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August 6, 2013

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

RE: Ekonol Polyester Resins Site (#V00653-9)
Quarterly Report for Groundwater Monitoring
First Quarter 2013

Dear Mr. Hinton:

Attached is the performance and quarterly monitoring report for the first quarter of 2013 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 (April 10, 2012) 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: W. Barber, Atlantic Richfield Co.
S. Fiorenza, BP
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 – FIRST QUARTER 2013
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

4850 East 49th Street
Cuyahoga Heights, Ohio 44125

PREPARED BY:

PARSONS

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

August 2013

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1.0 INTRODUCTION

This report summarizes the April 2013 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, site management activity including well inspection and maintenance, and sub-slab depressurization system operations and maintenance are also discussed.

2.0 BIOREACTOR AND INJECTION/MONITORING WELL INSPECTION

As part of the April 2013 event, the surface conditions above the bioreactor trenches were inspected for settlement, and the protective casings inspected for integrity. Inspection records are provided in Attachment A. In April 2013, repairs or maintenance to the protective casings or wells associated with the bioreactor was not necessary. There was, however, minor pitting and cracking to the new asphalt between the bioreactor trenches in the same location as previously reported. It appears that the cold-patch pavement used for these small potholes is of insufficient strength for this area. Therefore, a more permanent repair is being evaluated (for example, removal of a section of pavement, addition of more sub-base and re-pavement or concrete).

3.0 SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS AND MAINTENANCE

During the April 2013 sampling event, the sub-slab depressurization system was inspected in accordance with the NYSDEC-approved operations and maintenance plan for the system dated December 5, 2011. Results of the inspection identified the system is in proper working order. The inspection included a visual inspection of the system's interior and exterior components, recording of U-Tube manometer measurements, and smoke stick testing. Additionally, the system was shut down temporarily to confirm that the audible alarm functions as designed. The April 2013 inspection checklist for the SSD system is included in Attachment A. In April 2013, repairs and maintenance to the sub-slab depressurization system were not needed.

4.0 PERFORMANCE AND QUARTERLY MONITORING

In addition to the operations, monitoring and maintenance (OM&M) activities discussed above, the first of four groundwater sampling events scheduled for 2013 was completed in April 2013 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. During this event, a complete round of water levels was collected from the monitoring wells. 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 the NYSDEC requirements. The data are provided in the data usability report included in Attachment C. The data are considered valid for its intended use.

5.0 BIOREACTOR PERFORMANCE AND QUARTERLY MONITORING RESULTS

This section presents the most recent concentrations and data trends for the overburden bioreactor bioremediation through the April 2013 sampling event. The performance of the *in situ* bioremediation will be evaluated in detail after the fourth sampling event in 2013 which is planned for December 2013. Notable or anomalous changes in historically observed trends are discussed herein.

OVERBURDEN OBSERVATIONS INSIDE THE BIOREACTOR TRENCHES

Through April 2013 the bioreactors continued to degrade concentrations of CVOCs in overburden groundwater. In general, CVOC concentrations within the trenches remain at significantly decreased levels (Figure 1 and 2) compared to samples taken within the first 4 - 6 months after installation (Figure 2). With a few exceptions, the CVOC concentrations have continued to decline in the monitoring wells inside the bioreactor. TCE, the primary CVOC, is mostly depleted from the shallow groundwater, and remained as such in April 2013. Concentrations of cis-1,2 DCE and VC inside the bioreactor remain depleted with the exception of OR-6SM, which showed an approximately 2 orders of magnitude increase in cis-1,2 DCE and VC from December 2012 to April 2013.

TOC concentrations have continued to decrease in the bioreactor wells, while microbial population results indicate that *Dehalococcoides* (DHC) concentrations increased within the bioreactor trenches from December 2012 to April 2013.

OVERBURDEN OBSERVATIONS OUTSIDE THE BIOREACTOR TRENCHES

Overall, the overburden groundwater total chlorinated ethene concentration (sum of TCE, DCE, and VC) from PMW wells outside the bioreactors decreased from the June 2011 event (2 months after bioreactor installation) to the April 2013 event (23 months after installation). At individual wells, CVOC (TCE, DCE, VC, etc.) concentrations remain variable, with some wells showing increases, some showing decreases and others remaining the same.

At locations outside of the bioreactor trenches, ethene concentrations in the PMW wells have remained above background, indicating that active biodegradation continues.

Between the bioreactors, little evidence of increased TOC concentrations and biodegradation have been observed, with the exception of PMW-2S (south of former containment area). TOC continues to be low between and downgradient of the bioreactor trenches in the shallow performance monitoring wells. Due to the low hydraulic conductivity of the fine-grained silt, clay and sand soils (less than 1 feet/day), it is expected that the transport of TOC and associated expansion of the treatment zone and will be slow. Locations between the bioreactors will continue to be further evaluated over time to determine if the treatment zone is expanding.

OVERBURDEN OBSERVATIONS - OTHER WELLS

Side and down-gradient shallow wells farther away from the bioreactors (over 150 feet), where elevated CVOC concentrations were observed in previous events, generally showed a decrease in CVOCs. The decrease was observed in downgradient wells MW-6S, MW-11S, and MW-12S beginning with the June 2011 sampling event (month 2 in Figure 2). Meanwhile, MW-9s DCE appears stable, yet VC is slightly increasing.

6.0 BEDROCK REMEDIATION PERFORMANCE AND QUARTERLY MONITORING RESULTS

This section presents notable and anomalous observations related to historical trends in the recent concentrations for the bedrock remediation system through the April 2013 sampling event. The performance of the *in situ* bioremediation will be evaluated in more detail after the fourth quarter of sampling in 2013.

BEDROCK BIOREMEDIATION PERFORMANCE SUMMARY

Figures 3 and 4 provide data tables and time-series plots of key CVOCs, total ethene and ethane, and TOC concentrations for the bedrock injection and monitoring wells.

Within the source area and immediately downgradient (approximately 60 feet south), the average total molar chlorinated ethene and ethane concentrations have increased during the remediation. Slightly farther downgradient from the source area, as well as the locations farthest downgradient, the average total chlorinated ethene and ethane concentrations have decreased.

The data indicate continued variability in CVOC biodegradation profiles in the bedrock wells, especially in the source area. In a number of locations the degradation observed in December 2012 was sustained (TCE decreased DCE increased) and/or progressed further (TCE decreased DCE increased then decreased). Wells that showed the degradation patterns defined above include INJ-1, INJ-7D, INJ-11D, INJ-13D, PMW-2D, PMW-9D, PMW-11D, PMW-14D, PMW-17D, and RMW-4D).

Groundwater elevation data indicate the groundwater flow conditions have remained similar since the initial June 2011 substrate injections. Groundwater flow is generally southerly across the site with no apparent effects from the bioremediation.

PERFORMANCE ENHANCEMENT TESTING (NOVEMBER 2012):

Previous sampling results indicated the bedrock remediation was limited by geochemical conditions (low pH and elevated hydrogen sulfide). Wells with the highest degradation rates have a pH above approximately 6.5 SU and/or hydrogen sulfide approximately less than 30 mg/L. As previously discussed, tests were conducted in the November 2012 injections to mitigate potential limitations to the performance of the bedrock remediation system. The tests included calcium carbonate buffer throughout the 2012 injection area (to raise the pH), and addition of iron at INJ-7D (to remove hydrogen sulfide). Review of the analytical data to date provided the following observations:

- **pH:** The calcium carbonate appeared to lack enough buffering capacity to prevent the initial low pH drop (5.5 – 6.0). Although the buffer appeared to assist in bringing the pH above 6.0 in the April 2012 sampling event, most wells near the injection area were below 6.5 SU, which appears to be a more optimum pH at Ekonol, see Figure 5.

- **INJ-7D Iron Injection:** Injection of iron (soluble and mineral sources) during the November 2012 injection event resulted in significant increases in iron and decreases in sulfides (for example wells INJ-7D, INJ-12D, PMW-9D, and RMW-2D) that have persisted into the April 2013 sampling event (5 months), see Figure 6 (A and B). Increases in ethene plus ethane and/or DHC were observed in INJ-7D as well as locations downgradient of this well (INJ-9D, INJ-12D, INJ-13D, PMW-14D, PMW-16D, and RMW-2D). Based on the results from the iron injections at INJ-7D, it appears that sulfide can be effectively controlled, and that iron will improve the rate of CVOC biodegradation.

These results indicate the biodegradation can be improved, and future activities will focus on testing and isolating the best conditions for optimal bioremediation (see below).

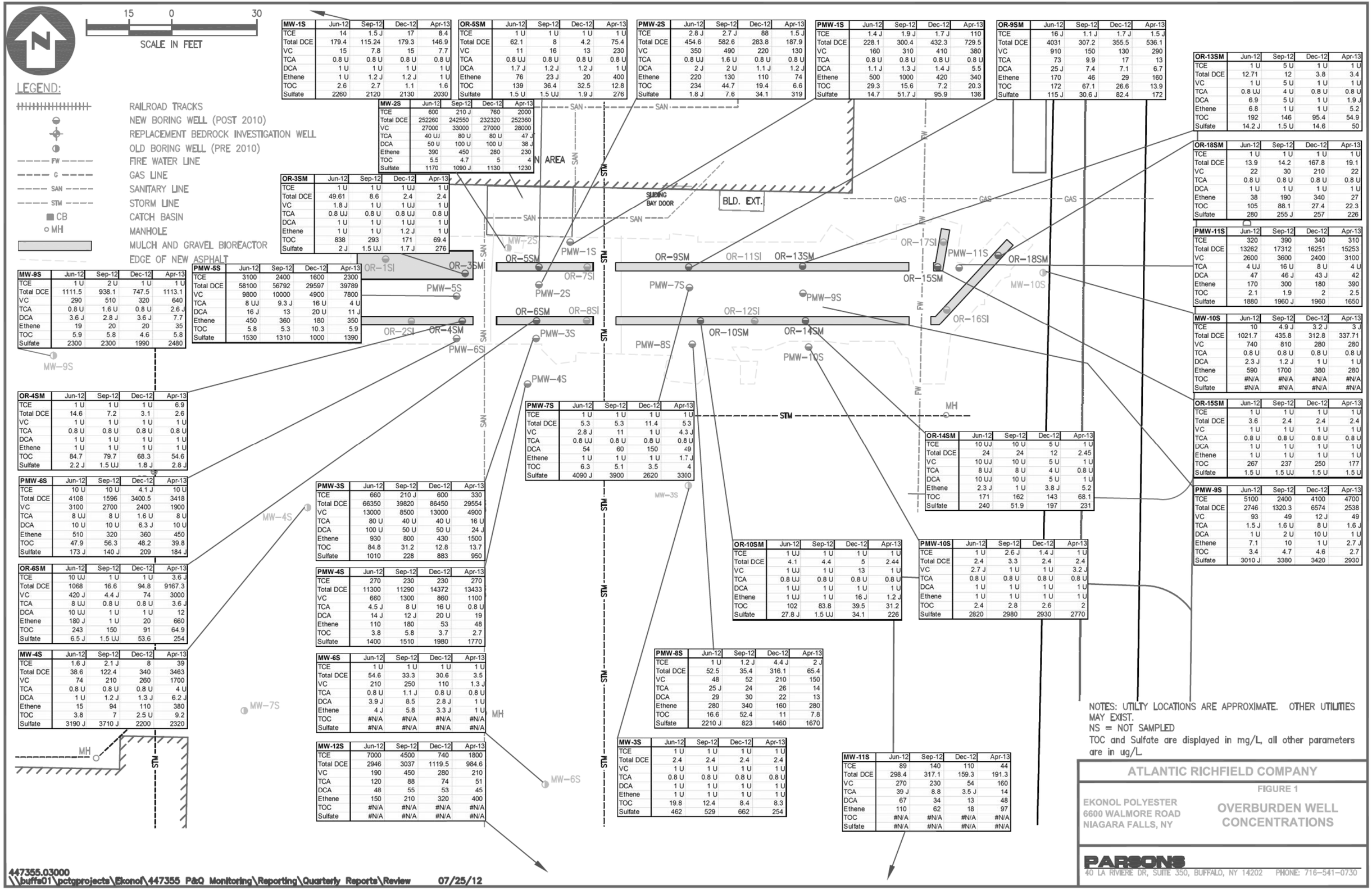
7.0 GENERAL SITE CONCLUSIONS AND ANTICIPATED FUTURE ACTIVITIES

Bioreactor: Results of the April 2013 data indicate that the bioreactor trenches are functioning as anticipated. Additional vegetable oil substrate injections are being evaluated to replenish TOC. Increases of degradation products outside the bioreactors will continue to be monitored. Pitting of the surface pavement will be repaired.

Bedrock Bioremediation Area: The data to date suggest that the remediation program is not operating to its fullest potential in the bedrock source area. The iron injection test in the bedrock source area indicates that sulfide can be effectively controlled, and it appears that iron will improve the rate of CVOC biodegradation. Downgradient concentrations continue to decrease indicating an overall positive performance of the bedrock remediation system.

Additional testing is currently being evaluated to optimize the use of iron, pH buffer, and nutrients, while maintaining sufficient TOC in order to enhance CVOC biodegradation in the bedrock system.

FIGURES



MW-1S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	14	1.5 J	17	8.4
Total DCE	179.4	115.24	179.3	146.9
VC	15	7.8	15	7.7
TCA	0.8 U	0.8 U	0.8 U	0.8 U
DCA	1 U	1 U	1 U	1 U
Ethene	1 U	1.2 J	1.2 J	1 U
TOC	2.6	2.7	1.1	1.6
Sulfate	2260	2120	2130	2030

OR-5SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1 U	1 U	1 U
Total DCE	62.1	8	4.2	75.4
VC	11	16	13	230
TCA	0.8 UJ	0.8 U	0.8 U	0.8 U
DCA	1.7 J	1.2 J	1.2 J	1 U
Ethene	76	23 J	20	400
TOC	139	36.4	32.5	12.8
Sulfate	1.5 U	1.5 UJ	1.9 J	276

PMW-2S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	2.8 J	2.7 J	88	1.5 J
Total DCE	454.6	582.6	283.8	187.9
VC	350	490	220	130
TCA	0.8 UJ	1.6 U	0.8 U	0.8 U
DCA	2 J	2 U	1.1 J	1.2 J
Ethene	220	130	110	74
TOC	234	44.7	19.4	6.6
Sulfate	1.8 J	7.6	34.1	319

PMW-1S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1.4 J	1.9 J	1.7 J	110
Total DCE	228.1	300.4	432.3	729.5
VC	160	310	410	380
TCA	0.8 U	0.8 U	0.8 U	0.8 U
DCA	1.1 J	1.3 J	1.4 J	5.5
Ethene	500	1000	420	340
TOC	29.3	15.6	7.2	20.3
Sulfate	14.7	51.7 J	95.9	136

OR-9SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	16 J	1.1 J	1.7 J	1.5 J
Total DCE	4031	307.2	355.5	536.1
VC	910	150	130	290
TCA	73	9.9	17	13
DCA	25 J	7.4	7.1	6.7
Ethene	170	46	29	160
TOC	172	67.1	26.6	13.9
Sulfate	115 J	30.6 J	82.4	172

MW-2S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	600	210 J	760	2000
Total DCE	252260	242550	232320	252360
VC	27000	33000	27000	28000
TCA	40 UJ	80 U	80 U	47 J
DCA	50 U	100 U	100 U	38 J
Ethene	390	450	280	230
TOC	5.5	4.7	5	4
Sulfate	1170	1090 J	1130	1230

OR-3SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1 U	1 UJ	1 U
Total DCE	49.61	8.6	2.4	2.4
VC	1.8 J	1 U	1 UJ	1 U
TCA	0.8 UJ	0.8 U	0.8 UJ	0.8 U
DCA	1 U	1 U	1 UJ	1 U
Ethene	1 U	1 U	1.2 J	1 U
TOC	838	293	171	69.4
Sulfate	2 J	1.5 UJ	1.7 J	276

PMW-5S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	3100	2400	1600	2300
Total DCE	58100	56792	29597	39789
VC	9800	10000	4900	7800
TCA	8 UJ	9.3 J	16 U	4 U
DCA	16 J	13	20 U	11 J
Ethene	450	360	180	350
TOC	5.8	5.3	10.3	5.9
Sulfate	1530	1310	1000	1390

MW-9S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	2 U	1 U	1 U
Total DCE	1111.5	938.1	747.5	1113.1
VC	290	510	320	640
TCA	0.8 U	1.6 U	0.8 U	2.6 J
DCA	3.6 J	2.8 J	3.6 J	7.7
Ethene	19	20	20	35
TOC	5.9	5.8	4.6	5.8
Sulfate	2300	2300	1990	2480

OR-4SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1 U	1 U	6.9
Total DCE	14.6	7.2	3.1	2.6
VC	1 U	1 U	1 U	1 U
TCA	0.8 U	0.8 U	0.8 U	0.8 U
DCA	1 U	1 U	1 U	1 U
Ethene	1 U	1 U	1 U	1 U
TOC	84.7	79.7	68.3	54.6
Sulfate	2.2 J	1.5 UJ	1.8 J	2.8 J

