/2015 16:15 5/27/2015	PMW- 6S PMW-6S_2015-03-31 7830337 LANCASTERLABS BPX41 WATER 3/31/2015 11:35 5/27/2015	PMW- 7D PMW-7D_2015-04-01 7832017 LANCASTERLABS BPX42 WATER 4/1/2015 9:40 5/27/2015	Dup of PMW-7D_2015-04-01 PMW- 7D PMW-70D_2015-04-01 7832020 LANCASTERLABS BPX42 WATER 4/1/2015 12:01 5/27/2015	PMW- 7S PMW-7S_2015-03-31 7830334 LANCASTERLABS BPX41 WATER 3/31/2015 9:30 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	10 U	0.5 U	0.5 UJ	10 U	10 U	0.5 UJ
75-34-3	1,1-DICHLOROETHANE	ug/l	10 U	55	0.85 J	46	50	51
75-35-4	1,1-DICHLOROETHENE	ug/l	44	1.5	1.2 J	35	45	0.5 U
75-00-3	CHLOROETHANE	ug/l	10 U	3.8	0.5 UJ	10 U	10 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	25000	1800	400 J	32000	33000	2.2
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	10 U	0.5 U	0.5 UJ	19 J	20 J	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	490	55	12 J	90	95	0.5 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1100	3.6	2.6 J	230	250	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	3900	4500	160 J	7500	8100	1.9
74-85-1	ETHENE	ug/l	420	3700	60	1100	1000	1 U
74-84-0	ETHANE	ug/l	69	25	30	34	31	1 U
74-82-8	METHANE	ug/l	5700	6100	15000	10000	8900	10
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0819 J	0.122 J	0.0674 U
7440-70-2	CALCIUM	mg/l	496	299	519	305	309	426
7439-89-6	IRON	mg/l	0.0805 J	4.44	10.8	0.0398 J	0.0484 J	0.166 J
7439-95-4	MAGNESIUM	mg/l	242	94.1	206	211	210	352
7439-96-5	MANGANESE	mg/l	1.57	1.02	3.22	0.369	0.372	0.366
9/7/7440	POTASSIUM	mg/l	3.41	10.3	17.3	19	19	13.5
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	6.3	446	30.1	51.5	52.8	3.6
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	1320	43.2	195	644	643	1590
18496-25-8	SULFIDE	mg/l	0.054 U	10	0.8	133		0.054 U
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL		23200				
DHBt	DHBt	cells/mL		5690				
DHC	DHC	cells/mL		3840000				
TCE	TCE	cells/mL		68900				
VCR	VCR	cells/mL		202000				

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW- 8D PMW-8D_2015-04-01 7832025 LANCASTERLABS BPX42 WATER 4/1/2015 14:25 5/27/2015	PMW- 8S PMW-8S_2015-03-27 7826067 LANCASTERLABS BPX39 WATER 3/27/2015 16:15 5/27/2015	PMW- 9D PMW-9D_2015-04-01 7832022 LANCASTERLABS BPX42 WATER 4/1/2015 13:29 5/27/2015	PMW- 9S PMW-9S_2015-03-24 7820106 LANCASTERLABS BPX35 WATER 3/24/2015 15:05 5/27/2015	PMW-10D PMW-10D_2015-04-01 7832021 LANCASTERLABS BPX42 WATER 4/1/2015 12:45 5/27/2015	PMW-10S PMW-10S_2015-03-26 7824049 LANCASTERLABS BPX38 WATER 3/26/2015 8:30 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	25 U	3.8	25 U	0.5 U	85	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	26 J	3	25 U	0.5 U	190	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	51	0.5 U	170	7.6	49	0.5 U
75-00-3	CHLOROETHANE	ug/l	25 U	0.5 U	25 U	0.91 J	10 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	37000	63	64000	2900	32000	0.5 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	29 J	0.5 U	270	0.5 U	11 J	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	85	1.5	110	34	55	0.5 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	7100	1.3	30000	2300	960	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	3800	57	10000	49	7700	3
74-85-1	ETHENE	ug/l	590	22	3600	3.5 J	8900	1.1 J
74-84-0	ETHANE	ug/l	28	9.2	28	5.8	20	1 U
74-82-8	METHANE	ug/l	5800	2700 J	6100	270 J	8000	20
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	384	176	203	495	281	454
7439-89-6	IRON	mg/l	0.0334 U	0.857	16.7	0.0334 U	6.69	0.0334 U
7439-95-4	MAGNESIUM	mg/l	267	71.6	56.2	374	50.2	436
7439-96-5	MANGANESE	mg/l	0.398	0.452	0.435	0.359	0.841	0.242
9/7/7440	POTASSIUM	mg/l	9.6	4.55	8.33	17	9.1	8.18
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	39.1	10.1	124	2.4	262	1.9
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	859	356	25.7	1870	6.8	2180
18496-25-8	SULFIDE	mg/l	148	0.17	8.2	0.054 U	15.9	0.054 U
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL				3.1		3
DHBt	DHBt	cells/mL				46.7		12.5
DHC	DHC	cells/mL				79.9		68.6
TCE	TCE	cells/mL				0.594		0.1 J
VCR	VCR	cells/mL				0.7		0.6

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-11D PMW-11D_2015-03-25 7823299 LANCASTERLABS BPX36 WATER 3/25/2015 10:00 5/27/2015	PMW-11S PMW-11S_2015-03-26 7824038 LANCASTERLABS BPX37 WATER 3/26/2015 12:45 5/27/2015	PMW-12D PMW-12D_2015-04-01 7832023 LANCASTERLABS BPX42 WATER 4/1/2015 12:40 5/27/2015	PMW-13D PMW-13D_2015-03-25 7823297 LANCASTERLABS BPX36 WATER 3/25/2015 13:15 5/27/2015	PMW-14D PMW-14D_2015-04-01 7832019 LANCASTERLABS BPX42 WATER 4/1/2015 10:50 5/27/2015	PMW-15D PMW-15D_2015-03-24 7820102 LANCASTERLABS BPX35 WATER 3/24/2015 10:10 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	6600	2.5 U	50 U	100	540	4000
75-34-3	1,1-DICHLOROETHANE	ug/l	730	29	72 J	120	570	5300
75-35-4	1,1-DICHLOROETHENE	ug/l	180	18	330	220	62	230
75-00-3	CHLOROETHANE	ug/l	1.7	2.5 U	50 U	50 U	25 U	32
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	2600	9700	140000	84000	38000	4500
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	26	2.5 U	350	76 J	74	110
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	14	150	220	85 J	81	15
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	130	130	61000	16000	3400	470
75-01-4	VINYL CHLORIDE	ug/l	300	1800	17000	16000	6500	2000
74-85-1	ETHENE	ug/l	13	110	6800	5700	5400	130
74-84-0	ETHANE	ug/l	17	24	19	14	37	230
74-82-8	METHANE	ug/l	480	4200 J	5900	9000	9300	1500 J
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	176	532	232	345	309	170
7439-89-6	IRON	mg/l	0.177 J	0.355 J	16.7	8.38	22.6	14.3
7439-95-4	MAGNESIUM	mg/l	61.3	284	43.9	51.7	97.5	58.6
7439-96-5	MANGANESE	mg/l	0.255	0.659	0.415	0.742	0.883	1.82
9/7/7440	POTASSIUM	mg/l	5.09	3.31	8.13	14.5	9.17	3.93
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	60.6	2.6	207	252	426	127
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	245	1720	11.8	22.1	5.8	1.5 U
18496-25-8	SULFIDE	mg/l	27.3	0.054 U	12.8	11	40.7	0.075 J
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL	23100					90900
DHBt	DHBt	cells/mL	1180					9170
DHC	DHC	cells/mL	62000					140000
TCE	TCE	cells/mL	1400					6740
VCR	VCR	cells/mL	1850					845

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-16D PMW-16D_2015-03-31 7830340 LANCASTERLABS BPX41 WATER 3/31/2015 14:25 5/27/2015	PMW-17D PMW-17D_2015-03-24 7820105 LANCASTERLABS BPX35 WATER 3/24/2015 13:15 5/27/2015	RMW-1D RMW-1D_2015-03-26 7824037 LANCASTERLABS BPX37 WATER 3/26/2015 15:05 5/27/2015	RMW-2D RMW-2D_2015-03-25 7823301 LANCASTERLABS BPX36 WATER 3/25/2015 16:40 5/27/2015	RMW-3D RMW-3D_2015-03-31 7830336 LANCASTERLABS BPX41 WATER 3/31/2015 11:25 5/27/2015	RMW-4D RMW-4D_2015-03-31 7830343 LANCASTERLABS BPX41 WATER 3/31/2015 15:58 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	820 J	2700	60	50 U	7100 J	25 UJ
75-34-3	1,1-DICHLOROETHANE	ug/l	460	700	7.2	150	180	59
75-35-4	1,1-DICHLOROETHENE	ug/l	200	70	3.9	370	110	55
75-00-3	CHLOROETHANE	ug/l	50 U	1 U	0.5 U	50 U	5 U	25 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	110000	6200	390	190000	1900	44000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	510	26	0.5 U	1500	5 U	25 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	130	13	1.2	160	5.2 J	91
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	26000	400	11	210000	25	1400
75-01-4	VINYL CHLORIDE	ug/l	4900	860	19	1100	120	4500
74-85-1	ETHENE	ug/l	1600	92	1 J	420	7.9	830
74-84-0	ETHANE	ug/l	32	27	4.4 J	35	1.7 J	50
74-82-8	METHANE	ug/l	5900	2200 J	24 J	2000	200	10000
	METALS							
7429-90-5	ALUMINUM	mg/l	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
7440-70-2	CALCIUM	mg/l	311	158	241	432	232	397
7439-89-6	IRON	mg/l	0.593	0.233 J	0.297 J	3.92	0.0334 U	0.0334 U
7439-95-4	MAGNESIUM	mg/l	81.9	50.2	91.5	95.1	66.2	150
7439-96-5	MANGANESE	mg/l	0.646	1.35	0.138	0.481	0.123	0.318
9/7/7440	POTASSIUM	mg/l	8.24	13.2	2.94	8.43	13.1	6.78
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l	214	97.9	2	328	4.5	233
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l	11	56.2	679	269	358	133
18496-25-8	SULFIDE	mg/l	102	50	0.94	40.4	27.7	236
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL		54800		110000		
DHBt	DHBt	cells/mL		2370		1740		
DHC	DHC	cells/mL		87100		743000		
TCE	TCE	cells/mL		3290		4270		
VCR	VCR	cells/mL		1850		36500		

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TripBlank1_2015-03-24 7820108 LANCASTERLABS BPX35 WATER 3/24/2015 0:00 5/27/2015	FIELDQC Trip Blank1_2015-03-25 7823294 LANCASTERLABS BPX36 WATER 3/25/2015 0:00 5/27/2015	FIELDQC TripBlank1_2015-03-26 7824033 LANCASTERLABS BPX37 WATER 3/26/2015 0:00 5/27/2015	FIELDQC TripBlank1_2015-03-27 7826056 LANCASTERLABS BPX39 WATER 3/27/2015 0:00 5/27/2015	FIELDQC TripBlank1_2015-03-30 7827842 LANCASTERLABS BPX40 WATER 3/30/2015 0:00 5/27/2015	FIELDQC TripBlank1_2015-03-31 7830332 LANCASTERLABS BPX41 WATER 3/31/2015 0:00 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ
75-34-3	1,1-DICHLOROETHANE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-00-3	CHLOROETHANE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
74-85-1	ETHENE	ug/l						
74-84-0	ETHANE	ug/l						
74-82-8	METHANE	ug/l						
	METALS							
7429-90-5	ALUMINUM	mg/l						
7440-70-2	CALCIUM	mg/l						
7439-89-6	IRON	mg/l						
7439-95-4	MAGNESIUM	mg/l						
7439-96-5	MANGANESE	mg/l						
9/7/7440	POTASSIUM	mg/l						
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l						
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l						
18496-25-8	SULFIDE	mg/l						
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL						
DHBt	DHBt	cells/mL						
DHC	DHC	cells/mL						
TCE	TCE	cells/mL						
VCR	VCR	cells/mL						

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2015 (March)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TripBlank1_2015-04-01 7832012 LANCASTERLABS BPX42 WATER 4/1/2015 0:00 5/27/2015	FIELDQC TripBlank1_2015-04-02 7833300 LANCASTERLABS BPX43 WATER 4/2/2015 0:00 5/27/2015	FIELDQC TripBlank1_2015-04-03 7834718 LANCASTERLABS BPX44 WATER 4/3/2015 0:00 5/27/2015	FIELDQC TripBlank2_2015-03-27 7826068 LANCASTERLABS BPX39 WATER 3/27/2015 0:00 5/27/2015	FIELDQC TripBlank2_2015-03-31 7830344 LANCASTERLABS BPX41 WATER 3/31/2015 0:00 5/27/2015	FIELDQC TripBlank2_2015-04-01 7832013 LANCASTERLABS BPX42 WATER 4/1/2015 0:00 5/27/2015
CAS NO.	COMPOUND	UNITS:						
	VOLATILES							
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-34-3	1,1-DICHLOROETHANE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-00-3	CHLOROETHANE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
75-01-4	VINYL CHLORIDE	ug/l	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
74-85-1	ETHENE	ug/l						
74-84-0	ETHANE	ug/l						
74-82-8	METHANE	ug/l						
	METALS							
7429-90-5	ALUMINUM	mg/l						
7440-70-2	CALCIUM	mg/l						
7439-89-6	IRON	mg/l						
7439-95-4	MAGNESIUM	mg/l						
7439-96-5	MANGANESE	mg/l						
9/7/7440	POTASSIUM	mg/l						
	WET CHEMISTRY							
TOC	TOTAL ORGANIC CARBON	mg/l						
	DISSOLVED WET CHEMISTRY							
14808-79-8	SULFATE (AS SO4)	mg/l						
18496-25-8	SULFIDE	mg/l						
	MICRO GENE ANALYSIS							
BVC	BVC	cells/mL						
DHBt	DHBt	cells/mL						
DHC	DHC	cells/mL						
TCE	TCE	cells/mL						
VCR	VCR	cells/mL						

ATTACHMENT D

SITE ANALYTICAL DATA – ALL SITE WELLS

EKONOL FACILITY

Well Id: **INJ-01**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	840 J	100000	23000	5000 U	5000 U	1600 J	7	17	78	5000 U	5000 U	5000 U	6.46	1480								
07/2008	5000 UJ	2600 J	150000 J	380 J	5000 UJ	1600 J	9.2 J	52 J	100 J	5000 UJ	5000 UJ	5000 UJ	202 J	1150 J								
12/2008	100 J	14000	120000 J	1100 J	220 J	3500	6.4	12	66	1300 U	62 J	1300 U	441	260								
10/2009	110 J	19000	99000	300 J	260 J	3500	11	110	440	1000 U	72 J	1000 U	365	991	0.0394 J	247						
07/2010	80 U	9900	83000	170 J	120 J	3700	40	330	1000	80 U	100 U	100 U	545	130	4.72	169						
06/2011	600 J	90000	99000	180 J	290 J	3000	12	93	170	160 U	200 U	200 U	51	1390	0.0308 J	117						
08/2011	390 J	44000	110000	240 J	220 J	2900	22	260	720	500 U	500 U	500 U	239	270	0.0878 J	272						
11/2011	660	54000	87000	130 J	200 J	3500	21	540	2800	110 J	500 U	500 U	139	464 J	0.127 J	190						
03/2012	470	29000	48000	88 J	110	3000	11	100	1800	87 J	37 J	100 U	32.4	1790 J	0.2 U	203						
06/2012	570	51000	34000	52 J	82 J	1100	13	76	1300	1000	83 J	50 U	25.6	261 J	0.04 J	148						
09/2012	450	32000	49000	80 J	120	5700	89	440	4300	290	58 J	20 U	79.5	54.2	0.0484 J	121						
12/2012	140 J	3600	100000	100 J	90 J	2800	28	310	1800	86 J	100 U	100 UJ	1640	498	0.812	170						
04/2013	84 J	5300	150000	220 J	110 J	3600	13	190	1700	80 U	140 J	100 U	1060	304	1.32	169						
07/2013	87 J	4100	120000	150 J	91 J	3900	18	370	1600	80 UJ	120 J	100 U	780	202	20.5	61.8						
10/2013	400 U	3900	140000	400 U	400 U	4000	33	610	2100	400 U	500 U	500 U	715	66.7	4.47	128						
12/2013	200 U	3200	140000	200 U	200 U	4300	30	620	3000	200 U	250 U	250 U	571	126	1.2	171						
04/2014	54 J	8800	160000	260	230	11000	24	1200	4800	50 U	89 J	50 U	440	25.8	2.92	87.1	6.23					
08/2014	50 U	7700	94000	210	160	19000	37	4600	9100	50 U	70 J	50 U	388	74.9	1.2	94.6	6.48					
12/2014	100 U	3500	89000	200 J	100 J	13000	30	5000	9400	100 U	100 U	100 U	337	86.7	0.357 J	113	6.34					
03/2015	30 J	4800	84000	210	150	14000	26	5200	10000	25 U	45 J	25 U	269	17	1.21	76	6.32					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-02**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2010	40 U	50 U	78000	240 J	170 J	29000	24 U	340	6300	40 U	50 U	50 U	121	3.5 J	0.24	62.7						
08/2011	250 U	93 J	90000	110 J	170 J	19000	31	1300	400	250 U	250 U	250 U	194	2.5 J	11.4	0.68						
03/2012	5.9 J	190	4900	8.4 J	18 J	1500	6.5	140	350	25 U	25 U	25 U	92.5	3.1 J	1.84	93.1						
06/2012	16 U	38 J	14000	26 J	51 J	4200	18 J	360 J	1200	16 UJ	20 U	20 U	97.8	1.7 J	1.32 J	24.1						
09/2012	66	5700	13000	26 J	110	2100	20	220	1400	9.4 J	10 U	10 U	50.1	2.6 J	0.339	5.8						
12/2012	93 J	3600	54000	2700	430 J	8800	17	110	1500	95 J	230 J	100 U	1940	8.4	425	9.5						
04/2013	190 J	26000	200000	220 J	160 U	2500	13	140	1400	160 U	200 U	200 U	1170	270	13.4	135						
07/2013	80 U	6200	140000	230 J	180 J	2400	45	490	1200	80 UJ	100 U	100 U	1040	5 J	241	5.5						
10/2013	160 U	270 J	190000	240 J	340 J	3800	86	690	1500	160 U	200 U	200 U	962	1.5 U	338	0.36						
12/2013	95 J	8600	160000	240 J	310 J	5800	51	440	1000	80 U	100 U	100 U	690	42.2	22.4	58						
04/2014	50 U	930	65000	120	67 J	5100	29	620	2000	50 U	50 U	50 U	611	1.6 J	182	2.3	6.02					
08/2014	55	4400	44000	160	58	12000	63	3700	11000	25 U	37 J	25 U	258	18	2.53	60.2	6.55					
12/2014	200	20000	90000	220	110	11000	35	6200	12000	50 U	50 U	50 U	306	156	1.53	87.6	6.96					
04/2015	92	5100	24000	91	49 J	6600	34	4400	8700	25 U	25 U	25 U	396	4.4 J	118	2.8	6.44					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-04**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
10/2009	240 J	20000	110000	290 J	290 J	3200	10	70	300	1000 U	120 J	1000 U	454	506	0.0381 J	221						
07/2010	150 J	17000	130000	260 J	170 J	6200	19	260	1400	80 U	120 J	100 U	469	73.3	0.442	155						
08/2011	870	74000	84000	130 J	200 J	1300	23	200	660	250 J	500 U	500 U	259	146	1.52	257						
03/2012	720	40000	48000	83 J	77 J	1300	20	250	3300	170 J	96 J	250 U	34.9	2790	0.256	254						
06/2012	780	54000	69000	89 J	160 J	2200	21	370	2600	730 J	130 J	100 U	56.5	166 J	0.0333 U	176						
09/2012	710	30000	57000	85 J	130 J	3400	60	400	3300	390	78 J	50 U	41.2	11.4 J	0.0333 U	149						
12/2012	170 J	3300 J	77000 J	80 UJ	80 UJ	780 J	13	340	3500	120 J	100 J	100 UJ	782	680	0.923	176						
04/2013	160 U	2400	110000	160 U	160 U	2500	26	440	3700	160 U	200 U	200 U	302	833	0.365	133						
07/2013	80 U	950	120000	110 J	86 J	2700	29	760	1900	80 U	150 J	100 U	709	62.3	5.78	140						
10/2013	80 U	100 U	65000	80 U	80 U	5000	74	830	2700	80 U	100 U	100 U	1150	1.5 U	479	0.17						
12/2013	80 U	1100	120000	130 J	84 J	2500	26	520	2300	80 U	120 J	100 U	546	13.4	0.792	117						
04/2014	20	53	15000	22	17	880	14	80	790	5 U	10	5 U	135	1.9 J	11.5	0.68	6.15					
08/2014	7.4	8.5	1700	3.4	2.5	130	9.9	35	3600	0.5 U	1.3	0.5 U	143	1.5 U	46.7	0.094 J	6.85					
12/2014	50 U	730	100000	210	92 J	9000	32	1600	9800	50 U	55 J	50 U	176	413	0.0866 J	167	7.32					
04/2015	50 U	1500	56000	160	100 J	16000	43	2700	9400	50 U	50 U	50 U	152	8.4	0.494	52.4	6.39					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-05**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2010	800 J	270000	87000	190 J	210 J	1100	89	1400	69	160 U	200 U	200 U	258	1250	2.24	146						
08/2011	600	110000	99000	180 J	250 J	2300	80	800	360	500 U	500 U	500 U		460	0.0959 J	217						
09/2011													292									
03/2012	730	61000	48000	92	100	1600	18	140	1900	170	55	10 U	60.7	1250	0.2 U	161						
06/2012	650	45000	27000	42 J	62 J	290	15	120	730	1100 J	76 J	50 U	26.8	214 J	0.0333 U	156						
09/2012	360 J	27000	75000	80 U	230 J	830	150	1000	1500	220 J	100 U	100 U	124	23.7	2.52	61.3						
12/2012	230 J	17000	92000	80 U	80 U	1100	22	180	2500	80 U	100 U	100 U	1250	373	0.539	273						
04/2013	200 J	27000	110000	160 U	160 U	1700	28	290	4400	160 U	200 U	200 U	566	500	0.528	211						
07/2013	230 J	29000	99000	160 U	160 U	1800	20	160	3000	160 U	200 U	200 U	477	205	0.582	210						
10/2013	230 J	29000	130000	160 U	160 U	1400	54	390	2400	160 U	200 U	200 U	465	211	0.728	234						
12/2013	270 J	30000	140000	160 J	130 J	1900	50	350	4000	80 U	110 J	100 U	434	333	0.633	202						
04/2014	170	17000	150000	100 J	97 J	2500	32	470	4200	50 U	62 J	50 U	499	47	4.65	103	5.77					
08/2014	110	9400	150000	150	130	10000	51	1200	5600	50 U	81 J	50 U	467	152	2.39	119	6.53					
12/2014	170	16000	120000	160	110	11000	44	1700	7100	50 U	76 J	50 U	332	456	0.392 J	176	6.91					
04/2015	110	9800	73000	97 J	85 J	12000	48	1600	6700	50 U	50 U	50 U	479	60.5	4.78	85.8	6.6					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-07D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	1400 J	580000	7900	400 U	400 U	500 U	11	7.7	73	400 UJ	500 U	500 U	47.4	971	1.6	2.2	6.8	2.7E+02	8.7E+00	5.3E+01	4.6E+00	5.5E+00
08/2011	1500	270000	47000	500 U	170 J	140 J	9.4	32	45	620	500 U	500 U	286	562	15.3	26.2	6.06	1.1E+01	4.4E+03	5.8E+01	8.0E+01	1.7E+01
11/2011	1600	240000	63000	500 U	260 J	500 U	5.5	7.9	34	1400	500 U	500 U	149	317	0.32	98.6	6.47	6.0E+01	2.2E+04	2.3E+02	3.5E+02	1.6E+02
03/2012	2200 J	380000	100000	2500 U	2500 U	2500 U	12	16	110	530 J	2500 U	2500 U	117	413 J	0.931	40.3	6.33	1.1E+04	3.4E+04	2.9E+04	2.1E+03	1.5E+04
06/2012	2300	290000	56000	64 J	200	150	13	20	170	870	53 J	20 U	62.9	407	0.0333 U	97.6	6.56	2.8E+02	5.6E+03	1.6E+03	3.4E+01	2.2E+02
09/2012	2400	250000	64000	80 U	220 J	250 J	13	24	220	760	100 U	100 U	66.8	85.5 J	0.0333 U	161	7.03	2.2E+03	1.1E+04	2.4E+03	2.9E+03	1.6E+03
11/2012	2400	350000	61000	110 J	210 J	200 J				500	100 U	100 U	70.8									
12/2012	1200	330000	75000	84 J	100 J	260 J	8.8	18	140	230 J	100 U	100 U	941	92.4	45.7	1.5	6.27	1.1E+01	1.1E+01	3.0E+04	5.7E+04	1.1E+04
04/2013	1200	340000	280000	1900 J	460	1300	40	340	470 J	48	71	1 U	935	293	72.1	0.17	6.7	1.4E+05	3.1E+05	2.3E+06	2.2E+06	3.6E+04
07/2013	1600	360000	380000	240 J	870	3800	22	290	370	120 J	100 U	100 U	703	327	44.3	0.47	6.64	4.6E+04	2.4E+04	4.8E+04	3.8E+04	4.5E+02
10/2013	1200 J	300000	280000	800 U	800 U	5500	37	430	590	800 U	1000 U	1000 U	424	341	37.8	1.1	6.38	5.0E+04	1.4E+04	1.7E+05	1.7E+05	2.2E+03
12/2013	840	220000	360000	260 J	850	2400	20	340	740	80 U	100 U	100 U	251	158	25	0.66	6.26	8.8E+04	3.6E+03	2.7E+05	2.7E+05	1.4E+04
04/2014	450	120000	380000	390	900	4800	22	270	440	100 U	100 U	100 U	197	122	22.4	0.59	6.19	8.9E+04	7.3E+03	2.9E+05	8.7E+02	1.4E+04
08/2014	420	160000	380000	270	940	11000	38	430	1000	100 U	100 U	100 U	258	153	23.6	1.4	6.6	4.1E+05	9.6E+03	2.9E+06	1.5E+04	4.7E+04
12/2014	840	340000	410000	320	850	4500	25	350	1500	100 U	200 J	100 U	222	179	15.4	0.92	6.45	6.1E+05	4.2E+03	1.2E+06	4.5E+03	5.5E+03
03/2015	400	160000	180000	180	430	3700	10	140	380 J	25 U	25 U	25 U	109	116	9.81	0.46	7.21	4.8E+05	7.1E+03	1.7E+06	6.2E+03	5.7E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-08D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	63	2100	8200	14 J	73	210 J	3 J	11	49	1900	100	5 U	4.7	843	6.7	0.33	6.91					
08/2011	11 J	990	9100	21 J	25	82	5.6	3.5 J	35	1200	58	25 U	283	422	0.702	62.6	6.11					
11/2011	32	340	4100	9.2 J	22 J	79	2.4 J	2.4 J	63	2300	82	25 U	301	321	1.16	45	6.38					
03/2012	10 J	220	1700	4.2 J	21 J	65	5 U	5 U	180	2400	110	25 U	996	437	0.109 J	93.8	6.24					
06/2012	4 U	49	5500	6.8 J	12 J	250	8	6.1	15000	42	41	5 U	190	18.7	20.2	0.13 J	7.62					
09/2012	8.6	1400	2400	7.7	27	350	3.6 J	19	2700	760	99	1 U	46.5	121 J	0.0333 U	106	6.97					
12/2012	8 U	27 J	9500	27 J	19 J	180	5.6	12	7300	190	28 J	10 UJ	299	1.6 J	4.83	12.1	6.21					
04/2013	4 U	6.3 J	9800	12 J	15 J	2300	6.7	63	16000	110	200	5 U	463	7.3 J	3.36	55.3	7.47					
07/2013	8 U	10 U	3500	16 J	8 U	9400	23	450	20000	40 J	320	10 U	509	1.5 U	132	0.069 J	7.12					
10/2013	16 U	45 J	16000	16 U	16 U	2900	16	2300	7500	340	510	20 U	544	6.8	5.66	90.9	6.26					
12/2013	4 U	14 J	7600	21 J	8.3 J	2300	24	5100	19000	180	610	5 U	545	3.1 J	31.8	2.8	6.1					
04/2014	9.8	44	22000	36	42	2800	16	2100	12000	640	730	6.9	405	6.8	4.6	65.3	6.95					
08/2014	0.94 J	3.8	740	31	4.8	610	59	6600	24000	110	690	11	443	2.4 J	10	21.5	7.39					
12/2014	0.5 U	1.6	33	12	0.62 J	140	33	3500	15000	4.7	340	3.2	321	1.5 U	21.2	1.2	7.08					
04/2015	25 U	30 J	22000	37 J	26 J	2400	28	1700	7100	680	910	25 U	426	57.4	1.07	105	6.78					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-09D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	370	22000	10000	16 U	68 J	190	2.4 J	11	52	790 J	65 J	20 U	3.7	835	0.628	1.3	6.55	1.5E+03	2.7E+01	1.6E+02	4.5E+00	2.5E+01
08/2011	30 J	910	14000	30 J	52	36 J	2 J	2.2 J	16	3800	56	50 U	251	354	1.66	66	5.96	1.0E-01	2.4E+02	2.3E+01	4.6E+00	1.5E+00
11/2011	8.6 J	130	8700	29 J	25 J	100	15	7	38	360	150	50 U	353	2.3 J	90.4	5.8	6.05	3.6E+01	2.6E+03	6.0E+01	1.2E+02	5.0E+02
03/2012	10 U	14	1600	4.2 J	4 J	17	1.3 J	1.2 J	75	22	8 J	10 U	31.3	5 U	13.3	0.16 U	7.45	7.2E+02	6.9E+02	4.5E+02	1.1E+02	2.7E+01
06/2012	1.6 U	25	550	1.6 U	1.7 J	21	1 U	1 U	97	73 J	3.9 J	2 U	26.7	20 J	0.539	3.9	7.67	1.8E+02	1.2E+02	4.8E+02	4.1E+00	7.8E+01
09/2012	0.99 J	32	250	0.8 U	0.98 J	56	1 U	1 U	370	24	1.8 J	1 U	10.9	3 J	0.195 J	2.4	8.03	3.9E+03	2.6E+03	3.5E+03	2.3E+01	1.1E+03
11/2012													51.5									
12/2012	270	29000	90000	51 J	43 J	340	13	27	140	190	80 J	20 U	1320	21.9	23.6	21.5	5.91	2.8E+02	1.1E+02	2.7E+04	5.3E+04	1.2E+04
04/2013	110	12000	81000	58	69	720	18	80	6000 J	170	100	10 U	709	15.9	67.5	13.5	6.27	2.8E+03	6.9E+03	1.7E+04	1.1E+04	1.3E+01
07/2013	80 U	3700	120000	110 J	140 J	13000	27	680	3600	150 J	210 J	100 U	679	31.9	67.1	5.1	6.34	2.9E+05	2.6E+03	4.3E+05	2.0E+05	3.1E+03
10/2013	400 U	20000	250000	400 U	400 U	11000	23	1100	1600	400 U	500 U	500 U	784	44.2	15.3	27.5	6.03	1.9E+05	9.7E+03	1.0E+06	1.7E+06	1.8E+04
12/2013	80 J	12000	110000	73 J	190 J	5900	12	730	3500	150 J	140 J	50 U	321	20.8	12.3	11.3	6.29	5.4E+05	1.4E+04	9.7E+05	3.6E+05	4.0E+04
04/2014	0.5 U	8.6	1800	11	4.1	890	7	1500	5000	5.3	21	0.5 U	89.5	1.5 U	34.7	0.18	6.84	5.0E+05	3.1E+03	3.4E+06	1.1E+04	3.6E+05
08/2014	74 J	11000	93000	110	170	14000	32	5400	11000	100 J	120	50 U	279	8.4	9.08	10.2	6.91	1.6E+05	1.9E+03	1.8E+06	9.2E+03	9.3E+04
12/2014	42 J	6200	60000	86	100	7800	16	4300	11000	60	100	25 U	216	7.2	7.25	10.4	6.37	3.8E+05	2.6E+03	2.3E+06	7.3E+03	2.6E+04
03/2015	10 J	2400	23000	41	47	5500	15	6300	8700	31	67	10 U	216	33.5	28.2	4.2	6.6	3.4E+05	2.2E+03	2.9E+06	1.3E+04	3.1E+05