PMW-6S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	10 U	10 U	4.1 J	10 U
Total DCE	4108	1596	3400.5	3418
VC	3100	2700	2400	1900
TCA	8 UJ	8 U	1.6 U	8 U
DCA	10 U	10 U	6.3 J	10 U
Ethene	510	320	360	450
TOC	47.9	56.3	48.2	39.8
Sulfate	173 J	140 J	209	184 J

OR-6SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	10 UJ	1 U	1 U	3.6 J
Total DCE	1068	16.6	94.8	9167.3
VC	420 J	4.4 J	74	3000
TCA	8 UJ	0.8 U	0.8 U	3.6 J
DCA	10 UJ	1 U	1 U	12
Ethene	180 J	1 U	20	660
TOC	243	150	91	64.9
Sulfate	6.5 J	1.5 UJ	53.6	254

MW-4S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1.6 J	2.1 J	8	39
Total DCE	38.6	122.4	340	3463
VC	74	210	260	1700
TCA	0.8 U	0.8 U	0.8 U	4 U
DCA	1 U	1.2 J	1.3 J	6.2 J
Ethene	15	94	110	380
TOC	3.8	7	2.5 U	9.2
Sulfate	3190 J	3710 J	2200	2320

PMW-7S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1 U	1 U	1 U
Total DCE	5.3	5.3	11.4	5.3
VC	2.8 J	11	1 U	4.3 J
TCA	0.8 UJ	0.8 U	0.8 U	0.8 U
DCA	54	60	150	49
Ethene	1 U	1 U	1 U	1.7 J
TOC	6.3	5.1	3.5	4
Sulfate	4090 J	3900	2620	3300

PMW-3S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	660	210 J	600	330
Total DCE	66350	39820	86450	29554
VC	13000	8500	13000	4900
TCA	80 U	40 U	40 U	16 U
DCA	100 U	50 U	50 U	24 J
Ethene	930	800	430	1500
TOC	84.8	31.2	12.8	13.7
Sulfate	1010	228	883	950

PMW-4S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	270	230	230	270
Total DCE	11300	11290	14372	13433
VC	660	1300	860	1100
TCA	4.5 J	8 U	16 U	0.8 U
DCA	14 J	12 J	20 U	19
Ethene	110	180	53	48
TOC	3.8	5.8	3.7	2.7
Sulfate	1400	1510	1980	1770

MW-6S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1 U	1 U	1 U
Total DCE	54.6	33.3	30.6	3.5
VC	210	250	110	1.3 J
TCA	0.8 U	1.1 J	0.8 U	0.8 U
DCA	3.9 J	8.5	2.8 J	1 U
Ethene	4 J	5.8	3.3 J	1 U
TOC	#N/A	#N/A	#N/A	#N/A
Sulfate	#N/A	#N/A	#N/A	#N/A

MW-12S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	7000	4500	740	1800
Total DCE	2946	3037	1119.5	984.6
VC	190	450	280	210
TCA	120	88	74	51
DCA	48	55	53	45
Ethene	150	210	320	400
TOC	#N/A	#N/A	#N/A	#N/A
Sulfate	#N/A	#N/A	#N/A	#N/A

OR-10SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 UJ	1 U	1 U	1 U
Total DCE	4.1	4.4	5	2.44
VC	1 UJ	1 U	13	1 U
TCA	0.8 UJ	0.8 U	0.8 U	0.8 U
DCA	1 UJ	1 U	1 U	1 U
Ethene	1 UJ	1 U	16 J	1.2 J
TOC	102	83.8	39.5	31.2
Sulfate	27.8 J	1.5 UJ	34.1	226

PMW-8S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1.2 J	4.4 J	2 J
Total DCE	52.5	35.4	316.1	65.4
VC	48	52	210	150
TCA	25 J	24	26	14
DCA	29	30	22	13
Ethene	280	340	160	280
TOC	16.6	52.4	11	7.8
Sulfate	2210 J	823	1460	1670

MW-3S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1 U	1 U	1 U
Total DCE	2.4	2.4	2.4	2.4
VC	1 U	1 U	1 U	1 U
TCA	0.8 U	0.8 U	0.8 U	0.8 U
DCA	1 U	1 U	1 U	1 U
Ethene	1 U	1 U	1 U	1 U
TOC	19.8	12.4	8.4	8.3
Sulfate	462	529	662	254

OR-14SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	10 UJ	10 U	5 U	1 U
Total DCE	24	24	12	2.45
VC	10 UJ	10 U	5 U	1 U
TCA	8 UJ	8 U	4 U	0.8 U
DCA	10 UJ	10 U	5 U	1 U
Ethene	2.3 J	1 U	3.8 J	5.2
TOC	171	162	143	68.1
Sulfate	240	51.9	197	231

PMW-10S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	2.6 J	1.4 J	1 U
Total DCE	2.4	3.3	2.4	2.4
VC	2.7 J	1 U	1 U	3.2 J
TCA	0.8 U	0.8 U	0.8 U	0.8 U
DCA	1 U	1 U	1 U	1 U
Ethene	1 U	1 U	1 U	1 U
TOC	2.4	2.8	2.6	2
Sulfate	2820	2980	2930	2770

MW-11S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	89	140	110	44
Total DCE	298.4	317.1	159.3	191.3
VC	270	230	54	160
TCA	39 J	8.8	3.5 J	14
DCA	67	34	13	48
Ethene	110	62	18	97
TOC	#N/A	#N/A	#N/A	#N/A
Sulfate	#N/A	#N/A	#N/A	#N/A

OR-13SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	5 U	1 U	1 U
Total DCE	12.71	12	3.8	3.4
VC	1 U	5 U	1 U	1 U
TCA	0.8 UJ	4 U	0.8 U	0.8 U
DCA	6.9	5 U	1 U	1.9 J
Ethene	6.8	1 U	1 U	5.2
TOC	192	146	95.4	54.9
Sulfate	14.2 J	1.5 U	14.6	50

OR-18SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1 U	1 U	1 U
Total DCE	13.9	14.2	167.8	19.1
VC	22	30	210	22
TCA	0.8 U	0.8 U	0.8 U	0.8 U
DCA	1 U	1 U	1 U	1 U
Ethene	38	190	340	27
TOC	105	88.1	27.4	22.3
Sulfate	280	255 J	257	226

PMW-11S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	320	390	340	310
Total DCE	13262	17312	16251	15253
VC	2600	3600	2400	3100
TCA	4 UJ	16 U	8 U	4 U
DCA	47	46 J	43 J	42
Ethene	170	300	180	390
TOC	2.1	1.9	2	2.5
Sulfate	1880	1960 J	1960	1650

MW-10S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	10	4.9 J	3.2 J	3 J
Total DCE	1021.7	435.8	312.8	337.71
VC	740	810	280	280
TCA	0.8 U	0.8 U	0.8 U	0.8 U
DCA	2.3 J	1.2 J	1 U	1 U
Ethene	590	1700	380	280
TOC	#N/A	#N/A	#N/A	#N/A
Sulfate	#N/A	#N/A	#N/A	#N/A

OR-15SM	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1 U	1 U	1 U	1 U
Total DCE	3.6	2.4	2.4	2.4
VC	1 U	1 U	1 U	1 U
TCA	0.8 U	0.8 U	0.8 U	0.8 U
DCA	1 U	1 U	1 U	1 U
Ethene	1 U	1 U	1 U	1 U
TOC	267	237	250	177
Sulfate	1.5 U	1.5 UJ	1.5 U	1.5 U

PMW-9S	Jun-12	Sep-12	Dec-12	Apr-13
TCE	5100	2400	4100	4700
Total DCE	2746	1320.3	6574	2538
VC	93	49	12 J	49
TCA	1.5 J	1.6 U	8 U	1.6 J
DCA	1 U	2 U	10 U	1 U
Ethene	7.1	10	1 U	2.7 J
TOC	3.4	4.7	4.6	2.7
Sulfate	3010 J	3380	3420	2930

NOTES: UTILTY LOCATIONS ARE APPROXIMATE. OTHER UTILITIES MAY EXIST.
NS = NOT SAMPLED
TOC and Sulfate are displayed in mg/L, all other parameters are in ug/L

ATLANTIC RICHFIELD COMPANY

FIGURE 1

EKONOL POLYESTER
6600 WALMORE ROAD
NIAGARA FALLS, NY

OVERBURDEN WELL CONCENTRATIONS

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

N

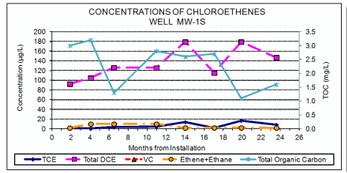
15 0 30

SCALE IN FEET

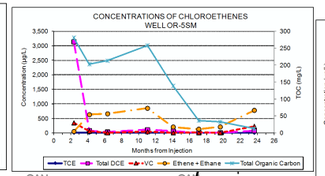
LEGEND:

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

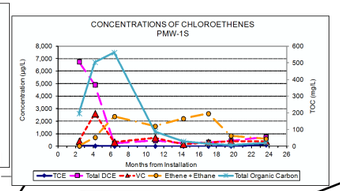
CONCENTRATIONS OF CHLOROETHENES
WELL MW-1S



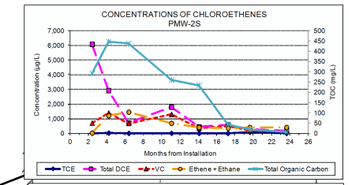
CONCENTRATIONS OF CHLOROETHENES
WELL OR-5SM



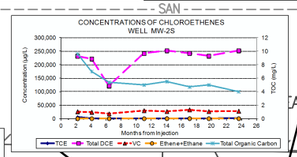
CONCENTRATIONS OF CHLOROETHENES
PMW-1S



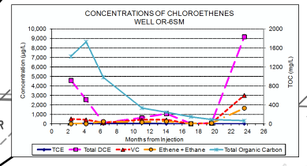
CONCENTRATIONS OF CHLOROETHENES
PMW-2S



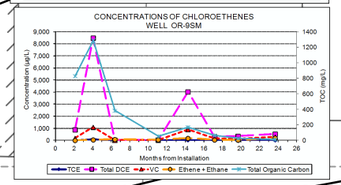
CONCENTRATIONS OF CHLOROETHENES
WELL MW-2S



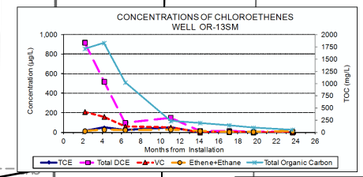
CONCENTRATIONS OF CHLOROETHENES
WELL OR-6SM



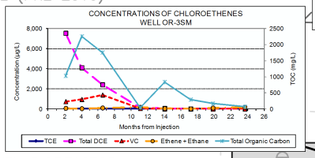
CONCENTRATIONS OF CHLOROETHENES
WELL OR-9SM



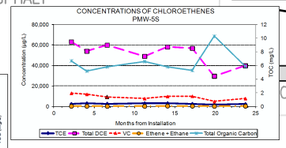
CONCENTRATIONS OF CHLOROETHENES
WELL OR-13SM



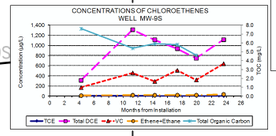
CONCENTRATIONS OF CHLOROETHENES
WELL OR-3SM



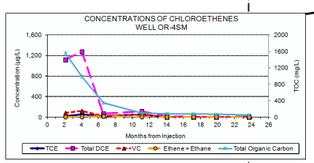
CONCENTRATIONS OF CHLOROETHENES
PMW-5S



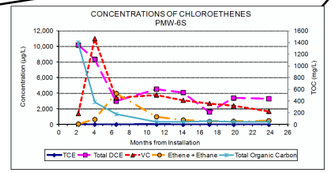
CONCENTRATIONS OF CHLOROETHENES
WELL MW-9S



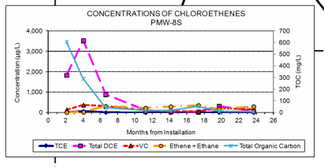
CONCENTRATIONS OF CHLOROETHENES
WELL OR-4SM



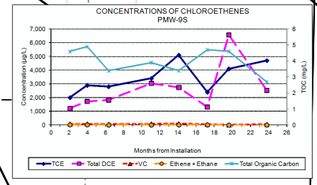
CONCENTRATIONS OF CHLOROETHENES
PMW-6S



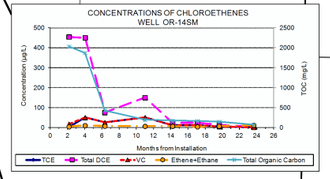
CONCENTRATIONS OF CHLOROETHENES
PMW-8S



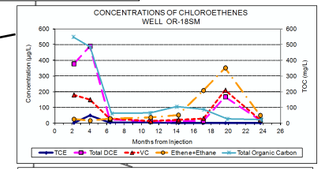
CONCENTRATIONS OF CHLOROETHENES
PMW-9S



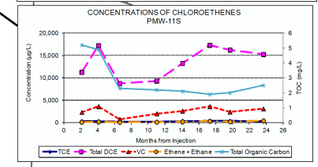
CONCENTRATIONS OF CHLOROETHENES
WELL OR-14SM



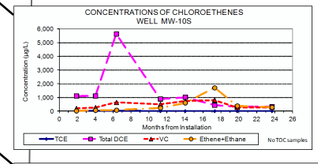
CONCENTRATIONS OF CHLOROETHENES
WELL OR-18SM



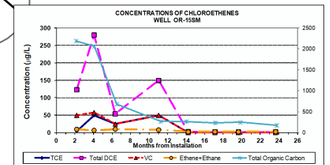
CONCENTRATIONS OF CHLOROETHENES
PMW-11S



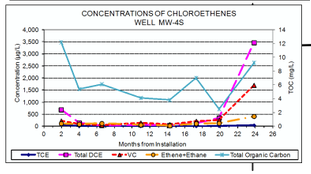
CONCENTRATIONS OF CHLOROETHENES
WELL MW-10S



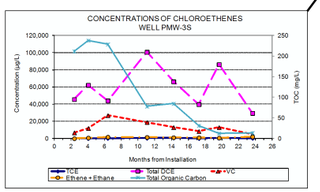
CONCENTRATIONS OF CHLOROETHENES
WELL OR-15SM



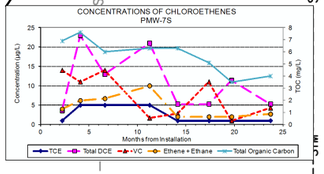
CONCENTRATIONS OF CHLOROETHENES
WELL MW-4S



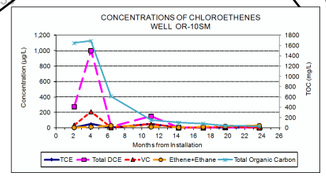
CONCENTRATIONS OF CHLOROETHENES
WELL PMW-3S



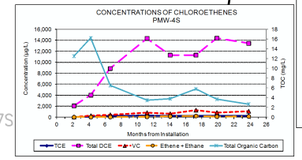
CONCENTRATIONS OF CHLOROETHENES
PMW-7S



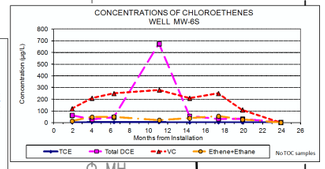
CONCENTRATIONS OF CHLOROETHENES
WELL OR-10SM



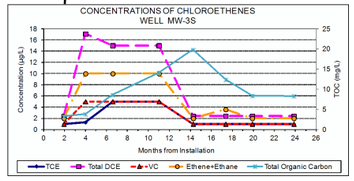
CONCENTRATIONS OF CHLOROETHENES
PMW-4S



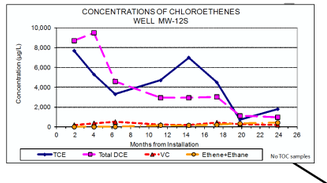
CONCENTRATIONS OF CHLOROETHENES
WELL MW-6S



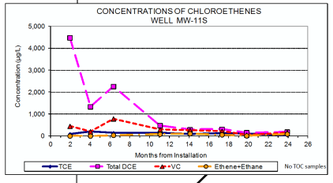
CONCENTRATIONS OF CHLOROETHENES
WELL MW-3S



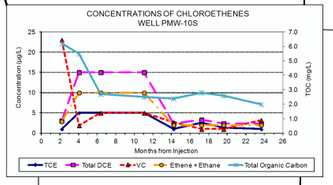
CONCENTRATIONS OF CHLOROETHENES
WELL MW-12S



CONCENTRATIONS OF CHLOROETHENES
WELL MW-11S



CONCENTRATIONS OF CHLOROETHENES
WELL PMW-10S



SAN
STM
FW
G
CA
SLIDING BAY DOOR
MW-2S
MW-1S
OR-5SM
OR-1SI
OR-3SM
PMW-5S
OR-7SI
PMW-2S
OR-9SM
OR-11SI
OR-13SM
OR-17SI
PMW-11S
OR-18SM
OR-15SM
MW-10S
PMW-7S
PMW-9S
OR-6SM
OR-8SI
OR-12SI
OR-16SI
OR-2SI
OR-4SM
PMW-6SI
PMW-3S
OR-10SM
OR-14SM
PMW-8S
PMW-10S
PMW-4S
MW-9S
MW-4S
MW-7S
MW-3S
MW-6S
MH

NOTES: UTILTY LOCATIONS ARE APPROXIMATE OTHER UTILITIES MAY EXIST FINAL LOCATIONS WILL BE DEPENDENT UPON SITE CONDITIONS AND PLANT OPERATIONS
NS = NOT SAMPLED

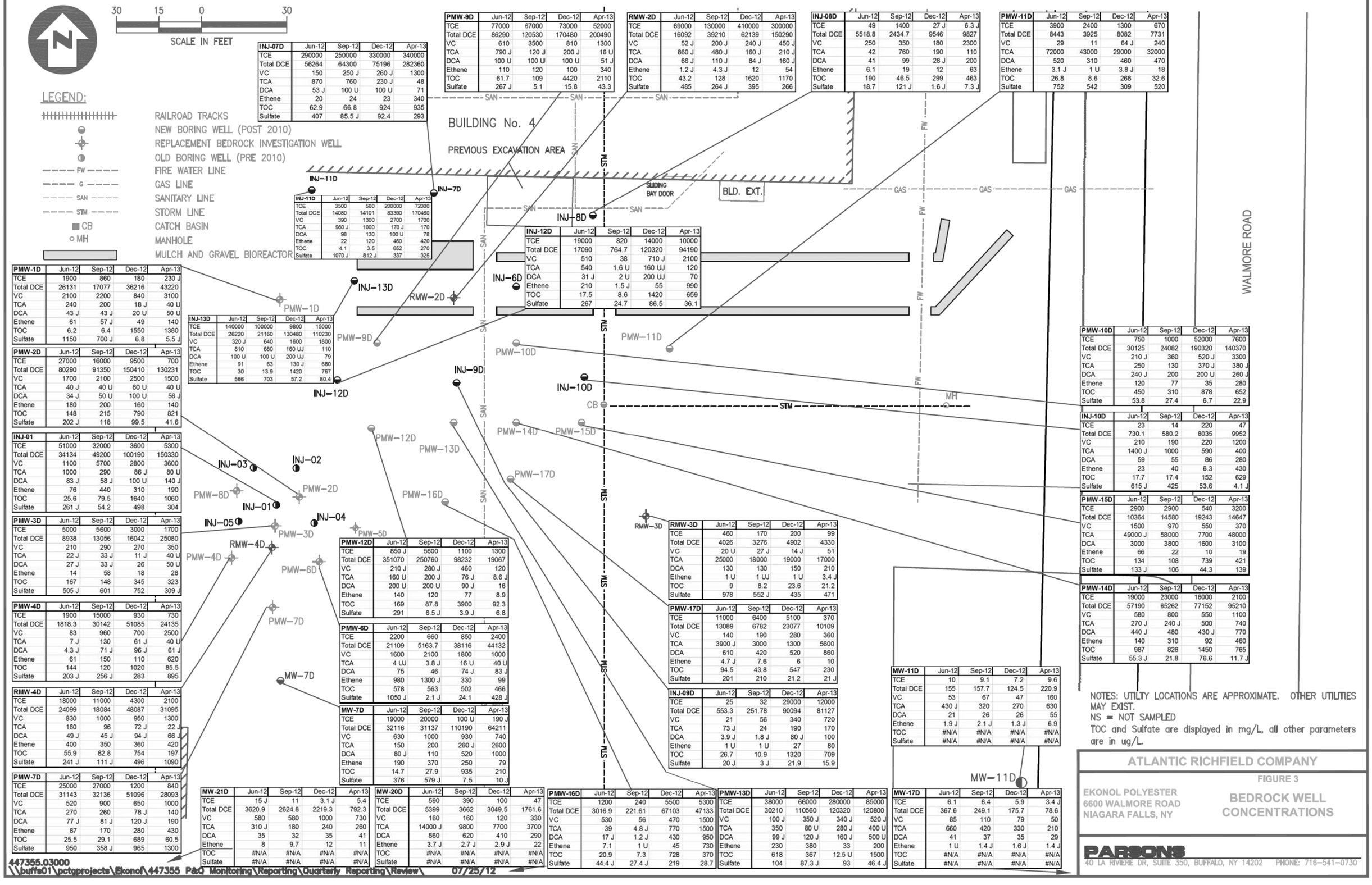
ATLANTIC RICHFIELD COMPANY

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
P:\Ekonol\447355 P&Q Monitoring\Reporting\Quarterly Reports\4Q12 Final\Figure 2 Ekonol Dec 2012 rem area-Shallow Conc. Charts.pdf



INJ-07D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	290000	250000	330000	340000
Total DCE	56264	64300	75196	282360
VC	150	250 J	260 J	1300
TCA	870	760	230 J	48
DCA	53 J	100 U	100 U	71
Ethene	20	24	23	340
TOC	62.9	66.8	924	935
Sulfate	407	85.5 J	92.4	293

PMW-9D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	77000	67000	73000	52000
Total DCE	86290	120530	170480	200490
VC	610	3500	810	1300
TCA	790 J	120 J	200 J	16 U
DCA	100 U	100 U	100 U	51 J
Ethene	110	120	100	340
TOC	61.7	109	4420	2110
Sulfate	267 J	5.1	15.8	43.3

RMW-2D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	69000	130000	410000	300000
Total DCE	16092	39210	62139	150290
VC	52 J	200 J	240 J	450 J
TCA	860 J	480 J	160 J	210 J
DCA	66 J	110 J	84 J	160 J
Ethene	1.2 J	4.3 J	12	54
TOC	43.2	128	1620	1170
Sulfate	485	264 J	395	266

INJ-08D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	49	1400	27 J	6.3 J
Total DCE	5518.8	2434.7	9546	9827
VC	250	350	180	2300
TCA	42	760	190	110
DCA	41	99	28 J	200
Ethene	6.1	19	12	63
TOC	190	46.5	299	463
Sulfate	18.7	121 J	1.6 J	7.3 J

PMW-11D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	3900	2400	1300	670
Total DCE	8443	3925	8082	7731
VC	29	11	64 J	240
TCA	72000	43000	29000	32000
DCA	520	310	460	470
Ethene	3.1 J	1 U	3.8 J	18
TOC	26.8	8.6	268	32.6
Sulfate	752	542	309	520

INJ-11D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	3500	500	200000	72000
Total DCE	14080	14101	83390	170460
VC	390	1300	2700	1700
TCA	980 J	1000	170 J	170
DCA	98	130	100 U	78
Ethene	22	120	460	420
TOC	4.1	3.5	652	270
Sulfate	1070 J	812 J	337	325

INJ-12D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	19000	820	14000	10000
Total DCE	17090	764.7	120320	94190
VC	510	38	710 J	2100
TCA	540	1.6 U	160 UJ	120
DCA	31 J	2 U	200 UJ	70
Ethene	210	1.5 J	55	990
TOC	17.5	8.6	1420	659
Sulfate	267	24.7	86.5	36.1

PMW-1D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1900	860	180	230 J
Total DCE	26131	17077	36216	43220
VC	2100	2200	840	3100
TCA	240	200	18 J	40 U
DCA	43 J	43 J	20 U	50 U
Ethene	61	57 J	49	140
TOC	6.2	6.4	1550	1380
Sulfate	1150	700 J	6.8	5.5 J

INJ-13D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	140000	100000	9800	15000
Total DCE	26220	21160	130480	110230
VC	320 J	640	1600	1800
TCA	810	680	160 UJ	110
DCA	100 U	100 U	200 UJ	79
Ethene	91	63	130 J	680
TOC	30	13.9	1420	767
Sulfate	566	703	57.2	80.4

PMW-2D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	27000	16000	9500	700
Total DCE	80290	91350	150410	130231
VC	1700	2100	2500	1500
TCA	40 J	40 U	80 U	40 U
DCA	34 J	50 U	100 U	56 J
Ethene	180	200	160	140
TOC	148	215	790	821
Sulfate	202 J	118	99.5	41.6

INJ-01	Jun-12	Sep-12	Dec-12	Apr-13
TCE	51000	32000	3600	5300
Total DCE	34134	49200	100190	150330
VC	1100	5700	2800	3600
TCA	1000	290	86 J	80 U
DCA	83 J	58 J	100 U	140 J
Ethene	76	440	310	190
TOC	25.6	79.5	1640	1060
Sulfate	261 J	54.2	498	304

PMW-3D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	5000	5600	3000	1700
Total DCE	8938	13056	16042	25080
VC	210	290	270	350
TCA	22 J	33 J	11 J	40 U
DCA	27 J	33 J	26	50 U
Ethene	14	58	18	28
TOC	167	148	345	323
Sulfate	505 J	601	752	309 J

PMW-4D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1900	15000	930	730
Total DCE	1818.3	30142	51085	24135
VC	83	960	700	2500
TCA	7 J	130	61 J	40 U
DCA	4.3 J	71 J	96 J	61 J
Ethene	61	150	110	620
TOC	144	120	1020	85.5
Sulfate	203 J	256 J	283	895

RMW-4D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	18000	11000	4300	2100
Total DCE	24099	18084	48087	31095
VC	830	1000	950	1300
TCA	180	96	72 J	22 J
DCA	49 J	45 J	94 J	66 J
Ethene	400	350	360	420
TOC	55.9	82.8	754	197
Sulfate	241 J	111 J	496	1090

PMW-7D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	25000	27000	1200	840
Total DCE	31143	32136	51096	28093
VC	520	900	650	1000
TCA	270	260	78 J	140
DCA	77 J	81 J	120 J	190
Ethene	87	170	280	430
TOC	25.5	29.1	689	60.5
Sulfate	950	358 J	965	1300

PMW-12D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	850 J	5600	1100	1300
Total DCE	351070	250760	98232	19067
VC	210 J	280 J	460	120
TCA	160 U	200 J	76 J	8.6 J
DCA	200 U	200 U	90 J	16
Ethene	140	120	77	8.9
TOC	169	87.8	3900	92.3
Sulfate	291	6.5 J	3.9 J	6.8

PMW-6D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	2200	660	850	2400
Total DCE	21109	5163.7	38116	44132
VC	1600	2100	1800	1000
TCA	4 UJ	3.8 J	16 U	40 U
DCA	75	46	74 J	83 J
Ethene	980	1300 J	330	99
TOC	578	563	502	466
Sulfate	1050 J	2.1 J	24.1	428 J

MW-7D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	19000	20000	100 U	190 J
Total DCE	32116	31137	110190	64211
VC	630	1000	930	740
TCA	150	200	260 J	2600
DCA	80 J	110	520	1000
Ethene	190	370	250	79
TOC	14.7	27.9	935	210
Sulfate	376	579 J	7.5	10 J

RMW-3D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	460	170	200	99
Total DCE	4026	3276	4902	4330
VC	20 U	27 J	14 J	51
TCA	25000	18000	19000	17000
DCA	130	130	150	210
Ethene	1 U	1 UJ	1 U	3.4 J
TOC	9	8.2	23.6	21.2
Sulfate	978	552 J	435	471

PMW-17D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	11000	6400	5100	370
Total DCE	13089	6782	23077	10109
VC	140	190	280	360
TCA	3900 J	3000	1300	5600
DCA	610	420	520	860
Ethene	4.7 J	7.6	6	10
TOC	94.5	43.8	547	230
Sulfate	201	210	21.2	21 J

INJ-09D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	25	32	29000	12000
Total DCE	553.3	251.78	90094	81127
VC	21	56	340	720
TCA	73 J	24	190	170
DCA	3.9 J	1.8 J	80 J	100
Ethene	1 U	1 U	27	80
TOC	26.7	10.9	1320	709
Sulfate	20 J	3 J	21.9	15.9

MW-11D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	10	9.1	7.2	9.6
Total DCE	155	157.7	124.5	220.9
VC	53	67	47	160
TCA	430 J	320	270	630
DCA	21	26	26	55
Ethene	1.9 J	2.1 J	1.3 J	6.9
TOC	#N/A	#N/A	#N/A	#N/A
Sulfate	#N/A	#N/A	#N/A	#N/A

PMW-10D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	750	1000	52000	7600
Total DCE	30125	24082	190320	140370
VC	210 J	360	520 J	3300
TCA	250	130	370 J	380 J
DCA	240 J	200	200 U	260 J
Ethene	120	77	35	280
TOC	450	310	878	652
Sulfate	53.8	27.4	6.7	22.9

INJ-10D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	23	14	220	47
Total DCE	730.1	580.2	8035	9952
VC	210	190	220	1200
TCA	1400 J	1000	590	400
DCA	59	55	86	280
Ethene	23	40	6.3	430
TOC	17.7	17.4	152	629
Sulfate	615 J	425	53.6	4.1 J

PMW-15D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	2900	2900	540	3200
Total DCE	10364	14580	19243	14647
VC	1500	970	550	370
TCA	49000 J	58000	7700	48000
DCA	3000	3800	1600	3100
Ethene	66	22	10	19
TOC	134	108	739	421
Sulfate	133 J	106	44.3	139

PMW-14D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	19000	23000	16000	2100
Total DCE	57190	65262	77152	95210
VC	580	800	550	1100
TCA	270 J	240 J	500	740
DCA	440 J	480	430 J	770
Ethene	140	310	92	460
TOC	987	826	1450	765
Sulfate	55.3 J	21.8	76.6	11.7 J

MW-21D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	15 J	11	3.1 J	5.4
Total DCE	3620.9	2624.8	2219.3	792.3
VC	580	580	1000	730
TCA	310 J	180	240	260
DCA	35	32	35	41
Ethene	8	9.7	12	11
TOC	#N/A	#N/A	#N/A	#N/A
Sulfate	#N/A	#N/A	#N/A	#N/A

MW-20D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	590	390	100	47
Total DCE	5399	3662	3049.5	1761.6
VC	160	160	120	330
TCA	14000 J	9800	7700	3700
DCA	860	620	410	290
Ethene	3.7 J	2.7 J	2.9 J	22
TOC	#N/A	#N/A	#N/A	#N/A
Sulfate	#N/A	#N/A	#N/A	#N/A

PMW-16D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	1200	240	5500	5300
Total DCE	3016.9	221.61	67103	47133
VC	530	56	470	1500
TCA	39	4.8 J	770	1500
DCA	17 J	1.2 J	430	950
Ethene	7.1	1 U	45	730
TOC	20.9	7.3	728	370
Sulfate	44.4 J	27.4 J	219	28.7

PMW-13D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	38000	66000	280000	85000
Total DCE	30210	110560	120320	120800
VC	100 J	350 J	340 J	520 J
TCA	350	80 U	280 J	400 U
DCA	99 J	120 J	160 J	500 U
Ethene	230	380	33	200
TOC	618	367	12.5 U	1500
Sulfate	104	87.3 J	93	46.4 J

MW-17D	Jun-12	Sep-12	Dec-12	Apr-13
TCE	6.1	6.4	5.9	3.4 J
Total DCE	367.6	249.1	175.7	78.6
VC	85	110	79	50
TCA	660	420	330	210
DCA	41	37	35	29
Ethene	1 U	1.4 J	1.6 J	1.4 J
TOC	#N/A	#N/A	#N/A	#N/A
Sulfate	#N/A	#N/A	#N/A	#N/A

NOTES: UTILTY LOCATIONS ARE APPROXIMATE. OTHER UTILITIES MAY EXIST.
NS = NOT SAMPLED
TOC and Sulfate are displayed in mg/L, all other parameters are in ug/L.

ATLANTIC RICHFIELD COMPANY

FIGURE 3

EKONOL POLYESTER
6600 WALMORE ROAD
NIAGARA FALLS, NY

BEDROCK WELL CONCENTRATIONS

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

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

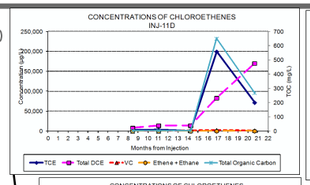
BUILDING No. 4

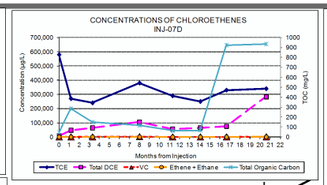
PREVIOUS EXCAVATION AREA

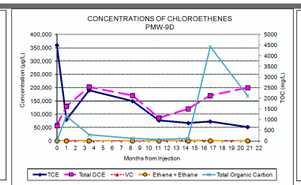
SLIDING BAY DOOR

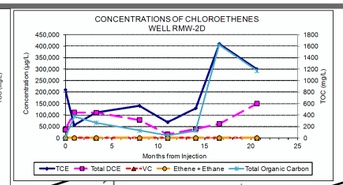
BLD. EXT.