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-10D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	140	1800	2900	8 U	130	110	1 U	3.4 J	23	12000	100	10 U	4.4	706 J	0.399	0.4	7.69	2.9E+02	2.3E+01	3.9E+01	4.6E+00	3.6E+00
08/2011	18 J	120	2600	8.7 J	41 J	73	5 U	2.4 J	13 J	5900	67	50 U	55.7	569	0.688	20.3	6.81	2.1E+00	4.1E+02	8.2E+00	1.5E+00	6.0E-01
11/2011	5.2	59	1200	6	15	51	3.9 J	2.4 J	82	1100	60	5 U	61.6	93	2.64	30.2	7.08	2.1E+01	4.9E+03	1.8E+01	1.4E+00	6.9E+00
03/2012	3.1 J	18	450	2.1 J	9.7	110	1.2 J	2.9 J	47	620	30	5 U	15.1	228	0.0172 J	18.1	6.97	8.4E+03	7.8E+03	2.1E+04	5.3E+04	1.2E+03
06/2012	5.8	23	710	4.1 J	16	210	1.1 J	23	85	1400 J	59	1 U	17.7	615 J	1.36	23.9	7.54	1.3E+03	2.5E+03	1.1E+04	4.9E+03	9.7E+03
09/2012	4.9 J	14	560	3.2 J	17	190	1.8 J	40	960	1000	55	1 U	17.4	425	0.0727 J	19.7	8.03	1.4E+03	1.2E+03	3.6E+04	1.2E+04	4.2E+04
11/2012													17.3									
12/2012	11 J	220	8000	16 J	19 J	220	2 J	6.3	170	590	86	5 U	152	53.6	0.0585 J	162	6.51	7.9E+01	3.6E+01	2.9E+02	2.6E+02	9.1E+01
04/2013	16	47	9900	19	33	1200	19	430	3500	400	280	2 U	629	4.1 J	28.2	51.2	6.03	2.4E+05	1.4E+04	3.7E+06	5.4E+06	3.4E+04
07/2013	8 U	18 J	4500	11 J	18 J	1100	24	890	6100	760	400	10 U	553	71	36.3	70.5	6.4	3.8E+04	2.4E+04	6.5E+05	2.6E+05	1.4E+04
10/2013	17 J	13 J	5200	16 J	150	770	15	470	9100	9900	1700	5 U	218	3.2 J	2.45	77.6	6.22	1.3E+04	3.9E+03	4.7E+05	1.8E+05	8.8E+04
12/2013	25 J	18 J	8000	22 J	170	840	12	190	4100	9100	1500	10 U	280	7.8	1.93	91.8	6.55	2.2E+04	7.7E+03	2.1E+05	1.2E+05	3.1E+04
04/2014	0.85 J	1.3	8.5	0.5 U	0.5 U	1.8	12	2 J	720	2.8	0.8 J	0.5 U	24.2	31.3	0.383 J	0.25	7.76	6.4E+02	2.6E+02	1.2E+03	5.2E+01	8.1E+02
08/2014	18	12	7600	32	130	2800	11	190	5600	2500	600	5 U	74.3	44.4	0.0599 J	138	7.12	4.2E+04	2.6E+03	2.8E+05	1.6E+03	5.4E+03
12/2014	3.8 J	2.5 U	5900	27	80	2400	12	170	8700	1500	550	2.5 U	84.2	5.4	0.0514 J	131	6.87	1.5E+05	4.4E+03	3.3E+05	2.1E+03	8.1E+02
03/2015	2.6	3.9	2100	15	34	1300	13	97	5000	540	250	0.98 J	40.9	46.3	0.0409 J	117	7.39	3.9E+04	5.4E+03	1.3E+05	9.8E+02	5.0E+03

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-11D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
04/2012	33 J	2500	8200	19 J	35 J	270	5 U	16	53	970	82	50 U	3.8	475 J	0.295	15.3						
06/2012	27	3500	14000	29	51	390	1.8 J	22	98	980 J	98	5 U	4.1	1070 J	0.149 J	17.1	6.87	1.2E+04	2.4E+02	2.1E+04	6.0E+02	5.2E+03
09/2012	8.6 J	500	14000	33 J	68	1300	11	120	370	1000	130	10 U	3.5	812 J	0.161 J	23.9	6.73					
11/2012													7.9									
12/2012	590	200000	83000	250 J	140 J	2700	83	460	2700	170 J	100 U	100 UJ	652	337	4.67	49.1	6.18					
04/2013	360	72000	170000	170	290	1700	62	420	970 J	170	78	10 U	270	325	0.457	206	6.68					
07/2013	310 J	40000	180000	180 J	320 J	3500	70	440	2500	160 U	200 U	200 U	265	334	0.0838 J	183	6.47					
10/2013	80 U	5200	72000	99 J	140 J	2200	13	85	1700	80 U	100 U	100 U	165	195	0.194 J	97	6.28					
12/2013	520	160000	110000	110 J	280 J	2800	16	170	2300	80 UJ	100 U	100 U	202	84.3	3.11	45.2	6.44					
04/2014	43 J+	7100	29000	58	75	2100	5.7	130	1500	11	19	5 U	66.8	23.1 J+	0.156 J	40.4	7.14					
08/2014	320	140000	230000	150 J	500	6800	34	550	5600	100 U	100 U	100 U	202	164	0.562	78.5	6.28					
12/2014	100	36000	95000	87 J	200	4700	53	700	7700	50 U	50 U	50 U	107	353	0.32 J	83.9	7.49					
04/2015	2.5 U	81	3600	10	8.3	980	7.4	150	3100	2.5 U	6.4	2.5 U	5.3	22.7	0.386 J	23.7	6.19					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-12D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
03/2012																	6.25					
04/2012	43 J	3900	63000	57 J	100 J	1100	23	280	2200	110 J	250 U	250 U	17.4	251 J	0.0427 J	48.7						
06/2012	200	19000	17000	34 J	56 J	510	49	210	4100	540	31 J	20 U	17.5	267	0.0506 J	128	7.38					
09/2012	17	820	760	1.6 U	3.1 J	38	1 U	1.5 J	23	1.6 U	2 U	2 U	8.6	24.7	0.142 J	29.2	9.06					
11/2012													4.8									
12/2012	220 J	14000	120000	160 U	160 U	710 J	15	55	390	160 UJ	200 UJ	200 U	1420	86.5	8.7	76.8	5.89					
04/2013	130	10000	94000	110	80	2100	92	990	5900 J	120	70	10 U	659	36.1	18.2	31.3	6.34					
07/2013	320 J	31000	130000	160 U	160 U	2800	63	1200	4400	160 U	200 U	200 U	658	92.3	17.6	9.7	5.84					
10/2013	330 J	34000	210000	190 J	310 J	9200	85	2200	5100	160 U	200 U	200 U	668	176	43.3	80.8	6.06					
12/2013	380 J	42000	100000	110 J	170 J	9200	30	1800	4200	80 U	100 U	100 U	308	65.2	12.2	22.8	6.47					
04/2014	53	3900	21000	53	42 J	2000	49	690	5100	25 U	25 U	25 U	56.8	9.9	0.948	9.5						
08/2014	2.3	6	110	0.85 J	0.5 U	50	4 J	19	2000	0.5 U	0.5 U	0.5 U	58	1.5 U	11.7	0.24	7.05					
12/2014	5 U	93	5800	20	7.8 J	970	17	990	10000	5 U	5 U	5 U	103	13.3	3.13	82	7.04					
04/2015	27 J	2900	22000	38 J	51	2500	11	1200	4300	25 U	25 U	25 U	50.8	8.4	1.07	12.6	7					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **INJ-13D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
04/2012	340 J	47000	44000	40 J	92 J	260	1.6 J	21	57	710	79 J	250 U	15.6	820 J	0.0398 J	25						
06/2012	810	140000	26000	80 U	140 J	320 J	15	91	260	810	100 U	100 U	30	566	0.0333 U	108	6.8					
09/2012	990	100000	21000	80 U	80 U	640	13	63	310	680	100 U	100 U	13.9	703	0.0333 U	72	6.79					
11/2012													7.7									
12/2012	160 U	9800	130000	320 J	160 U	1600	34 J	130 J	1200	160 UJ	200 UJ	200 U	1420	57.2	4.78	64.4	6.02					
04/2013	120	15000	110000	130	100	1800	100	680	4500 J	110	79	10 U	767	80.4	1.97	65	6.47					
07/2013	290 J	33000	120000	140 J	130 J	2300	69	1400	5100	80 U	100 U	100 U	608	135	2.13	79.7	6.03					
10/2013	160 U	8300	86000	160 U	160 U	9400	52	5200	8500	160 U	200 U	200 U	530	133	2.2	60.7	6.07					
12/2013	110	17000	78000	98 J	100	7800	37	1500	3700	50 J	60 J	20 U	288	62.1	3.34	20.7	6.41					
04/2014	50 U	4300	65000	100	100	4700	77	1400	8000	50 U	50 U	50 U	142	37.2	0.107 J	51.6	7.04					
08/2014	50 U	1000	51000	100	95 J	6500	70	2700	15000	50 U	50 U	50 U	164	45.9	0.0627 J	62.7	6.85					
12/2014	1 U	38	2800	50	6.6	830	61	1800	15000	1 U	1 U	1 U	67.8	59.3	0.595	40.7	6.62					
04/2015	11 J	2000	13000	23	27	1100	11	560	3800	10 UJ	10 U	10 U	24.1	18.8	0.173 J	8.3	7.75					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 1S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	19	150	6.9	2.2 J	19	1.1 J	1.7 J	55	0.8 U	1 U		2.2	2140 J	1.98							
05/2009	5.0 U	7.1	150	6.0	1.6 J	16	1.0 U	1.0 U	29	5.0 U	5.0 U	5.0 U	3.0	2130	1.180	1.0 U						
07/2010	0.8 U	2.7 J	100 J	4.7 J	1.2 J	10	1 U	1 U	20	0.8 U	1 U	1 U	2.9	2350 J	2.44	0.16 J						
06/2011	0.8 U	2 J	88	3.6 J	0.8 U	5.3	1 U	1 U	15 J	0.8 U	1 U	1 U	3	2830	1.8	0.076 J	7					
08/2011	5 U	1.1 J	96	3.9 J	5 U	7.5	5 U	5 U	14 J	5 U	5 U	5 U	3.2	2750	1.56	0.093 J	7.03					
11/2011	5 U	3.5 J	120	5.1	1.2 J	14	5 U	5 U	25	5 U	5 U	5 U	1.3	2110	1.77	0.25						
03/2012	5 U	4.4 J	120	4.5 J	1.1 J	5.2	5 U	5 U	14 J	5 U	5 U	5 U	2.8	2420 J	0.421	0.24	6.12					
06/2012	0.8 U	14	170	7.4	2 J	15	1 U	1 U	32	0.8 U	1 U	1 U	2.6	2260	1.14	0.054 U						
09/2012	0.8 U	1.5 J	110	4.4 J	0.84 J	7.8	1 U	1.2 J	29	0.8 U	1 U	1 U	2.7	2120	1.02	0.054 U	7.21					
12/2012	0.8 U	17	170	7.2	2.1 J	15	1 U	1.2 J	37	0.8 U	1 U	1 UJ	1.1	2130	2.55	0.054 U	6.7					
04/2013	0.8 U	8.4	140	5.6	1.3 J	7.7	1 U	1 U	14	0.8 U	1 U	1 U	1.6	2030	0.427	0.054 U	7.58					
07/2013	0.8 U	14	170	7.1	1.7 J	12	1 U	1 U	25	0.8 UJ	1 U	1 U	1.3	2000	0.703	0.054 U	7.4					
10/2013	0.8 U	41	200	8.9	2.4 J	13	1 U	1 U	15	0.8 U	1 U	1 U	1.2	1940	0.043 U	0.054 U						
12/2013	0.8 U	7.8	170	7.4	1.6 J	8.9	1 U	1 U	22	0.8 U	1 U	1 U	2 J	1840	0.961	0.054 U						
04/2014	0.5 U	4.2	150	5.9	1.3	6.8	1 U	1 U	16	0.5 U	0.5 U	0.5 U	3	1920	0.984	0.054 U	6.67					
08/2014	0.5 U	1.8	24	1.3	0.5 U	1.4	1 U	1 U	9.9	0.5 U	0.5 U	0.5 U	5.7	533	1.68	0.23	7.87					
12/2014	0.5 U	2.7	28	1.5	0.5 U	1.7	1 U	1 U	19	0.5 U	0.5 U	0.5 U	2.3	290	0.46	0.4	7.41					
03/2015	0.5 U	2.1	17	0.89 J	0.5 U	1	1 U	1 U	3 UJ	0.5 U	0.5 U	0.5 U	1.7	256	0.229 J	0.054 U	7.14					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 2S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	400 U	2700	400000	2300 J	1100 J	60000	44	650	290	400 U	500 U		7.6	1130 J	8.69							
06/2009	5000 U	31000	230000	1700 J	660 J	28000	40	390	210	5000 U	5000 U	5000 U	7.5	1120	4.390	0.98 U						
07/2010	400 U	2500	250000	1700 J	680 J	32000	30	320	120	400 U	500 U	500 U	7.9	1270 J	4.23	0.054 U						
06/2011	200 U	6400	230000	1400	610 J	26000	12	76	56	200 U	250 U	250 U	9.6	957 J	3.28	0.054 U	6.7	6.3E+03	3.0E+00	1.1E+04	5.7E+01	1.1E+01
08/2011	500 U	500 U	220000	1400	490 J	24000	12	120	55	500 U	500 U	500 U	7	1510 J	4.23	0.16 U	6.52	1.0E+05	7.0E+01	9.9E+04	8.3E+01	3.6E+02
11/2011	500 U	150 J	120000	1100	340 J	18000	15 J	92 J	62 J	500 U	500 U	500 U	5.4	868	1.32	0.16 U	6.95	2.1E+05	1.2E+02	3.4E+05	3.7E+02	1.7E+02
03/2012	1000 U	520 J	240000	1700	590 J	30000	17	140	98	1000 U	1000 U	1000 U	5	1100 J	1.28	0.16 U	6.5	2.5E+05	1.0E+02	2.3E+05	1.5E+02	1.4E+03
06/2012	40 U	600	250000	1700	560	27000	62	390	1800	40 UJ	50 U	50 U	5.5	1170	3.88	0.054 U	6.73	8.5E+04	8.6E+02	2.3E+05	1.5E+02	2.8E+02
09/2012	80 U	210 J	240000	1900	650	33000	80	450	2500	80 U	100 U	100 U	4.7	1090 J	3.05	0.054 U		6.6E+03	9.3E+02	2.3E+05	2.3E+04	6.3E+05
12/2012	80 U	760	230000	1700	620	27000	55	280	1800	80 U	100 U	100 U	5	1130	1.87	0.054 U	6.44	1.9E+04	2.8E+00	2.5E+04	2.9E+01	2.9E+01
04/2013	44 J	2000	250000	1800	560	28000	45	230	950 J	47 J	38 J	20 U	4	1230	0.958	0.054 U	7.07	6.8E+04	4.7E+02	1.4E+05	2.7E+02	8.0E-01
07/2013	80 U	1400	220000	1600	530	18000	18	130	300	80 U	100 U	100 U	4.3	1130	1.16	0.054 U	6.84	7.5E+03	3.1E+01	1.7E+03	1.5E+01	9.0E-01
10/2013	400 U	730 J	240000	1800 J	670 J	27000	43	460	860	400 U	500 U	500 U	5.7	1020	4.1	0.054 U	6.15	3.7E+03	1.9E+02	6.3E+03	3.7E+02	1.0E+01
12/2013	40 U	7100	190000	1200	540	14000	11	96	240	40 U	50 U	50 U	5	562	0.183 J	0.054 U		3.8E+05	2.7E+01	8.3E+05	6.1E+02	2.4E+02
04/2014	0.5 UJ	3.5	77	4.9	0.5 U	67	190	190	19000	0.5 U	1.2	0.5 U	10.3	32.1	0.376 J	17.7	6.4	1.7E+04	1.3E+02	5.9E+04	1.3E+02	2.4E+04
08/2014	130 U	630	300000	2000	810	30000	17	190	240	130 U	130 U	130 U	7	954	5.17	0.054 U	6.93	3.9E+05	3.1E+02	6.7E+05	1.3E+01	3.4E+00
12/2014	100 U	3500	240000	1300	450	12000	5.2	59	70	100 U	100 U	100 U	4.2	974	0.186 J	0.054 U	7.49	1.6E+05	1.6E+02	4.7E+05	3.1E+01	9.6E+00
03/2015	82 J	5300	240000	1400	500	14000	7.6	34	140 J	50 U	50 U	50 U	3	894	0.111 J	0.054 U		3.8E+05	1.3E+01	6.0E+05	2.7E+01	1.2E+02

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 3D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	9.7 J	150	2600	5.4 J	37	160	2.8 J	13	43	750	32		2.6	808 J	0.36							

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 3S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	1.8 J	0.8 U	0.8 U	1 U	1 U	1 U	11	0.8 U	1 U		2.8	2090 J	2.25							
06/2009	5.0 U	2.2 J	1.5 J	5.0 U	5.0 U	2.0 U	1.0 U	1.0 U	3.7	5.0 U	5.0 U	5.0 U		2680	0.832	1.0 U						
07/2010	0.8 U	1 U	0.81 J	0.8 U	0.8 U	1 U	1 U	1 U	23	0.8 U	1 U	1 U		2610	1.93	0.054 U						
06/2011	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	16	0.8 U	1 U	1 U	3.3	2740	0.637	0.054 U	7.59					
08/2011	5 U	1.3 J	7.1	5 U	5 U	5 U	5 U	5 U	11 J	5 U	5 U	5 U	3.8	3170 J	1.4	0.11 J	7.39					
11/2011	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	32	5 U	5 U	5 U	8.6	3470	2.31	0.16 U	6.8					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	7.3 J	5 U	5 U	5 U	14.1	283 J	0.0961 J	0.16 U	6.67					
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	5 U	0.8 U	1 U	1 U	19.8	462	0.945	0.054 U	7.49					
09/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	2.6 J	1 U	240	0.8 U	1 U	1 U	12.4	529	0.398	0.054 U	7.54					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	140	0.8 U	1 U	1 UJ	8.4	662	1.98	0.054 U	6.6					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	8.3	254	0.0842 J	0.054 U						
07/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	2.8 J	1.5 J	150	0.8 U	1 U	1 U	8.4	342	0.768	0.054 U	7.11					
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	69	0.8 U	1 U	1 U	4.4	450	0.228 J	0.054 U						
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3.4 J	0.8 U	1 U	1 U	5.1 J	699	0.151 J	0.054 U						
04/2014	0.5 UJ	0.5 U	1.3	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	9.6	226 J+	0.162 J	0.054 U	7.31					
08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	31	0.5 U	0.5 U	0.5 U	4.7	523	0.0397 J	0.054 U						
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	9.8	88.5	0.0334 U	0.054 U	6.56					
04/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	17	0.5 U	0.5 U	0.5 U	76.3	215	0.236 J	0.054 U						

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 4S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	34 J	15000	19000	31 J	43 J	360	13	9.8	140	16 U	20 U		3.9	2920 J	3.22							
06/2009	5.0 U	1.5 J	23	1.4 J	5.0 U	93	15	24	200	5.0 U	0.72 J	5.0 U	6.2	3750	0.671	1.7						
10/2009	5.0 U	6.7	92	2.4 J	0.51 J	79	8.8	11	120	0.38 J	0.78 J	5.0 U	11.4									
07/2010	0.8 U	1 U	34 J	1 J	0.8 U	130	16	13	170	0.8 U	1 U	1 U	3.5	3970 J	0.693	4.6						
06/2011	1.6 U	59	670	11	3 J	220	12	100	150	2.7 J	3.4 J	2 U	12.2	3730	0.338	45.4	7.69					
08/2011	5 U	10	130	3.6 J	5 U	91	12	75	110	5 U	1.8 J	5 U	5.4	4090 J	0.855	1.4	7.12					
11/2011	5 U	2.7 J	27	2.3 J	5 U	50	11	110	430	5 U	1.6 J	5 U	6.1	4190 J	0.498	11	7.04					
03/2012	5 U	1.4 J	46	5 U	5 U	140	14	42	180	5 U	1.4 J	5 U	4.1	4440 J	0.6	0.35	6.53					
06/2012	0.8 U	1.6 J	37	0.8 U	0.8 U	74	5.9	15	100 J	0.8 U	1 U	1 U	3.8	3190 J	0.72	5.1	7.14					
09/2012	0.8 U	1.8 J	96	1.2 J	0.8 U	190	13	83	380	0.8 U	1.1 J	1 U	6.7	3480 J	0.594	6.4	6.41					
12/2012	0.8 U	8	330	8.9	1.1 J	260	15	110	1400	0.8 U	1.3 J	1 UJ	2.5 U	2200	0.617	12.1	6.39					
04/2013	4 U	39	3400	55	8 J	1700	31	380	6100	4 U	6.2 J	5 U	9.2	2320	0.186 J	22.9	6.75					
07/2013	0.8 U	10	530	12	1.4 J	470	11	89	1300	1.3 J	2 J	1 U	5.1	3420	0.414	14.1	6.87					
10/2013	0.8 U	32	1300	27	4 J	920	20	300	4400	0.86 J	3.2 J	1 U	13.6	1840	0.24 J	29.1	6.25					
12/2013	0.8 U	27	660	20	2.9 J	810	16	230	3600	0.8 U	2.3 J	1 U	13.6	3050	0.587	26.1	6.44					
04/2014	2.5 U	23	3000	47	6.7	1400	54	350	5000	2.5 U	4.5 J	2.5 U	9	2190	0.684	19.5	6.73					
08/2014	0.5 U	10	1100	13	3.2	450	20	88	2900	0.5 U	2	0.5 U	7.7	2240	0.185 J	11.3						
12/2014	0.5 U	17	2600	20	8.7	1100	18	150	5500	0.5 U	2.4	0.5 U	7.8	2560	0.3 J	16.3	6.73					
03/2015	1 U	8.6	2500	29	7.4	1000	16	170	4700	1 J	3.4	1 U	7.3	1950	0.564	10.8	7.61					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 5S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	5.0 U	5.0 U	0.85 J	5.0 U	5.0 U	15	1.6	1.0 U	38	5.0 U	5.0 U	5.0 U		1110	1.160	0.98 U						
07/2010	0.8 U	1 U	1.5 J	0.8 U	0.8 U	34	2.6 J	2 J	44	0.8 U	1 U	1 U		1150	1.3	0.054 U						
08/2011	5 U	6.5	1.2 J	5 U	5 U	24	2.4 J	1.9 J	30	5 U	5 U	5 U	2.4	932	0.723	0.16 U	7.06					
03/2012	5 U	5 U	5 U	5 U	5 U	3.6 J	5 U	5 U	7.9 J	5 U	5 U	5 U	1.7	1200	0.193 J	0.16 U						
06/2012	0.8 U	1 U	1.3 J	0.8 U	0.8 U	27	1.6 J	1.1 J	24 J	0.8 U	1 U	1 U	1.6	966 J	0.678	0.054 U						
09/2012	0.8 U	1 U	1.4 J	0.8 U	0.8 U	35	1.4 J	1 U	19	0.8 U	1 U	1 U	1.5	859	0.818	0.054 U	7.32					
12/2012	0.8 U	1 U	2 J	0.8 U	0.8 U	33	1.8 J	1.1 J	20 J	0.8 U	1 U	1 U	1.8	945	0.549	0.054 U						
04/2013	0.8 U	1 U	0.99 J	0.8 U	0.8 U	3.3 J	1 U	1 U	5.6	0.8 U	1 U	1 U	1.5	1060	0.152 J	0.054 U	7.59					
07/2013	0.8 U	1 U	1.7 J	0.8 U	0.8 U	27	1.3 J	1 U	21	0.8 UJ	1 U	1 U	2.1	877	0.639	0.054 U	7.36					
10/2013	0.8 U	1 U	1.6 J	0.8 U	0.8 U	30	1.5 J	1 U	17	0.8 U	1 U	1 U	1.9	790	0.591	0.054 U	6.93					
12/2013	0.8 U	1 U	1.4 J	0.8 U	0.8 U	21	1.3 J	1 U	18	0.8 U	1 U	1 U	2.8 J	751	0.687	0.054 U	6.94					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 6S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	2.5 J	34	0.8 U	1.6 J	280	57	8.2	300	1.4 J	11		3.5	2440 J	0.149 J							
05/2009	5.0 U	0.76 J	72	3.1 J	1.0 J	410	58	7.5	290	0.86 J	6.8	5.0 U	6.5	2610	0.0514 J	1.0 U						
07/2010	0.8 U	1 U	58	0.8 U	1.1 J	300	56	6.6	200	0.86 J	6.7	1 U	5.5	3540	0.137 J	0.054 U						
06/2011	0.8 U	1.4 J	60	2.5 J	0.8 U	120	12	2 J	62	0.8 U	1.9 J	1 U					10.1					
08/2011	5 U	5 U	23	5 U	0.98 J	210	45	3.5 J	110	5 U	6.3	5 U					6.96					
11/2011	5 U	5 U	40	5 U	1.5 J	250	46	4.8 J	150	5.5	9.9	5 U					6.78					
03/2012	5 U	5 U	670	2.4 J	3.3 J	280	17	5.4	48	1.5 J	10	5 U										
06/2012	0.8 U	1 U	53	0.8 U	0.8 U	210	34	4 J	110	0.8 U	3.9 J	1 U										
09/2012	0.8 U	1 U	31	0.8 U	1.5 J	250	50	5.8	140 J	1.1 J	8.5	1 U					6.45					
12/2012	0.8 U	1 U	29	0.8 U	0.8 U	110	24	3.3 J	75 J	0.8 U	2.8 J	1 U					6.89					
04/2013	0.8 U	1 U	1.9 J	0.8 U	0.8 U	1.3 J	1 U	1 U	3 U	0.8 U	1 U	1 U					8.37					
07/2013	0.8 U	1 U	97	0.9 J	0.8 U	230	27	4.6 J	140	1.1 J	5.3	1 U					6.45					
10/2013	0.8 U	1 U	66	0.8 U	1.3 J	230	54	15	200	0.87 J	7.4	1 U					6.24					
12/2013	80 U	100 U	80 U	80 U	80 U	170 J	45	4.7 J	160	80 U	100 U	100 U										
04/2014	0.53 J	76	67	0.55 J	0.5 U	60	5.4	1.1 J	56	0.5 U	1.2	0.5 U					7.7					
08/2014	0.5 U	1.3	44	0.6 J	0.63 J	170	31	6.4	140	0.5 U	4.5	0.5 U										
12/2014	0.5 U	0.5 U	38	1.1	0.97 J	190	32	3.4 J	100	0.91 J	6.5	0.5 U					7.73					
04/2015	0.5 U	1	30	0.84 J	0.5 U	35	2.7 J	1 U	23	0.5 U	0.5 U	0.5 U					8.28					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 7D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	720 J	140000	26000	5000 U	5000 U	690 J	12	15	82	360 J	5000 U	5000 U	7.79	1150								
05/2008	740	75000	26000	80 U	110 J	1000	8.9	15	74	120 J	100 U		5.1	1400	1.57							
07/2008	5000 UJ	5000 UJ	130000 J	360 J	5000 UJ	900 J	16 J	28 J	72 J	5000 UJ	5000 UJ	5000 UJ	480 J	1190 J								
09/2008	2500 U	1200 J	59000	740 J	140 J	1500	4.4	13	55	2500 U	2500 U	2500 U	212	1280								
10/2008																						
12/2008	2500 U	2600	53000	350 J	2500 U	1400 J	5.3	15	62	2500 U	2500 U	2500 U	278	649								
06/2009	500 U	1600	19000	68 J	44 J	1200	7.8	18	380	500 U	53 J	500 U	124	1210	0.0430 J	304						
10/2009	100 J	3100	23000	88 J	55 J	940	12	21	890	64 J	100 J	500 U	117	485	0.0317 U							
07/2010	47 J	1800	17000	41 J	30 J	1400	13	110	3700	16 U	47 J	20 U	77	1310	0.0522 U	229						
06/2011	830 J	63000	80000	160 U	250 J	1300	8.3	56	130	730 J	200 U	200 U	56.1	856	0.106 J	128	7.64					
08/2011	500 U	770	140000	98 J	350 J	990	80	530	160	500 U	120 J	500 U	138	170	0.11 J	41.2	6.93					
11/2011	560	25000	29000	60 J	65 J	1300	38	210	3200	110 J	140 J	250 U	166	12.7 J	2.56	157	7.26					
03/2012	70	150	3100	50 U	12 J	890	19	93	170	50 U	50 U	50 U	4.4	5 U	0.977	0.27	7.42					
06/2012	390	19000	32000	56 J	60 J	630	17	190	3100	150	80 J	20 U	14.7	376	0.0333 U	230	8.67					
09/2012	420	20000	31000	63 J	75 J	1000	30	360	4200	210	110	20 U	28	212 J	0.0333 U	243	7.2					
12/2012	80 U	100 U	110000	110 J	80 U	930	22	250	2800	260 J	520	100 UJ	935	7.5	0.292	302	5.96					
04/2013	46 J	190 J	64000	81 J	130 J	740	8.1	79	1100	2600	1000	50 U	210	10 J	0.0459 J	224						
07/2013	89 J	1300	59000	91 J	80 U	1200	17	180	3400	900	1100	100 U	178	37.9	0.043 U	242	6.73					
10/2013	65 J	270	72000	89 J	81 J	850	9.9	120	2400	2100	1400	50 U	216	6.1	0.043 U	219	6.27					
12/2013	84 J	530	69000	110 J	190 J	1100	17	280	2000	2100	1900	100 U	192	22.2	0.043 U	208	6.55					
04/2014	50 U	360	44000	88 J	85 J	2100	45	360	4700	510	740	50 U	589	96.3	0.043 U	165	7.17					
08/2014	50 U	780	72000	140	93 J	3000	41	470	8600	360	650	50 U	219	12.2	0.0334 U	220	6.89					
12/2014	66 J	1100	98000	120	110	2200	27	410	6900	630	990	50 U	213	13.5 J+	0.183 J	212	6.58					
04/2015	100 U	320	72000	100 U	100 U	3500	58	410	8000	270	660	100 U	112	7.1	0.0579 J	119	6.76					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 7D PUMP**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	53 J	2200	26000	79 J	37 J	1200	5.6 J	10 J	200 J	42 J	75 J	500 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 7D SNAP**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	1300 U	1800	21000	65 J	1300 U	680	6.9 J	15 J	220 J	1300 U	60 J	1300 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 7S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U				0.8 U	1 U											
06/2009	5.0 U	6.9	0.75 J	5.0 U	5.0 U	2.0 U	1.0 U	1.0 U	5.7	5.0 U	5.0 U	5.0 U		2070	0.122	1.0 U						
07/2010	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	7.6 J	0.8 U	1 U	1 U		2070	0.307	0.054 U						
08/2011	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	9.4 J	5 U	5 U	5 U	3.6	2170	0.716	0.16 U	6.65					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	15 U	5 U	5 U	5 U	2.7	2430 J	0.0756 J	0.16 U	6.89					
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	7.5 J	0.8 U	1 U	1 U	2.4	1750	0.709	0.054 U	6.54					
09/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	6.9 J	0.8 U	1 U	1 U		1970	1.32	0.054 U	6.6					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 UJ	2	2070	0.239	0.054 U	6.53					
04/2013	0.8 U	1 U	2.1 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2.6	2210	0.0446 J	0.054 U						
07/2013	0.8 U	1 U	0.95 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2.4	1940	0.043 U	0.054 U						
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2	12100	0.307 J	0.054 U	6.53					
12/2013	0.8 U	1 U	0.98 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2.9 J	1880	0.235 J	0.054 U						
04/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	3.9	1800	0.0861 J	0.054 U						
08/2014	0.5 U	0.5 U	0.71 J	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	2.9	1700	4.44	0.054 U						
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	0.98 J	1780	0.25 J	0.054 U	6.72					
03/2015	0.5 U	0.5 U	0.66 J	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 UJ	0.5 U	0.5 U	2.7	1620	0.48	0.054 U						