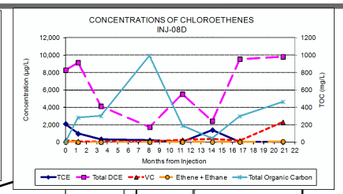
INJ-11D
INJ-7D
INJ-8D
INJ-13D
INJ-6D
RMW-2D
PMW-1D
PMW-9D
PMW-10D
PMW-11D
INJ-9D
INJ-10D
INJ-12D
PMW-12D
PMW-13D
PMW-14D
PMW-15D
PMW-17D
INJ-03
INJ-02
PMW-2D
PMW-8D
INJ-01
INJ-04
INJ-05
PMW-3D
PMW-5D
RMW-4D
PMW-4D
PMW-6D
PMW-7D
PMW-16D
RMW-3D
MW-7D
MW-11D
CB
MH

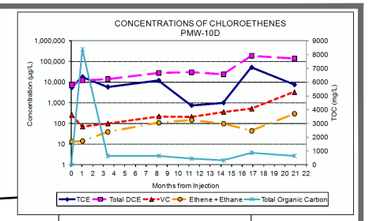


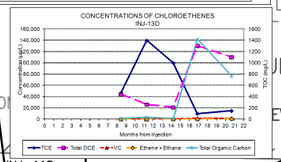


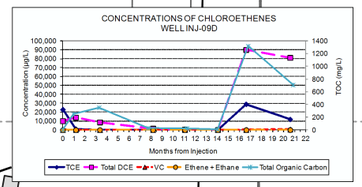


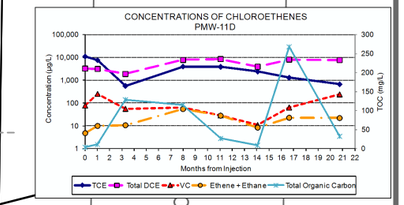


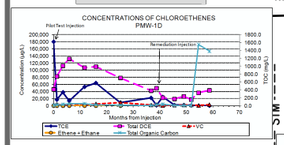


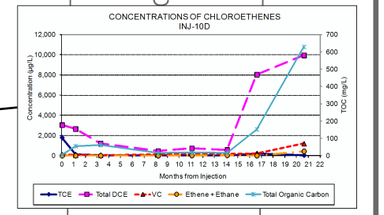


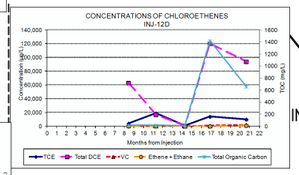


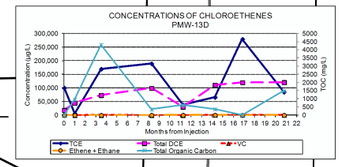


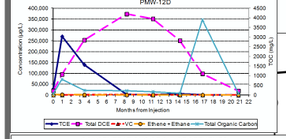


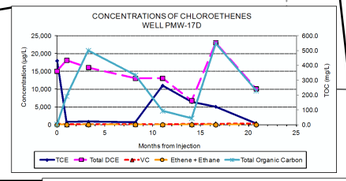


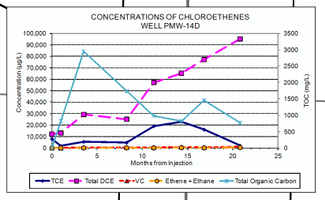


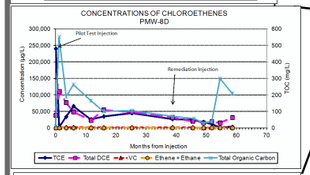


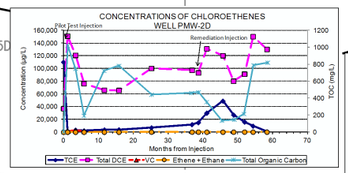


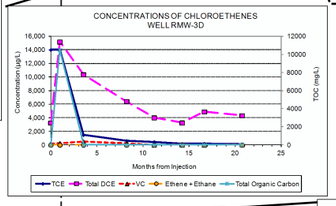


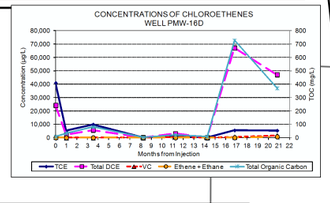


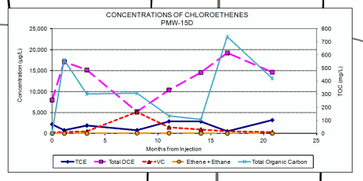


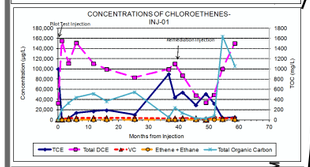


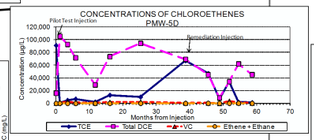


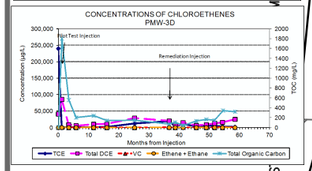


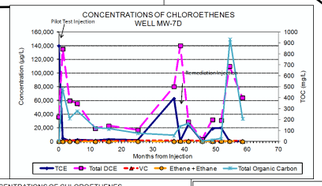


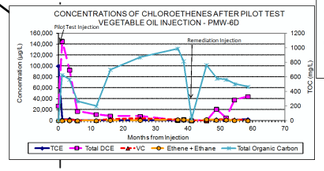


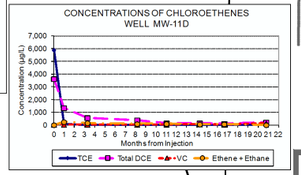


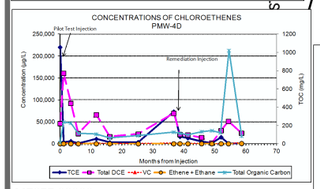


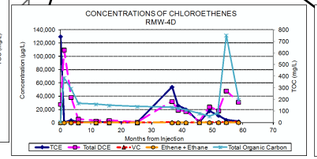


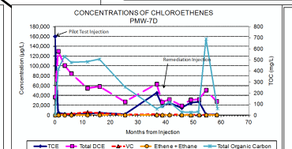


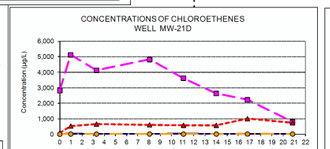


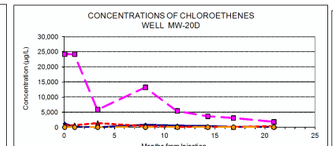


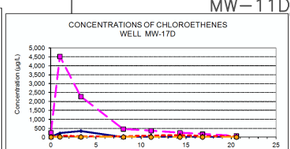












NOTES: UTILTY LOCATIONS ARE APPROXIMATE OTHER UTILITIES MAY EXIST FINAL LOCATIONS WILL BE DEPENDENT UPON SITE CONDITIONS AND PLANT OPERATIONS
NS = NOT SAMPLED

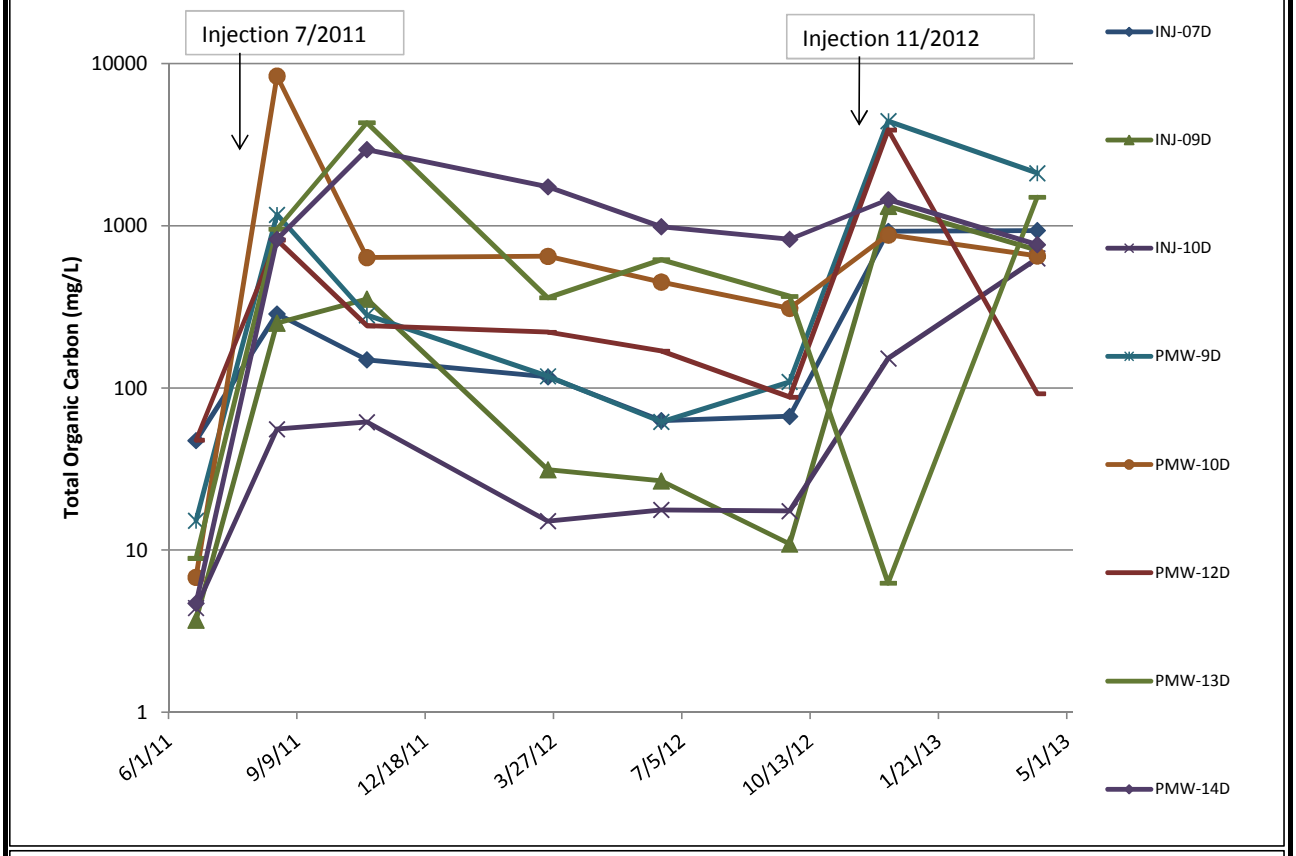
ATLANTIC RICHFIELD COMPANY

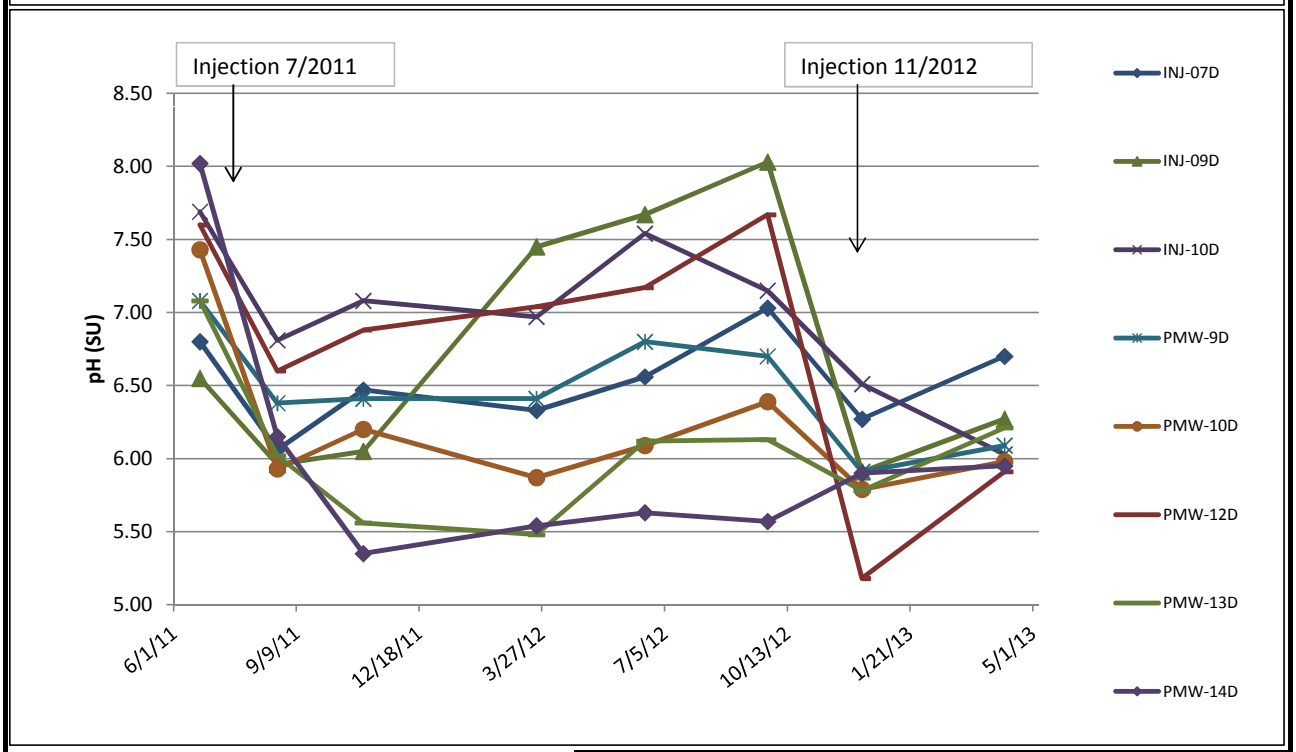
EKONOL POLYESTER
6600 WALMORE ROAD
NIAGARA FALLS, NY

FIGURE 4
BEDROCK WELL
TIME SERIES PLOTS

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

447355.02000
P:\Ekonol\447355 P&Q Monitoring\Reporting\Quarterly Reports\4Q12 Final\Figure 4 Ekonol Dec 2012 rem area-Deep Conc. Charts.pdf





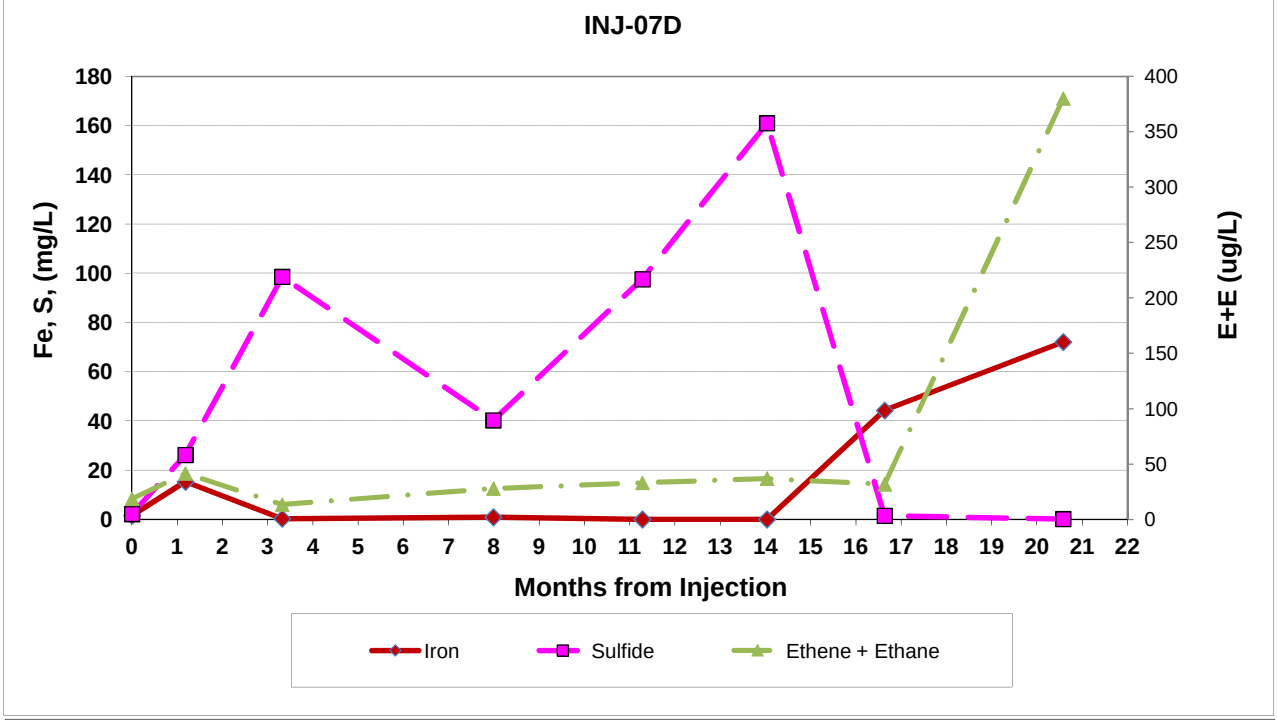
EKONOL POLYESTER RESINS, WHEATFIELD, NY

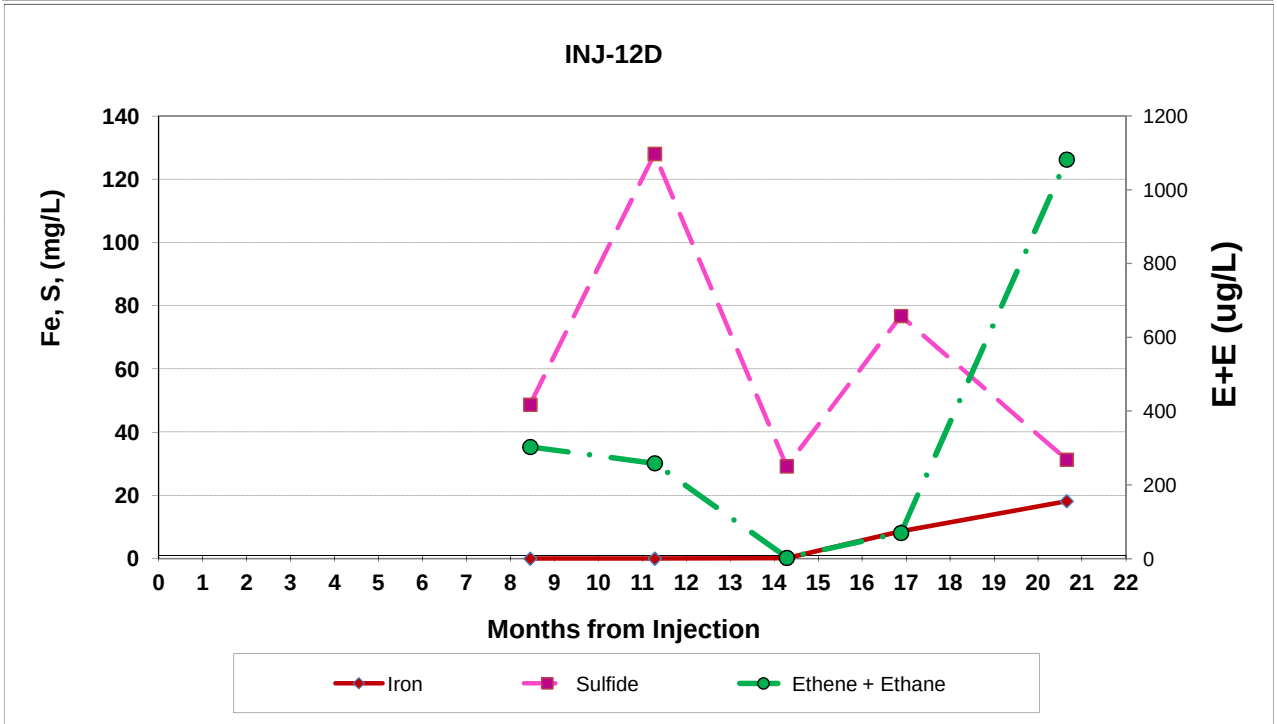
TIME-SERIES PLOTS

pH and TOC

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

August 2013 | **FIGURE 5**





INJ-12D WAS NOT PART OF THE MONITORING PROGRAM UNTIL MONTH 8

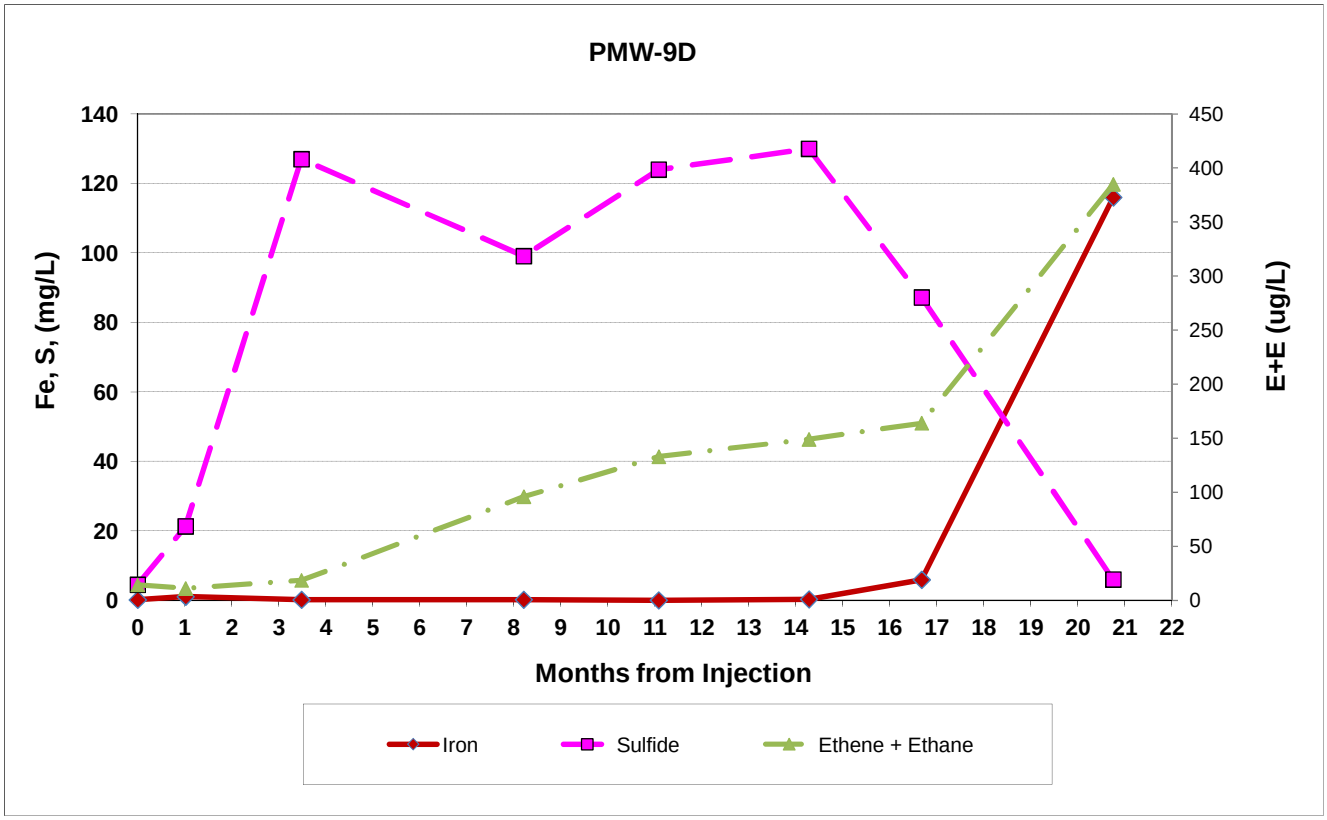
EKONOL POLYESTER RESINS, WHEATFIELD, NY

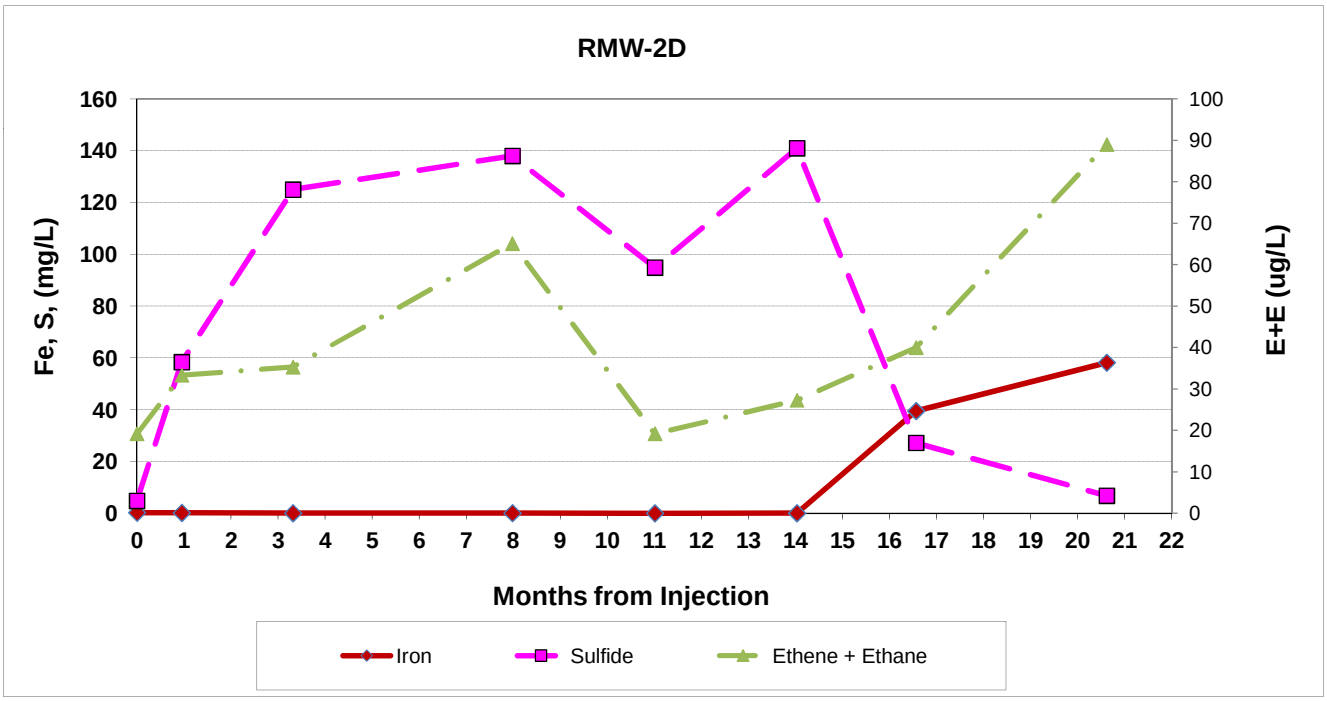
Time Series Plots

Iron, Sulfides, Ethene and Ethane

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

August 2013 | **FIGURE 6A**





EKONOL POLYESTER RESINS, WHEATFIELD, NY

Time Series Plots

Iron, Sulfides, Ethene and Ethane

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

August 2013 | **FIGURE 6B**

ATTACHMENT A

INSPECTION RECORDS

EKONOL SITE PAVEMENT INSPECTION FORM
WHEATFIELD, NEW YORK

Date of Inspection: 4/9/13 **Time: 1630**

Inspector(s) Name/Title: Robert Piurek/Geologist

Inspection of	Condition Present?		Action Required?		Comments/Location	Correction Date
	Yes	No	Yes	No		
1. Site Pavement						
A. Surface cracks	X		X		**Previous asphalt patches have eroded away, probably due to winter snow plowing. Recommend surface pavement repair in front of Ekonol bay doors due to cracking/sinking of existing asphalt.**	**N/A**
B. Pits/divots	X		X		**Previous asphalt patches have eroded away, probably due to winter snow plowing. Recommend surface pavement repair in front of Ekonol bay doors due to cracking/sinking of existing asphalt.**	**N/A**
C. Sinking	X		X		**Previous asphalt patches have eroded away, probably due to winter snow plowing. Recommend surface pavement repair in front of Ekonol bay doors due to cracking/sinking of existing asphalt.**	**N/A**
2. Well curb boxes						
A. Cracks		X		X		
B. Loose		X		X		
C. Well caps missing		X		X		
D. Settlement		X		X		

Site Photo Log:

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

Date: 4/11/13

Checklist Completed By: ROB PLUECK

Project Number: 447986.02000

Property Location: ELDRED/ST. GOBAIN

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

NO CONCERNS REPORTED.

Occupant's Initials: [signature]

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

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

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

N/A

OPERATION, MONITORING AND MAINTENANCE CHECKLIST

2. OPERATIONAL CHECKS

Fan is operating

Noise and Vibration within normal range	YES	NO
Alarm sounds when fan is turned off	YES	NO

U-Tube manometer indicating negative sub slab pressure	YES	NO

U-Tube Manometer Reading: Location: ~~0.4~~ RHP Vacuum _____ in H_20

U-Tube Manometer Reading: Location: -0.5 Vacuum 0.7 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
Smoke test confirms air flow into sump	YES	NO	N/A
Back draft test confirms proper air flow at combustion appliances	YES	NO	N/A
Smoke test indicated no leaks	YES	NO	N/A

3. MAINTENANCE

Fan last replaced on (date): UNKNOWN

Fan due to be replaced; N/A

Additional Maintenance Action Items Performed

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: ROBERT MURCH Affiliation: PARSONS

Signature: _____ Date (dd/mm/yy): 11/04/2013 1400 am/pm

ATTACHMENT B

WATER LEVEL MEASUREMENT, SAMPLING MATRIX AND SAMPLING RECORDS

Ekonol Water Levels
4/1/2013**

#	Well ID	DTW (ft btoc)	Actual DTW (ft btoc)	Time	Comments
1	INJ-01	7.09	7.09	1254	
2	INJ-02	6.70/6.95	6.95	1300	Dark oily- veg oil odor
3	INJ-03	6.55	6.55	1257	
4	INJ-04	6.80/7.0	7.00	1247	Dark oily- veg oil odor
5	INJ-05	6.94/7.60	7.60	1244	Dark oily- veg oil odor
6	INJ-06D	6.87/6.88	6.88	1151	Dark oily- veg oil odor
7	INJ-07D	6.99	6.99	1231	
8	INJ-08D	6.91	6.91	1324	
9	INJ-09D	6.86	6.86	1248	
10	INJ-10D	6.4/6.74	6.74	1139	VOC = 128 ppm, dark oily- veg oil odor
11	INJ-11D	6.89	6.89	1233	Curb box below grade.
12	INJ-12D	5.82/6.55	6.55	1307	Black and oily- veg oil odor
13	INJ-13D	6.05	6.05	1308	
14	MW-1S	5.33	5.33	1053	
15	MW-2S	3.00	3.00	1150	
16	MW-3S	4.25	4.25	1025	**Water level taken on 4/2/13
17	MW-4S	7.00	7.00	1251	
18	MW-5S	6.55	6.55	1048	
19	MW-6S	6.14	6.14	1124	
20	MW-7D	7.16	7.16	1106	
21	MW-7S	5.39	5.39	1103	
22	MW-8S	6.13	6.13	1212	No cap was on well, cap placed on
23	MW-9S	7.06	7.06	1118	
24	MW-10D	6.86	6.86	1116	
25	MW-10S	8.88	8.88	1050	
26	MW-11D	9.80	9.80	1130	
27	MW-11S	7.46	7.46	1133	
28	MW-12D	7.25	7.25	1112	
29	MW-12S	6.98	6.98	1128	
30	MW-13D	10.96	10.96	1202	
31	MW-14D	8.80	8.80	1210	
32	MW-15D	8.57	8.57	1155	
33	MW-16D	12.42	12.42	1159	
34	MW-17D	8.70	8.70	1137	
35	MW-18D	8.48	8.48	1205	
36	MW-19D	6.69	6.69	1148	
37	MW-20D	7.60	7.60	1144	
38	MW-21D	7.55	7.55	1140	
39	OR-1SI	2.88	2.88	1235	
40	OR-2SI	3.29	3.29	1310	
41	OR-3SM	2.81	2.81	1237	
42	OR-4SM	3.39	3.39	1249	
43	OR-5SM	2.76	2.76	1147	Flange broken off
44	OR-6SM	4.89	4.89	1156	VOC=1.6 ppm
45	OR-7SI	2.82	2.82	1143	
46	OR-8SI	4.99	4.99	1141	1 missing bolt
47	OR-9SM	6.14	6.14	1112	
48	OR-10SM	6.19	6.19	1114	VOC= 0.7 ppm
49	OR-11SI	6.75	6.75	1108	
50	OR-12SI	6.28	6.28	1108	Flange broken off
51	OR-13SM	6.64	6.64	1106	
52	OR-14SM	6.33	6.33	1107	

Ekonol Water Levels
4/1/2013**

#	Well ID	DTW (ft btoc)	Actual DTW (ft btoc)	Time	Comments
53	OR-15SM	4.89	4.89	1105	
54	OR-16SI	6.01	6.01	1105	
55	OR-17SI	4.88	4.88	1104	
56	OR-18SM	5.79	5.79	1104	
57	PMW-1D	6.77	6.77	1310	
58	PMW-1S	2.78	2.78	1150	
59	PMW-2D	7.00	7.00	1251	
60	PMW-2S	5.50	5.50	1150	VOC= 64 ppm
61	PMW-3D	7.05	7.05	1246	No bolts
62	PMW-3S	5.53	5.53	1026	**Water level taken on 4/2/13
63	PMW-4D	7.01	7.01	1241	No bolts
64	PMW-4S	4.83	4.83	1319	
65	PMW-5D	7.01	7.01	1302	
66	PMW-5S	3.45	3.45	1240	
67	PMW-6D	6.71	6.71	1237	
68	PMW-6S	7.54	7.54	1247	
69	PMW-7D	7.02	7.02	1236	
70	PMW-7S	6.32	6.32	1115	
71	PMW-8D	6.75	6.75	1257	
72	PMW-8S	6.52	6.52	1115	
73	PMW-9D	6.59/7.59	7.59	1305	1 foot of substrate.
74	PMW-9S	6.59	6.59		
75	PMW-10S	5.52	5.52	1200	
76	PMW-10D	6.65	6.65		
77	PMW-11D	6.54	6.54	1116	
78	PMW-11S	5.68	5.68	1328	
79	PMW-12D	7.00/7.22	7.22	1258	Red-brown decomposing veg oil substrate
80	PMW-13D	7.02	7.02	1253	
81	PMW-14D	6.99	6.99	1316	
82	PMW-15D	6.88	6.88	1128	VOC= 149ppm
83	PMW-16D	6.58	6.58	1254	
84	PMW-17D	6.96	6.96	1317	
85	RMW-1D	6.81	6.81	1052	
86	RMW-2D	6.70	6.70	1241	
87	RMW-3D	7.01	7.01	1125	
88	RMW-4D	6.95	6.95	1239	No bolts
89	TP-1	6.34	6.34	1149	
90	TP-2	6.52	6.52	1149	