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 8S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U				0.8 U	1 U											
05/2009	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	1.0 U	1.0 U	2.7	5.0 U	5.0 U	5.0 U		850	0.0088 J	0.99 U						
07/2010	0.8 U	1 U	14	0.8 U	0.8 U	18	1 U	1 U	10 U	0.8 U	1 U	1 U		3890 J	0.0522 U	0.054 U						
09/2011	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	15 U	5 U	5 U	5 U	14.9	424 J	0.0192 J	0.16 U	9.86					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	15 U	5 U	5 U	5 U	7	5270 J	0.0812 J	0.16 U	6.34					
06/2012	0.8 U	1 U	4 J	0.8 U	0.8 U	3.8 J	1 U	1 U	5 U	0.8 UJ	1 U	1 U	25.1	4390 J	0.0325 J	0.054 U						
09/2012	0.8 U	1 U	2.8 J	0.8 U	0.8 U	3.5 J	1 U	1 U	8.3 J	0.8 U	1 U	1 U	5.7	4010 J	0.0333 U	0.054 U	6.94					
12/2012	0.8 U	1.5 J	2.1 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 UJ	5.6	2450	0.0333 U	0.054 U	6.85					
04/2013	0.8 U	1 U	1.7 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	5.3	3840	0.0333 U	0.054 U						
07/2013	0.8 U	1 U	0.87 J	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	6.7	3270	0.594	0.054 U						
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	4.2	1250	0.122 J	0.054 U	6.97					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	3.6	1360	0.043 U	0.054 U	7.05					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW- 9S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	67	130	0.8 U	0.8 U	35				0.8 U	1 U											
06/2009	2500 U	30000	99000	2500 U	2500 U	4100	19	27	210	2500 U	2500 U	2500 U		1410	0.0658 J	50.2						
07/2010	0.8 U	1 U	410	2.2 J	1.6 J	140	1 U	3.2 J	24	0.8 U	1.2 J	1 U		3510	1.28	0.054 U						
08/2011	5 U	5 U	310	2 J	0.99 J	170	5 U	6	27	5 U	5 U	5 U	7.6	3190	1.61	0.16 U	5.92					
03/2012	5 U	5 U	1300	7.5	4.2 J	460	5 U	15	32	5 U	3.1 J	5 U	5.4	2640	0.81	0.16 U	6.44					
06/2012	0.8 U	1 U	1100	7.8	3.7 J	290	1 U	19	42	0.8 U	3.6 J	1 U	5.9	2300	1.06	0.054 U	6.84					
09/2012	1.6 U	2 U	930	5.4 J	2.7 J	510	1 U	20	43	1.6 U	2.8 J	2 U	5.8	2300	1.14	0.054 U	6.48					
12/2012	0.8 U	1 U	740	4.9 J	2.6 J	320	1 U	20	40	0.8 U	3.6 J	1 UJ	4.6	1990	0.752	0.054 U	6.52					
04/2013	0.8 U	1 U	1100	8.8	4.3 J	640	1 U	35	54	2.6 J	7.7	1 U	5.8	2480	0.627	15.2	7.28					
07/2013	0.8 U	1 U	480	4.1 J	0.8 U	360	1 U	25	50	0.8 U	3.6 J	1 U	7.5	2530	1.1	9	6.48					
10/2013	0.8 U	1 U	220	1.6 J	0.8 U	150	1 U	7.3	19	0.8 U	1.5 J	1 U	16.8	778	0.22 J	0.95	6.95					
12/2013	0.8 U	1 U	270	2.1 J	0.89 J	180	1 U	12	25	0.82 J	2.4 J	1 U	15.4	1740	0.896	1.3	6.61					
04/2014	0.5 U	2.4	1000	7.5	4.1	620	3.3 J	50	90	16	16	0.5 U	10.7	1160	0.549	13.3	6.93					
08/2014	0.5 U	0.9 J	460	3.8	2.3	330	1 U	26	58	5.6	7.3	0.5 U	10.8	2040	1.76	5.7	7.11					
12/2014	0.5 U	0.5 U	240	1.5	0.95 J	260	1 U	21	39	3.6	4.4	0.5 U	6	2490	2.98	4.6	6.65					
03/2015	0.5 U	2	710	4.9	5.1	500	1.6 J	30	100 J	19	18	0.5 U	14.7	892	1.37	2.6	7.13					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-10D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	98	0.8 U	0.8 U	27	14	2.3 J	150	1.4 J	1 U		2.7	722 J	0.751							
05/2009	5.0 U	5.0 U	34	5.0 U	5.0 U	17	7.4	1.0 U	110	0.89 J	5.0 U	5.0 U		706	1.030	1.15						
07/2010	0.8 U	1 U	24	0.8 U	0.8 U	10	13	1.1 J	190	1.3 J	1 U	1 U		934	0.822	4						
08/2011	13 U	53	5400	14	26	170	7.9	3.9 J	120	660	28	13 U	6.3	931	0.166 J	8.4	6.17					
03/2012	10 U	10	1500	3.5 J	10	120	4.6 J	2.2 J	71	290	17	10 U	3.2	766	0.751	1.7	6.97					
06/2012	1.6 U	2.3 J	1300	3.1 J	15	91	15	3.5 J	200	190	15	2 U	2.1	932	0.168 J	6.2	6.95					
09/2012	0.8 U	1.8 J	1000	2.7 J	11	120	25	3.4 J	310	180	19	1 U	1.7	916	0.103 J	5.3	6.72					
12/2012	1.6 U	4.9 J	810	2.6 J	10	160	4.7 J	3.8 J	78	250 J	15 J	2 U	13.3	627	0.716	4.7	6.85					
04/2013	0.8 U	2.6 J	770	2.3 J	9	160	19	5.5	270	230	17	1 U	2.5	815	0.0773 J	7.5	7.92					
07/2013	1.6 U	2.8 J	1100	2.5 J	8.9 J	170	11	7.4	150	140	21	2 U	2.2	657	0.104 J	4.7	7.89					
10/2013	0.8 U	4.6 J	1100	3.2 J	13	250	5	8.4	82	250	30	1 U	1.9	636	0.125 J	3.2	7.12					
12/2013	0.8 U	2.2 J	770	2.4 J	9.8	160	16	5.6	240	150	21	1 U	2.1	761	0.097 J	6.1	6.73					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-10S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	64	730	5.3	2.3 J	140	22	14	200	0.8 U	1 U		2.4	1350 J	13.3							
05/2009	5.0 U	120	1900	37	4.7 J	240	2.3	10	46	5.0 U	5.0 U	5.0 U		804	2.990	0.99 U						
07/2010	0.8 U	3.9 J	110	5.1	2.4 J	110	1.4 J	4.1 J	31	0.8 U	1 U	1 U		1020 J	1.65	0.054 U						
06/2011	0.8 U	14	1100	8.7	2.9 J	210	5.5	18	260	0.8 U	3.4 J	1 U					6.77					
08/2011	5 U	16	1100	12	3 J	270	25	42	4400	5 U	2.3 J	5 U					6.85					
11/2011	25 U	34	5600	27	8.9 J	640	7.3	69	3000	25 U	25 U	25 U					6.86					
03/2012	5 U	6.2	880	11	2.6 J	510	12	230	1700	5 U	5 U	5 U					6.85					
06/2012	0.8 U	10	1000	19	2.7 J	740	16	590	6600	0.8 U	2.3 J	1 U					6.69					
09/2012	0.8 U	4.9 J	410	25	0.8 U	810	7	1700	1700	0.8 U	1.2 J	1 U										
12/2012	0.8 UJ	3.2 J	300	12	0.8 U	280	6.5	380	350	0.8 U	1 U	1 UJ					6.62					
04/2013	0.8 U	3 J	330	6.8	0.91 J	280	5.2	280	570 J	0.8 U	1 U	1 U										
07/2013	0.8 U	4.9 J	340	13	0.8 U	250	9	570	2700	0.8 U	1 U	1 U					7.13					
10/2013	0.8 U	1 U	230	4.2 J	0.8 U	170	3.2 J	100	240	0.8 U	1 U	1 U					6.69					
12/2013	0.8 U	1 U	280	3.6 J	0.8 U	130	2.5 J	48	250	0.8 U	1 U	1 U					7.09					
04/2014	0.5 U	1.2	280	2.9	0.75 J	130	1.9 J	45	570	0.5 U	0.5 U	0.5 U					6.91					
08/2014	0.5 U	3	630	4.7	1.8	190	2.9 J	23	440	0.5 U	0.5 U	0.5 U					6.97					
12/2014	0.5 U	1.6	240	6.3	0.97 J	140	6.2	14	2100	0.5 U	0.5 U	0.5 U					6.9					
03/2015	0.5 U	1.5	170	1.5	0.5 U	49	1 U	5.6	200 J	0.5 U	0.5 U	0.5 U					6.98					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-11D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	8.4 J	260 J	190 J	0.8 U	7.3 J	9.3 J	76 J	1 U	460 J	200 J	4.6 J		4	1490 J	0.0522 U							
05/2009	21 J	1200	3500	100 U	19 J	640	46	13	280	220	48 J	100 U		1030	0.0616 J	3.0						
10/2009	10 J	280	2100	5.2 J	16 J	250	45	5.0 U	240	430	33 J	100 U	4.0									
07/2010	3.4 J	130	1300	3.6 J	12	310	60	7.4	320	140	33	1 U		1290	0.0522 U	11.9						
06/2011	310	5900	3100	40 U	490	50 U	18	1.4 J	95	25000	280	50 U					7.72					
08/2011	17	100	1300	2.8 J	44	30	250 J	5 UJ	1000 J	2300	69	10 U					6.93					
11/2011	5.8 J	21	550	10 U	17	30	170	5 U	1400	1700	33	10 U					6.87					
03/2012	2.8 J	9.8	380	1.3 J	12	38	100	5 U	430	990	37	5 U	1.4				6.52					
06/2012	1.2 J	10	150	0.8 U	4.2 J	53	110	1.9 J	750	430 J	21	1 U					7.31					
09/2012	0.8 U	9.1	150	0.8 U	6.9	67	67	2.1 J	280	320	26	1 U					6.59					
12/2012	0.8 U	7.2	120	0.8 U	3.7 J	47	81	1.3 J	350	270	26	1 UJ					6.72					
04/2013	1.1 J	9.6	210	1.3 J	9.6	160	9.6	6.9	59	630	55	1 U					7.42					
07/2013	0.8 U	5.3	99	0.8 U	4.3 J	69	24	2.3 J	110	290 J	35	1 U					7.33					
10/2013	0.8 U	8.2	170	1.2 J	7.7	140	10	5.1	63	500	60	1 U					6.77					
12/2013	0.8 U	7.9	170	1.5 J	6.6	140	4.6 J	13	110	480	66	1.9 J					7.51					
04/2014	0.54 J	6.3	140	1.3	14	110	1.7 J	21	260	340	62	1.9					7.48					
08/2014	0.5 U	4.3	53	0.87 J	4.8	100	18	13	220	290	43	3					7.11					
12/2014	0.5 U	5.2	110	1.2	8.1	94	1.8 J	11	140	320	63	2.6					7.11					
04/2015	0.5 U	1.6	23	0.65 J	0.98 J	40	7.7	12	150	68	23	1.5					6.71					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-11S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	240	920	26	14	140	2.3 J	1.9 J	140	110	67		2.7	2190 J	0.459							
05/2009	25 U	180	1700	59	13 J	240	1.5	1.0 U	97	65	88	25 U		1960	0.238	1.0 U						
07/2010	0.8 U	190	920	47	11	210	1.6 J	1.7 J	85	30	68	1 U		1850	0.599	0.054 U						
06/2011	8 U	93	4400	27 J	58	450	2.7 J	5 J	77	600	170	10 U					6.8					
08/2011	10 U	200	1300	20	21	210	2.9 J	3.6 J	110	210	81	10 U					6.79					
11/2011	5 U	150	2200	29	37	790	3.2 J	38	260	300	200	5 U					6.68					
03/2012	5 U	160	460	15	8.2	300	5.1	87	840	49	68	5 U					6.44					
06/2012	0.8 U	89	280	14	4.4 J	270	4 J	110	770	39 J	67	1 U					6.71					
09/2012	0.8 U	140	300	14	3.1 J	230	1.6 J	62	250	8.8	34	1 U					6.55					
12/2012	0.8 UJ	110	150	7.8	1.5 J	54	1 U	18	87	3.5 J	13	1 UJ					6.75					
04/2013	0.8 U	44	180	9.6	1.7 J	160	2 J	97	950	14	48	1 U					6.91					
07/2013	0.8 U	84	150	8.8	1.4 J	75	1.8 J	80	880	11	44	1 U					6.38					
10/2013	0.8 U	70	160	8.7	1.3 J	82	3.4 J	120	760	9.5	49	1 U					6.47					
12/2013	0.8 U	73	140	8.7	1.3 J	70	2.8 J	120	1200	11	58	1.3 J					6.87					
04/2014	0.5 U	60	120	7.1	1.1	53	2.1 J	91	770	6.8	41	0.97 J					7.16					
08/2014	0.5 U	87	160	8.4	1.2	50	4 J	98	1200	5.9	42	1					7.18					
12/2014	0.5 U	86	150	7.7	1.3	51	2.6 J	79	680	4.3	33	0.89 J					6.86					
03/2015	0.5 U	28	210	7.4	1.6	60	1.6 J	47	460	1.6	17	0.5 U					7.44					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-12D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	12	1.9 J	0.8 U	0.8 U	1 U				0.8 U	1 U											
05/2009	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	37	1.0 U	210	5.0 U	5.0 U	5.0 U		1460	0.0286 J	32.8						
07/2010	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	25	1 U	130	0.8 U	1 U	1 U		1520	0.0522 U	31.4						
09/2011	5 U	5 U	5 U	5 U	5 U	5 U	24	5 U	130	5 U	5 U	5 U	1.6	1790 J	0.0172 J	47.2	6.38					
03/2012	5 U	5 U	1.6 J	5 U	5 U	5 U	27	5 U	130	5 U	5 U	5 U	1 U	1650	0.2 U	41.8	6.74					
06/2012	0.8 U	1 U	5.1	0.8 U	0.8 U	1 J	28	1 U	160	1.7 J	1 U	1 U	4.9 J	1700	0.0141 U	36.7	6.83					
09/2012	0.8 U	1.9 J	3.7 J	0.8 U	0.8 U	1 U	39	1 U	200	0.8 U	1 U	1 U	1.7	1630	0.0333 U	35.2	6.91					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	26	1.2 J	130	0.8 U	1 U	1 U	0.5 U	1330	0.0333 U	28.8	6.39					
04/2013	0.8 U	1 U	16	0.8 U	0.8 U	7.9	29	1 U	160	5.1	1 U	1 U	0.5 U	1540	0.0333 U	42.8	7.39					
07/2013	0.8 U	1 U	3.5 J	0.8 U	0.8 U	1.5 J	37	1 U	200	1.2 J	1 U	1 U	0.5 U	1500	0.043 U	41.2	7.14					
10/2013	0.8 U	1 U	5.5	0.8 U	0.8 U	2.7 J	42	1 U	200	1.3 J	1 U	1 U	0.88 J	1370	0.043 U	42.2	6.82					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	41	1 U	210	0.8 U	1 U	1 U	1.4	1250	0.043 U	41.5	6.74					
04/2014	1.1	39	570	2	13	130	1 U	4.2 J	21	370	16	0.5 U	3	600	0.195 J	0.32	7.22					
08/2014	0.5 U	0.5 U	7.5	0.5 U	0.5 U	2.2	39	1 U	210	1.9	0.5 U	0.5 U	1.6	1490	0.0334 U	47.5	7.17					
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	33	1 U	170	0.5 U	0.5 U	0.5 U	0.5 U	1520	0.0334 U	42	6.75					
03/2015	0.5 U	1.6	170	0.59 J	2.1	70	26	2.8 J	140 J	24	4.8	0.5 U	1.5	1180	0.0334 U	23.7	7.16					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-12S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	21 J	11000	6200	35 J	54	240	20	10	290	400	52											
05/2009	100 U	2500	3800	26 J	23 J	1300	9.2	19	170	200	110	100 U	10.9	630	0.253	25.4						
07/2010	4 U	2900	2800	27	15 J	1500	8.1	29	110	150	93	5 U		1140	0.218	9.7						
06/2011	81 J	7700	8300	40 U	360	200 J	9.2	5.4	110	18000	400	50 U					7.62					
08/2011	18 J	5300	9300	33 J	170	370	7.2	3.8 J	86	9100	500	50 U					6.72					
11/2011	10 J	3300	4500	20 J	78	510	5.9	25	240	3000	480	25 U					6.88					
03/2012	25 U	4700	2900	26	15 J	230	20	150	2000	270	100	25 U					6.76					
06/2012	4 U	7000	2900	38	8 J	190	16	150	2000	120	48	5 U					7.19					
09/2012	8 U	4500	3000	29 J	8 U	450	13	210	2700	88	55	10 U					6.38					
12/2012	0.8 UJ	740	1100	14	5.5	280	18	320	3200	74	53	1.3 J					7.97					
04/2013	1.6 U	1800	960	22	2.6 J	210	27	400	6200	51	45	2 U					6.96					
07/2013	4 U	2700	2900	41	6.7 J	510	27	320	6200	45	49	5 U					6.29					
10/2013	0.8 U	980	2800	40	6.7	430	29	480	5600	24	28	1 U					6.58					
12/2013	1.6 U	2100	1500	29	4.8 J	300	34	450	7800	27	38	2 U					6.69					
04/2014	1 U	1300	610	22	2	130	20	370	4100	17	23	1 U					7.13					
08/2014	0.5 U	1400	1500	48	3.7	740	43	570	9000	23	34	0.5 U					6.84					
12/2014	2.5 U	3100	1700	35	2.7 J	430	24	380	5800	12	19	2.5 U					6.72					
04/2015	1 U	850	730	30	1.9 J	520	33	500	5200	10	19	1 U					7.52					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-13D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	30	660	4.9 J	4.2 J	250	1.4 J	12	41	2.1 J	29		2.8	971 J	0.4							
05/2009	50 U	50 U	1000	6.2 J	50 U	420	2.9	15	44	50 U	42 J	50 U		923	0.169	1.0 U						
07/2010	0.8 U	1 U	700	6	4.2 J	240	1.6 J	6.9	22	1.1 J	36	1.3 J		98.6 J	0.218	0.78						
08/2011	5 U	1.4 J	510	4.2 J	2.9 J	280	2.5 J	12	27	5.6	29	5 U	3.7	1100	0.218	0.84	7.14					
03/2012	5 U	3.1 J	370	3.7 J	2.2 J	290	9.9	8.5	20	5 U	28	5 U	2.7	907 J	0.217	4.3	6.38					
06/2012	0.8 U	1 U	270	2.8 J	1.9 J	150	9.1	10	29	0.8 U	14	1 U	2.9	1700	0.242	3.1	6.88					
09/2012	0.8 U	1 U	280	2.3 J	1.5 J	140	13	7.9	29	0.8 U	10	1 U	1.8	1400	0.304	2.6	6.48					
12/2012	0.8 U	1.1 J	230	2.7 J	1.6 J	120	16	13	40	0.8 U	11	1 UJ	2	1070	0.158 J	2.8	6.53					
04/2013	0.8 U	1 U	230	2.2 J	0.99 J	230	15	26	110	0.8 U	16	1 U	2.2	1030	0.0333 U	27	6.92					
07/2013	0.8 U	1 U	250	2 J	0.97 J	170	13	32	370	0.8 U	11	1 U	2.6	936	0.0543 J	5	7.7					
10/2013	0.8 U	1 U	220	1.6 J	0.86 J	170	11	30	350	0.8 U	7.3	1 U	2.8	2350	0.176 J	5.9	6.25					
12/2013	0.8 U	1.3 J	180	0.8 U	0.8 U	81	9.7	21	310	0.8 U	4.9 J	1 U	4.1	673	0.072 J	4.9	6.91					
04/2014	0.5 UJ	0.5 U	150	1.1	0.59 J	130	8.9	28	840	0.5 U	4.8	0.5 U	5.1	783 J+	0.043 U	16	6.85					
08/2014	0.5 U	0.5 U	200	1.3	0.79 J	230	11	63	660	0.5 U	8.4	0.5 U	5.4	855	0.0838 J	7.1	6.58					
12/2014	0.5 U	0.5 U	170	0.96 J	0.5 U	190	16	51	1400	0.5 U	5.4	0.5 U	1.8	1070	0.17 J	8.7	6.79					
03/2015	0.5 U	0.68 J	180	1.1	0.68 J	160	11	62	1200	0.5 U	6.2	0.5 U	2.6	641	0.133 J	5.6	6.47					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-14D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U				0.8 U	1 U											
05/2009	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	37	1.0 U	99	5.0 U	5.0 U	5.0 U		1060	0.155	2.50						
07/2010	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	35	1 U	95	0.8 U	1 U	1 U		1150	0.186 J	7						
09/2011	5 U	5 U	5 U	5 U	5 U	5 U	34	5 U	95	5 U	5 U	5 U	2.6	1150 J	0.0915 J	9.2	6.67					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	30	5 U	77	5 U	5 U	5 U	1.8	1150	0.0327 J	6.2	7.04					
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	28	1 U	82	0.8 U	1 U	1 U	2	1160 J	0.0966 J	7.4	6.99					
09/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	27	1 U	81	0.8 U	1 U	1 U	1.7	891	0.075 J	5.8	6.89					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	12	1 U	51	0.8 UJ	1 UJ	1 U	1.6	764	0.0333 U	2.2	6.64					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	15	1 U	45	0.8 U	1 U	1 U	1.8	1050	0.0333 U	3.8	7.29					
07/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	6.8	1 U	35	0.8 U	1 U	1 U	2	948	0.043 U	1.1	7.49					
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	4.3 J	1 U	28	0.8 U	1 U	1 U	2	875	0.043 U	0.69	7.14					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	9.8	1 U	52	0.8 U	1 U	1 U	3.5	1030	0.043 U	1.8	7.18					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-15D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	1.6 U	3.1 J	1400	9.1 J	9.3 J	170	1 J	3.7 J	33	36	20		3	950 J	0.528							
05/2009	25 U	25 U	790	5.6 J	5.6 J	520	1.0 U	7.8	34	25	20 J	25 U		960	0.291	1.0 U						
07/2010	0.8 U	1.8 J	310	2.9 J	3.1 J	220	1 U	4.8 J	23	23	16	1 U		922	0.276	0.37						
08/2011	10 U	4.5 J	1700	4.8 J	11	540	5 U	2.5 J	18	30	20	10 U	4.2	740	0.164 J	3.5	7.66					
03/2012	5 U	2.9 J	720	3.6 J	6.1	260	5 U	1.1 J	7.5 J	34	14	5 U	0.93 J	420 J	0.16 J	0.37	7.12					
06/2012	0.8 U	2.9 J	560	3.7 J	4.3 J	220	1 U	1.1 J	10 J	41	14	1 U	1.5	52.1	0.15 J	0.47	7.24					
09/2012	0.8 U	23	820	5.8	6.3	390	1 U	2.9 J	21	40	25	1 U	2.1	958	0.309	1.5	6.57					
12/2012	0.8 U	10	940	6.2	6.6	360	1 U	2.9 J	20	53 J	37	1 U	2.7	499	0.184 J	2.4	6.08					
04/2013	0.8 U	2.7 J	480	4.5 J	4.2 J	240	1 U	3.3 J	15	49	25	1 U	1.1	506	0.169 J	1.8	7.59					
07/2013	0.8 U	1.9 J	290	3.1 J	2.5 J	260	1 U	2.7 J	17	37	23	1 U	3.1	511	0.332	1.7	7.83					
10/2013	0.8 U	1.8 J	290	3.1 J	2.3 J	320	1 J	10	67	44	27	1 U	2.1	726	0.267 J	7.4	5.95					
12/2013	0.8 U	3.2 J	420	4.2 J	4.3 J	350	1 U	4.9 J	42	99	46	1 U	3.7	530 J	0.214 J	4.8	7.24					
04/2014	0.5 U	2.9	290	4.1	3.2	260	1 U	5.6	45	59	36	0.5 U	1.8	458	0.145 J	3.5	7.58					
08/2014	0.5 U	2.9	270	3.6	2.9	300	1 U	3.6 J	27	63	31	0.5 U	3	389	0.111 J	1.2	7.32					
12/2014	0.5 U	4.1	470	6.4	5	460	1.4 J	17	170	110	58	0.5 U	2.5	69.4	0.124 J	7.1	7.94					
03/2015	0.5 U	7.6	870	8.2	8.2	740	1.4 J	22	220 J	280	97	0.5 U	2.3	763	0.098 J	12.5	7.22					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-16D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	2.2 J	520	2.7 J	2.9 J	160	4.3 J	5.6	31	3.3 J	12											
05/2009	25 U	25 U	560	2.6 J	25 U	200	7.0	6.3	38	25 U	11 J	25 U		1080	0.0723 J	1.6						
07/2010	0.8 U	1.5 J	490	2.1 J	2.7 J	180	24	4.9 J	68	1.4 J	7.7	1 U		1090	0.147 J	3.6						
08/2011	5 U	2.4 J	420	2 J	2.8 J	170	10	5.4	35	15	11	5 U	4	1140	0.249	1.6	6.13					
03/2012	5 U	1.8 J	380	1.8 J	2.8 J	220	5.7	4.4 J	36	6.5	12	5 U	2.9	961	0.178 J	1.6	6.98					
06/2012	0.8 U	2.2 J	450	2 J	3 J	230	6.9	8.8	46	8.7 J	14	1 U	2.7	983 J	0.228	0.54	7.27					
09/2012	0.8 U	12	330	1.5 J	2.5 J	180	5.1	7.7	41	3.9 J	11	1 U	2.3	1040	0.344	1.3	6.53					
12/2012	0.8 U	1.5 J	290	1.1 J	1.6 J	130	9.9	10	72 J	2.5 J	11	1 U	2.5	1040	0.327	1.6	7.13					
04/2013	0.8 U	1.3 J	270	1.3 J	2 J	180	11	21	150	1.7 J	11	1 U	2.6	1020	0.213	1.8	7					
07/2013	0.8 U	1.2 J	250	1.4 J	1.6 J	140	8.1	16	150	0.98 J	9.3	1 U	2.8	974	0.213	1.9						
10/2013	0.8 U	1 J	240	1.3 J	1.7 J	200	5.5	18	180	0.8 U	8.6	1 U	2.4	1020	0.17 J	2.4	6.86					
12/2013	0.8 U	1.2 J	300	1.5 J	1.7 J	200	9.7	31	370	0.8 U	9.8	1 U	4.6	1060	0.151 J	3	6.81					
04/2014	0.5 U	0.89 J	250	1.2	1.3	190	10	29	260	0.5 U	7	0.5 U	3.8	1010	0.0792 J	1.9	7.1					
08/2014	0.5 U	0.96 J	260	1.2	1.4	200	7.9	18	220	0.5 U	6.5	0.5 U	4.9	958	0.153 J	2.4	6.77					
12/2014	0.5 U	0.8 J	200	0.86 J	1.1	150	9.6	17	190	0.5 U	4.9	0.5 U	1.3	902	0.13 J	1.9	7.05					
04/2015	0.5 U	0.77 J	220	1.4	1.1	260	16	37	390	0.5 U	6.7	0.5 U	2.5	1090	0.117 J	3.5	7.02					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-17D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	57	700	1.4 J	14	34				260	33											
05/2009	50 U	50 U	1300	50 U	11 J	600	4.1	6.0	80	230	62	50 U		875	0.0078 J	18.0						
10/2009	50 U	12 J	1100	2.6 J	8.6 J	430	4.8	6.5	85	170	49 J	50 U	5.0									
07/2010	0.8 U	9.8	1000	3.6 J	11	490	5.7	7.8	77	150	64	1 U		1090	0.0522 U	15.7						
06/2011	0.8 U	12	250	0.8 U	4.5 J	44	5.3	1 U	61	120	12	1 U					6.92					
08/2011	50 U	220	4400	50 U	86	100	15	1.2 J	94	7200	210	50 U					6.97					
11/2011	8.8 J	350	2200	5.5 J	74	52	7.2	5 U	70	5800	150	13 U					6.99					
03/2012	1.4 J	6.2	450	1.7 J	12	43	6.7	5 U	65	730	41	5 U	3.4				7					
06/2012	1.2 J	6.1	350	1.6 J	16	85	6.9	1 U	68	660	41	1 U					6.92					
09/2012	0.8 U	6.4	240	1.2 J	7.9	110	6.2	1.4 J	51	420	37	1 U					6.76					
12/2012	0.8 UJ	5.9	170	1.1 J	4.6 J	79	6.7	1.6 J	61	330	35	1 UJ					6.97					
04/2013	0.8 U	3.4 J	75	0.8 U	2.8 J	50	4.1 J	1.4 J	59	210	29	1.7 J					7.41					
07/2013	0.8 U	2.6 J	47	0.8 U	2.3 J	47	3 J	2.5 J	55	130 J	31	1.3 J					7.04					
10/2013	0.8 U	2.3 J	39	0.8 U	1.5 J	50	4.2 J	11	110	110	31	2.8 J					7.04					
12/2013	0.8 U	2.2 J	33	0.8 U	1.2 J	39	3.4 J	4.3 J	72	83	29	3.6 J					6.96					
04/2014	0.5 UJ	1.7	19	0.5 U	1.5	30	2.6 J	17	280	50	29	4.2					6.68					
08/2014	0.5 U	1.6	18	0.5 U	1.1	35	3.2 J	6.9	100	45	26	3.2					6.8					
12/2014	0.5 U	1.3	13	0.5 U	0.93 J	28	2.7 J	13	95	39	22	4.3					6.98					
04/2015	0.5 U	0.9 J	9.9	0.5 U	0.5 U	22	3.3 J	8.2	130	23	15	3.9					6.8					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-18D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U				0.8 U	1 U											
05/2009	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 U	2.0	1.0 U	50	5.0 U	5.0 U	5.0 U		1540	0.0077 U	2.1						
07/2010	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.7 J	1 U	36	0.8 U	1 U	1 U		1870	0.0522 U	2.8						
08/2011	5 U	5 U	5 U	5 U	5 U	5 U	1.9 J	5 U	32	5 U	5 U	5 U	4.4	1740	0.2 U	2.4	6.54					
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	1.6 J	5 U	43	5 U	5 U	5 U	4.2	1750	0.2 U	5.4	6.76					
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.2 J	1 U	47	0.8 U	1 U	1 U	4.4	1630	0.0141 U	4.1	7.01					
09/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.6 J	1 U	24	0.8 U	1 U	1 U	2.4	1530 J	0.0333 U	1.9	7.14					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.5 J	1 U	43	0.8 U	1 U	1 U	3.6	1310	0.0333 U	3.6	7.52					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	33	0.8 U	1 U	1 U	3.2	1320	0.0333 U	1.6	7.16					
07/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	44	0.8 U	1 U	1 U	4.7	1420	0.043 U	5.1	6.63					
10/2013	0.8 U	1 U	1.1 J	0.8 U	0.8 U	1 U	1 U	1 U	9.2	0.8 U	1 U	1 U	3.4	976	0.043 U	0.54	7.03					
12/2013	0.8 U	1 U	1.3 J	0.8 U	0.8 U	1 U	1 U	1 U	15	0.8 U	1 U	1 U	4.3	860 J	0.043 U	0.52	7.16					
04/2014	0.5 U	0.5 U	0.93 J	0.5 U	0.5 U	0.5 U	1 U	1 U	20	0.5 U	0.5 U	0.5 U	4.6	1150	0.043 U	0.87	6.95					
08/2014	0.5 U	0.5 U	1.2	0.5 U	0.5 U	0.5 U	1 U	1 U	14	0.5 U	0.5 U	0.5 U	4.9	1070	0.0334 U	0.45	6.91					
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	26	0.5 U	0.5 U	0.5 U	2.6	1370	0.0334 U	1.3	7					
03/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	50	0.5 UJ	0.5 U	0.5 U	4	1470	0.0334 U	2.5	6.82					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-19D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	42	0.8 U	0.8 U	6.5	1 U	1 U	21	0.8 U	1.3 J											
05/2009	5.0 U	5.0 U	58	5.0 U	5.0 U	10	1.0 U	1.0 U	23	5.0 U	1.7 J	5.0 U		3710	3.010	1.0 U						
07/2010	0.8 U	1 U	60	0.8 U	0.8 U	11	1 U	1 U	24	0.8 U	1.6 J	1 U		3170	2.54	0.054 U						
08/2011	5 U	5 U	39	5 U	5 U	3.5 J	5 U	5 U	19	5 U	5 U	5 U	8	3320	2.72	0.16 U	5.49					
03/2012	5 U	5 U	38	5 U	5 U	2.1 J	5 U	5 U	25	5 U	5 U	5 U	8.8	4060	2.23	0.16 U						
06/2012	0.8 U	1 U	34	0.8 U	0.8 U	1.4 J	1 U	1 U	19	0.8 U	1 U	1 U	8.7	3660	2.26	0.054 U	6.58					
09/2012	0.8 UJ	1 U	32	0.8 U	0.8 U	1.3 J	1 U	1 U	25	0.8 U	1 U	1 U	6.9	2950 J	2.42	0.054 U						
12/2012	0.8 U	1 U	26	0.8 U	0.8 U	1.9 J	1.9 J	1 U	27	0.8 UJ	1 U	1 U	7.9	3020	4.15	0.054 U	6.69					
04/2013	0.8 U	1 U	22	0.8 U	0.8 U	1 U	1 U	1 U	23	0.8 U	1 U	1 U	8.1	3120	2.31	0.054 U	7					
07/2013	0.8 U	1 U	19	0.8 U	0.8 U	1 U	1 U	1 U	20	0.8 U	1 U	1 U	9.2	3130	2.36	0.054 U	7.32					
10/2013	0.8 U	1 U	17	0.8 U	0.8 U	1 U	1 U	1 U	24	0.8 U	1 U	1 U	8.1	2670	2.31	0.054 U	5.46					
12/2013	0.8 U	1 U	17	0.8 U	0.8 U	1 U	1 U	1 U	22	0.8 U	1 U	1 U	10.9	2890	2.19	0.054 U	6.42					
04/2014	0.5 U	0.5 U	8.5	0.64 J	0.5 U	0.82 J	1 U	1 U	14	0.5 U	0.5 U	0.5 U	9.6	1690	0.116 J	0.054 U	7.06					
08/2014	0.5 U	0.5 U	11	1.2	0.5 U	0.6 J	1 U	1 U	20	0.5 U	0.5 U	0.5 U	11.3	2890	1.91	0.054 U	6.28					
12/2014	0.5 U	0.5 U	9.9	0.89 J	0.5 U	0.62 J	1 U	1 U	19	0.5 U	0.5 U	0.5 U	9.3	2890	1.98	0.054 U	7.22					
03/2015	0.5 U	0.5 U	8.7	0.5 U	0.5 U	0.52 J	1 U	1 U	8.5 J	0.5 U	0.5 U	0.5 U	6.4	1970	0.311 J	0.054 U	6.8					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-20D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	8 U	11 J	5900	12 J	47 J	380				210	73											
05/2009	100 U	26 J	3100	12 J	22 J	1300	1.0	6.0	31	93 J	66 J	100 U	2.9	558	0.0077 U	3.1						
10/2009	50 U	5.8 J	1300	8.7 J	11 J	710	1.0 U	5.6	19	54	40 J	50 U	3.5									
07/2010	0.8 U	2.9 J	960	5.6	7.9	930	1 U	13	20	42	43	1 U	2.9	695	0.0522 U	3.4						
06/2011	16 U	1200	24000	35 J	170	610	1.3 J	6.8	34	2900	290	20 U					6.84					
08/2011	100 U	160	24000	28 J	150	680	1.3 J	6.7	32	1900	260	100 U					7.15					
11/2011	50 U	20 J	5800	13 J	36 J	1400	5 U	5.5	20	550	81	50 U					7.18					
03/2012	130 U	850	13000	24 J	150	420	1.3 J	7.2	94	6200	1300	130 U	8.7				6.45					
06/2012	15	590	5200	19	180	160	1 U	3.7 J	42	14000 J	860	2 U					7.41					
09/2012	16 J	390	3500	12 J	150	160	1 U	2.7 J	23	9800	620	10 U										
12/2012	9.5 J	100	2800	9.5 J	240	120	1 U	2.9 J	33 J	7700	410	10 U					6.88					
04/2013	5.8 J	47	1700	8.6 J	53	330	1.4 J	22	190	3700	290	2.5 U					7.29					
07/2013	4.2 J	37	2700	9.7 J	65	470	1.6 J	16	170	4000	490	5 U					6.5					
10/2013	4 U	12 J	940	4.8 J	27	400	1.7 J	23	200	2000	170	5 U					6.92					
12/2013	1.7 J	9.1 J	630	4.5 J	23	380	2 J	31	260	1600	150	2 U					7.13					
04/2014	1.3	7.3	340	4.3	25	420	2.9 J	52	360	990	120	0.5 U					7.3					
08/2014	1.9 J	12	700	5.6	43	800	1.5 J	16	150	2300	230	1 U					7.03					
12/2014	1.9	9.4	220	3.5	13	500	2.1 J	31	210	890	96	0.5 U					7.06					
04/2015	1.3 J	7.4	150	3.3	6.2	500	3.9 J	70	360	560 J	78	1 U					7.24					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **MW-21D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1.1 J	290	1.5 J	1.7 J	43	1.2 J	5.7	37	3.4 J	2.8 J		3.9	1040 J	11.5							
05/2009	5.0 U	0.67 J	110	0.63 J	0.67 J	48	1.0 U	4.0	40	2.0 J	2.1 J	5.0 U	4.8	1170	0.623	1.0 U						
07/2010	0.8 U	1 U	85	0.8 U	0.8 U	38	1 U	2.4 J	25	1.8 J	1.5 J	1 U	4.3	1140	3.71	0.057 J						
06/2011	4 U	5 U	2800	5 J	15 J	75	1 U	1.6 J	20	39	7.7 J	5 U					6.93					
08/2011	25 U	25 U	5100	8.2 J	21 J	530	5 U	5.3	28	140	19 J	25 U					7.04					
11/2011	25 U	6.6 J	4100	10 J	19 J	650	1.7 J	6.5	35	340	33	25 U					7.12					
03/2012	25 U	7.1 J	4800	8.4 J	17 J	610	5 U	6.4	40	290	34	25 U	0.88 J				6.59					
06/2012	4 U	15 J	3600	7.9 J	13 J	580	1 U	8	37	310 J	35	5 U					6.8					
09/2012	1.6 U	11	2600	9.8 J	15	580	2.3 J	9.7	50	180	32	2 U					7.26					
12/2012	1.6 U	3.1 J	2200	7.3 J	12	1000	3.8 J	12	46 J	240	35	2 U					7.36					
04/2013	0.8 U	5.4	780	5.3	7	730	1 U	11	36	260	41	1 U					7.15					
07/2013	0.8 U	2.8 J	380	3.3 J	8.1	600	1 U	12	30	160	29	1 U					8.49					
10/2013	0.8 U	4.3 J	660	4.7 J	6.4	690	1.4 J	23	120	160	36	1 U										
12/2013	0.8 U	4.2 J	680	3.4 J	5.6	550	1.5 J	19	64	130	29	1 U					7.13					
04/2014	0.5 U	4.6	530	3.9	13	450	1.7 J	34	200	290	35	0.5 U					7.53					
08/2014	0.5 U	3	590	3.7	7.5	460	5.3	15	190	160	32	0.5 U					7.8					
12/2014	0.5 U	4.6	1100	5.1	12	660	2.2 J	23	120	160	39	0.5 U					6.87					
04/2015	1 U	4.4	790	3.7	7.2	580	1.7 J	16	72	86 J	26	1 U					8.15					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR- 3SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	4 U	9 J	7400	120	11 J	740	11 J	63 J	170 J	4 U	5 U	5 U	1030	11.3 J	44.5	0.84	5.99					
08/2011	10 U	10 U	4000	100	7 J	950	3.7 J	30	2300	10 U	10 U	10 U	2260	3.1 J	131	0.67	5.87					
11/2011	25 U	25 U	2300	80	25 U	1400	1.6 J	110	8800	25 U	25 U	25 U	1760	2.7 J	146	0.34	6.14					
03/2012	50 UJ	50 UJ	50 UJ	48 J	50 UJ	50 UJ	130	40	11000	50 UJ	50 UJ	14 J	39.3	5 U	86	0.16 J	6.52					
06/2012	0.8 U	1 U	0.81 J	48	0.8 U	1.8 J	42	1 U	13000	0.8 UJ	1 U	1.9 J	838	2 J	73.3	0.18	6.47					
09/2012	0.8 UJ	1 U	0.8 U	7	0.8 U	1 U	17	1 U	11000	0.8 U	1 U	1 U	293	1.5 UJ	48.7	0.14 J	6.38					
12/2012	0.8 UJ	1 UJ	0.8 UJ	0.8 UJ	0.8 UJ	1 UJ	99	1.2 J	15000	0.8 UJ	1 UJ	1 UJ	171	1.7 J	42.7	0.17	6.7					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	170	1 U	23000	0.8 U	1 U	1 U	69.4	276	37.7	0.39	6.5					
07/2013	8 U	10 U	8 U	8 U	8 U	10 U	120 J	1 U	20000	8 U	10 U	10 U	40.1	13.7	12.2	1.2	6.67					
10/2013	8 U	10 U	8 U	8 U	8 U	10 U	170	1 U	16000	8 U	10 U	10 U	53.8	1.5 U	22.3	0.66	5.38					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	180	1 U	15000	0.8 U	1 U	1 U	66.1	1.5 U	25.8	0.38	6.11					
04/2014	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	140	4.6 J	17000	0.5 U	0.5 U	0.5 U	21.8	27.1 J+	11.3	3.6	6.23					
08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	160	1.8 J	16000	0.5 U	0.5 U	0.5 U	26.1	1.5 U	20.2	0.64	6.37					
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	130	1 U	16000	0.5 U	0.5 U	0.5 U	33.6	1.8 J	26.3	0.5	6.34					
03/2015	0.5 U	0.5 U	0.69 J	0.5 U	0.5 U	0.5 U	100	1 U	23000	0.5 U	0.5 U	0.5 U	24.6	148	22.7	0.71	6.08					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR- 4SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	1.6 U	19	1100	11	5.5 J	81	2 J	5.4	1500	77	97	3.9 J	1560	17.1 J	91.7	1.6	6.01					
08/2011	50 U	50 U	1200	21 J	50 U	120	5 U	5 U	7800	50 U	50 U	50 U	993	1.8 J	73.1	0.34	6.3					
11/2011	25 U	25 U	25 U	17 J	25 U	25 U	3.5 J	15	12000	25 U	25 U	25 U	352	2.7 J	46.4	0.19	6.23					
03/2012	50 U	50 U	50 U	13 J	50 U	50 U	3.3 J	5 U	12000	50 U	50 U	50 U	98.6	1.6 J	42.6	0.21	6.12					
06/2012	0.8 U	1 U	0.8 U	13	0.8 U	1 U	2.2 J	1 U	12000	0.8 U	1 U	1 U	84.7	2.2 J	42.7	0.21	6.43					
09/2012	0.8 UJ	1 U	0.8 U	5.6	0.8 U	1 U	2.9 J	1 U	11000	0.8 U	1 U	1 U	79.7	1.5 UJ	41.8	0.18	6.64					
12/2012	0.8 UJ	1 U	0.8 U	1.5 J	0.8 U	1 U	2.6 J	1 U	3500	0.8 U	1 U	1 UJ	68.3	1.8 J	42	0.16 J	6.51					
04/2013	0.8 U	6.9	1 J	0.8 U	0.8 U	1 U	1.4 J	1 U	8100	0.8 U	1 U	1 U	54.6	2.8 J	48.2	0.15 J	6.39					
07/2013	8 U	10 U	8 U	8 U	8 U	10 U	2.5 J	1 U	12000	8 U	10 U	10 U	52	5.2	46.4	0.29						
10/2013	0.8 UJ	8.4 J	0.8 UJ	0.8 UJ	0.8 UJ	1 UJ	1.6 J	1 U	9200	0.8 UJ	1 UJ	1 UJ	62.8	14.7	43.7	0.21	6.5					
12/2013	0.8 U	2.3 J	0.8 U	0.8 U	0.8 U	1 U	1.9 J	1 U	14000	0.8 U	1 U	1 U	71.9	11.9	40.1	0.23	6.22					
04/2014	0.5 UJ	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.6 J	1 UJ	17000 J	0.5 U	0.5 U	0.5 U	63.4	165 J+	26.8	0.67	6.22					
08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	9.8 J	1 UJ	12000 J	0.5 U	0.5 U	0.5 U	56.1	1.5 U	34.3	0.34	6.16					
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.4 J	1 UJ	13000 J	0.5 U	0.5 U	0.5 U	60.7	15.6	32.9	0.64	6.53					
03/2015	0.5 UJ	0.5 UJ	0.94 J	0.8 J	0.5 UJ	1.4 J	1 U	1 U	18000 J	0.5 UJ	0.5 UJ	0.5 UJ	42	122	17.9	3	6.2					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR- 5SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	4 U	5 U	3100	31	5.4 J	350	3.3 J	48	3200	4 UJ	5 U	5 U	281	15	2.53	26.3	5.82	5.8E+02	1.9E+04	4.3E+03	1.3E+03	6.6E+03
08/2011	5 U	5 U	42	32	5 U	63	21	610	7600	5 U	2.4 J	5 U	203	12.4	0.676	49.6	6.54	5.4E+03	2.3E+03	1.7E+05	6.4E+03	7.6E+04
11/2011	5 U	5 U	2.9 J	28	5 U	9.4	220	440	14000	5 U	1.9 J	5 U	213	4.1 J	1.5	8.6	6.61	2.0E+03	1.6E+04	6.1E+04	2.5E+04	1.3E+05
03/2012	5 U	5 U	43	65	5 U	45	400	450	15000	5 U	2.3 J	1.8 J	258	2.4 J	12.1	4.2	5.87	2.2E+04	2.1E+03	3.8E+05	2.2E+04	3.7E+05
06/2012	0.8 U	1 U	5.3	56	0.8 U	11	130	76	12000	0.8 UJ	1.7 J	1.9 J	139	1.5 U	11.3	3.1	6.38	2.6E+03	1.0E+03	4.8E+04	2.8E+03	9.1E+04
09/2012	0.8 U	1 U	2.3 J	4.9 J	0.8 U	16	110	23 J	12000	0.8 U	1.2 J	2.1 J	36.4	1.5 UJ	5.4	1.3	6.4	2.5E+02	6.0E+02	2.0E+03	7.9E+02	7.1E+03
12/2012	0.8 U	1 U	2.6 J	0.8 U	0.8 U	13	190	20	15000	0.8 U	1.2 J	1 U	32.5	1.9 J	6.52	1.2	6.38	3.0E+02	4.6E+01	6.1E+03	3.6E+02	1.4E+02
04/2013	0.8 U	1 U	72	2.6 J	0.8 U	230	380	400	28000 J	0.8 U	1 U	1.6 J	12.8	276	11.5	1.7	6.68	1.3E+04	3.4E+02	1.1E+05	5.9E+03	8.7E+02
07/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1.6 J	350	10	15000	0.8 U	1.4 J	1.4 J	20.6	3 J	3.19	3.6	6.5	1.8E+03	1.4E+02	1.8E+04	2.0E+03	3.1E+03
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	130	1.7 J	16000	0.8 U	1.6 J	1 U	21.7	1.5 U	7.77	1.7	6.16	2.0E+03	5.9E+02	3.2E+04	4.3E+03	6.0E+02
12/2013	0.8 U	1 U	1.3 J	0.8 U	0.8 U	2.3 J	180	6.6	16000	0.8 U	1.2 J	1 J	29.8	9.4	10.7	1.1	6.15	1.6E+03	7.9E+01	4.4E+03	8.0E+02	3.3E+02
04/2014	0.5 U	0.5 U	3.2	3.6	0.5 U	7.5	820	140	25000	0.5 U	1.1	1.1	15.4	183	7.76	2.4	6.08	3.4E+03	6.6E+01	7.8E+03	2.5E+01	8.3E+03
08/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	190	2.7 J	20000	0.5 U	1.2	1.4	20.8	1.5 U	7.47	1.4	6.15	1.0E+04	6.0E+02	1.7E+05	1.3E+02	1.1E+04
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	130	1.8 J	18000	0.5 U	0.61 J	0.8 J	18.5	1.5 U	13	0.46	5.69	1.8E+04	3.3E+02	1.3E+05	3.5E+02	5.6E+03
03/2015	0.5 U	0.5 U	4.5	0.93 J	0.5 U	13	200	42	10000 J	0.5 U	0.65 J	0.5 U	17	73.5	14.1	0.56	6.28	2.8E+03	1.1E+02	1.1E+04	2.6E+01	1.0E+03