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)	Chloride, Nitrate, Sulfate[b/] (E300.1)	Dissolved Inorganics[b/c/] (SW6010B)	Ortho-phosphate[b/] (EPA 365.1)	Sulfide[b/] (MS 4500-S2-F)	Total Organic Carbon (SW9060)	Total Inorganic Carbon (SW9060)	Microbial Population[d/] (Lab SOP)	Acetylene and Hydrogen	Real time Analyses[e/]	Mobile Lab Analysis[f/]
Overburden Bioreactor Monitoring Wells													
OR-3SM	1	1	1	1	1	1	1	1	1			1	1
OR-4SM	1	1	1	1	1	1	1	1	1			1	1
OR-5SM	1	1	1	1	1	1	1	1	1	1	1	1	1
OR-6SM	1	1	1	1	1	1	1	1	1	1	1	1	1
OR-9SM	1	1	1	1	1	1	1	1	1			1	1
OR-10SM	1	1	1	1	1	1	1	1	1			1	1
OR-13SM	1	1	1	1	1	1	1	1	1	1	1	1	1
OR-14SM	1	1	1	1	1	1	1	1	1	1	1	1	1
OR-15SM	1	1	1	1	1	1	1	1	1			1	1
OR-18SM	1	1	1	1	1	1	1	1	1			1	1
PMW-1S	1	1	1	1	1	1	1	1	1	1	1	1	1
PMW-2S	1	1	1	1	1	1	1	1	1	1	1	1	1
PMW-3S	1	1	1	1	1	1	1	1	1	1	1	1	1
PMW-4S	1	1	1	1	1	1	1	1	1			1	1
PMW-5S	1	1	1	1	1	1	1	1	1			1	1
PMW-6S	1	1	1	1	1	1	1	1	1			1	1
PMW-7S	1	1	1	1	1	1	1	1	1			1	1
PMW-8S	1	1	1	1	1	1	1	1	1			1	1
PMW-9S	1	1	1	1	1	1	1	1	1	1	1	1	1
PMW-10S	1	1	1	1	1	1	1	1	1	1	1	1	1
PMW-11S	1	1	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	1	1
INJ-8D	1	1	1	1	1	1	1	1	1			1	1
INJ-9D	1	1	1	1	1	1	1	1	1	1	1	1	1
INJ-10D	1	1	1	1	1	1	1	1	1	1	1	1	1
INJ-11D	1	1	1	1	1	1	1	1	1			1	1
INJ-12D	1	1	1	1	1	1	1	1	1			1	1
INJ-13D	1	1	1	1	1	1	1	1	1			1	1
Bedrock Monitoring Wells													
PMW-9D	1	1	1	1	1	1	1	1	1			1	1
PMW-10D	1	1	1	1	1	1	1	1	1			1	1
PMW-11D	1	1	1	1	1	1	1	1	1	1	1	1	1
PMW-12D	1	1	1	1	1	1	1	1	1			1	1
PMW-13D	1	1	1	1	1	1	1	1	1			1	1
PMW-14D	1	1	1	1	1	1	1	1	1			1	1
PMW-15D	1	1	1	1	1	1	1	1	1	1	1	1	1
PMW-16D	1	1	1	1	1	1	1	1	1			1	1
PMW-17D	1	1	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			1	1
INJ-01	1	1	1	1	1	1	1	1	1			1	1
PMW-2D	1	1	1	1	1	1	1	1	1	1		1	1
PMW-3D	1	1	1	1	1	1	1	1	1			1	1
PMW-4D	1	1	1	1	1	1	1	1	1			1	1
PMW-6D	1	1	1	1	1	1	1	1	1	1		1	1
RMW-4D	1	1	1	1	1	1	1	1	1			1	1
PMW-7D	1	1	1	1	1	1	1	1	1			1	1
MW-7D	1	1	1	1	1	1	1	1	1			1	1
Site Investigation Wells													
MW-1S	1	1	1	1	1	1	1	1	1			1	1
MW-2S	1	1	1	1	1	1	1	1	1	1		1	1
MW-3S	1	1	1	1	1	1	1	1	1			1	1
MW-4S	1	1	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		1	1
RMW-3D	1	1	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
Monitoring Subtotal	60	60	60	52	52	52	52	52	52	19	15	60	60
Added for Annual													
RMW-1D	1	1	1	1	1	1	1	1				1	
PMW-5D	1	1	1	1	1	1	1	1				1	
PMW-8D	1	1	1	1	1	1	1	1				1	
MW-14D	1	1	1	1	1	1	1	1				1	
MW-15D	1	1	1	1	1	1	1	1				1	
MW-16D	1	1	1	1	1	1	1	1				1	
MW-18D	1	1	1	1	1	1	1	1				1	
MW-19D	1	1	1	1	1	1	1	1				1	
MW-10D	1	1	1	1	1	1	1	1				1	
MW-12D	1	1	1	1	1	1	1	1				1	
MW-13D	1	1	1	1	1	1	1	1				1	
MW-5S	1	1	1	1	1	1	1	1				1	
MW-9S	1	1	1	1	1	1	1	1				1	
MW-7S	1	1	1	1	1	1	1	1				1	
MW-8S	1	1	1	1	1	1	1	1				1	
INJ-02	1	1	1	1	1	1	1	1				1	
INJ-04	1	1	1	1	1	1	1	1				1	
INJ-05	1	1	1	1	1	1	1	1				1	
ANNUAL SUBTOTAL	18	18	18	18	18	18	18	18	0	0	0	18	0
QA/QC													
Duplicates	4	4	4	4			4						
Matrix Spike	4												
Matrix Spike Duplicate	4												
Trip Blanks	15												
TASK TOTAL PER SAMPLING	105	82	74	74	70	70	74	52	19	15	78	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, As, Ca, Fe, K, Mg, Mn, Se, Na)

[c/] Dissolved inorganic compounds will consist of aluminum (Al), arsenic (As), calcium (Ca), iron (Fe), potassium (K), magnesium (Mg), manganese(Mn), selenium (Se), and sodium (Na). 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 Facility

Well ID: INJ-01

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.04

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 05/11/2013

Time: 14:27 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
14:37	5.69	220	0.58	5.87	4.11	7.59	4.814	11.26	3.13	-270.3	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013

Time: *(i.e. 14:32)* 15:45

Total Volume of Water Purged: 4.5 gal

HORRIBA		HACH TEST KITS	
pH	5.93	Alkalinity (g/g)	29 drops ...
Spec. Cond. (mS/cm)	5.054	Carbon Dioxide (mg/L)	518
Turbidity (NTU)	19.1	Ferrous Iron (mg/L)	0.6
DO (mg/L)	0.49	Manganese (mg/L)	0
Temp.(^oC)	11.37	Hydrogen Sulfide (mg/L)	0.5
ORP (mv)	-326.3	DTW (ft)	6.27
TDS (g/L)	3.288	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-02

Manual Entry:

Well Diameter: 4 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/12/2013

Time: 08:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
08:28	4.05	250	0	0	0	0	0	0	0	0	(1)
08:33	4.4	250	1.25	5.9	0	63.2	3.69	11.97	2.36	-66	(2) clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/12/2013

Time: *(i.e. 14:32)* 09:25

Total Volume of Water Purged:

HORRIBA	
pH	5.91
Spec. Cond. (mS/cm)	3.69
Turbidity (NTU)	32.6
DO (mg/L)	0
Temp.(^{o}C)	12.19
ORP (mv)	-85
TDS (g/L)	2.36

HACH TEST KITS	
Alkalinity (g/g)	(2)
Carbon Dioxide (mg/L)	(2)
Ferrous Iron (mg/L)	(2)
Manganese (mg/L)	(2)
Hydrogen Sulfide (mg/L)	2
DTW (ft)	5

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

(1) Brown, oily, LNAPL: approximately 0.5 ft thick.
(2) Turns dark gray in air.
(3) at 09.25 - slight effervescent in acid.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-04

Manual Entry:

Well Diameter: 4 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/05/2013 Time: 08:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:00	6.91	200	0	6.1	4.8	553	2.94	9.93	1.9	-95	grayish

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/05/2013 Time: *(i.e. 14:32)* 09:40

Total Volume of Water Purged: 4.5 GAL

HORRIBA		HACH TEST KITS	
pH	6.68	Alkalinity (g/g)	238
Spec. Cond. (mS/cm)	2.96	Carbon Dioxide (mg/L)	436
Turbidity (NTU)	47.7	Ferrous Iron (mg/L)	0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	12.25	Hydrogen Sulfide (mg/L)	2
ORP (mv)	-373	DTW (ft)	7.10
TDS (g/L)	1.83	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-05

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.3

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/12/2013

Time: 10:18 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
10:28	5.4	250	0.66	6.08	2.06	9.37	4.225	11.41	2.747	-237.2	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/12/2013

Time: *(i.e. 14:32)* 11:05

Total Volume of Water Purged: 3.5 gal

HORRIBA	
pH	6.26
Spec. Cond. (mS/cm)	4.534
Turbidity (NTU)	8.8
DO (mg/L)	0.4
Temp.(^oC)	11.61
ORP (mv)	-358.3
TDS (g/L)	2.974

HACH TEST KITS	
Alkalinity (g/g)	Water Too
Carbon Dioxide (mg/L)	Black to
Ferrous Iron (mg/L)	Run Hach
Manganese (mg/L)	Kit Analysis
Hydrogen Sulfide (mg/L)	>5.0
DTW (ft)	5.42

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-07D

Manual Entry:

Well Diameter: 4 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/03/2013 Time: 08:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:15	7.03	200	0	6.76	1.09	0	5.07	7.15	3.19	-138	black, oily, strong odor.

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/03/2013 Time: *(i.e. 14:32)* 09:40

Total Volume of Water Purged: 3.75 gal

HORRIBA		HACH TEST KITS	
pH	6.7	Alkalinity (g/g)	840
Spec. Cond. (mS/cm)	5.29	Carbon Dioxide (mg/L)	138
Turbidity (NTU)	47.6	Ferrous Iron (mg/L)	2.2
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	11.15	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-133	DTW (ft)	7.67
TDS (g/L)	3.33	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	2 Filters	bottl	
Hydrogen Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-08D

Manual Entry:

Well Diameter: 4 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/10/2013 Time: 12:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
12:40	5.85	200	0	0	0	0	0	0	0	0	
12:45	6.29	200	1	7.71	0.7	9.8	1.78	12.75	1.14	-151	

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/10/2013 Time: *(i.e. 14:32)* 13:45

Total Volume of Water Purged: 4 gal

HORRIBA		HACH TEST KITS	
pH	7.47	Alkalinity (g/g)	(3)
Spec. Cond. (mS/cm)	1.79	Carbon Dioxide (mg/L)	(3)
Turbidity (NTU)	63.5	Ferrous Iron (mg/L)	(3)
DO (mg/L)	0	Manganese (mg/L)	(3)
Temp.(^oC)	12.17	Hydrogen Sulfide (mg/L)	2
ORP (mv)	-155	DTW (ft)	6.82
TDS (g/L)	1.15	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: (3) too dark.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-09D

Manual Entry:

Well Diameter: 4 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/03/2013 Time: 11:25 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:25	2.03	200	0	7.2	0.62	198	2.93	5.74	1.89	-133	clean, solids

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/03/2013 Time: *(i.e. 14:32)* 13:05

Total Volume of Water Purged: 4 gal

HORRIBA	
pH	6.27
Spec. Cond. (mS/cm)	3.9
Turbidity (NTU)	24.3
DO (mg/L)	10.95
Temp.(^oC)	10.95
ORP (mv)	-398
TDS (g/L)	2.5

HACH TEST KITS	
Alkalinity (g/g)	
Carbon Dioxide (mg/L)	
Ferrous Iron (mg/L)	
Manganese (mg/L)	
Hydrogen Sulfide (mg/L)	3
DTW (ft)	8.49

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments: too dark for hach test kit analysis.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	VIAL 1: 220 mL		
Hydrogen Acetylene	☑	2 VOAS		

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-10D

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 7.23

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/04/2013

Time: 11:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:25	7.25	200	0.53	7.17	3.95	63.5	17.33	12.18	11.26	-229.7	Slightly cloudy w/ bla...

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/04/2013

Time: *(i.e. 14:32)* 12:23

Total Volume of Water Purged: 5.75 gal

HORRIBA	
pH	6.03
Spec. Cond. (mS/cm)	14.42
Turbidity (NTU)	35.9
DO (mg/L)	0.06
Temp.(^oC)	12.60
ORP (mv)	-354.5
TDS (g/L)	8.443

HACH TEST KITS	
Alkalinity (g/g)	
Carbon Dioxide (mg/L)	
Ferrous Iron (mg/L)	
Manganese (mg/L)	
Hydrogen Sulfide (mg/L)	
DTW (ft)	8.16

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	2-Filters	None	125 mL
Hydrogen Acetylene	☑	1-20 mL VIAL	Non	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-12D

Manual Entry:

Well Diameter: 4 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/05/2013

Time: 10:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
10:30	7.8	200	0	6.44	0.19	117	9.62	11.99	2.32	-261	gray, solids, odor.

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/05/2013

Time: *(i.e. 14:32)* 11:50

Total Volume of Water Purged: 3.9 gal

HORRIBA		HACH TEST KITS	
pH	6.34	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	4.09	Carbon Dioxide (mg/L)	
Turbidity (NTU)	41.6	Ferrous Iron (mg/L)	
DO (mg/L)	0	Manganese (mg/L)	
Temp.(^oC)	12.5	Hydrogen Sulfide (mg/L)	
ORP (mv)	-455	DTW (ft)	
TDS (g/L)	2.62	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Too dark for Hach kit analysis

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: INJ-13D

Manual Entry:

Well Diameter: 4 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/05/2013 Time: 12:35 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
12:35	8.4	200	0	8.2	3.01	0	1.99	12.16	1.23	-324	black, silty

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/05/2013 Time: *(i.e. 14:32)* 13:50

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	6.4	Alkalinity (g/g)	187
Spec. Cond. (mS/cm)	4.08	Carbon Dioxide (mg/L)	220
Turbidity (NTU)	28.9	Ferrous Iron (mg/L)	0.6
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	12.63	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-343	DTW (ft)	10.05
TDS (g/L)	2.61	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-10D

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 7.03

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/02/2013

Time: 14:48 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
14:58	7.55	160	0.42	7.44	2.48	56.6	5.345	11.23	3.474	-333.5	CLOUDY AMBER/GRE...

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013

Time: *(i.e. 14:32)* 16:00

Total Volume of Water Purged: 3.75 gal

HORRIBA	
pH	7.92
Spec. Cond. (mS/cm)	3.159
Turbidity (NTU)	10.5
DO (mg/L)	0.27
Temp.(°C)	11.03
ORP (mv)	-343.2
TDS (g/L)	1.974

HACH TEST KITS	
Alkalinity (g/g)	320
Carbon Dioxide (mg/L)	86
Ferrous Iron (mg/L)	0.1
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	0.5
DTW (ft)	7.51

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments: Used regular Alka-Seltzer for test.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-10S

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.85

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/05/2013

Time: 12:12 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
12:22	6.11	160	0.42	7.28	2.13	4	2.477	10.21	1.61	-125.6	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/05/2013

Time: *(i.e. 14:32)* 13:20

Total Volume of Water Purged: 3 gal

HORRIBA	
pH	7.05
Spec. Cond. (mS/cm)	2.119
Turbidity (NTU)	0.28
DO (mg/L)	1.1
Temp.(^oC)	9.91
ORP (mv)	-111.6
TDS (g/L)	1.368

HACH TEST KITS	
Alkalinity (g/g)	85
Carbon Dioxide (mg/L)	114
Ferrous Iron (mg/L)	1.3
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	0
DTW (ft)	6.08

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-11D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low flow -geo pump

Date: 04/09/2013

Time: 15:50 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
15:50	9.6	150	0	7.57	0	26.4	2.56	16.35	1.66	-249	Clear few particles

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/09/2013

Time: *(i.e. 14:32)* 16:50

Total Volume of Water Purged: 3.0

HORRIBA		HACH TEST KITS	
pH	7.42	Alkalinity (g/g)	0
Spec. Cond. (mS/cm)	1.95	Carbon Dioxide (mg/L)	92
Turbidity (NTU)	1.31	Ferrous Iron (mg/L)	0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	13.08	Hydrogen Sulfide (mg/L)	2
ORP (mv)	-211	DTW (ft)	9.65
TDS (g/L)	1.24	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-11S

Manual Entry:

Well Diameter: 2 inches

Samplers: R. Piurek

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/12/2013

Time: 11:25 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
11:25	4.34	100	0	5.45	4.96	64.2	5.67	9.48	3.59	156	Clear

Sampling Data

Method: *(i.e. low flow)* Low Flow

Date: 04/12/2013

Time: *(i.e. 14:32)* 12:35

Total Volume of Water Purged: 3.6 gal

HORRIBA	
pH	6.91
Spec. Cond. (mS/cm)	4.53
Turbidity (NTU)	4.01
DO (mg/L)	0
Temp.(^{o}C)	11.39
ORP (mv)	-49
TDS (g/L)	2.9

HACH TEST KITS	
Alkalinity (g/g)	14 drops...
Carbon Dioxide (mg/L)	218
Ferrous Iron (mg/L)	1.0
Manganese (mg/L)	0.4
Hydrogen Sulfide (mg/L)	2.0
DTW (ft)	4.34

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

Well submerged due to heavy rain. PUC extension riser purged on well during purging. Some surface water introduced additional 1 gallon purged (3.6 gal)

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-12D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/02/2013 Time: 13:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:15	7.41	200	0	9.58	3.74	9.82	0.243	9.79	1.59	-181	clear

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/02/2013 Time: *(i.e. 14:32)* 14:30

Total Volume of Water Purged: 3.46 gal

HORRIBA	
pH	7.39
Spec. Cond. (mS/cm)	3.07
Turbidity (NTU)	2.08
DO (mg/L)	6.46
Temp.(^oC)	10.29
ORP (mv)	-340
TDS (g/L)	1.96

HACH TEST KITS	
Alkalinity (g/g)	420
Carbon Dioxide (mg/L)	160
Ferrous Iron (mg/L)	0.6
Manganese (mg/L)	0.4
Hydrogen Sulfide (mg/L)	5
DTW (ft)	7.45

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-12S

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013 Time: 11:10 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:13	5.58	200	0	0	0	0	0	0	0	0	
11:18	6.83	200	1	7.07	0	16.7	12.6	10.09	7.86	124	clear water

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013 Time: *(i.e. 14:32)* 11:10

Total Volume of Water Purged: 4

HORRIBA		HACH TEST KITS	
pH	6.96	Alkalinity (g/g)	380
Spec. Cond. (mS/cm)	8.27	Carbon Dioxide (mg/L)	136
Turbidity (NTU)	28.7	Ferrous Iron (mg/L)	1.8
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	10.22	Hydrogen Sulfide (mg/L)	1.0
ORP (mv)	-187	DTW (ft)	7.60
TDS (g/L)	5.21	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Carbon Dioxide: 68 digits x 2 = 136
Drager Tube head space = 5 ppm H2S
Alkalinity: 19 drops x 20 = 380

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-13D

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 10.99

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/02/2013

Time: 10:39 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
10:49	11.28	180	0.47	7	0.37	2.91	3.166	9.71	2.058	-348	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013

Time: *(i.e. 14:32)* 11:35

Total Volume of Water Purged: 3 gal

HORRIBA		HACH TEST KITS	
pH	6.92	Alkalinity (g/g)	440
Spec. Cond. (mS/cm)	2.638	Carbon Dioxide (mg/L)	132
Turbidity (NTU)	1.9	Ferrous Iron (mg/L)	0.1
DO (mg/L)	0.33	Manganese (mg/L)	0
Temp.(^oC)	9.53	Hydrogen Sulfide (mg/L)	2
ORP (mv)	-323.8	DTW (ft)	11.25
TDS (g/L)	1.731	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-14D

Manual Entry:

Well Diameter: 2 inches

Samplers: R. Piurek

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): 9.01

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low flow

Date: 04/08/2013

Time: 09:20 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
09:20	9.01	220	0	7.19	0	2.65	2.52	11.0	1.61	-120	clear

Sampling Data

Method: *(i.e. low flow)* Low Flow

Date: 04/08/2013

Time: *(i.e. 14:32)* 10:05

Total Volume of Water Purged: 2.7 gal

HORRIBA	
pH	7.29
Spec. Cond. (mS/cm)	2.19
Turbidity (NTU)	1.84
DO (mg/L)	0
Temp.(^oC)	11.71
ORP (mv)	-200
TDS (g/L)	1.40

HACH TEST KITS	
Alkalinity (g/g)	280
Carbon Dioxide (mg/L)	234
Ferrous Iron (mg/L)	0
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	2
DTW (ft)	9.05

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-15D

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013 Time: *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
08:45	8.65	0	0	0	0	0	0	0	0	0	
08:47	9.1	250	0.5	6.1	0	3.5	1.04	7.02	0.651	16	initial

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013 Time: *(i.e. 14:32)* 09:45

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	7.59	Alkalinity (g/g)	260
Spec. Cond. (mS/cm)	1.15	Carbon Dioxide (mg/L)	60
Turbidity (NTU)	1.55	Ferrous Iron (mg/L)	0.4
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^{o}C)	11.9	Hydrogen Sulfide (mg/L)	2
ORP (mv)	-108	DTW (ft)	9.05
TDS (g/L)	0.72	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-16D

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 12.22

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/02/2013

Time: 08:43 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:53	12.3	200	0.52	6.87	0.54	4.95	3.771	9.24	1.609	-307.4	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013

Time: *(i.e. 14:32)* 09:35

Total Volume of Water Purged: 3.25 gal

HORRIBA		HACH TEST KITS	
pH	7	Alkalinity (g/g)	420
Spec. Cond. (mS/cm)	2.335	Carbon Dioxide (mg/L)	154
Turbidity (NTU)	2.69	Ferrous Iron (mg/L)	0.2
DO (mg/L)	0.20	Manganese (mg/L)	0
Temp.(^oC)	9.51	Hydrogen Sulfide (mg/L)	0.5
ORP (mv)	-289.1	DTW (ft)	12.35
TDS (g/L)	1.517	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Collected duplicate: VOCs-6

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-17D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/02/2013 Time: 11:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:30	8.76	200	0	7.71	1.37	9.02	0.989	0.633	4.6	46	clear

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/02/2013 Time: *(i.e. 14:32)* 12:20

Total Volume of Water Purged: 2.7 gal

HORRIBA		HACH TEST KITS	
pH	7.41	Alkalinity (g/g)	440
Spec. Cond. (mS/cm)	2.84	Carbon Dioxide (mg/L)	142
Turbidity (NTU)	0.85	Ferrous Iron (mg/L)	0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	9.51	Hydrogen Sulfide (mg/L)	1.5
ORP (mv)	-173	DTW (ft)	8.87
TDS (g/L)	1.82	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-18D

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 8.27

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/02/2013

Time: 13:08 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:18	8.39	220	0.58	6.4	1.65	3.96	1.961	9.2	1.275	-201.9	Clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013

Time: *(i.e. 14:32)* 14:00

Total Volume of Water Purged: 4 gal

HORRIBA	
pH	7.16
Spec. Cond. (mS/cm)	172
Turbidity (NTU)	2.46
DO (mg/L)	1.06
Temp.(^oC)	9.11
ORP (mv)	-194.6
TDS (g/L)	1.487

HACH TEST KITS	
Alkalinity (g/g)	360
Carbon Dioxide (mg/L)	2.287
Ferrous Iron (mg/L)	0
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	0.3
DTW (ft)	8.45

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

Collected duplicate: VOCs-3, MEE-2, Cl/SO4/NO3-2, DI-1, TOC-2

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-19D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/02/2013

Time: 08:50 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
09:00	7.58	200	0.3	6.78	0.14	0	6.3	8.87	3.97	-24	solids, no odor

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/02/2013

Time: *(i.e. 14:32)* 10:15

Total Volume of Water Purged: 4.6 gal

HORRIBA		HACH TEST KITS	
pH	7	Alkalinity (g/g)	980
Spec. Cond. (mS/cm)	5.89	Carbon Dioxide (mg/L)	602
Turbidity (NTU)	224	Ferrous Iron (mg/L)	2.4
DO (mg/L)	4.06	Manganese (mg/L)	0
Temp.(^oC)	9.78	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-35	DTW (ft)	7.44
TDS (g/L)	3.71	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-1S

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013

Time: 11:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:43	5.1	150	0	7.65	0	6.6	3.55	10.27	2.28	152	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013

Time: *(i.e. 14:32)* 13:10

Total Volume of Water Purged: 4 GAL

HORRIBA		HACH TEST KITS	
pH	7.58	Alkalinity (g/g)	460
Spec. Cond. (mS/cm)	3.51	Carbon Dioxide (mg/L)	104
Turbidity (NTU)	2.31	Ferrous Iron (mg/L)	0.8
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	9.68	Hydrogen Sulfide (mg/L)	0
ORP (mv)	25	DTW (ft)	8.31
TDS (g/L)	2.24	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-20D

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013

Time: 14:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
14:12	7.2	150	0	0	0	0	0	0	0	0	(1)
14:17	7.33	150	0.75	7.43	0	3.77	1.75	12.95	1.12	-258	CLEAR WATER

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013

Time: *(i.e. 14:32)* 15:00

Total Volume of Water Purged: 4 gal

HORRIBA	
pH	7.29
Spec. Cond. (mS/cm)	2
Turbidity (NTU)	1.64
DO (mg/L)	0
Temp.(^{o}C)	14.79
ORP (mv)	-272
TDS (g/L)	1.28

HACH TEST KITS	
Alkalinity (g/g)	320
Carbon Dioxide (mg/L)	110
Ferrous Iron (mg/L)	0
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	5
DTW (ft)	7.5

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

Alkalinity: 16 drops x 20 = 320
Carbon Dioxide: 55 digits x 2 = 110

(1) Attached riser to prevent surface water

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-21D

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.68

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/11/2013

Time: 13:14 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:24	5.68	250	0.66	8.67	4.75	46.7	0.691	10.65	0.45	-158	Clear w/ black particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013

Time: *(i.e. 14:32)* 14:00

Total Volume of Water Purged: 3.25 gal

HORRIBA	
pH	7.15
Spec. Cond. (mS/cm)	1.962
Turbidity (NTU)	5.94
DO (mg/L)	1.94
Temp.(^oC)	11.33
ORP (mv)	-266.5
TDS (g/L)	1.276

HACH TEST KITS	
Alkalinity (g/g)	200
Carbon Dioxide (mg/L)	80
Ferrous Iron (mg/L)	0.5
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	0.1
DTW (ft)	5.68

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-2S

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013

Time: 11:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
11:00	3.08	200	0	0	0	0	0	0	0	0	
11:05	5.28	200	1	7.05	0	4.26	5.23	9.31	3.3	126	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013

Time: *(i.e. 14:32)* 12:20

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	7.07	Alkalinity (g/g)	780
Spec. Cond. (mS/cm)	5.07	Carbon Dioxide (mg/L)	160
Turbidity (NTU)	2.58	Ferrous Iron (mg/L)	0.8
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^{o}C)	10.14	Hydrogen Sulfide (mg/L)	0
ORP (mv)	73	DTW (ft)	7.65
TDS (g/L)	3.19	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1 FILTER = 1000 mL		
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-3S

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/10/2013

Time: 12:05 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
12:05	4.36	200	0	8.16	3.06	0	21.0	13.44	12.8	-106	

Sampling Data

Method: *(i.e. low flow)* dedicated tubing

Date: 04/10/2013

Time: *(i.e. 14:32)* 09:00

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	118
Turbidity (NTU)		Ferrous Iron (mg/L)	0
DO (mg/L)		Manganese (mg/L)	0
Temp.(^{o}C)		Hydrogen Sulfide (mg/L)	0
ORP (mv)		DTW (ft)	11.38
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Horriba - well purged dry.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-4S

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/10/2013 Time: 10:20 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
10:20	5.67	200	0	6.65	0.12	92.1	5.81	10.52	3.66	-103	Clear

Sampling Data

Method: *(i.e. low flow)* dedicated low flow

Date: 04/10/2013 Time: *(i.e. 14:32)* 11:50

Total Volume of Water Purged: 2.9 gal

HORRIBA		HACH TEST KITS	
pH	6.75	Alkalinity (g/g)	540
Spec. Cond. (mS/cm)	4.69	Carbon Dioxide (mg/L)	238
Turbidity (NTU)	3.05	Ferrous Iron (mg/L)	0.2
DO (mg/L)	0	Manganese (mg/L)	0.1
Temp.(^oC)	11.17	Hydrogen Sulfide (mg/L)	4.0
ORP (mv)	-320	DTW (ft)	10.40
TDS (g/L)	3	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-5S

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013

Time: 15:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
15:08	6.66	200	0	0	0	0	0	0	0	0	
15:13	6.85	200	1	7.74	0	38.1	4.4	9.36	2.82	-126	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/02/2013

Time: *(i.e. 14:32)* 16:05

Total Volume of Water Purged: 3 gal

HORRIBA		HACH TEST KITS	
pH	7.59	Alkalinity (g/g)	46
Spec. Cond. (mS/cm)	2.88	Carbon Dioxide (mg/L)	82
Turbidity (NTU)	6.8	Ferrous Iron (mg/L)	0.4
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^{o}C)	9.74	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-139	DTW (ft)	6.86
TDS (g/L)	1.84	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-6S

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 3

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/11/2013

Time: 11:10 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:45	3.26	200	1	8.09	2.94	130	1.682	8.13	1.183	-128.4	Cloudy

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013

Time: *(i.e. 14:32)* 12:37

Total Volume of Water Purged: 4 gal

HORRIBA		HACH TEST KITS	
pH	8.37	Alkalinity (g/g)	40
Spec. Cond. (mS/cm)	0.862	Carbon Dioxide (mg/L)	54
Turbidity (NTU)	16.2	Ferrous Iron (mg/L)	0
DO (mg/L)	2.9	Manganese (mg/L)	0
Temp.(^oC)	7.91	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-100.8	DTW (ft)	3.33
TDS (g/L)	0.562	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Drager Tube H2S (Low range - 0 ppm)

* Water level not accurate. surface water running slightly into well while putting on

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-7D

Manual Entry:

Well Diameter: 4 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/09/2013

Time: 08:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
08:15	7.2	200	0	6.45	0.61	34.8	2.46	12.82	1.6	-258	Clear

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/09/2013

Time: *(i.e. 14:32)* 09:15

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	6.88	Alkalinity (g/g)	680
Spec. Cond. (mS/cm)	2.27	Carbon Dioxide (mg/L)	472
Turbidity (NTU)	5.87	Ferrous Iron (mg/L)	0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^{o}C)	14.07	Hydrogen Sulfide (mg/L)	1.5
ORP (mv)	-290	DTW (ft)	7.34
TDS (g/L)	1.45	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-7S

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/09/2013

Time: 10:05 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
10:05	5.72	200	0	7.37	0.59	0.18	7.27	13.0	4.59	-152	Brown

Sampling Data

Method: *(i.e. low flow)* dedicated tubing

Date: 04/10/2013

Time: *(i.e. 14:32)* 08:15

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	280
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	216
Turbidity (NTU)		Ferrous Iron (mg/L)	0
DO (mg/L)		Manganese (mg/L)	0
Temp.(^oC)		Hydrogen Sulfide (mg/L)	0
ORP (mv)		DTW (ft)	10.75
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: No Horriba - well purged dry.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-8S

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/10/2013 Time: 08:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:53	7.2	200	2	7.17	0	69.5	8.59	10.97	5.41	135	Water is slightly clou...
10:08	9.77	100	9.5	7.25	9.4	69	6.9	10.09	4.34	172	
10:13	0	0	0	0	0	0	0	0	0	0	(2)
11:30	0	0	0	0	0	0	0	0	0	0	DRY (3)

Sampling Data

Method: *(i.e. low flow)* peristaltic

Date: 04/10/2013 Time: *(i.e. 14:32)* 14:30

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	340
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	264
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Manganese (mg/L)	
Temp.(^oC)		Hydrogen Sulfide (mg/L)	
ORP (mv)		DTW (ft)	
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

14.45 - stop work due to lightning.
(1) There is no surface infiltration; rise of DTW & D.O. is not understood. (2) hard rain filled man box above coupler, filled well, located

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: MW-9S

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/02/2013

Time: 15:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
15:30	7.15	200	0	8.07	9.28	0	6.52	6.87	4.15	-180	

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/02/2013

Time: *(i.e. 14:32)*

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	7.28	Alkalinity (g/g)	820
Spec. Cond. (mS/cm)	662	Carbon Dioxide (mg/L)	5.38
Turbidity (NTU)	48.8	Ferrous Iron (mg/L)	0.6
DO (mg/L)	7.94	Manganese (mg/L)	0
Temp.(^{o}C)	9.32	Hydrogen Sulfide (mg/L)	3
ORP (mv)	-322	DTW (ft)	8.48
TDS (g/L)	3.38	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Turbidity : OR @ 15:30

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-13SM

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/04/2013 Time: 08:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:01	6.75	0	0	0	0	0	0	0	0	0	
08:06	7.45	200	1	6.94	0	43	4.97	6.8	3.18	-91	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/04/2013 Time: *(i.e. 14:32)* 09:30