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR- 6SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	4 UJ	10 J	4500 J	62 J	8.2 J	530 J	3.4 J	11 J	810 J	4 UJ	22 J	5 UJ	1420	263	97.7	1.2	5.46	1.3E+01	1.0E+04	1.4E+01	5.3E+00	9.7E+00
08/2011	25 U	25 U	2500	34	25 U	430	5 U	12	6600	25 U	7.3 J	10 J	1730	6.3	143	0.49	6.26	2.4E+03	1.5E+04	1.4E+04	1.3E+03	3.6E+03
11/2011	5 U	5 U	78	52	5 U	130	6.8	250	7000	5 U	5.2	16	982	4.7 J	97.7	0.9	6.73	1.1E+05	1.3E+04	5.5E+05	8.5E+04	1.6E+06
03/2012	50 UJ	50 UJ	530 J	56 J	50 UJ	420 J	49	140	13000	50 UJ	50 UJ	50 UJ	336	45	62.9	0.91	6.26	5.6E+04	1.0E+04	8.8E+05	2.8E+04	8.5E+05
06/2012	8 UJ	10 UJ	950 J	110 J	8 UJ	420 J	94 J	180 J	8000	8 UJ	10 UJ	19 J	243	6.5 J	45.4	3.4	6.43	2.6E+04	3.2E+03	8.5E+05	8.8E+03	6.3E+05
09/2012	0.8 U	1 U	3.8 J	12	0.8 U	4.4 J	42	1 U	8600	0.8 U	1 U	3.9 J	150	1.5 UJ	45.6	0.31	6.55	8.9E+02	5.0E+02	1.5E+04	7.1E+02	5.4E+04
12/2012	0.8 U	1 U	81	13	0.8 U	74	71	20	13000	0.8 U	1 U	2.7 J	91	53.6	38	1.4	6.5	1.0E+03	4.8E+02	2.9E+04	4.5E+02	3.0E+03
04/2013	0.8 U	3.6 J	8900	260	7.3	3000	1000	660	10000 J	3.6 J	12	1 U	64.9	254	15.2	18.4	6.8	3.8E+03	1.8E+03	5.1E+05	1.3E+04	4.9E+03
07/2013	2 U	9.3 J	10000	330	6.7 J	3100	900	670	9000	2 U	14	13	85	90.2	7.15	31.6	6.78	1.4E+03	1.8E+02	2.5E+04	7.0E+03	7.4E+03
10/2013	8 U	10 U	120	36 J	8 U	77	130 J	240 J	9500 J	8 U	10 U	10 U	88.3	4 J	7.04	10	6.52	1.4E+03	4.7E+02	1.1E+05	3.8E+04	1.3E+03
12/2013	0.8 U	1 U	800	32	0.8 U	180	88	74	12000	0.8 U	2.3 J	3.1 J	62.9	43.5	7.06	6.3	6.47	3.2E+03	3.2E+02	5.6E+04	4.6E+04	1.1E+04
04/2014	2.5 U	2.5 U	3800	90	4.8 J	1200	220 J	220 J	8300 J	2.5 U	4.5 J	3.6 J	48.3	143	7.61	15.7	6.36	2.5E+03	2.4E+02	3.2E+04	1.0E+03	1.7E+04
08/2014	2.5 U	4.6 J	3900	120	2.5 U	870	240	310	8500	2.5 U	6.2	2.5 U	50.8	37.4	4.66	28.6	6.41	2.1E+04	7.7E+02	7.6E+05	1.6E+03	5.5E+04
12/2014	0.5 U	1.8	2400	64	1.5	590	220 J	330 J	14000 J	0.5 U	3	2.4	44.3	76.8	3.8	17.4	6.16	1.8E+04	1.3E+02	1.5E+05	8.8E+02	4.6E+03
03/2015	2.5 U	11	15000	250	14	3700	730	780	17000 J	2.5 U	9.1	2.5 U	33.2	259	1.53	32.3	6.42	9.3E+03	1.4E+02	3.1E+05	2.8E+03	2.9E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR- 9SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	1.6 U	6.6 J	870	22	1.6 U	190	2.8 J	6.1	1700	1.6 U	2 U	2 U	830	24.6 J	9.48	18.6	5.8					
08/2011	25 U	95	8400	38	43	1100	2.7 J	58	4200	320	230	27	1290	66.5	35.7	6.4	5.71					
11/2011	5 U	5 U	26	10	5 U	18	16	78	11000	5.3	44	74	384	6.5	7.49	11.7	6.54					
03/2012	5 U	1.1 J	38	3.9 J	5 U	23	35	30	17000	4.4 J	6.5	13	56.4	48.6	0.0153 J	99.7	6.77					
06/2012	8 U	16 J	4000	19 J	12 J	910	14	170	13000	73	25 J	20 J	172	115 J	0.195 J	34.2	6.44					
09/2012	0.8 UJ	1.1 J	300	5.2	2 J	150	8	46	12000	9.9	7.4	14	67.1	30.6 J	0.164 J	25.8	6.22					
12/2012	0.8 U	1.7 J	350	3.3 J	2.2 J	130	6.6	29	14000	17	7.1	14	26.6	82.4	0.0333 U	42.7	6.42					
04/2013	0.8 U	1.5 J	530	3.8 J	2.3 J	290	50	160	16000 J	13	6.7	4 J	13.9	172	0.0333 U	104	7.07					
07/2013	0.8 U	4 J	1800	10	7.8	540	10	73	18000	27	12	4.7 J	19.3	104	0.043 U	60.9	6.67					
10/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1.6 J	8.1	6.8	13000	0.8 U	1 U	2.6 J	13.9	30.8	0.462	28.3	6.5					
12/2013	0.8 U	1 U	2.1 J	0.8 U	0.8 U	5.3	25	9.8	22000	0.8 U	1 U	1.6 J	10.1	32.2	0.043 U	37.6	6.84					
04/2014	0.5 U	0.5 U	1.6	0.5 U	0.5 U	3.2	15	7.3	4700	0.5 U	0.5 U	0.5 U	6.1	219	0.212 J	7.9	7.25					
08/2014	0.5 U	0.5 U	3.4	0.78 J	0.5 U	4.2	20	16	18000	0.5 U	1.3	0.5 U	15.7	27.1	0.0334 U	74.5	6.71					
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.5	20	8.3	19000	0.5 U	0.5 U	1.6	9.9	102 J	0.0862 J	29.6	6.53					
03/2015	0.5 U	0.5 U	3	0.61 J	0.5 U	7.8	37	24	15000 J	0.5 U	0.78 J	0.5 U	9.1	318	0.379 J	12.5	6.86					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR-10SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 UJ	3.1 J	270 J	3.6 J	2.6 J	37 J	1.5 J	3.5 J	690 J	14 J	42 J	1.9 J	1650	287 J	98.2	1.7	6.08					
08/2011	50 U	50 U	940	11 J	50 U	210	1.2 J	13	5200	28 J	73	15 J	1690	17.6	113	0.62	4.79					
11/2011	5 U	5 U	3.2 J	5.9	5 U	5.1	11	18	13000	5 U	9.5	39	616	4 J	62.6	0.14 J	6.86					
03/2012	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	9.5	5 U	9500	50 UJ	50 UJ	28 J	154	38.5	25.8	1.2	6.32					
06/2012	0.8 UJ	1 UJ	0.8 UJ	2.5 J	0.8 UJ	1 UJ	6.3 J	1 UJ	11000	0.8 UJ	1 UJ	12 J	102	27.8 J	14.6	3.1	6.9					
09/2012	0.8 UJ	1 U	0.8 U	2.8 J	0.8 U	1 U	14	1 U	7000	0.8 U	1 U	15	83.8	1.5 UJ	12	1	6.93					
12/2012	0.8 U	1 U	3.5 J	0.8 U	0.8 U	13	6.6	8.4 J	13000	0.8 U	1 U	5.9 J	36.4	33.9	8.64	1.6	6.47					
04/2013	0.8 U	1 U	0.8 U	0.84 J	0.8 U	1 U	30	1.2 J	18000 J	0.8 U	1 U	12	31.2	226	4	13.5	6.48					
07/2013	0.8 U	1 U	0.8 U	0.84 J	0.8 U	1 U	11	1 U	10000	0.8 U	1.1 J	5.5	33.7	107	1.96	25.6	6.66					
10/2013	8 U	10 U	55	8 U	8 U	170	19	130	16000	8 U	10 U	10 U	30.8	16.1	1.94	16.9	6.5					
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	15	1 U	17000	0.8 U	1 U	2.5 J	28.1	73.3	4.63	6.7	6.56					
04/2014	0.5 U	0.5 U	0.5 U	3.3	0.5 U	1.5	65	200	21000	0.5 U	3	5	14.6	70.8	0.655	100	6.83					
08/2014	0.5 U	0.5 U	0.5 U	2.6	0.5 U	1.2	34	46	10000	0.5 U	0.94 J	3.9	32.8	32.9	1.17	23.4	6.65					
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8.3	1 U	12000	0.5 U	0.5 U	0.5 U	12.4	42.5	3.7	1.8	6.64					
03/2015	0.5 U	0.5 U	290	3	1.3	290	30	120	15000 J	1.1	6.3	1.3	18	363	14.2	7	7.19					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR-13SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	1.6 U	14	900	10	7.8 J	210	1.7 J	12	240	35	150	2.8 J	1710	357 J	121	1.4 J	5.49	3.7E+00	2.2E+01	3.7E+00	3.7E+00	3.7E+00
08/2011	50 U	50 U	460	8.6 J	50 U	160	5 U	23	4500	50 U	95	47 J	1830	17	135	0.67	6.27	3.3E+02	1.0E+04	1.6E+04	1.5E+04	1.3E+04
11/2011	25 U	25 U	66	6.3 J	25 U	59	1.3 J	23	8300	25 U	25	43	1020	2.5 J	102	0.42	6.7	1.5E+02	1.2E+03	4.3E+04	9.2E+04	6.4E+04
03/2012	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	50 UJ	8.6	21	6800	50 UJ	50 UJ	62 J	233	19	70.6	1.3	6.27	3.6E+02	7.6E+03	7.0E+05	4.9E+04	3.2E+05
06/2012	0.8 U	1 U	0.91 J	11	0.8 U	1 U	7.4	6.8	7700	0.8 UJ	6.9	44	192	14.2 J	51	0.63	6.49	1.4E+02	3.0E+03	1.0E+05	7.1E+03	8.0E+04
09/2012	4 U	5 U	4 U	4 U	4 U	5 U	3.3 J	1 U	6800	4 U	5 U	18 J	146	1.5 U	53.3	0.21	6.39	2.0E+01	6.4E+02	1.2E+04	1.4E+03	1.3E+04
12/2012	0.8 U	1 U	0.8 U	2.2 J	0.8 U	1 U	4.3 J	1 U	13000	0.8 U	1 U	16	95.4	14.6	37	0.79	6.93	7.0E+00	1.2E+02	1.1E+03	5.2E+01	8.2E+00
04/2013	0.8 U	1 U	0.8 U	1.8 J	0.8 U	1 U	7.7	5.2	15000	0.8 U	1.9 J	17	54.9	50	25.5	11.4	6.58	2.5E+01	1.6E+03	6.1E+03	7.0E+02	1.6E+01
07/2013	0.8 U	1.2 J	0.8 U	1.1 J	0.8 U	1 U	1.9 J	1.1 J	8200	0.8 U	1 U	13	54.8	3.5 J	18.7	6	6.6	1.4E+02	3.7E+02	1.3E+02	4.7E+01	5.9E+00
10/2013	8 U	10 U	8 U	8 U	8 U	10 U	2.7 J	1.9 J	12000	8 U	10 U	10 U	51.3	13.4	20.1	4.5	6.4	5.7E+00	1.0E+03	1.1E+03	2.8E+02	8.2E+00
12/2013	4 U	5 U	4 U	4 U	4 U	5 U	3.1 J	1 U	12000	4 U	5 U	6.7 J	56.9	2.5 J	23.1	1.6	6.58	1.4E+00	3.0E+02	5.3E+02	2.2E+01	4.3E+01
04/2014	0.5 U	0.5 U	0.5 U	0.94 J	0.5 U	0.86 J	17	17	17000	0.5 U	2	6.8	32.1	176	13	10	6.45	1.4E+01	4.3E+02	5.2E+02	6.5E+00	4.6E+02
08/2014	0.5 U	0.5 U	0.5 U	0.79 J	0.5 U	0.53 J	14	3.4 J	16000	0.5 U	0.5 U	7.4	45.9	28.3	8.12	17.7	6.25	2.8E+01	4.3E+02	1.3E+04	1.8E+01	5.2E+02
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	6	1 U	14000	0.5 U	0.5 U	3.2	41.1	211	14.7	1.4	6.26	1.6E+01	6.7E+02	2.9E+03	2.3E+01	1.9E+01
03/2015	0.5 U	0.5 U	1.3	0.84 J	0.5 U	2.5	30	17	18000 J	0.5 U	1.3	4.3	26.9	211	10.5	6.1	6.35	7.8E+01	8.1E+02	1.5E+04	1.2E+02	7.4E+02

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR-14SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	1.6 U	2 U	450	2.9 J	1.6 U	17	1.5 J	2.4 J	6300	1.6 U	2 U	2 U	2030 J	11 J	136	0.52 J	5.28	7.4E+00	5.3E+03	4.1E+00	4.3E+00	4.3E+00
08/2011	50 U	50 U	350	50 U	50 U	50 U	5 UJ	5 UJ	5500 J	50 U	50 U	50 U	1870	2.1 J	122	0.15 J	6.43	1.9E+02	1.1E+04	9.7E+02	3.2E+02	4.1E+03
11/2011	25 U	25 U	25 U	25 U	25 U	25 U	5 UJ	1.9 J	9300	25 U	25 U	25 U	426	3.1 J	76.5	0.12 J	6.97	5.3E+02	2.4E+03	5.0E+04	1.4E+04	2.0E+05
03/2012	50 U	50 U	50 U	50 U	50 U	50 U	5 U	5 U	9300	50 U	50 U	50 U	202	33.3 J	69.3	0.11 J	6.07	1.1E+03	1.5E+04	1.8E+05	2.6E+04	3.1E+05
06/2012	8 UJ	10 UJ	8 UJ	8 UJ	8 UJ	10 UJ	3.6 J	2.1 J	11000	8 UJ	10 UJ	10 UJ	179	217	51	1.4	6.67	4.1E+01	1.9E+03	1.7E+04	9.9E+02	3.0E+04
09/2012	0.8 U	1 U	0.8 U	0.97 J	0.8 U	1 U	2.6 J	1 U	7700	0.8 U	1 U	1 U	162	51.9	40.1	2.7	6.8	1.1E+01	5.0E+02	3.9E+03	2.5E+02	4.3E+03
12/2012	4 U	5 U	4 U	4 U	4 U	5 U	4.9 J	3.8 J	12000	4 U	5 U	5 U	146	196	38.6	4.8	6.24	9.7E+01	2.7E+02	2.5E+03	2.6E+02	1.7E+03
04/2013	0.8 U	1 U	0.8 U	0.85 J	0.8 U	1 U	5.7	4.9 J	14000	0.8 U	1 U	1 U	99.7	233	17.4	7.4	6.6	7.4E+01	2.1E+03	1.1E+04	9.9E+02	5.1E+01
07/2013	0.8 U	1 U	0.8 U	0.8 J	0.8 U	1 U	6	6.9	11000	0.8 UJ	1 U	1 U	99.1	319	9.61	13.4	6.68	1.4E+02	5.3E+02	1.7E+03	1.4E+02	1.3E+02
10/2013	8 UJ	10 UJ	8 UJ	8 UJ	8 UJ	10 UJ	14 J	14 J	12000 J	8 UJ	10 UJ	10 UJ	79.8	19.6	5.14	8.4	6.58	3.3E+02	1.2E+03	6.2E+03	6.6E+02	1.0E+02
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1.9 J	8.4	7.5	11000	0.8 U	1 U	1 U	82.6	273 J	3.49	33.5	6.61	1.6E+03	9.2E+02	7.8E+03	2.0E+02	1.4E+03
04/2014	0.5 U	0.5 U	0.5 U	0.62 J	0.5 U	1.4	8.3 J	5.1 J	15000 J	0.5 U	0.5 U	0.5 U	81.8	48.9	2.84	37.5	6.62	5.7E+02	7.4E+03	7.1E+02	4.1E+01	5.1E+02
08/2014	0.5 U	0.5 U	3.9	0.5 U	0.5 U	14	9.7	19	18000	0.5 U	0.5 U	0.5 U	52	130	2.23	21.2	6.19	8.7E+02	2.8E+02	4.3E+04	2.0E+01	2.6E+03
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.2	4.7 J	1.8 J	16000	0.5 U	0.5 U	0.5 U	16.5	277	4.45	32.9	6.43	1.4E+02	5.7E+02	1.5E+04	1.3E+01	3.5E+02
03/2015	0.5 U	1.3	14	0.5 U	0.5 U	10	33	16	16000 J	0.5 U	0.5 U	0.5 U	33.1	159	1.28	61.7	7.14	1.4E+02	3.9E+02	3.5E+03	1.5E+01	2.8E+02

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR-15SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 U	4.6 J	120	2.4 J	0.8 U	50	3 J	7.2 J	1900 J	0.8 U	1 U	1 U	2190	11 J	167	0.5	6.5					
08/2011	50 U	50 U	180	50 U	50 U	58	5 UJ	2.2 J	7200 J	50 U	50 U	50 U	2060	1.9 J	167	0.12 J	5.15					
11/2011	25 U	25 U	25 U	4.3 J	25 U	25 U	2.5 J	8.2 J	9000	25 U	25 U	25 U	682	5 U	106	0.16 U	6.75					
03/2012	50 U	50 U	50 U	50 U	50 U	50 U	3.6 J	5 U	8200	50 U	50 U	50 U	270	2.2 J	95.7	0.071 J	6.51					
06/2012	0.8 U	1 U	0.8 U	2 J	0.8 U	1 U	1.7 J	1 U	8300	0.8 U	1 U	1 U	267	1.5 U	67.3	0.054 U	6.64					
09/2012	0.8 UJ	1 U	0.8 U	0.8 U	0.8 U	1 U	2.3 J	1 U	11000	0.8 U	1 U	1 U	237	1.5 UJ	68.8	0.054 U	6.98					
12/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	1.8 J	1 U	11000 J	0.8 U	1 U	1 U	250	1.5 U	76.3	0.054 U	6.98					
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	1 U	2.3 J	1 U	17000	0.8 U	1 U	1 U	177	1.5 U	78.6	0.054 U	6.79					
07/2013	8 U	10 U	8 U	8 U	8 U	10 U	1.4 J	1 U	10000	8 U	10 U	10 U	173	1.5 U	71.4	0.055 J	6.54					
10/2013	40 UJ	50 UJ	40 UJ	40 UJ	40 UJ	50 UJ	1.1 J	1 U	14000	40 UJ	50 UJ	50 UJ	171	1.5 U	71.3	0.054 U	6.51					
12/2013	8 U	10 U	8 U	8 U	8 U	10 U	2.2 J	1 U	11000	8 U	10 U	10 U	170	1.5 U	72.7	0.054 U	6.75					
04/2014	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	1.9 J	1 UJ	15000 J	5 UJ	5 UJ	5 UJ	120	7.4	69.8	0.078 J	6.6					
08/2014	5 U	5 U	5 U	5 U	5 U	5 U	7.6 J	1 UJ	11000 J	5 U	5 U	5 U	136	1.5 U	66	0.069 J	6.34					
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.5 J	1 UJ	11000 J	0.5 U	0.5 U	0.5 U	141	2.1 J	67.9	0.054 U	5.85					
03/2015	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	1 U	1 U	19000 J	0.5 UJ	0.5 UJ	0.5 UJ	93.1	5.1	62.7	0.12 J	7.22					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **OR-18SM**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 U	2.3 J	370	6.6	0.8 U	180	5.5	20	2800	0.8 U	1.3 J	1 U	549	968 J	21.2	27	6.84					
08/2011	50 U	50 U	390	50 U	50 U	150	2.2 J	14	7800	50 U	50 U	50 U	485	600	0.767	89.4	6.27					
11/2011	5 U	5 U	17	2.1 J	5 U	29	3.7 J	26	15000	5 U	5 U	5 U	62.1	581 J	0.0159 J	92.8	6.69					
03/2012	5 U	5 U	3.4 J	3.3 J	5 U	13	8.8	28	12000	5 U	5 U	5 U	64.9	348 J	0.0529 J	44.3	6.15					
06/2012	0.8 U	1 U	9.4	3.7 J	0.8 U	22	14	38	17000	0.8 U	1 U	1 U	105	280	0.0597 J		6.49					
09/2012	0.8 UJ	1 U	9.3	4.1 J	0.8 U	30	18	190	7900	0.8 U	1 U	1 U	88.1	255 J	0.0333 U	81	6.26					
12/2012	0.8 U	1 U	160	7	0.8 U	210	12	340	14000 J	0.8 U	1 U	1 U	27.4	257	0.0333 U	68.8	6.89					
04/2013	0.8 U	1 U	16	2.3 J	0.8 U	22	23	27	16000	0.8 U	1 U	1 U	22.3	226	0.0333 U	29.6	6.9					
07/2013	0.8 U	1 U	5.7	1.4 J	0.8 U	14	18	26	11000	0.8 U	1 U	1 U	5.7	398	0.043 U	32.6	6.75					
10/2013	0.8 U	1 U	79	2.7 J	0.8 U	82	16	110	13000	0.8 U	1 U	1 U	14.9	210	0.043 U	67.5	6.42					
12/2013	0.8 U	1 U	16	1.5 J	0.8 U	33	15	52	17000	0.8 U	1 U	1 U	21.2 J	121	0.043 U	70.8	6.44					
04/2014	0.5 U	0.5 U	43	1.7	0.5 U	35	21	94	19000	0.5 U	0.5 U	0.5 U	11.5	274	0.043 U	46.9	6.84					
08/2014	0.5 U	0.5 U	11	0.8 J	0.5 U	12	18	38	14000	0.5 U	0.5 U	0.5 U	7.6	261	0.0334 U	51.1	6.97					
12/2014	0.5 U	0.5 U	2.6	0.79 J	0.5 U	9.9	12	41	18000	0.5 U	0.5 U	0.5 U	13.2	85.9	0.0334 U	53.8	6.63					
03/2015	0.5 U	0.5 U	18	0.99 J	0.5 U	19	40	36	16000 J	0.5 U	0.5 U	0.5 U	4.4	414	0.0334 U	20.4	7.23					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 1D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	930 J	180000	36000	5000 U	5000 U	2100	5.1	19	120	5000 U	5000 U	5000 U	11.8	1460								
07/2008	280 J	17000 J	82000 J	200 J	260 J	3900 J	3.8 J	16 J	68 J	2500 UJ	2500 UJ	2500 UJ	22.4 J	2200 J								
10/2008	5000 U	38000	110000	1900 J	310 J	2200	14	23	230	5000 U	5000 U	5000 U	33.1	1210								
12/2008	2500 U	14000	130000 J	1500 J	280 J	4800	18	25	200	2500 U	2500 U	2500 U	44.5	1530								
06/2009	5000 U	53000	97000	5000 U	5000 U	3400	18	23	190	5000 U	5000 U	5000 U	49.3	1380	0.0661 J	63.9						
10/2009	5000 U	64000	100000	5000 U	5000 U	5200	23	30	210	5000 U	5000 U	5000 U	22.9	1350	0.0317 U	56.3						
07/2010	80 U	8800	78000	110 J	180 J	8800	26	54	170	80 U	100 U	100 U	10.4	1820 J	0.0522 U	20.4						
06/2011	150 J	22000	42000	80 U	130 J	1900	5 J	26	64	230 J	100 U	100 U	7.9	1580	0.606	2.5	7.1					
08/2011	250 U	1100	49000	85 J	130 J	3300	10	80	890	55 J	250 U	250 U	26	1470 J	0.086 J	68.9	7.45					
11/2011	45 J	25000	22000	250 U	58 J	550	5	28	83	120 J	250 U	250 U	36.5	664	0.157 J	44.7	6.86					
03/2012	100 U	2100	19000	36 J	49 J	1200	3.9 J	34	160	150	48 J	100 U	6.2	900	0.2 U	36.9	6.95					
06/2012	16 U	1900	26000	60 J	71 J	2100	4.9 J	61	2200	240	43 J	20 U	6.2	1150	0.0333 U	29	6.97					
09/2012	8 U	860	17000	36 J	41 J	2200	8.2 J	57 J	1100	200	43 J	10 U	6.4	700 J	0.036 J	21.2	7.02					
12/2012	16 U	180	36000	190	26 J	840	10	49	250	18 J	20 U	20 U	1550	6.8	240	3	5.75					
04/2013	40 U	230 J	43000	180 J	40 U	3100	36	140	2600	40 U	50 U	50 U	1380	5.5 J	180	14.4	5.89					
07/2013	0.86 J	12	750	4.7 J	0.93 J	60	1.5 J	20	3000	0.95 J	1 U	1 U	73.6	4.8 J	1.29	7.7	7.15					
10/2013	8 U	10 U	9500	18 J	8 U	3400	27	1500	11000	8 U	10 U	10 U	316	1.5 U	36.4	1.8	6.09					
12/2013	2 U	4.9 J	3300	15	6.2 J	3100	21	1500	8200	2.2 J	7.3 J	2.5 U	146	12.7	11.8	1.2	6.17					
08/2014	0.93 J	0.84 J	680	2.4	1.1	300	25	730	14000	0.5 U	3.3	0.5 U	233	1.5 U	63	0.14 J	7.07					
12/2014	0.5 U	1.1	50	7.6	0.5 U	200	15	3900	15000	0.5 U	15	2.9	354	1.5 U	84.5	0.33	6.28					
04/2015	0.5 U	0.5 U	3.6	9.2	0.5 U	22	88	5500	20000	0.5 U	15	1.7	442	3.3 J	113	0.1 J	8.34					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 1S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	8 U	13 J	6700	38 J	11 J	400	1.2 J	11	34	8 U	10 U	10 U	196	133	0.305	63.8	6.59	1.0E+03	1.4E+04	1.1E+03	1.6E+02	4.7E+02
08/2011	25 U	25 U	4800	94	5.1 J	2600	8.6	690	3500	25 U	25 U	25 U	503	5 U	21.6	2	6.23	1.9E+04	4.3E+03	7.6E+05	2.2E+04	1.1E+05
11/2011	5 U	5 U	150	81	5 U	320	270	2100	8100	5 U	2.9 J	1.8 J	561	3.1 J	30.6	2	6.3	7.3E+03	5.1E+02	3.1E+04	2.1E+04	3.4E+04
03/2012	5 U	5 U	390	74	4 J	660	1000	590	22000	5 U	2.6 J	2 J	88.3	4.9 J	5.24	1.6	6.51	2.3E+04	3.0E+03	1.8E+06	8.0E+04	1.4E+06
06/2012	0.8 U	1.4 J	200	27	1.1 J	160	1700	500	20000	0.8 U	1.1 J	1 U	29.3	14.7	1.63	8.9	6.57	4.4E+03	1.3E+03	7.9E+05	2.3E+04	6.0E+05
09/2012	0.8 U	1.9 J	290	8.7	1.7 J	310	1600	1000	15000	0.8 U	1.3 J	1 U	15.6	51.7 J	1.64	4.8	6.58	7.0E+04	1.7E+03	4.9E+04	5.3E+01	1.8E+02
12/2012	0.8 U	1.7 J	420	11	1.3 J	410	410	420	9600	0.8 U	1.4 J	1 U	7.2	95.9	0.414	2.4	7.23	6.5E+03	4.9E+01	1.3E+05	4.5E+03	8.0E+04
04/2013	1.3 J	110	710	16	3.5 J	380	240	340	15000 J	0.8 U	5.5	1 U	20.3	136	1.65	9.1	6.79	6.8E+03	1.2E+03	3.0E+05	1.7E+04	1.1E+03
07/2013	0.8 U	4.8 J	320	16	1.2 J	270	220	360	4500	0.8 U	7.1	1 U	37	46.4	0.043 U	20.1	7.41	3.4E+03	2.7E+01	3.6E+05	9.8E+03	3.4E+04
10/2013	0.8 U	2.1 J	1300	27	8.6	820	900	350	14000	0.8 U	7.4	1 U	33.4	10.8	0.0631 J	17.1	6.9	1.5E+03	1.1E+03	1.2E+05	5.4E+03	9.8E+03
12/2013	0.8 U	4.4 J	720	27	5.8	650	1000	500	20000	0.8 U	6.2	3.7 J	6	8.3	0.206 J	9.3		2.4E+05	7.8E+03	6.0E+06	4.4E+05	9.0E+05
04/2014	0.5 U	4.2	490	19	1.9	280	330	470	13000	0.5 U	3.8	1.4	7	35.2	0.656	13.6	6.8	3.4E+04	3.3E+03	1.4E+05	9.5E+02	8.4E+04
08/2014	0.5 U	1.3	250	14	0.61 J	210	390	440	7300	0.5 U	2.5	4.7	5.8	9.9	0.0419 J	14	7.4	1.6E+04	6.2E+02	1.7E+06	9.6E+02	2.4E+05
12/2014	0.5 U	1.6	150	7.9	0.5 U	120	550	260	6200	0.5 U	0.84 J	3.6	3	38.7	0.141 J	5.5	7.26	2.2E+04	5.0E+02	4.2E+05	5.0E+03	2.4E+04
03/2015	0.5 U	6.1	670	20	2	340	180	430	7700	0.5 U	2.4	2.7	28.6	79.5	0.787	0.77	7.25	2.6E+04	8.6E+01	3.5E+05	6.2E+02	8.6E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 2D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	910 J	110000	27000	5000 U	5000 U	1600 J	6.9	19	87	5000 U	5000 U	5000 U	7.62	1410								
07/2008	5000 U	1100 J	150000	580 J	380 J	1800 J	7.6	34	110	5000 U	5000 U	5000 U	1020	1250								
09/2008	5000 U	3200 J	120000	680 J	210 J	2600	5.8	16	89	5000 U	5000 U	5000 U	748	843								
12/2008	1000 U	2300	76000	260 J	88 J	1600	6.6	9.3	39	1000 U	40 J	1000 U	194	270								
06/2009	2500 U	3600	61000	2500 U	2500 U	1400	14	50	390	2500 U	2500 U	2500 U	723	71.8	7.91							
10/2009	2500 U	3700	63000	140 J	2500 U	1400	9.3	26	110	2500 U	2500 U	2500 U	782	111	0.986	109						
07/2010	40 U	6900	100000	220 J	110 J	5000	11	200	660	40 U	63 J	50 U	442	69.6 J	0.105 J	165						
06/2011	160 U	12000	97000	270 J	160 U	1700	5.4	180	750	160 U	200 U	200 U	462	28.2 J	0.0272 J	210	5.83	3.0E+02	1.4E+03	6.3E+02	4.3E+01	1.9E+02
08/2011	500 U	15000	93000	250 J	140 J	2300	7.9	200	260	500 U	500 U	500 U	471	241 J	0.0279 J	207	6.77	2.1E+01	7.6E+01	9.0E+01	1.1E+01	1.6E+01
11/2011	1000 U	30000	130000	250 J	1000 U	3000	4.3 J	98	330	1000 U	1000 U	1000 U	356	76	1.21	165	6.5	1.6E+04	1.4E+04	1.6E+05	9.1E+03	8.0E+03
03/2012	310 J	49000	120000	210 J	180 J	2700	7.4	170	2000	500 U	500 U	500 U	137	665 J	0.0358 J	209	6.39	1.0E+04	2.2E+03	7.3E+03	4.0E+02	4.4E+03
06/2012	160	27000	80000	160	130	1700	19	180	2600	40 J	34 J	10 U	148	202 J	0.0141 U	150	6.68	8.2E+02	4.8E+02	4.8E+03	2.5E+02	4.3E+03
09/2012	73 J	16000	91000	190 J	160 J	2100	21	200	2200	40 U	50 U	50 U	215	118	0.0333 U	171	6.31	2.5E+03	3.0E+03	2.7E+04	8.1E+02	2.1E+03
12/2012	80 U	9500	150000	220 J	190 J	2500	14	160	2000	80 U	100 U	100 U	790	99.5	0.0569 J	106	6.3	6.5E+03	2.3E+03	1.2E+04	8.0E+03	9.6E+02
04/2013	40 U	700	130000	160 J	71 J	1500	15	140	2900	40 U	56 J	50 U	821	41.6	0.0333 U	206		1.8E+04	1.2E+04	4.6E+04	2.0E+03	9.2E+01
07/2013	40 U	1100	76000	94 J	52 J	2300	5 J	120	1800	40 UJ	50 U	50 U	288	180	0.043 U	193	6.68	2.5E+03	7.3E+03	1.8E+03	6.8E+02	1.3E+02
10/2013	160 U	9000	150000	230 J	160 J	3600	10	170	4700	160 U	200 U	200 U	485	81.6	0.043 U	223		4.6E+02	3.8E+02	8.9E+02	7.6E+02	1.7E+01
12/2013	140 J	22000	110000	180 J	140 J	4600	12	240	2800	80 U	100 U	100 U	286	300	0.043 U	159	6.64	2.6E+04	1.8E+03	3.9E+04	1.4E+04	2.9E+03
04/2014	120	8200	80000	160	120	8300	19	420	6700	50 U	50 U	50 U	163	206	0.043 U	141	6.73	4.5E+04	1.6E+03	1.8E+05	5.1E+02	9.9E+03
08/2014	50 U	2200	79000	180	120	18000	14	1700	9600	50 U	50 U	50 U	367	95.1	0.219 J	115	6.33	1.2E+05	5.4E+02	6.7E+05	2.8E+03	2.1E+04
12/2014	25 U	3800	89000	210	130	12000	17	3000	11000	25 U	37 J	25 U	422	74.2	0.0799 J	80.3	6.36	6.2E+05	5.6E+03	1.6E+06	1.1E+04	3.0E+04
03/2015	35 J	3300	110000	220	130	17000	34	2800	11000 J	25 U	37 J	25 U	220	51.5	0.0409 J	120	6.38	3.5E+05	3.6E+02	1.1E+06	1.3E+04	3.2E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 2S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	8 U	17 J	6000	66	9.2 J	710	2.5 J	19	370	8 U	10 U	10 U	292	87.2	1.54	45.8	6.18	7.4E+02	5.7E+03	1.0E+03	3.2E+02	5.9E+02
08/2011	25 U	25 U	2800	100	25 U	1400	9.5	1200	5900	25 U	25 U	25 U	447	5 U	10.4	9.1	6.19	1.8E+04	3.4E+03	3.6E+05	3.5E+04	1.4E+05
11/2011	5 U	5 U	630	88	1 J	680	150	1300	13000	5 U	2.8 J	5 U	437	2.6 J	23.9	1.7	6.12	1.5E+04	7.5E+02	5.3E+04	1.7E+04	1.4E+05
03/2012	10 U	10 U	1700	92	3.1 J	1300	300	390	14000	10 U	2.9 J	10 U	260	22.3	19.7	1.1	5.99	2.1E+05	7.3E+02	1.7E+06	8.8E+04	1.2E+06
06/2012	0.8 U	2.8 J	390	63	1.6 J	350	190	220	13000	0.8 UJ	2 J	1 U	234	1.8 J	21.6	1.1	6.54	1.2E+04	1.2E+03	4.2E+05	1.3E+04	3.5E+05
09/2012	1.6 U	2.7 J	550	31	1.6 U	490	220	130	14000	1.6 U	2 U	2 U	44.7	7.6	6.87	2.2	6.41	6.9E+03	1.2E+03	3.0E+05	2.9E+04	6.6E+04
12/2012	0.8 U	88	270	13	0.8 U	220	300	110	13000	0.8 U	1.1 J	1 U	19.4	34.1	5.73	0.89	6.58	5.1E+03	2.0E+02	1.0E+05	2.6E+03	6.6E+03
04/2013	0.8 U	1.5 J	180	7.1	0.8 U	130	340	74	20000 J	0.8 U	1.2 J	1 U	6.6	319	1.61	4.9	6.72	6.9E+03	4.1E+03	2.1E+05	1.1E+04	1.5E+03
07/2013	0.8 U	1 J	39	6	0.8 U	37	230	100	19000	0.8 UJ	1.8 J	1 U	21.4	5.3	0.671	10.3	6.51	2.6E+03	1.6E+02	2.4E+04	9.0E-01	8.6E+02
10/2013	0.8 U	1 U	100	9.1	0.8 U	130	380	300	16000	0.8 U	3.1 J	1 U	20.2	2.5 J	1.28	6.4	6.3	3.6E+03	5.9E+02	2.4E+05	1.2E+04	4.7E+03
12/2013	0.8 U	1 U	220	13	0.8 U	190	420	240	16000	0.8 U	2.8 J	1.3 J	26.1	1.6 J	5.6	1.5		8.2E+03	2.3E+02	5.1E+04	4.1E+03	7.2E+03
04/2014	0.5 U	2.5	320	13	0.89 J	260	160	100	19000	0.5 U	1.2	0.5 U	10.9	47.4	0.487	15.4	6.29	7.8E+03	2.7E+02	1.7E+04	1.1E+02	1.2E+04
08/2014	0.5 U	2.2	35	6.3	0.5 U	37	290	170	10000	0.5 U	1.8	5.1	6.4	3.3 J	0.111 J	13.8	7.01	1.6E+04	5.1E+02	1.1E+06	3.8E+03	7.7E+04
12/2014	0.5 U	0.5 U	4.9	2.9	0.5 U	10	380	38	8700	0.5 U	0.59 J	2.6	5.7	3.4 J	0.677	3.8	6.72	2.3E+04	3.3E+02	3.7E+05	2.2E+03	3.5E+04
03/2015	0.5 U	2	230	16	0.5 U	290	160	200	18000	0.5 U	1.1	2.2	12	123	5.36	0.79	6.53	2.2E+04	1.1E+02	2.5E+05	7.1E+02	4.2E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 3D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1400 J	240000	31000	5000 U	5000 U	640 J	9.6	20	82	5000 U	5000 U	5000 U	11	987								
07/2008	2500 U	540 J	83000	210 J	2500 U	760 J	16	24	120	2500 U	2500 U	2500 U	1800	1170								
09/2008	13 J	1000	9000	50 J	15 J	99 J	35	4.7	160	16 J	250 U	250 U	558	1010								
12/2008	250 U	550	5600	26 J	250 U	130 J	6.4	8.7	36	250 U	250 U	250 U	204	750								
06/2009	250 U	1200	9900	29 J	250 U	250	27	34	580	250 U	250 U	250 U	240	817	0.0562 J	166						
10/2009	250 U	2100	11000	32 J	30 J	150	25	15	250	250 U	11 J	250 U	141	858	0.0317 U	184						
07/2010	33 J	12000	29000	53 J	51 J	240	20	23	880	20 U	25 U	25 U	153	972 J	0.0522 U	156						
06/2011	57 J	19000	20000	46 J	55 J	540	16 J	13 J	2400 J	21 J	24 J	20 U	71.4	1060	0.0141 U	182	7.14					
08/2011	7.7 J	2600	4300	9.3 J	9.6 J	63	35	26	3300	25 U	6.7 J	25 U	107	731	0.2 U	211	7.17					
11/2011	50 J	11000	15000	26 J	31 J	430	22	50	2900	100 U	100 U	100 U	44.1	987	0.2 U	207	6.95					
03/2012	13 J	3300	6600	14 J	17 J	150	18	19	5800	25 U	15 J	25 U	132	482 J	0.2 U	224	6.83					
06/2012	20 J	5000	8900	18 J	20 J	210	5.3	14	1900	22 J	27 J	10 U	167	505 J	0.0333 U	173	6.67					
09/2012	38 J	5600	13000	25 J	31 J	290	29	58	4200	33 J	33 J	10 U	148	601	0.0333 U	173	6.87					
12/2012	30	3000	16000	20 J	22 J	270	14	18	3200	11 J	26	5 U	345	752	0.0333 U	323	6.36					
04/2013	40 U	1700	25000	40 U	40 U	350	12	28	5500	40 U	50 U	50 U	323	309 J	0.342	279	6.85					
07/2013	43 J	7400	66000	85 J	70 J	1100	15	72	5400	17 J	83 J	20 U	418	203	0.043 U	201	6.37					
10/2013	80 U	11000	57000	80 U	80 U	920	27	98	3300	80 U	100 U	100 U	351	326	0.043 U	252	6.45					
12/2013	40 U	6300	40000	56 J	51 J	630	26	76	2200	40 U	50 U	50 U	189	617	0.043 U	216	6.44					
04/2014	29 J	5100	77000	110	96	1700	24	270	4700	25 U	54	25 U	273	195	0.104 J	186	6.6					
08/2014	25 U	1200	61000	94	72	2000	33	340	8900	25 U	46 J	25 U	234	129	0.0334 U	179	6.65					
12/2014	50 U	3700	67000	100	79 J	2500	24	550	5000	50 U	50 U	50 U	195	570	0.0334 U	154	6.63					
03/2015	25 U	3800	60000	95	76	4100	19	840	8200	25 U	33 J	25 U	223	114	0.0334 U	201	7.5					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 3S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	40 U	50 U	45000	610	76 J	6800	22	100	720	40 U	50 U	50 U	212	332	1.33	46.3	5.9	8.7E+02	4.3E+03	1.3E+03	3.1E+02	3.3E+02
08/2011	12 J	84	61000	1100	110	12000	32	810	4700	50 U	33 J	50 U	238	404 J	1.72	17.3	5.08	4.9E+04	5.8E+03	2.9E+05	1.8E+04	2.6E+05
11/2011	250 U	250 U	43000	960	65 J	27000	99	1700	9400	250 U	250 U	250 U	229	444	5.66	3.9	6.51	9.0E+04	1.7E+03	1.8E+05	2.5E+04	3.6E+05
03/2012	500 U	610	99000	1600	190 J	19000	260	1300	9400	500 U	500 U	500 U	78.3	849	2.64	8.7		2.0E+05	8.3E+02	7.7E+05	1.9E+04	6.0E+05
06/2012	80 U	660	65000	1200	150 J	13000	280	930	10000	80 U	100 U	100 U	84.8	1010	4.3	3.2	6.25	2.2E+05	9.3E+02	1.1E+06	1.1E+04	2.0E+05
09/2012	40 U	210 J	39000	760	60 J	8500	320	800	11000	40 U	50 U	50 U	31.2	228	3.4 J	2.5	6.2	2.9E+05	2.6E+02	4.8E+05	2.5E+04	8.7E+04
12/2012	40 U	600	85000	1300	150 J	13000	290	430	12000	40 U	50 U	50 U	12.8	883	4.56	0.37	6.08	6.6E+04	1.2E+01	1.2E+05	2.2E+03	1.5E+04
04/2013	23 J	330	29000	510	44 J	4900	660	1500	17000 J	16 U	24 J	20 U	13.7	950	0.502	17.2	6.56	1.7E+05	8.5E+02	1.4E+06	8.6E+04	1.9E+04
07/2013	80 U	310 J	45000	810	83 J	7600 J	260	1300	12000	80 UJ	100 U	100 U	15.9	648	0.628	21.2	6.56	3.6E+04	1.0E+02	6.1E+04	3.6E+03	7.6E+03
10/2013	40 U	200 J	30000	610	59 J	5100	400	2100	9900	40 U	50 U	50 U	30.6	552	0.847	16.9	6.4	1.7E+04	2.3E+02	2.5E+04	1.2E+04	3.0E+03
12/2013	5 J	86	13000	290	25 J	3100	310	900	9800	4 U	11 J	5 U	22.3	670	0.301 J	18.3		8.9E+04	3.1E+02	4.1E+05	1.4E+05	4.4E+04
04/2014	10 U	27	14000	350	24	5800	380	1700	14000	10 U	12 J	10 U	13.9	547	1.32	22.3	6.2	5.9E+04	2.0E+02	8.1E+05	6.7E+02	1.2E+05
08/2014	10 U	110	26000	480	41	5000	320	1200	10000	10 U	16 J	10 U	18.5	347	0.214 J	23.4	6.36	1.1E+05	1.1E+02	9.2E+05	1.2E+03	7.7E+04
12/2014	5 U	60	15000	260	27	2700	230	880	8200	5 U	9.8 J	5 U	11.6	638	0.217 J	13.9	6.47	6.8E+04	1.8E+02	5.1E+05	1.1E+03	6.1E+03
03/2015	2.5 U	28	13000	300	21	5300	440	1300	12000 J	2.5 U	9.8	2.5 U	20.7	503	0.709	16.5	6.28	1.9E+05	2.3E+02	5.0E+05	2.5E+03	5.4E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 4D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1100 J	220000	36000	5000 U	5000 U	690 J	10	17	94	5000 U	5000 U	5000 U	12.2	1080								
07/2008	5000 U	3500 J	160000	510 J	350 J	1100 J	12	38	110	5000 U	5000 U	5000 U	237	1520								
09/2008	1300 U	5900	91000	990 J	140 J	1400	9.1	10	77	1300 U	1300 U	1300 U	227	108								
10/2008																						
12/2008	1000 U	1000	22000	140 J	1000 U	680 J	17	14	120	1000 U	1000 U	1000 U	113	635								
06/2009	1000 U	11000	65000	180 J	1000 U	1100	11	30	150	1000 U	1000 U	1000 U	105	2000	0.0322 J	173						
10/2009	500 U	3200	16000	59 J	39 J	550	20	19	250	500 U	23 J	500 U	63.2	1240	0.0317 U	232						
07/2010	40 U	3500	22000	66 J	40 U	620	20	24	1600	40 U	50 U	50 U	89.1	1230 J	0.0522 U	191						
06/2011	91 J	73000	69000	210 J	180 J	1300	11	48	2000	80 U	100 U	100 U	128	922	0.0141 U	177	7.53					
08/2011	100 U	16000	21000	56 J	45 J	510	31	95	3900	100 U	22 J	100 U	113	652 J	0.2 U	175	7.3					
11/2011	31 J	13000	20000	58 J	49 J	640	16	120	3900	100 U	29 J	100 U	95.5	460 J	0.0183 J	224	6.39					
03/2012	9.9 J	4600	14000	50	47	730	17	160	3900	9.6 J	29	25 U	133	450 J	0.2 U	224	6.79					
06/2012	13	1900	1800	9.2 J	9.1 J	83	31	61	4200	7 J	4.3 J	2 U	144	203 J	0.0333 J	187	6.87					
09/2012	150	15000	30000	64 J	78 J	960	15	150	3800	130	71 J	20 U	120	256 J	0.0333 U	215	6.77					
12/2012	24 J	930	51000	54 J	31 J	700	14	110	5000	61 J	96 J	20 U	1020	283	0.0333 U	247	6.67					
04/2013	78 J	730	24000	90 J	45 J	2500	37	620	7700	40 U	61 J	50 U	85.5	895	0.0333 U	157	6.69					
07/2013	18 J	470	39000	74 J	30 J	1200	16	210	6100	16 U	94 J	20 U	253	151	0.043 U	375	6.88					
10/2013	80 U	1100	53000	97 J	80 U	1400	28	360	5600	80 U	110 J	100 U	261	300	0.043 U	305	6.62					
12/2013	160 U	730 J	74000	160 U	160 U	2100	27	360	6600	160 U	200 U	200 U	301 J	284	0.043 U	230	6.87					
04/2014	130 U	670	77000	130 U	130 U	2800	36	430	7700	130 U	130 U	130 U	280	106	0.043 U	188						
08/2014	50 U	370	71000	140	110	4100	36	660	9200	50 U	120	50 U	196	281	0.0601 J	197	6.83					
12/2014	50 U	130	57000	110	78 J	3000	26	800	8400	50 U	83 J	50 U	213	468	0.0334 U	172	7.42					
03/2015	50 U	190	62000	130	91 J	6700	35	940	9400	50 UJ	80 J	50 U	238	103	0.0334 U	197	6.46					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 4S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	4 U	78	2000	63	4 U	68	16	2.2 J	47	4 U	5 U	5 U	12.5	467 J	0.0141 U	0.054 U	7.38					
08/2011	4.4 J	130	3900	120	7.9 J	300	21	17	86	13 U	4.6 J	13 U	16.2	604	0.0149 J	0.16 U	6.77					
11/2011	50 U	250	8600	240	15 J	460	17	19	170	50 U	10 J	50 U	6.5	1310	0.145 J	0.16 U	6.39					
03/2012	9.7 J	340	14000	310	24 J	840	43	44	1600	50 U	14 J	50 U	3.5	1970	0.151 J	0.16 U	6.83					
06/2012	7.6 J	270	11000	280	20 J	660	38	110	2000	4.5 J	14 J	5 U	3.8	1400	0.0155 J	0.054 U	6.66					
09/2012	8 U	230	11000	270	20 J	1300	53	180	2500	8 U	12 J	10 U	5.8	1510	2.24 J	0.054 U	6.54					
12/2012	16 U	230	14000	350	22 J	860	68	53	6900 J	16 U	20 U	20 U	3.7	1980	0.991	0.054 U	6.65					
04/2013	3.2 J	270	13000	400	33	1100	110	48	11000	0.8 U	19	1 U	2.7	1770	0.386	0.054 U	6.64					
07/2013	8 U	180	12000	350	26 J	830	73	31	8200	8 U	14 J	10 U	3.4	1770	1.69	0.054 U	6.62					
10/2013	16 U	100	8500	240	17 J	560	220	49	9200	16 U	20 U	20 U	6.7	921	1.83	0.054 U	6.53					
12/2013	8 U	140	12000	320	25 J	750	130	48	7200	8 U	14 J	10 U	8.4	1530	1.07	0.054 U	6.18					
04/2014	5 U	130	7400	220	17	440	91	27	6000	5 U	8.9 J	5 U	5.8	1490 J+	2.22	0.054 U	6.61					
08/2014	2.5 U	39	6000	160	9.1	240	47	31	2900	2.5 U	7.2	2.5 U	23.9	820	3.58	0.078 J	6.45					
12/2014	5 U	83	8200	210	14	410	81	75	5700	5 U	9.3 J	5 U	6.1	121	0.162 J	0.054 U	5.82					
03/2015	1 U	76	3500	110	8	210	41	25	2300	1 UJ	5.2	1 U	8.6	519	0.23 J	0.054 U						

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 5D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1700 J	91000	11000	2500 U	2500 U	420 J	5.9	19	60	750 J	2500 U	2500 U	4.8	710								
07/2008	5000 U	950 J	100000	430 J	5000 U	1800 J	10	72	120	5000 U	5000 U	5000 U	332	982								
09/2008	2500 U	4800	92000	500 J	200 J	2400	8.8	18	85	2500 U	2500 U	2500 U	383	730								
12/2008	2500 U	6900	71000	540 J	110 J	1300 J	15	21	100	2500 U	100 J	2500 U	196	352								
06/2009	1000 U	2100	27000	1000 U	1000 U	760	29	40	180	1000 U	1000 U	1000 U	306	179	0.0751 J	176						
10/2009	90 J	13000	73000	210 J	210 J	1900	20	35	200	1000 U	130 J	1000 U	351	490	0.0320 J	237						
07/2010	160 U	10000	94000	160 U	160 U	2300	17	130	290	160 U	200 U	200 U	334	171	0.0522 U	193						
08/2011	700	67000	69000	96 J	160 J	650	7.3	19	280	350	110 J	250 U	441	152	0.0212 J	241						
03/2012	500	47000	45000	56	120	580	24	140	1800	140	86	50 U	45.6	995	0.2 U	130						
06/2012	88 J	6800	8600	16 U	37 J	63 J	12	85	2400	44 J	20 U	20 U	57	246 J	0.0333 U	146						
09/2012	680	34000	34000	59 J	94 J	3700	14	150	4200	410	68 J	25 U	111	107 J	0.0333 U	146						
12/2012	80 J	1900	62000	40 U	40 U	1200	19	200 J	2900	140 J	100 J	50 U	1010	622	0.329	163						
04/2013	20 J	1200	45000	46	40	560	15	77	1500	99	85	5 U	455	97.7	0.0601 J	182						
07/2013	80 U	2700	52000	80 U	80 U	640	9.7	100	1300	80 U	100 U	100 U	293	83.3	0.043 U	188						
10/2013	90 J	8900	73000	91 J	81 J	2900	21	450	4600	44 J	97 J	50 U	254	326	0.043 U	184						
12/2013	250 J	21000	140000	150 J	210 J	4900	30	500	2600	80 UJ	140 J	100 U	307	150	0.043 U	161						
04/2014	520	25000	98000	190	170	4300	46	1100	6800	57	87	25 U	137	115	0.043 U	112						
08/2014	50 U	1300	88000	200	180	7400	41	1400	12000	50 U	59 J	50 U	142	413	0.0334 U	137	7.02					
12/2014	50 U	1400	50000	110	60 J	3900	39	700	11000	50 U	54 J	50 U	111	565	0.0334 U	172	7.72					
03/2015	61	8700	42000	100	100	3600	28	1000	8200	10 U	30	10 U	16.7	66.1	0.0334 U	67.3	8.04					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 5S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	80 U	2400	62000	1000	120 J	13000	42	250	300	81 J	100 U	100 U	6.7	1650 J	7.2	0.054 U	6.6					
08/2011	250 U	3000	56000	830	110 J	12000	54	320	670	250 U	250 U	250 U	5.5	1960	0.48	0.16 U	6.64					
11/2011	500 U	2600	59000	810	110 J	9300	31	200	250	500 U	500 U	500 U	5.8	1630	0.278	0.16 U	6.73					
03/2012	250 U	3000	48000	940	90 J	7800	53	230	680	250 U	250 U	250 U	6.6	1540	0.0387 J	0.16 U	6.83					
06/2012	8 U	3100	57000	1000	100	9800	68	450	800	8 UJ	16 J	10 U	5.8	1530	0.0551 J	0.054 U	6.61					
09/2012	1.6 U	2400	56000	710	82	10000	51	360	810	9.3 J	13	2 U	5.3	1310	0.623	0.054 U	6.83					
12/2012	16 U	1600	29000	550	47 J	4900	33	180	930 J	16 U	20 U	20 U	10.3	1000	0.0851 J	0.054 U	6.7					
04/2013	4 U	2300	39000	720	69	7800	58	350	2100 J	4 U	11 J	5 U	5.9	1390	0.258	0.054 U						
07/2013	8 U	1900	37000	710	68	7200	39	230	2700	8 U	11 J	10 U	8	1440	0.205	0.054 U	6.89					
10/2013	40 U	2300	37000	790	76 J	7800	56	370	2600	40 U	50 U	50 U	6.9	1390	0.17 J	0.054 U						
12/2013	16 U	1700	27000	580	56 J	5100	45	250	3100	16 U	20 U	20 U	8.2	1120	0.0705 J	0.054 U	6.39					
04/2014	25 UJ	1800	26000	640	61	5100	46	350	5300	25 U	25 U	25 U	9.1	1310 J+	0.0849 J	0.054 U	6.84					
08/2014	25 U	1700	29000	570	43 J	3700	60	330	5800	25 U	25 U	25 U	7.1	2760 J-	0.427	0.054 U	6.83					
12/2014	10 U	1700	26000	560	48	4200	60	440	6700	10 U	10 U	10 U	8.6	1360	0.196 J	0.054 U	6.49					
04/2015	10 U	1100	25000	490	44	3900	69	420	5700	10 U	10 U	10 U	6.3	1320	0.0805 J	0.054 U						

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 6D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1000 J	100000	17000	5000 U	5000 U	820 J	6.5	16	62	500 J	5000 U	5000 U	6.68	1030								
07/2008	5000 U	2200 J	140000	380 J	5000 U	1200 J	11	37	100	5000 U	5000 U	5000 U	627	1220								
09/2008	2500 U	2800	92000	540 J	160 J	1900 J	12	14	71	2500 U	2500 U	2500 U	565	610								
12/2008	500 U	310 J	17000	230 J	29 J	170 J	3.6	12	56	41 J	500 U	500 U	266	4.02								
06/2009	500 U	110 J	11000	53 J	500 U	650 J	8.9	53 J	23	34 J	500 U	500 U	199	12.9	0.0619 J	40.5						
10/2009	250 U	42 J	8200	57 J	250 U	2800	21	710	1900	30 J	14 J	250 U	701	36.7	1.59	43.8						
07/2010	16 U	300	8100	54 J	19 J	4000	33	650	4500	16 U	36 J	20 U	870	3.2 J	0.079 J	92						
06/2011	7.9	400	610	59	8.3	2000	16	1800	9400	8	59	1 U	989	4.3 J	0.0369 J	113	6.4	2.4E+03	3.9E+02	2.2E+05	1.0E+00	8.6E+04
08/2011	6.2 J	510	2100	48	13	1900	60	1800	8000	4.3 J	50	10 U	817	6.8 J	0.016 J	147	6.83	2.3E+02	5.6E+01	1.8E+04	7.0E-01	5.4E+03
11/2011	4.1 J	100	89	4.7 J	1.4 J	35	1.8 J	63	1700	0.86 J	2.5 J	5 U	28.8	21.6	0.0203 J	6.3	11.77	4.4E+01	1.4E+01	3.0E+02	5.0E-01	9.8E+02
03/2012	5 U	40	200	41	5 U	68	35	2800	17000	5 U	36	5 U	443 J	12.5	0.2 U	81.6	6.88	6.8E+04	1.6E+04	3.2E+06	6.1E+02	2.4E+06
06/2012	8.6 J	2200	21000	83	26	1600	24	980	8000	4 UJ	75	5 U	578	1050 J	0.0336 J	84.4	6.99	2.1E+04	7.0E+03	1.9E+06	2.4E+02	1.2E+06
09/2012	2.1 J	660	5100	54	9.7	2100	7.2 J	1300 J	7200 J	3.8 J	46	1 U	563	2.1 J	0.0333 U	111	6.79	1.3E+04	1.2E+03	2.2E+06	8.7E+04	1.1E+06
12/2012	16 U	850	38000	78 J	38 J	1800	20	330	8100	16 U	74 J	20 U	502	24.1	0.0333 U	149	6.9	6.3E+03	2.2E+02	1.2E+05	6.6E+03	3.1E+04
04/2013	40 U	2400	44000	92 J	40 U	1000	9.7	99	2800	40 U	83 J	50 U	466	428 J	0.0333 U	152		3.0E+04	5.2E+02	2.0E+05	1.7E+04	6.8E+03
07/2013	16 U	460	14000	42 J	16 U	480	21	210	2600	16 U	30 J	20 U	366	401	0.043 U	167	7	1.7E+04	1.4E+03	1.6E+05	1.2E+04	1.5E+02
10/2013	8 U	100	9000	28 J	11 J	280	9.7	300	3700	8 U	19 J	10 U	108	8.1	0.0858 J	3	7.13	4.1E+04	7.5E+03	1.0E+06	4.4E+05	7.5E+04
12/2013	4.6 J	3600	30000 J	70	40	1900	29	1000	4000	2.6 J	60	2 U	271	254	0.043 U	132		1.2E+05	1.4E+03	9.7E+05	6.4E+05	1.4E+05
04/2014	0.5 U	6.5	520	6.8	0.93 J	150	1 U	55	360	0.5 U	3.5	0.5 U	53.3	37.1	0.352 J	2.7		2.5E+04	2.0E+02	1.5E+05	1.3E+03	4.1E+04
08/2014	5 U	890	18000	45	19	3000	36	1800	10000	5 U	37	5 U	291	325	0.156 J	32.5		3.1E+04	3.3E+03	1.4E+06	6.2E+03	1.7E+04
12/2014	5 U	38	8300	49	6.2 J	4800	27	3400	6500	5 U	46	5 U	498	110	0.476	20.7	6.45	1.1E+04	8.6E+02	3.4E+05	6.2E+03	7.8E+03
03/2015	0.5 U	3.6	1800	55	1.5	4500	25	3700	6100	0.5 U	55	3.8	446	43.2	4.44	10		2.3E+04	5.7E+03	3.8E+06	6.9E+04	2.0E+05

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 6S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	16 U	28 J	10000	170	16 J	1400	13	59	1200	16 U	20 U	20 U	1400	244	104	1.3	5.59					
08/2011	25 U	22 J	8000	340	8.4 J	11000	30	630	4600	25 U	16 J	25 U	385	122	0.719	36.9	6.6					
11/2011	25 U	9.7 J	2700	270	25 U	3400	77	3900	8000	25 U	15 J	25 U	177	190	4.63	13.4	6.66					
03/2012	25 U	25 U	4300	220	8.2 J	3800	77	920	8700	25 U	8.4 J	25 U	48.3	372	29.6	0.35	6.58					
06/2012	8 U	10 U	3900	200	8 U	3100	78	510	11000	8 UJ	10 U	10 U	47.9	173 J	38.5	0.31	6.18					
09/2012	8 U	10 U	1500	88	8 U	2700	74	320	7900	8 U	10 U	10 U	56.3	140 J	35.7	0.26	6.76					
12/2012	1.6 UJ	4.1 J	3300	94	6.5 J	2400	68	360	10000	1.6 U	6.3 J	2 UJ	48.2	209	29.1	0.35	6.49					
04/2013	8 U	10 U	3300	110	8 U	1900	45	450	11000	8 U	10 U	10 U	39.8	184 J	27.8	0.68	6.38					
07/2013	0.8 U	2.1 J	1600	110	4 J	1600	22	220	6800	0.8 U	3.7 J	1 U	50.5	85.5	36.9	0.22	6.8					
10/2013	1.6 U	2 U	1000	57	1.9 J	1100	15	110	7400	1.6 U	2 U	2 U	55.8	88.2	32.3	0.25	6.37					
12/2013	1.6 U	4.5 J	2400	82	6.6 J	990	72	370	11000	1.6 U	4.1 J	2 U	45.7	137	27.5	0.32						
04/2014	0.5 U	14	8600	140	13	3600	110	520	11000	0.5 U	8.4	0.5 U	28.8	337	15.5	2.3	6.67					
08/2014	1 U	3.8	3300	93	5.5	1300	32 J	140 J	11000 J	1 U	3	1 U	42.9	134	24	0.22	6.19					
12/2014	0.5 U	2.1	1200	51	3.9	620	25 J	140 J	7600 J	0.5 U	2.4	0.5 U	39.9	113	34.5	0.14 J	6.39					
03/2015	0.5 UJ	2.6 J	400 J	12 J	1.2 J	160 J	30	60	15000	0.5 UJ	0.85 J	0.5 UJ	30.1	195	10.8	0.8	7.15					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 7D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	950 J	160000	27000	5000 U	5000 U	860 J	7.2	18	80	5000 U	5000 U	5000 U	8.94	1170								
07/2008	5000 UJ	5000 UJ	120000 J	5000 UJ	5000 UJ	940 J	7.4 J	37 J	76 J	5000 UJ	5000 UJ	5000 UJ	417 J	984 J								
09/2008	5000 U	2300 J	100000	840 J	280 J	1700 J	7.5	13	59	5000 U	5000 U	5000 U	531	724								
10/2008																						
12/2008	1000 U	2400	84000	400 J	110 J	2600	7.8 J	6.3 J	230 J	1000 U	66 J	1000 U	476	72.3								
06/2009	2500 U	2600	50000	2500 U	2500 U	6300 J	9.9	120	2900	2500 U	2500 U	2500 U	483	42.4	0.0703 J	268						
10/2009	57 J	4500 J	58000	180 J	140 J	3900	10 U	420	4600 J	500 U	150 J	500 U	506	86.2	0.0461 J	178						
07/2010	24 J	1600	27000	63	66	790	33 U	150	7200	8 U	75	10 U	255	413	0.0522 U	195						
06/2011	270 J	45000	57000	120 J	150 J	1500	6.2 J	28 J	1600 J	89 J	100 U	100 U	58.1	1640	0.0354 J	155	6.8					
08/2011	150	19000	26000	48 J	61 J	530	15	57	1300	25 J	36 J	100 U	79.9	1890 J	0.0629 J	214	7.56					
11/2011	290	25000	32000	72 J	83 J	1400	11	160	4200	46 J	54 J	250 U	118	842 J	0.0461 J	168	5.99					
03/2012	180	15000	19000	42 J	43 J	890	17	270	4000	60 J	42 J	100 U	29.4	1020 J	0.0203 J	284	7.17					
06/2012	350	25000	31000	52 J	91 J	520	11	87	2600	270	77 J	50 UJ	25.5	950	0.0333 U	184	7.31					
09/2012	460	27000	32000	51 J	85 J	900	20	170	2900	260	81 J	25 U	29.1	358 J	0.0333 U	73.2	6.88					
12/2012	49 J	1200	51000	56 J	40 U	650	15	280	3900	78 J	120 J	50 UJ	689	965	0.13 J	293	5.95					
04/2013	68	840	28000	58	35 J	1000	32	430	4400	140	190	10 U	60.5	1300	0.0333 U	249	7.41					
07/2013	63 J	1400	21000	70 J	40 U	1300	34	340	4700	49 J	100 J	50 U	36.7	1150	0.043 U	220	7.34					
10/2013	86 J	830	31000	76 J	40 U	1800	30	400	8400	58 J	93 J	50 U	63.6	293	0.043 U	219	6.76					
12/2013	42 J	490	40000	66	49 J	1100	27	300	6200	89	270	10 U	72.9	927	0.043 U	228	6.99					
04/2014	60 J	1500	50000	94 J	76 J	2100	55	450	7100	50 U	69 J	50 U	81.3	1750	0.043 U	136	7.12					
08/2014	50 U	290	53000	110	65 J	2400	41	380	8000	50 U	92 J	50 U	88.9	990	0.0334 U	168	6.82					
12/2014	25	450	34000	72	39	2400	27	410	8800	13 J	64	10 U	50.7	1170	0.056 J	161	6.86					
04/2015	20 J	250	33000	95	45	8100	31	1000	8900	10 U	50	10 U	52.8	643	0.0484 J	133	5.34					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 7D PUMP**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	2500 U	3500	86000	220 J	2500 U	6600	10 UJ	30 J	640 J	2500 U	180 J	2500 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 7D SNAP**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	2500 U	3600	73000	190 J	2500 U	3000	10 UJ	29 J	590 J	2500 U	130 J	2500 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 7S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
07/2011	0.8 U	1 U	2 J	0.8 U	0.8 U	14	1.2 J	2.8 J	52 J	0.8 U	9.2	1 U	6.9	4820	3.14	0.054 U	6.53					
08/2011	5 U	5 U	13	5 U	5 U	11	5 U	1.2 J	18	5 U	140	5 U	7.6	4530	0.45	0.16 U	5.68					
11/2011	5 U	5 U	3 J	5 U	5 U	14	2 J	4.7 J	85	5 U	41	5 U	6	3840	3.17	0.16 U	6.66					
03/2012	5 U	5 U	11	5 U	5 U	1.7 J	5 U	5 U	7.4 J	5 U	84	5 U	6.3	3990	0.0784 J	0.16 U	0					
06/2012	0.8 U	1 U	3.7 J	0.8 U	0.8 U	2.8 J	1 U	1 U	10 J	0.8 UJ	54	1 U	6.3	4090 J	0.473	0.054 U	6.46					
09/2012	0.8 U	1 U	3.7 J	0.8 U	0.8 U	11	1 J	1 U	47	0.8 U	60	1 U	5.1	3900	0.607	0.054 U	6.77					
12/2012	0.8 U	1 U	9.8	0.8 U	0.8 U	1 U	1 U	1 U	4.9 J	0.8 U	150	1 U	3.5	2620	0.306	0.054 U	6.47					
04/2013	0.8 U	1 U	3.7 J	0.8 U	0.8 U	4.3 J	1 U	1.7 J	24 J	0.8 U	49	1 U	4	3300	0.621	0.054 U						
07/2013	0.8 U	1 U	5	0.8 U	0.8 U	1.3 J	1 U	1 U	6.9	0.8 U	78	1 U	4.5	3060	1.36	0.054 U	6.81					
10/2013	0.8 U	1 U	6.6	0.8 U	0.8 U	1.8 J	1 U	1 U	9.1	0.8 U	99	1 U	4.3	2900	0.594	0.054 U	6.55					
12/2013	0.8 U	1 U	4.9 J	0.8 U	0.8 U	1.2 J	1 U	1 U	3.9 J	0.8 U	83	1 U	5.3	2120	2.76	0.054 U						
04/2014	0.5 U	0.5 U	2	0.5 U	0.5 U	1.4	1 U	1 U	5.9	0.5 U	45	0.5 U	4	1140	0.043 U	0.054 U						
08/2014	0.5 U	0.5 U	5.6	0.5 U	0.5 U	1.6	1 U	1 U	4.3 J	0.5 U	120	2.1	16.7	1180	2.35	0.054 U						
12/2014	0.5 U	0.5 U	3.4	0.5 U	0.5 U	2.8	1 U	1 U	5.7	0.5 U	78	1.1	4.9	1010	0.0418 J	0.054 U	6.8					
03/2015	0.5 U	0.5 U	2.2	0.5 U	0.5 U	1.9	1 U	1 U	10	0.5 UJ	51	0.5 U	3.6	1590	0.166 J	0.054 U						

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 8D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	1200 J	240000	28000	5000 U	5000 U	1100 J	5.1	17	78	5000 U	5000 U	5000 U	10.6	1590								
07/2008	1000 U	2900 J	110000	300 J	240 J	1500 J	7.2	29	100	1000 U	1000 U	1000 U	551	1810								
09/2008	240 J	34000	76000	420 J	200 J	2100	5.9	16	92	2500 U	2500 U	2500 U	190	2410								
12/2008	600 J	66000	48000	310 J	95 J	2300	6.2	2.0	4.6	1300 U	1300 U	1300 U	263	1210								
06/2009	400 J	26000	21000	1000 U	1000 U	1200	8.0	39	400	1000 U	1000 U	1000 U	166	1810	0.0567 J	191						
10/2009	260 J	35000	54000 J	150 J	130 J	1900	6.1	32	100	1000 U	1000 U	1000 U	101	2110	0.0317 U	132						
07/2010	200	45000	48000	120	98 J	1500	7.1	89	74	16 U	32 J	20 U	105	2300 J	0.0522 U	170						
08/2011	170	27000	31000	82 J	77 J	2000	5.1	37	180	17 J	23 J	100 U	70.7	1720	0.2 U	249	7.03					
03/2012	400 J	24000	20000	73	74	1800 J	8.9	93	1800	110	45	5 U	57.1	1740	0.2 U	186	6.86					
06/2012	240	18000	15000	46 J	45 J	1000	6.6	82	1400	470 J	39 J	20 U	28.4	1700 J	0.0333 U	131	6.95					
09/2012	170	12000	19000	67	63	1900	17	210	2100	120	30 J	10 U	38.4	1650	0.0333 U	148	6.97					
12/2012	52 J	1600	15000	51 J	40 J	1900	9.4	190	2800	16 U	20 U	20 U	299	1480	0.0333 U	258	6.06					
04/2013	33	3400	31000	73	43	1800	6	97	2700	18	34	2 U	209	1510	0.0333 U	247	6.93					
07/2013	40 U	4600	33000	79 J	40 U	2300	8.3	130	1800	40 U	50 U	50 U	117	1790	0.043 U	157	6.65					
10/2013	52 J	9900	44000	40 U	40 U	3000	19	350	3000	40 U	50 U	50 U	129	1230	0.043 U	190	6.23					
12/2013	80 J	19000	50000	95 J	72 J	2700	24	310	3700	40 U	50 U	50 U	194	1340	0.043 U	126	6.65					
04/2014	26 J	3500	35000	79	43	2800	29	370	6400	10 U	23	10 U	117	986	0.0866 J	121	6.67					
08/2014	10 U	1800	23000	65	38	3100	19	270	3200	10 U	20	10 U	52.9	2010	0.0334 U	142	6.93					
12/2014	25 U	5100	39000	99	66	4200	17	630	3300	25 U	29 J	25 U	76.4	1860	0.0334 U	153	7.36					
04/2015	29 J	7100	37000	85	51	3800	28	590	5800	25 U	26 J	25 U	39.1	859	0.0334 U	148	7.6					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 8S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	4 U	21 J	1800	13 J	18 J	140	2.3 J	6.6	86	260	110	5 U	608	1330 J	19.1	2.5	6.42					
08/2011	2.3 J	67	3500	18	16	380	2.6 J	23	310	240	89	13 U	291	1480 J	0.379	74.2	6.7					
11/2011	5 U	9.7	870	14	4.6 J	320	8.3	300	2300	83	67	4.8 J	41.3	1080	0.158 J	24.8	6.25					
03/2012	5 U	3.6 J	93	6.6	5 U	85	17	210	3300	24	27	3.2 J	16.7	1770	0.986	21.7	6.82					
06/2012	0.8 U	1 U	45	6.7	0.8 U	48	11	280	2500	25 J	29	1.5 J	16.6	2210 J	0.652	15.1	6.43					
09/2012	0.8 U	1.2 J	28	6.6	0.8 U	52	19	340	4100	24	30	14	52.4	823	0.68	22.9	6.76					
12/2012	0.8 U	4.4 J	310	4.5 J	1.6 J	210	13	160	5800	26	22	2.2 J	11	1460	3.6	8.6	6.56					
04/2013	0.8 U	2 J	63	1.6 J	0.8 U	150	18	280	4000 J	14	13	4.9 J	7.8	1670	3.5	13.6	6.61					
07/2013	0.8 U	3.3 J	150	2.2 J	0.8 U	200	17	320	5200	9.2	12	1.4 J	9.6	1790	1.7	15.6	6.8					
10/2013	0.8 U	2.6 J	60	2.7 J	0.8 U	89	11	130	11000	8.3	12	2.6 J	10.4	1110	2	17	6.59					
12/2013	0.8 U	4.1 J	39	3.8 J	0.8 U	50	24	310	12000	15	14	1.7 J	16.3	1100	0.953	16.5	6.78					
04/2014	0.5 U	1.7	12	0.72 J	0.5 U	12	13	32	4600	2.9	2.7	0.5 U	6.6	301	2.41	0.17	6.55					
08/2014	0.5 U	2.5	540	5.5	1.4	400	24	280	8400	5.5	6.2	0.5 U	13.9	503	0.0996 J	25.7						
12/2014	0.5 U	0.5 U	4.2	0.5 U	0.5 U	2.3	1 U	3.5 J	320	0.5 U	0.65 J	0.5 U	5.2	204	0.318 J	0.054 U	6.99					
03/2015	0.5 U	1.3	63	1.5	0.5 U	57	9.2	22	2700 J	3.8	3	0.5 U	10.1	356	0.857	0.17	7.95					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 9D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	2100	370000	59000	80 U	120 J	450 J	5.1	7.8	42	370 J	100 U	100 U	15.2	1020	0.187 J	4.5	7.08					
08/2011	1900	80000	130000	360 J	270 J	280 J	5.3	5.8	37	1600	500 U	500 U	1170	518 J	1.08	21.3	6.38					
11/2011	1900 J	190000	200000	2500 U	440 J	530 J	4.6 J	14	120	1200 J	2500 U	2500 U	281	249	0.165 J	127	6.41					
03/2012	900 J	150000	170000	220 J	330 J	650 J	8.9	87	850	400 J	1000 U	1000 U	118	361	0.2 U	99.1	6.41					
06/2012	600	77000	86000	120 J	170 J	610	23	110	3500	790 J	100 U	100 U	61.7	267 J	0.0333 U	124	6.8					
09/2012	450 J	67000	120000	200 J	330 J	3500	29	120	1700	120 J	100 U	100 U	109	5.1	0.0333 U	130	6.7					
12/2012	1900	73000	170000	290 J	190 J	810	64	100	820	200 J	100 U	100 UJ	4420	15.8	5.94	87.2	5.91					
04/2013	1000	52000	200000	330	160	1300	45	340	1200	16 U	51 J	20 U	2110	43.3	116	6	6.09					
07/2013	680	51000	190000	180 J	240 J	1700	70	1200	5700	40 U	50 U	50 U	1040	46.4	113	2.6	6.44					
10/2013	400 U	7700	170000	400 U	500 J	18000	70	1600	4900	1500 J	500 U	500 U	830	26.8	153	0.82	6.16					
12/2013	650	75000	160000	210 J	420 J	31000	62	1900	4400	80 UJ	100 U	100 U	381	102	30.9	8.1	6.59					
04/2014	38	1600	47000	120	160	70000	39	3000	3000	10 U	20 J	10 U	397	12.4	123	0.34	7.41					
08/2014	85	16000	110000	160	210	18000	59	3300	8800	25 U	25 U	25 U	160	72.8	1.27	48	6.86					
12/2014	640	47000	90000	100	160	5000	33	11000	12000	50 U	50 U	50 U	255	49.2	17.6	5.1	6.72					
04/2015	270	30000	64000	110	170	10000	28	3600	6100	25 U	25 U	25 U	124	25.7	16.7	8.2	5.07					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW- 9S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	2 U	2000	1200	10 J	5.8 J	84	13	12	130	2 U	2.5 U	2.7 J	4.6 J	3070 J	0.0141 U	0.054 U	6.55	4.8E+00	2.9E+00	1.2E+01	5.0E-01	2.0E-01
08/2011	10 U	2900	1700	14	9.7 J	91	14	9.6	120 J	10 U	10 U	5.7 J	4.9	3450 J	0.0324 J	0.16 U	7.4	2.0E-01	1.2E+02	2.1E+00	5.0E-01	5.0E-01
11/2011	25 U	2800	1800	17 J	9.5 J	66	5.4	2.8 J	30	25 U	25 U	9.1 J	3.4	5 U	0.0898 J	0.16 U	6.51	4.0E-01	1.0E+04	2.0E+01	4.0E-01	1.0E-01
03/2012	25 U	3400	3000	32	11 J	81	4.9 J	2.4 J	26	25 U	25 U	10 J	3.9	3780	0.2 U	0.16 U	6.51	6.8E+00	3.2E+03	1.5E+02	1.1E+01	3.0E-01
06/2012	0.8 U	5100	2700	32	14	93	8.8	7.1	91	1.5 J	1 U	8.4	3.4	3010 J	0.033 J	0.054 U	6.75	1.0E+00	1.2E+02	4.1E+02	3.9E+01	1.8E+00
09/2012	1.6 U	2400	1300	15	5.3 J	49	6	10	88	1.6 U	2 U	2 U	4.7	3380	0.262	0.054 U	6.48	7.0E-01	5.0E-01	7.0E-01	7.0E-01	7.0E-01
12/2012	8 U	4100	6500	62	12 J	12 J	2 J	1 U	3 U	8 U	10 U	10 U	4.6	3420	0.0839 J	0.054 U	7.07	5.0E-01	3.2E+01	2.8E+00	5.0E-01	5.0E-01
04/2013	0.8 U	4700	2500	27	11	49	3.8 J	2.7 J	51	1.6 J	1 U	5.2	2.7	2930	0.0333 U	0.054 U	6.81	1.6E+00	4.9E+01	2.6E+00	4.3E+00	5.0E-01
07/2013	4 U	5400	2500	21 J	8.9 J	40	3.1 J	2.3 J	53	4 UJ	5 U	5 U	2.7	3310	0.043 U	0.054 U	6.87	5.0E-01	8.1E+01	5.4E+00	4.7E+00	5.0E-01
10/2013	4 U	5700	3800	32	9.9 J	42	4.8 J	3.1 J	79	4 U	5 U	5 U	3.2	2870	0.043 U	0.054 U	6.63	5.0E-01	2.4E+01	2.3E+00	9.0E-01	5.0E-01
12/2013	8 U	3900	2100	18 J	8 U	30 J	3.5 J	1.7 J	43	8 U	10 U	10 U	5	1990 J	0.0943 J	0.054 U	6.84	1.1E+02	3.8E+01	3.3E+02	3.0E+02	1.1E+00
04/2014	5 U	4000	1700	14	6.5 J	43	6.9	4.5 J	140	5 U	5 U	5 U	5.1	2610	0.043 U	0.054 U	6.87	3.0E-01	6.0E+01	1.5E+00	1.0E-01	4.0E-01
08/2014	5 U	5000	8900	85	13	110	13	13	720	5 U	5 U	5 U	6	2630	0.0462 J	0.054 U	6.58	1.7E+00	4.5E+01	9.9E+01	8.0E-01	2.0E-01
12/2014	2.5 U	4200	4200	30	8.3	52	5.5	4.6 J	120	2.5 U	2.5 U	2.5 U	4.6	1450	0.0462 J	0.054 U	6.78	5.0E-01	1.2E+02	8.6E+01	6.0E-01	1.0E-01
03/2015	0.5 U	2300	2900	34	7.6	49	5.8	3.5 J	270 J	0.5 U	0.5 U	0.91 J	2.4	1870	0.0334 U	0.054 U	7.1	3.1E+00	4.7E+01	8.0E+01	5.9E-01	7.0E-01

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-10D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	170	5400	7300	15 J	82	260 J	1.3 J	12	48	1500	94	10 U	6.8	913	0.434	0.74	7.43					
08/2011	670	38000 J	12000	250 U	47 J	70 J	8.8	3.8 J	40	3300	250 U	250 U	7190	333 J	6.52	43.4	5.93					
11/2011	59	5700	14000	28 J	39 J	100	18	16	45	1700	120	50 U	637	42.3	12.2	110	6.2					
03/2012	68	12000	28000	47 J	53	220	33	75	170	410	190	50 U	648	44	52.1	30.9	5.87					
06/2012	40 U	750	30000	42 J	83 J	210 J	27	120	810	250	240 J	50 UJ	450	53.8	69.5	4.8	6.09					
09/2012	18 J	1200	22000	26 J	49 J	330	24	91	2000	170	180	20 U	310	28.6	51.4 J	2.8	6.39					
12/2012	350 J	52000	190000	160 U	160 U	520 J	9.1	35	980	370 J	200 U	200 UJ	878	6.7	42.4	4.7	5.79					
04/2013	170 J	7600	140000	160 U	210 J	3300	15	280	1200	380 J	260 J	200 U	652	22.9	124	7.9	5.98					
07/2013	21 J	860	91000	90 J	120	3400	12	360	2800	220	210	20 U	414	4.1 J	50.4	13.3	6.42					
10/2013	160 U	740 J	99000	160 U	190 J	23000	24	1700	7700	160 U	230 J	200 U	520	2.3 J	141	3.5	6.02					
12/2013	80 U	3100	87000	91 J	170 J	17000	18	2000	5600	160 J	240 J	100 U	452	19.1	63.2	11	6.21					
04/2014	10 U	360	37000	63	59	14000	27	8300	11000	68	150	10 U	325	1.5 U	82	1.8	7.03					
08/2014	50 U	800	87000	110	150	15000	28	6500	8300	160	360	50 U	434	7.7	13.1	11.2	6.37					
12/2014	25 U	3200	76000	95	110	11000	19	5600	9800	190	340	25 U	436	20	5.55	35.2	6.55					
04/2015	11 J	960	32000	55	49	7700	20	8900	8000	85	190	10 U	262	6.8	6.69	15.9	6.95					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-10S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 U	1 U	1.5 J	0.8 U	0.8 U	23	1.8 J	1.1 J	19	0.8 U	1 U	1 U	6.2 J	2980 J	0.0776 J	0.054 U	6.06	5.0E-01	3.3E+01	4.6E+00	5.0E-01	7.0E-01
08/2011	5 U	5 U	5 U	5 U	5 U	1.9 J	5 U	5 U	6 J	5 U	5 U	5 U	5.5	3550 J	0.152 J	0.16 U	6.73	5.0E-01	3.3E+02	1.9E+00	3.0E-01	3.0E-01
11/2011	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	6.4 J	5 U	5 U	5 U	2.7	3080	0.245	0.16 U	7.04	7.0E-01	1.2E+02	7.0E-01	7.0E-01	7.0E-01
03/2012	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5.2 J	5 U	5 U	5 U	2.5	3150	0.2 U	0.16 U	6.94	5.8E+00	4.2E+01	1.6E+01	5.0E-01	5.0E+00
06/2012	0.8 U	1 U	0.8 U	0.8 U	0.8 U	2.7 J	1 U	1 U	13 J	0.8 U	1 U	1 U	2.4	2820	0.0333 U	0.054 U	6.87	5.0E-01	3.8E+01	1.9E+00	5.0E-01	2.0E-01
09/2012	0.8 U	2.6 J	1.7 J	0.8 U	0.8 U	1 U	1 U	1 U	6.8 J	0.8 U	1 U	1 U	2.8	2980	0.0333 U	0.054 U		5.0E-01	1.6E+01	3.3E+00	1.0E+00	5.0E-01
12/2012	0.8 U	1.4 J	0.8 U	0.8 U	0.8 U	1 U	1 U	1 U	3 U	0.8 U	1 U	1 U	2.6	2930	0.0333 U	0.054 U	7.15	5.0E-01	3.3E+00	5.0E-01	5.0E-01	5.0E-01
04/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	3.2 J	1 J	1 U	44	0.8 U	1 U	1 U	2	2770	0.0333 U	0.054 U		5.0E-01	1.9E+02	4.1E+00	5.0E-01	5.0E-01
07/2013	0.8 U	7.6	0.96 J	0.8 U	0.8 U	1.3 J	1 U	1 U	7.6	0.8 UJ	1 U	1 U	1.9	2840	0.043 U	0.054 U	7	5.0E-01	2.4E+00	4.5E+00	4.2E+00	5.0E-01
10/2013	0.8 U	1.3 J	0.8 U	0.8 U	0.8 U	4.3 J	1.4 J	1 U	72	0.8 U	1 U	1 U	2.8	2710	0.043 U	0.054 U		5.0E-01	1.1E+01	2.6E+00	8.0E-01	5.0E-01
12/2013	0.8 U	1 U	0.8 U	0.8 U	0.8 U	4.2 J	1.3 J	1 U	50	0.8 U	1 U	1 U	5.3	2550 J	0.043 U	0.054 U		8.0E-01	4.0E+00	6.3E+00	4.7E+00	1.0E-01
04/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.9	1 U	1 U	33	0.5 U	0.5 U	0.5 U	3.8	2690	0.043 U	0.054 U	6.53	2.2E+00	8.2E+00	4.1E+00	1.0E-01	2.0E-01
08/2014	0.5 U	0.87 J	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	3 U	0.5 U	0.5 U	0.5 U	3.2	2190	0.0334 U	0.054 U	6.98	1.9E+00	1.2E+03	3.8E+01	7.0E-01	1.0E-01
12/2014	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.8	1 U	1 U	18	0.5 U	0.5 U	0.5 U	1.3	2760	0.0334 U	0.054 U		1.1E+00	4.1E+01	1.3E+01	3.0E-01	5.0E-01
03/2015	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3	1 U	1.1 J	20	0.5 U	0.5 U	0.5 U	1.9	2180	0.0334 U	0.054 U		3.0E+00	1.3E+01	6.9E+01	1.0E-01	6.0E-01

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-11D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	560	11000	2200	40 U	1000	78 J	2.3 J	2.5 J	16	78000	680	50 U	3.5	797 J	0.445	0.67	6.67	6.9E+01	1.8E+01	3.7E+01	3.3E+00	3.1E+00
08/2011	500	7600	2400	250 U	490	250 U	5 U	5 U	8.3 J	48000	270	250 U	11	833 J	0.495	10	5.36	2.7E+01	1.4E+03	7.1E+02	1.2E+02	1.2E+02
11/2011	46 J	570	1800	50 U	45 J	56	9	1.7 J	25	6600	110	50 U	129	425	0.562	39.1	6.65	1.1E+02	3.9E+03	5.7E+02	4.2E+02	2.6E+02
03/2012	200 J	4000	7200	250 U	400	64 J	47	7.8	79	46000	680	250 U	115	583 J	12.9	11.7	5.45	2.8E+02	2.0E+03	1.5E+03	1.2E+02	1.1E+03
06/2012	330	3200	6700	23 J	620	29	21	2.9 J	19	74000 J	520	5 U	26	896 J	3.62	12	6.31	8.6E+01	1.6E+03	7.1E+02	2.0E+01	2.2E+03
09/2012	440	2400	3600	15	310	11	7.4	1 U	9.3 J	43000	310	2 U	8.6	542	0.692	5.2	6.72	5.3E+00	1.7E+02	3.1E+01	2.1E+00	3.0E+01
12/2012	81 J	1300	7100	22 J	960	64 J	19	3.8 J	35	29000	460	20 U	268	309	0.26	73.9	6.3	4.8E+00	1.1E+01	1.1E+02	1.3E+02	1.5E+01
04/2013	120	670	5800	31	1900	240	4.1 J	18	190	32000	470	5 U	32.6	520	0.753	34.9	6.73	1.9E+03	1.6E+03	3.3E+02	1.9E+02	2.5E+01
07/2013	110	760	8200	31 J	370	1000	15	48	470	30000	800	10 U	21.6	409	0.215	63.6	7.12	7.1E+02	2.3E+02	1.3E+03	7.0E+02	7.7E+02
10/2013	83 J	480	5600	20 J	240	700	6.7	25	260	22000	480	20 U	9.9	492	0.254 J	33.2	6.65	4.3E+04	1.8E+03	9.9E+04	4.2E+04	5.5E+01
12/2013	130 J	650	3300	40 U	170 J	370	5.5	16	190	15000	360	50 U	11.6	532 J	0.163 J	22.1	7.2	1.1E+05	1.7E+03	2.8E+05	2.8E+05	2.0E+03
04/2014	79	330	2800	10	310	180	3.5 J	11	120	14000	310	5 U	7.5	630	0.194 J	11.9	7.21	7.1E+04	7.5E+02	2.9E+05	2.0E+03	3.5E+04
08/2014	54	340	5100	22	340	570	5.7	39	410	17000	800	10 U	11.3	472	0.0829 J	70.4	7.02	2.1E+05	3.0E+03	7.6E+05	9.1E+03	4.7E+04
12/2014	40	180	3800	15	340	450	2.8 J	27	230	13000	530	2.5 U	4.8	498	0.144 J	40.7	7.02	3.3E+04	1.4E+03	7.2E+04	1.6E+03	1.1E+03
03/2015	26	130	2600	14	180	300	17	13	480	6600	730	1.7	60.6	245	0.177 J	27.3	6.83	2.3E+04	1.2E+03	6.2E+04	1.4E+03	1.9E+03

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-11S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	0.8 U	320	11000	210	31	2300 J	19	110	150	1.7 J	42	1 U	5.2	2230	0.0568 J	0.054 U	6.94					
08/2011	50 U	270	17000	210	38 J	3600	29	140	280	50 U	38 J	50 U	4.9	2110	0.356	0.16 U	6.66					
11/2011	50 U	170	8600	140	18 J	760	21	59	160	50 U	32 J	50 U	2.3	2330	0.0367 J	0.16 U	6.77					
03/2012	100 U	170	9100	170	27 J	2000	25	100	1900	100 U	41 J	100 U	2.2	1800 J	0.11 J	0.16 U	6.32					
06/2012	4 U	320	13000	230	32	2600	32	170	1800	4 UJ	47	5 U	2.1	1880	0.27	0.054 U	6.95					
09/2012	16 U	390	17000	270	42 J	3600	40	300	1100	16 U	46 J	20 U	1.9	1960 J	0.814	0.054 U	6.84					
12/2012	8 U	340	16000	220	31 J	2400	27	180	1200	8 U	43 J	10 U	2	1960	0.552	0.054 U	6.67					
04/2013	4 U	310	15000	220	33	3100	40	390	5000	4 U	42	5 U	2.5	1650	0.714	0.054 U	7.01					
07/2013	8 U	230	12000	200	25 J	2200	26	220	5700	8 U	36 J	10 U	2.7	1470	0.593	0.054 U	6.63					
10/2013	20 U	250	16000	210	33 J	3000	43	400	2500	20 U	42 J	25 U	2.7	1690	1.08	0.054 U	6.51					
12/2013	8 U	170	12000	180	27 J	2100	30	210	3500	8 U	38 J	10 U	4.3	1850	0.768	0.054 U	6.48					
04/2014	2.5 U	220	10000	170	28	2200	32	280	4300	2.5 U	30	2.5 U	8.2	1450	0.926	0.054 U	6.45					
08/2014	5 U	230	15000	220	31	2900	35	270	5000	5 U	41	5 U	3.3	1610	1.36	0.054 U	6.82					
12/2014	0.5 U	290	13000	260	37	2300	35	270	4100	1.1	48	0.5 U	4.8	1830	1.19	0.054 U	6.59					
03/2015	2.5 U	130	9700	150	18	1800	24	110	4200 J	2.5 U	29	2.5 U	2.6	1720	0.355 J	0.054 U	7.42					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-12D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	2900	29000	19000	160 U	460 J	740 J	9.7	41	85	660 J	200 U	200 U	47.7	792	2.25	16.2	7.6					
08/2011	6000	270000	95000	120 J	260 J	950	140 J	1900 J	180 J	140 J	500 U	500 U	818	645	22.7	1.8	6.6					
11/2011	1800 J	140000	250000	2500 U	570 J	910 J	100	1100	180	2500 U	2500 U	2500 U	242	780	26.1	3.6	6.88					
03/2012	2500 U	2500 U	370000	2500 U	1100 J	2500 U	49	210	86	2500 U	2500 U	2500 U	221	459 J	85.1	0.079 J	7.04					
06/2012	160 U	850 J	350000	160 U	910 J	210 J	38	140	110	160 U	200 U	200 U	169	291	59.8	0.054 U	7.17					
09/2012	190 J	5600	250000	160 U	600 J	280 J	36	120	120	200 J	200 U	200 U	87.8	6.5 J	1.65	16.2	7.67					
12/2012	380	1100	98000	140 J	92 J	460	28	77	210	76 J	90 J	50 UJ	3900	3.9 J	120	6.3	5.18					
04/2013	35	1300	19000	53 J	14	120	6.9	8.9	21	8.6 J	16	2.7 J	92.3	4.9 J	17.6	0.054 U	5.91					
07/2013	160 U	1600	230000	160 U	340 J	4800	46	440	2100	160 U	200 U	200 U	1150	9.4	166	3	6.31					
10/2013	160 U	6600	160000	160 U	300 J	33000	33	1200	1900	160 U	200 J	200 U	1200	16.1	278	0.53	5.79					
12/2013	80 U	5100	200000	160 J	470 J	40000	35	2200	2700	80 U	160 J	100 U	799	14.1	158	2.3	6.6					
04/2014	52 J	3800	82000	130	180	70000	28	5100	2400	50 U	99 J	50 U	526	5.2	184	0.65	7.06					
08/2014	150 J	19000	120000	230	260	40000	41	12000	7200	100 U	100 J	100 U	395	10.2	25.9	14.6	6.35					
12/2014	250 U	36000	150000	250 U	260 J	16000	28	8000	7200	250 U	250 U	250 U	270	69.1	2.23	38.4	6.35					
04/2015	350	61000	140000	220	330	17000	19	6800	5900	50 U	72 J	50 U	207	11.8	16.7	12.8	6.26					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-13D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	950 J	100000	18000	160 U	160 U	500 J	1.5 J	17	66	1100	200 U	200 U	8.9	959	1.11	5.7	7.08					
08/2011	85 J	5700	45000	81 J	98 J	110 J	4.8 J	7.9	40	1300	81 J	250 U	953	143	2.45	127	6.02					
11/2011	2100	170000	73000	110 J	250 J	240 J	24	19	29	750	120 J	500 U	4320	139	157	20.8	5.56					
03/2012	1100	190000	99000	140 J	270 J	180 J	15	43	46	470 J	140 J	500 U	360	179 J	8.13	115	5.48					
06/2012	370	38000	30000	60 J	150 J	100 J	37	230	37	350	99 J	50 U	618	104	69.5	10.6	6.12					
09/2012	570	66000	110000	80 U	480 J	350 J	49	380	80	80 U	120 J	100 U	367	87.3 J	20.1	35.1	6.13					
12/2012	3200	280000	120000	80 U	240 J	340 J	14	33	120	280 J	160 J	100 UJ	12.5 U	93	7.17	69.3	5.78					
04/2013	590 J	85000	120000	400 U	400 U	520 J	40	200	160	400 U	500 U	500 U	1500	46.4 J	266	2.7	6.21					
07/2013	720 J	90000	210000	160 U	440 J	2800	55	330	950	160 U	290 J	200 U	1020	45.3	238	1.6	6.31					
10/2013	780 J	98000	250000	400 U	760 J	6400	69	560	1000	400 U	500 U	500 U	715	59.1	134	6.4	5.87					
12/2013	850	130000	230000	100 J	700	25000	57	640	1600	210 J	400 J	100 U	578	73.9	49.5	23.5	6.17					
04/2014	150 J	11000	68000	100 U	310	8600	7.9	280	720	100 U	100 U	100 U	179	33.1	11.3	18.3	6.55					
08/2014	55 J	8900	82000	83 J	280	15000	24	3900	7000	82 J	130	50 U	304	13.7	14.7	15.5	6.38					
12/2014	100 U	16000	120000	110 J	220	14000	18	4600	11000	100 U	130 J	100 U	314	20.3	22.8	11.9	6.13					
03/2015	76 J	16000	84000	85 J	220	16000	14	5700	9000	100	120	50 U	252	22.1	8.38	11	5.97					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-14D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	190	7900	12000	16 J	120	240 J	4.2 J	14	57	3300	150	5 U	4.7	885	2.93	0.43	8.02					
08/2011	72	1800	13000	36 J	22 J	64	6.7	5 U	23	2000	80	50 U	826	227	1.37	124	6.15					
11/2011	670	5400	29000	99 J	170	540	76	12	30	3500	340	100 U	2950	40.7 J	1.85	134	5.35					
03/2012	40 J	4700 J	25000 J	39 J	62 J	530 J	38 J	170 J	91 J	560 J	310 J	25 UJ	1740	26.6 J	77.5	50.1	5.54					
06/2012	80 U	19000	57000	80 U	110 J	580	29	140	94	270 J	440 J	100 U	987	55.3 J	55.6	30.3	5.63					
09/2012	85 J	23000	65000	82 J	180 J	800	34	310	160	240 J	480	50 U	826	21.8	52.3	65.4	5.57					
11/2012													556									
12/2012	130 J	14000	74000	72 J	89 J	570	7.8	83	230 J	500	420	50 U	1470	76.9	6.84	79.9	5.9					
04/2013	99 J	2100	95000	80 U	130 J	1100	14	460	1700	740	770	100 U	765	11.7 J	16.6	72.7	5.95					
07/2013	80 U	1000	74000	80 U	80 U	1100	12	300	4400	300 J	730	100 U	838	2.7 J	43	88.6	5.88					
10/2013	80 U	670	75000	80 U	120 J	1500	22	830	7700	1300	1100	100 U	719	1.7 J	73.1	23.7	5.93					
12/2013	80 U	2500	57000	87 J	140 J	9100	37	4100	22000	2100	1300	100 U	600	8.7	38.3	24.5	6.08					
04/2014	86 J	9800	120000	120	210	5600	21	2000	3300	1600	1100	50 U	595	15	6.2	80.4	5.97					
08/2014	5 U	36 J	4200 J	54	6.1 J	2200	62	16000	20000	30	730	5.7 J	788	1.5 U	97.9	3.9	7.37					
12/2014	150	41000	99000	110	140	5800	29	5500	7500	460	740	25 U	493	28.8	4.18	45.6	6.98					
04/2015	74	3400	38000	81	62	6500	37	5400	9300	540	570	25 U	426	5.8	22.6	40.7	6.01					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-15D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	69	2200	7900	17 J	69	210	3.1 J	9.8	59	2400	100	10 U	3.3 J	823 J	1.32 J	0.25 J		2.3E+03	4.1E+01	1.1E+03	6.6E+00	4.0E+01
08/2011	48 J	780	17000	43 J	90 J	370	6.4	6.6	32	4600	530	100 U	563	281	1.08	84.5	5.93	9.5E+02	3.1E+03	3.5E+02	1.3E+02	4.5E+01
11/2011	44 J	1900	15000	47 J	140	510	24	9	44	11000	990	100 U	303	56	21	103	6.27	1.6E+03	1.2E+04	1.3E+03	8.0E+01	5.1E+02
03/2012	12 J	760	5100	30	79	5100	54	45	1300	5000	1100	25 U	307	26.4	11.4	15.8	6.23					
06/2012	48	2900	10000	44	320	1500	19	66	900	49000 J	3000	5 U	134	133 J	0.0574 J	127	6.94	3.6E+05	3.3E+04	1.5E+06	8.1E+03	4.4E+04
09/2012	67	2900	14000	50	530	970	12	22	260	58000	3800	2 U	108	106	0.137 J	153	6.94	5.3E+04	7.4E+03	3.7E+05	2.9E+04	1.5E+05
11/2012													2090									
12/2012	18 J	540	19000	33 J	210	550	3.8 J	10	76	7700	1600	20 U	739	44.3	0.15 J	238	6.24	1.7E+01	2.5E+02	1.1E+02	7.9E+01	1.1E+01
04/2013	60 J	3200	14000	27 J	620	370	17	19	270	48000	3100	20 U	421	139	0.85	125	6.34	3.1E+04	3.8E+04	1.6E+04	4.6E+04	7.8E+02
07/2013	22 J	1100	10000	33	480	4100	280	140	1600	16000	7400	17 J	480	3.2 J	40.8	84.6	7.29	1.2E+05	1.6E+05	7.5E+04	3.6E+05	1.0E+02
10/2013	71	1400	2200	59	200	11000	380	210	1100	10000	9200	29 J	319	3.1 J	33.3	0.58	6.22	3.2E+05	1.7E+04	1.1E+06	9.2E+05	2.4E+01
12/2013	140	840	1800	73 J	150	9700	980	260	820	3400	13000	100	223	3.7 J	1.27	124	6.88	6.8E+04	8.7E+04	2.3E+05	2.1E+05	4.4E+02
04/2014	600	5400	7700	25 U	690	720	32	100	1000	42000	3000	25 U	194	46.5	0.114 J	139		4.4E+04	1.5E+04	1.0E+05	1.5E+03	1.8E+03
08/2014	620	5200	9400	50 U	970	2200	76	210	1900	51000	4000	50 U	158	32.9	0.234 J	139	7.13	4.2E+05	1.5E+04	2.1E+06	3.5E+04	4.7E+03
12/2014	3.3	2.5	5.6	9.7	0.65 J	340	250	850	3700	28	2300	64	36.4	1.5 U	4.87	0.054 U	7.43	5.2E+05	1.7E+04	2.3E+06	4.7E+04	1.9E+04
03/2015	110	470	4500	15	230	2000	230	130	1500 J	4000	5300	32	127	1.5 U	14.3	0.075 J	7.11	9.1E+04	9.2E+03	1.4E+05	6.7E+03	8.5E+02

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-15S**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
03/2012																		8.7E+05	7.8E+03	3.3E+06	7.2E+02	1.4E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-16D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	610	41000	24000	40 U	140 J	390	1.4 J	13	53	1800	120 J	50 U	7.1	801	0.661	3.4	7.36					
08/2011	70	5200	2100	7.5 J	4.4 J	13 J	2.8 J	5 U	13 J	15 J	25 U	25 U	33.8	39.4	0.054 J	1.1	12.19					
11/2011	110	9900	5700	14 J	13 J	43 J	7.5	1.2 J	27	59	18 J	50 U	80.5	91.5 J	0.0976 J	7.2	12.65					
03/2012	13	110	110	5 U	5 U	3.3 J	5 U	5 U	15	5 U	5 U	5 U	2.5	30.3	0.2 U	0.16 U	10.48					
06/2012	30	1200	3000	9.8 J	7.1 J	530	3 J	7.1	57	39	17 J	5 U	20.9	44.4 J	0.244	2.6	11.59					
09/2012	16	240	220	0.81 J	0.8 U	56	1 U	1 U	10 J	4.8 J	1.2 J	1 U	7.3	27.4 J	0.0333 U	0.28	11.14					
12/2012	130 J	5500	67000	47 J	56 J	470	5.6	45	330 J	770	430	50 U	728	219	0.107 J	182	6.14					
04/2013	160 J	5300	47000	41 J	92 J	1500	11	730	1500	1500	950	50 U	370	28.7	0.988	103	6.29					
07/2013	330 J	12000	64000	80 U	220 J	1000	6.8	170	940	8900	2000	100 U	294	16.5	0.111 J	172	6.34					
10/2013	380	12000	40000	42 J	300	640	5.7	59	290	18000	2000	50 U	183	91.1	0.043 U	191	6.16					
12/2013	430	15000	52000	60 J	320	810	9.9	140	700	15000	1900	20 U	214	32.7	0.043 U	182	6.27					
04/2014	290	23000	87000	88 J	260	2700	15	490	1800	4300	830	50 U	262	17.4	0.822	104	6.48					
08/2014	520	35000	170000	170 J	400	6100	22	810	3200	6300	1200	100 U	347	19.7	0.216 J	132	6.55					
12/2014	350	19000	160000	200 J	350	7200	18	1600	6500	2000	550	100 U	335	7.6	0.373 J	99.3	6.27					
03/2015	510	26000	110000	130	200	4900	32	1600	5900	820 J	460	50 U	214	11	0.593	102	6.03					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **PMW-17D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2011	330	18000	15000	16 U	80 J	210	1.6 J	11	50	1600	100	20 U	3.7 J	775 J	0.445	1.3	6.25	1.6E+03	5.7E+01	4.9E+02	3.9E+00	1.5E+01
08/2011	40 J	780	18000	34 J	110	100	3.4 J	2.2 J	27	7300	130	50 U	193	551 J	0.657	96.9	5.24	1.7E+02	6.9E+03	3.4E+02	1.0E+02	2.3E+02
11/2011	42 J	890	16000	39 J	66 J	130	19	6	53	6900	240	100 U	501	193	9.03	96.9	6.21	2.7E+02	1.9E+03	6.4E+02	3.4E+02	1.8E+02
03/2012	11 J	720	13000	37 J	26 J	120	28	7.5	75	450	330	50 U	335	62.7	22.9	35.4		7.6E+00	2.5E+02	2.8E+01	7.4E+01	2.9E+00
06/2012	190	11000	13000	26	63	140	11	4.7 J	79	3900 J	610	5 U	94.5	201	0.216	157	6.55	7.8E+02	1.6E+03	2.6E+03	2.6E+02	1.6E+03
09/2012	200	6400	6700	17	65	190	9.8	7.6	380	3000	420	1 U	43.8	210	0.0686 J	137	6.89	6.5E+02	2.8E+02	5.3E+03	2.5E+02	2.8E+03
12/2012	97 J	5100	23000	23 J	54 J	280	5.6	6	120	1300	520	20 U	547	21.2	0.178 J	235	6.22	1.5E+01	3.8E+01	4.4E+02	2.7E+02	8.0E+00
04/2013	22 J	370	10000	16 J	93	360	9.1	10	6400	5600	860	10 U	230	21 J	2.43	47.3	6.35	3.4E+04	2.4E+03	1.3E+04	6.8E+04	2.8E+01
07/2013	65	1500	15000	30 J	380	790	12	140	1300	29000	2300	10 U	181	40.4	0.043 U	71	7.86	4.9E+04	4.9E+02	9.3E+04	1.8E+05	2.3E+03
10/2013	5.1	30	100	5.6	6	510	23	40	3900	470	160	1 U	57.5	3.5 J	0.0954 J	212	7.46	2.5E+04	1.7E+03	5.3E+04	8.8E+04	7.7E+02
12/2013	78	1100	10000	26 J	180	370	12	35	600	15000	1500	10 U	103	49.1	0.043 U	200	6.86	4.5E+04	7.4E+02	8.1E+04	4.4E+04	1.4E+03
04/2014	33	830	9500	14 J	140	650	26	39	820	5400	1100	10 U	124	5.2	0.239 J	66.3	6.99	2.4E+04	1.9E+03	3.0E+04	2.0E+03	4.5E+03
08/2014	2.5	92	310	0.64 J	3.3	75	17	15	740	29	72	1	67.5	8.8	0.0558 J	105	8.05	4.6E+05	5.5E+03	3.0E+06	2.8E+04	3.2E+04
12/2014	71 J	5800	28000 J	26 J	120 J	1000 J	13 J	170 J	2500	3400 J	840 J	10 U	116	6.4	0.0399 J	76.3	9.86	1.1E+05	4.3E+03	5.2E+05	6.6E+03	2.0E+03
03/2015	26	400	6200	13	70	860	27	92	2200 J	2700	700	1 U	97.9	56.2	0.233 J	50	6.7	5.5E+04	2.4E+03	8.7E+04	3.3E+03	1.9E+03

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **RMW-1D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	0.8 U	1 U	0.98 J	0.8 U	0.8 U	1 U	19	1 U	73	0.8 U	1 U		2.5	738 J	0.46							
06/2009	5.0 U	3.2 J	7.4	5.0 U	5.0 U	0.86 J	15	1.0 U	63	5.0 U	5.0 U	5.0 U	3.3	758	0.660	1.69						
07/2010	0.8 U	1 U	0.96 J	0.8 U	0.8 U	1 U	49	1 U	160	0.8 U	1 U	1 U	2.6	1070	0.332	13.3						
09/2011	3.8 J	100	290	1.3 J	5.2	8.8	15	5 U	65	270	6.4	5 U	3.2	1070 J	0.316	8.2						
03/2012	3.4 J	69	340	1.4 J	7.2	2.9 J	11	5 U	49	390	8.2	5 U	2	1560	0.263	4.5						
06/2012	2.2 J	24	380	1.4 J	6.1	5.8	12	1 U	54	500 J	9.4	1 U	1.9	934	0.273	5.2						
09/2012	0.8 U	4.9 J	300	1 J	4.8 J	2.9 J	16	1 U	61	290	6.2	1 U	1.4	867	0.27	6.3						
12/2012	5.6	61	370	1.3 J	8.1	4 J	3.2 J	1 U	26	850	11	1 UJ	2.4	601	0.264	0.44						
04/2013	1.3 J	10	330	1 J	6.5	5.5	14	1 U	58	440	8.3	1 U	1.7	759	0.21	4.4						
07/2013	0.8 U	6.5	290	0.95 J	3.4 J	7	14	1 U	63	280 J	7	1 U	1.9	844	0.246	6.4						
10/2013	0.8 U	12	280	0.98 J	4.3 J	7.6	17	1 U	76	270	6.4	1 U	1.6	780	0.26 J	7.6						
12/2013	0.8 U	11	270	1 J	3.4 J	5.7	12	1 U	64	230	6.8	1 U	2.6 J	716	0.299 J	4.7						
04/2014	5.1	57	420	1.5	21	14	6.7	1 U	39	460	13	0.5 U	3.1	720	0.303 J	1.7	7.17					
08/2014	2.2	15	450	1.6	6.9	14	15	1 U	72	210	9.7	0.5 U	4	819	0.403	5.2	7.63					
12/2014	0.5 U	3.3	280	0.71 J	2.9	6.5	36	1 U	160	110	6.2	0.5 U	0.5 U	864	0.23 J	11.8	6.87					
03/2015	0.5 U	11	390	1.2	3.9	19	4.4 J	1 J	24 J	60	7.2	0.5 U	2	679	0.297 J	0.94	7.22					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **RMW-2D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
05/2008	1100	140000	21000	80 U	110 J	1500	22	86	160	300 J	100 J		6	1120	0.182 J							
06/2009	1600 J	180000	49000	5000 U	5000 U	2000 U	83	12	390	5000 U	5000 U	5000 U	29.7	1190	0.0416 J	53.8						
07/2010	780	99000	52000	80 U	110 J	200 J	89	5.1	340	80 U	100 U	100 U	15.1	1480 J	0.0522 U	51.7						
06/2011	920 J	210000	36000	160 U	160 J	310 J	11	8.2	63	1200	200 U	200 U	12.1	969 J	0.269	4.8	6.26	4.4E+02	3.7E+01	1.8E+02	8.0E+01	9.5E+01
08/2011	680 J	56000	110000	1000 U	430 J	1000 U	28	5.3	89	1100	1000 U	1000 U	377	759 J	0.162 J	58.4		6.6E+01	4.8E+02	5.3E+01	7.1E+01	2.5E+01
11/2011	1100	110000	110000	85 J	390 J	110 J	32 J	3.3 J	120 J	600	500 U	500 U	267	466	0.0368 J	125	6.78	2.0E+02	3.1E+04	1.1E+03	1.1E+03	1.5E+03
03/2012	1300	140000	78000	500 U	230 J	500 U	60	5.1	210	320 J	100 J	500 U	129	813 J	0.0518 J	138	6.78	1.1E+03	4.9E+03	2.1E+03	2.5E+02	1.9E+02
06/2012	800	69000	16000	24 J	68 J	52 J	18	1.2 J	80	860 J	66 J	20 U	43.2	485	0.0141 U	94.9	6.82	6.1E+02	3.4E+03	1.6E+03	1.9E+01	9.8E+01
09/2012	1100	130000	39000	80 U	130 J	200 J	23	4.3 J	250	480 J	110 J	100 U	128	264 J	0.0333 U	141	6.7	3.5E+03	1.4E+03	3.2E+03	6.3E+01	1.7E+03
12/2012	3200	410000	62000	40 U	99 J	240 J	28	12	160	160 J	84 J	50 U	1620	395	39.5	27.2	6.25	6.8E+02	9.5E+02	7.2E+05	9.2E+05	5.4E+04
04/2013	1500	300000	150000	80 U	210 J	450 J	35	54	250	210 J	160 J	100 U	1170	266	58.2	6.8	6.46	1.1E+04	2.7E+03	8.6E+04	7.6E+04	4.6E+02
07/2013	1200 J	240000	170000	800 U	800 U	1000 U	23	240	290	800 U	1000 U	1000 U	758	217	46	6.2	6.4	2.4E+03	5.9E+02	4.5E+03	2.3E+03	1.8E+01
10/2013	1200 J	290000	250000	400 U	500 J	860 J	31	230	330	400 U	500 U	500 U	578	317	26.8	14.2	5.96	1.6E+04	8.3E+03	4.2E+04	3.5E+04	2.2E+03
12/2013	1500 J	320000	260000	400 U	610 J	1200 J	34	200	470	400 U	500 U	500 U	508 J	177	16.3	25.9	6.32	2.4E+04	5.3E+03	3.5E+05	9.8E+04	1.5E+04
04/2014	1200	200000	260000	250 U	510	520	44	130	320	250 U	250 U	250 U	464	249	8.16	40.2	6.38	2.3E+04	4.2E+02	3.3E+04	6.0E+02	6.1E+03
08/2014	1500	310000	310000	250 U	610	1600	36	440	860	250 U	250 U	250 U	410	221	5.86	35.7	5.95	3.8E+05	4.5E+03	2.0E+06	1.0E+04	7.2E+04
12/2014	1800	230000	190000	140	320	990	42	420	1500	50 U	160	50 U	313	295	4.26	42	6.07	4.0E+05	6.7E+03	1.2E+06	4.7E+03	5.8E+03
03/2015	1500	210000	190000	160	370	1100	35	420	2000	50 U	150	50 U	328	269	3.92	40.4	7.11	1.1E+05	1.7E+03	7.4E+05	4.3E+03	3.7E+04

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **RMW-3D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	13 U	3.2 J	300	13 U	3.2 J	21	1.0 U	1.1	12	110	8.0 J	13 U	3.3	802	0.485	1.0 U						
07/2010	0.8 U	3.9 J	760	2.2 J	11	70 J	1 U	3 J	27	280	15	1 U	3	882	0.474	0.46						
06/2011	770 J	14000	1900	160 U	1200	200 U	2.7 J	1.1 J	19	96000	700 J	200 U	3.1	781	0.414	0.49	7.37					
08/2011	1400	14000	14000	73 J	1100	250 U	9.2	1.7 J	33	64000	620	250 U	10500	529	0.866	21.4	6.1					
11/2011	130 J	1500	9300	500 U	570	500 U	4 J	5 U	25	53000	340 J	500 U	7.4	614	0.0541 J		6.97					
03/2012	90 J	620	5900	250 U	260	250 U	4.7 J	5 U	26	33000	190 J	250 U	8.6	710	0.0326 J	36.4	6.88					
06/2012	100	460	3800	16 U	210	20 U	5.7	1 U	27	25000	130	20 U	9	978	0.0697 J	15.2	6.96					
09/2012	45 J	170	3100	16 U	160	27 J	3.6 J	1 UJ	22 J	18000	130	20 U	8.2	552 J	0.0954 J	19.4	7.09					
12/2012	39 J	200	4100	12 J	790	14 J	3.5 J	1 U	21	19000	150	10 U	23.6	435	0.063 J	48.6	6.91					
04/2013	19	99	3500	20	810	51	2.6 J	3.4 J	41	17000	210	2 U	21.2	471	0.0333 U	63	7.46					
07/2013	9.7 J	42 J	2800	12 J	750	61	2.4 J	2.8 J	38	17000	160	10 U	3.8	574	0.043 U	30	6.99					
10/2013	11 J	32 J	2600	8.1 J	140	59	1 J	3.9 J	36	10000	150	10 U	21.1	462	0.0701 J	22.7	6.97					
12/2013	16 U	45 J	1600	16 U	71 J	33 J	14	1.5 J	70	7000	96 J	20 U	5.8	590 J	0.0701 J	22.3	7.1					
04/2014	8.7	49	1800	5.3	190	45	1 U	2.9 J	43	8000	120	2.5 U	8.6	461	0.0485 J	11.8	7.21					
08/2014	6.3 J	39	2100	6.8 J	86	71	3.3 J	3.8 J	60	9100	180	5 U	3.9	637	0.0382 J	21.5	7.34					
12/2014	5.7	17	1700	5.7	130	82	4.5 J	5.9	66	7400	160	2.5 U	1.5	554	0.0466 J	22.2	7.67					
03/2015	5 U	25	1900	5.2 J	110	120	1.7 J	7.9	200	7100 J	180	5 U	4.5	358	0.0334 U	27.7	7.24					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **RMW-4D**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
01/2008	570 J	130000	18000	5000 U	5000 U	430 J	19	14	110	5000 U	5000 U	5000 U	7.67	1340								
05/2008	600	67000	21000	80 U	80 U	610	16	12	95	80 U	100 U		4.9	1370 J	0.351							
07/2008	5000 UJ	450 J	100000 J	5000 UJ	5000 UJ	1100 J	15 J	46 J	110 J	5000 UJ	5000 UJ	5000 UJ	387 J	1060 J								
09/2008	1300 UJ	3700 J	38000 J	370 J	75 J	680 J	23	7.1	130	1300 UJ	1300 UJ	1300 UJ	294	810								
12/2008	250 U	660	5400	28 J	250 U	79 J	28	2.1	130	250 U	250 U	250 U	168	130								
06/2009	9.4 J	620	2800	12 J	100 U	95	32	7.0	510	12 J	100 U	100 U	160	572	0.0723 J	247						
10/2009	11 J	1100	3800	10 J	8.4 J	74	35	7.6	210	8.4 J	8.0 J	100 U	149	569	0.0317 U							
07/2010	6.1	380	900	6.9	2.8 J	73	36	160	3800	5.5	5.1	1 U	140	803	0.0522 U	189						
06/2011	130 J	54000	32000	81 J	89 J	880	19	52	1900	40 U	50 U	50 U	133	843	0.0141 U	173	7.41					
08/2011	50 J	26000	19000	42 J	42 J	470	39	97	4800	100 U	25 J	100 U	124	395 J	0.0153 J	172	7.11					
11/2011	68 J	20000	17000	36 J	38 J	510	39 J	230 J	3900	100 U	23 J	100 U	109	342 J	0.0208 J	157	7.29					
03/2012	50 U	800	1700	50 U	50 U	300	12	210	8800	50 U	50 U	50 U	80.1	94.9 J	0.0271 J	176	7.12					
06/2012	87 J	18000	24000	40 J	59 J	830	19	400	5600	180	49 J	25 U	55.9	241 J	0.0333 U	192	6.96					
09/2012	82	11000	18000	33 J	51	1000	21	350	6000	96	45 J	10 U	82.8	111 J	0.0333 U	209	6.7					
12/2012	50 J	4300	48000	55 J	32 J	950	22	360	5500	72 J	94 J	20 UJ	754	496	0.0681 J	247	5.85					
04/2013	19 J	2100	31000	57 J	38 J	1300	24	420	6500	22 J	66 J	20 U	197	1090	0.0333 U	209	6.62					
07/2013	40 U	3200	31000	62 J	40 U	1400	34	390	6500	40 U	71 J	50 U	368	51.7	0.043 U	241	6.85					
10/2013	80 U	8500	55000	97 J	80 U	1400	33	300	2800	80 U	100 U	100 U	390	189	0.043 U	276	6.46					
12/2013	20 J	2500	61000	87 J	75 J	1400	36	390	4100	21 J	120	20 U	208	313	0.043 U	250	6.73					
04/2014	25 U	2500	67000	100	91	1800	25	560	9600	25 U	88	25 U	294	17	0.283 J	198	6.51					
08/2014	50 U	1500	57000	93 J	80 J	3500	38	740	10000	50 U	70 J	50 U	226	131	0.0512 J	154	6.77					
12/2014	25 U	1400	61000	100	94	3500	32	700	9700	25 U	69	25 U	247	248	0.0334 U	190	6.35					
03/2015	25 U	1400	44000	91	55	4500	50	830	10000	25 UJ	59	25 U	233	133	0.0334 U	236	6.52					

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **RMW-4D PUMP**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	250 U	1300	4900	16 J	250 U	110	27	19 J	270	250 U	250 U	250 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed

EKONOL FACILITY

Well Id: **RMW-4D SNAP**

Date	(PCE) (ug/L)	(TCE) (ug/L)	Cis-1,2-DCE (ug/L)	Trans-1,2-DCE	1,1-DCE (ug/L)	Vinyl chloride (ug/L)	Ethane (ug/L)	Ethene (ug/L)	Methane (ug/L)	1,1,1-Trichloroethane (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloroethane (ug/L)	TOC (mg/L)	Sulfate (mg/L)	Iron (mg/L)	Sulfide (mg/L)	pH (s.u.)	BVC (cells/ml)	DHBt (cells/ml)	DHC (cells/ml)	TCE (cells/ml)	VCR (cells/ml)
06/2009	250 U	1200	5200	16 J	250 U	82 J	31 J	9.7 J	240 J	250 U	250 U	250 U										

June 2008: Completion of Pilot Test Injections
April 2011: Completion of Bioreactor Trenches construction
July 2011: Remediation Injections completed
November 2012: Bedrock Injections completed