Total Volume of Water Purged: 8 gal

HORRIBA		HACH TEST KITS	
pH	6.58	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	4.45	Carbon Dioxide (mg/L)	
Turbidity (NTU)	2.27	Ferrous Iron (mg/L)	
DO (mg/L)	0	Manganese (mg/L)	
Temp.(^oC)	12.10	Hydrogen Sulfide (mg/L)	
ORP (mv)	-266	DTW (ft)	7.25
TDS (g/L)	284	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Some effervescene in HCl
Purge water turns dark grey in air.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	VIEL 1: 550		
Hydrogen Acetylene	☑	20 min @ 200		

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-14SM

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 6.48

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/04/2013

Time: 08:10 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:20	6.65	170	0.45	6.69	3.01	39	4.825	9.11	3.13	-112.6	slightly cloudy

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/04/2013

Time: *(i.e. 14:32)* 09:23

Total Volume of Water Purged: 5.5 gal

HORRIBA		HACH TEST KITS	
pH	6.6	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	4.841	Carbon Dioxide (mg/L)	
Turbidity (NTU)	5.26	Ferrous Iron (mg/L)	
DO (mg/L)	0.3	Manganese (mg/L)	
Temp.(^oC)	9.87	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-230.7	DTW (ft)	6.79
TDS (g/L)	3.147	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Collected duplicate: VOCs=3, MEE-2, C/N/S-2, DI-1, TOC-2

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	2- FIlters	None	450 mL
Hydrogen Acetylene	☑	1-20 mL VIAL	Non	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-15SM

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/08/2013 Time: 14:10 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
14:07	4.98	200	0	0	0	0	0	0	0	0	
14:12	5.18	200	1	6.9	0	27	4.25	13.13	2.72	-87	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/08/2013 Time: *(i.e. 14:32)* 15:10

Total Volume of Water Purged: 4 gal

HORRIBA		HACH TEST KITS	
pH	6.79	Alkalinity (g/g)	600
Spec. Cond. (mS/cm)	4.13	Carbon Dioxide (mg/L)	326
Turbidity (NTU)	18.2	Ferrous Iron (mg/L)	2.2
DO (mg/L)	0	Manganese (mg/L)	1.5
Temp.(^oC)	12.26	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-82	DTW (ft)	5.35
TDS (g/L)	2.64	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Alkalinity is greater than 600.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-18SM

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/08/2013 Time: 12:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
12:31	6	250	0	0	0	0	0	0	0	0	
12:36	6.4	250	1.25	7.48	0	110	1.58	11.97	1.01	-216	

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/08/2013 Time: *(i.e. 14:32)* 13:15

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	6.9	Alkalinity (g/g)	640
Spec. Cond. (mS/cm)	1.82	Carbon Dioxide (mg/L)	442
Turbidity (NTU)	3.2	Ferrous Iron (mg/L)	0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	12.04	Hydrogen Sulfide (mg/L)	5
ORP (mv)	-235	DTW (ft)	6.43
TDS (g/L)	1.16	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Effervescence in VOA's

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-3SM

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 2.99

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/04/2013

Time: 13:44 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:54	3.61	160	0.42	6.62	3.06	6.86	4.113	10.96	2.662	-149.8	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/04/2013

Time: *(i.e. 14:32)* 14:50

Total Volume of Water Purged: 4 gal

HORRIBA		HACH TEST KITS	
pH	6.5	Alkalinity (g/g)	780
Spec. Cond. (mS/cm)	6.172	Carbon Dioxide (mg/L)	336
Turbidity (NTU)	1.48	Ferrous Iron (mg/L)	1.6
DO (mg/L)	0.63	Manganese (mg/L)	0
Temp.(^oC)	11.47	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-161.2	DTW (ft)	3.92
TDS (g/L)	4.001	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-4SM

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 3.03

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/04/2013

Time: 15:46 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
15:56	3.06	190	0.5	6.39	3.72	12.4	3.217	10.02	2.09	-87.2	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/04/2013

Time: *(i.e. 14:32)* 16:45

Total Volume of Water Purged: 4 gal

HORRIBA	
pH	6.39
Spec. Cond. (mS/cm)	3.230
Turbidity (NTU)	8.12
DO (mg/L)	0.68
Temp.(^oC)	10.26
ORP (mv)	-90.6
TDS (g/L)	2.10

HACH TEST KITS	
Alkalinity (g/g)	510
Carbon Dioxide (mg/L)	366
Ferrous Iron (mg/L)	1.2
Manganese (mg/L)	1.2
Hydrogen Sulfide (mg/L)	0.3
DTW (ft)	3.14

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-5SM

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013 Time: 08:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:15	2.77	0	0	0	0	0	0	0	0	0	
08:20	2.77	200	11	6.55	0	8.26	10.9	5.7	6.77	-82	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013 Time: *(i.e. 14:32)* 09:10

Total Volume of Water Purged: 4 gal

HORRIBA		HACH TEST KITS	
pH	6.68	Alkalinity (g/g)	81
Spec. Cond. (mS/cm)	9.58	Carbon Dioxide (mg/L)	64
Turbidity (NTU)	8.71	Ferrous Iron (mg/L)	1.2
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	8.62	Hydrogen Sulfide (mg/L)	2
ORP (mv)	-125	DTW (ft)	2.78
TDS (g/L)	6.04	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Hydrogen / Acetylene: 200 mL/min, 20 minutes.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1- FILTER	1000 mL	
Hydrogen Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-6SM

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.26

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/03/2013

Time: 08:20 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:30	6.64	160	0.42	6.61	4.65	15.4	5.418	8.99	3.522	-148.5	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013

Time: *(i.e. 14:32)* 09:28

Total Volume of Water Purged: 4.5 gal

HORRIBA		HACH TEST KITS	
pH	6.8	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	5.422	Carbon Dioxide (mg/L)	
Turbidity (NTU)	8.2	Ferrous Iron (mg/L)	
DO (mg/L)	0	Manganese (mg/L)	
Temp.(^oC)	8.6	Hydrogen Sulfide (mg/L)	2.0
ORP (mv)	-253.2	DTW (ft)	6.64
TDS (g/L)	3.524	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	2- Filters	None	320 mL
Hydrogen Acetylene	☑	1-20 mL VIAL	Non	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: OR-9SM

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/05/2013 Time: 08:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:06	6.53	200	0	0	0	0	0	0	0	0	
08:11	6.78	200	1	7.03	0	21.7	4.46	9.9	2.86	-255	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/05/2013 Time: *(i.e. 14:32)* 09:00

Total Volume of Water Purged: 4 gal

HORRIBA		HACH TEST KITS	
pH	7.07	Alkalinity (g/g)	306
Spec. Cond. (mS/cm)	4.82	Carbon Dioxide (mg/L)	198
Turbidity (NTU)	5.7	Ferrous Iron (mg/L)	0.4
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	10.25	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-284	DTW (ft)	6.83
TDS (g/L)	3.08	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-10D

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/11/2013

Time: 08:40 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
09:15	7.2	200	2	6	2.09	284	4.926	10.4	3.159	-145.9	Cloudy grey

Sampling Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/11/2013

Time: *(i.e. 14:32)* 10:15

Total Volume of Water Purged: 5.75 gal

HORRIBA		HACH TEST KITS	
pH	5.98	Alkalinity (g/g)	200
Spec. Cond. (mS/cm)	12.16	Carbon Dioxide (mg/L)	218
Turbidity (NTU)	15.8	Ferrous Iron (mg/L)	1.4
DO (mg/L)	0.51	Manganese (mg/L)	0.4
Temp.(^oC)	10.94	Hydrogen Sulfide (mg/L)	1
ORP (mv)	-261.3	DTW (ft)	7.32
TDS (g/L)	7.963	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Headspace checked after removing 2 gal. of water from well.
CO2-98ppm/H2S-0ppm/

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-10S

Manual Entry:

Well Diameter: 2 inches

Samplers: R. Piurek

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): 5.76

Depth to Well Bottom (ft): 12

Purging Data

Method: *(i.e. low flow)* Low flow

Date: 04/03/2013

Time: 14:25 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
14:25	5.76	150	0	7.58	4.63	22.7	4.86	9.07	3.11	-159	Clear w/ black particles

Sampling Data

Method: *(i.e. low flow)* Low Flow

Date: 04/04/2013

Time: *(i.e. 14:32)* 12:10

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	700
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	324
Turbidity (NTU)		Ferrous Iron (mg/L)	0
DO (mg/L)		Manganese (mg/L)	0.1
Temp.(^oC)		Hydrogen Sulfide (mg/L)	0
ORP (mv)		DTW (ft)	11.98
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Purge rate increaset to 600 mL/min @ 16:00.
Purge well dry @ 16.11

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1 FILTER	1000 mL	
Hydrogen Acetylene	☑	Bubble for 30		

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-11D

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 7.31

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/08/2013

Time: 12:53 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:03	7.3	250	0.66	6.64	3.06	5.16	1.994	13.21	1.297	-252.7	Water black after 1 m...

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/08/2013

Time: *(i.e. 14:32)* 13:55

Total Volume of Water Purged: 5.75 gal

HORRIBA	
pH	6.73
Spec. Cond. (mS/cm)	1.937
Turbidity (NTU)	0.5
DO (mg/L)	0.46
Temp.(^oC)	13.64
ORP (mv)	-334
TDS (g/L)	1.260

HACH TEST KITS	
Alkalinity (g/g)	
Carbon Dioxide (mg/L)	
Ferrous Iron (mg/L)	
Manganese (mg/L)	
Hydrogen Sulfide (mg/L)	5
DTW (ft)	7.31

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

Water turned black - could not run Hach Kit Analysis.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1- Filter	None	1000 ml Filter
Hydrogen Acetylene	☑	1-20 mL VIAL	Na3	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-11S

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/04/2013 Time: 08:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:00	5.62	150	0	6.53	1.9	2.16	4.66	8.04	2.98	-8	clear

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/04/2013 Time: *(i.e. 14:32)* 09:05

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	7.01	Alkalinity (g/g)	800
Spec. Cond. (mS/cm)	4.58	Carbon Dioxide (mg/L)	336
Turbidity (NTU)	3.13	Ferrous Iron (mg/L)	1.0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	8.85	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-20	DTW (ft)	9.39
TDS (g/L)	2.94	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-11S

Manual Entry:

Well Diameter: 4 inches

Samplers: Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013 Time: *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
08:22	3.15	125	0	0	0	0	0	0	0	0	
08:27	4.1	125	6.25	6.84	0	0	4.05	9.21	2.59	152	CLEAR

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/11/2013 Time: *(i.e. 14:32)* 10:10

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	6.87	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	3.95	Carbon Dioxide (mg/L)	
Turbidity (NTU)	3.81	Ferrous Iron (mg/L)	
DO (mg/L)	0	Manganese (mg/L)	
Temp.(^{o}C)	8.81	Hydrogen Sulfide (mg/L)	
ORP (mv)	77	DTW (ft)	8.6
TDS (g/L)	2.53	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Sample for sulfide only.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-12D

Manual Entry:

Well Diameter: 4 inches

Samplers: C Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/10/2013 Time: 13:43 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:53	7.8	160	0.42	5.92	2.59	24.9	4.939	11.01	3.249	-140.4	Clear w/ black particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/10/2013 Time: *(i.e. 14:32)* 16:20

Total Volume of Water Purged: 4 gal

HORRIBA	
pH	5.91
Spec. Cond. (mS/cm)	4.850
Turbidity (NTU)	12.1
DO (mg/L)	0.64
Temp.(^oC)	10.8
ORP (mv)	-179.4
TDS (g/L)	3.16

HACH TEST KITS	
Alkalinity (g/g)	100
Carbon Dioxide (mg/L)	162
Ferrous Iron (mg/L)	1.7
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	0
DTW (ft)	7.5

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

Collected duplicate - VOCs -6 , Cl/SO4/NO3 -2 , MEE -2 , Diss. Inorg. -1, TOC - 2

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-13D

Manual Entry:

Well Diameter: 4 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/09/2013

Time: 09:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
09:42	7	100	0	0	0	0	0	0	0	0	

Sampling Data

Method: *(i.e. low flow)* peristaltic

Date: 04/09/2013

Time: *(i.e. 14:32)* 12:30

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	6.21	Alkalinity (g/g)	-
Spec. Cond. (mS/cm)	3.36	Carbon Dioxide (mg/L)	-
Turbidity (NTU)	227	Ferrous Iron (mg/L)	-
DO (mg/L)	0	Manganese (mg/L)	-
Temp.(^{o}C)	14.65	Hydrogen Sulfide (mg/L)	0.7
ORP (mv)	-204	DTW (ft)	9.12
TDS (g/L)	2.15	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Purge water too dark for Hach Kit Analysis except HS.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-14D

Manual Entry:

Well Diameter: 4 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/09/2013 Time: 13:50 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
13:55	7.17	450	0	0	0	0	0	0	0	0	
14:00	7.85	450	2.25	6.27	2.7	195	4.52	14.3	2.89	-108	light gray color

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/09/2013 Time: *(i.e. 14:32)* 15:35

Total Volume of Water Purged: 6 gal

HORRIBA		HACH TEST KITS	
pH	5.95	Alkalinity (g/g)	too dark
Spec. Cond. (mS/cm)	8.41	Carbon Dioxide (mg/L)	too dark
Turbidity (NTU)	800	Ferrous Iron (mg/L)	too dark
DO (mg/L)	0	Manganese (mg/L)	too dark
Temp.(^{o}C)	15.71	Hydrogen Sulfide (mg/L)	5
ORP (mv)	-504	DTW (ft)	9.44
TDS (g/L)	5.31	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Spec. Cond stable @15:25

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-15D

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.99

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/10/2013

Time: 08:29 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:39	6.29	200	0.53	6.29	4.2	1,000	2.428	11.82	1.583	-335.2	black w/ particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/10/2013

Time: *(i.e. 14:32)* 09:30

Total Volume of Water Purged: 5.5 gal

HORRIBA		HACH TEST KITS	
pH	6.34	Alkalinity (g/g)	*
Spec. Cond. (mS/cm)	2.622	Carbon Dioxide (mg/L)	*
Turbidity (NTU)	490	Ferrous Iron (mg/L)	*
DO (mg/L)	0.36	Manganese (mg/L)	*
Temp.(^oC)	11.88	Hydrogen Sulfide (mg/L)	5.0
ORP (mv)	-388.1	DTW (ft)	6.29
TDS (g/L)	1.704		

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

* Water black, could not run Hach kit analysis.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	2- filters	None	200 ml
Hydrogen Acetylene	☑	1-20ml vial	Na3PO4	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-16D

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.51

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/10/2013

Time: 11:36 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
11:46	6.08	225	0.6	6.91	4.23	1,000	20.88	11.66	13.58	-244.2	Black

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/10/2013

Time: *(i.e. 14:32)* 12:45

Total Volume of Water Purged: 4.75 gal.

HORRIBA	
pH	6.29
Spec. Cond. (mS/cm)	13.16
Turbidity (NTU)	149
DO (mg/L)	0.33
Temp.(^{o}C)	11.47
ORP (mv)	-345
TDS (g/L)	8.467

HACH TEST KITS	
Alkalinity (g/g)	*
Carbon Dioxide (mg/L)	*
Ferrous Iron (mg/L)	*
Manganese (mg/L)	*
Hydrogen Sulfide (mg/L)	3
DTW (ft)	6.04

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

* Water turned black could not run hach kit tests.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-17D

Manual Entry:

Well Diameter: 4 inches

Samplers: C Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 7.01

Purging Data

Method: *(i.e. low flow)* Low flow - peristaltic

Date: 04/09/2013

Time: 14:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
14:25	7.25	200	0.53	6.5	3.51	1,000	3.648	13.86	2.371	-224.2	silty black

Sampling Data

Method: *(i.e. low flow)* peristaltic

Date: 04/09/2013

Time: *(i.e. 14:32)* 15:45

Total Volume of Water Purged: 5.75 gallons

HORRIBA		HACH TEST KITS	
pH	6.35	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	3.811	Carbon Dioxide (mg/L)	
Turbidity (NTU)	531	Ferrous Iron (mg/L)	
DO (mg/L)	0.97	Manganese (mg/L)	
Temp.(^oC)	12.98	Hydrogen Sulfide (mg/L)	5
ORP (mv)	-321.3	DTW (ft)	7.25
TDS (g/L)	2.451		

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☑	2 filters	None	520 ml
Hydrogen Acetylene	☑	1-20 ml vial	Non	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-1D

Manual Entry:

Well Diameter: 4 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 6.85

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/09/2013

Time: 10:45 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
10:55	8.07	150	0.4	5.91	0.61	218	3.702	12.5	2.406	-28.5	black

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/09/2013

Time: *(i.e. 14:32)* 12:37

Total Volume of Water Purged: 5.5 gal

HORRIBA	
pH	5.89
Spec. Cond. (mS/cm)	3.711
Turbidity (NTU)	13.2
DO (mg/L)	0.34
Temp.(^{o}C)	13.12
ORP (mv)	-231.6
TDS (g/L)	2.419

HACH TEST KITS	
Alkalinity (g/g)	-
Carbon Dioxide (mg/L)	-
Ferrous Iron (mg/L)	-
Manganese (mg/L)	-
Hydrogen Sulfide (mg/L)	5
DTW (ft)	8.96

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

Water turned black could not run Hach Kit Analysis.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-1S

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013

Time: 14:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:57	2.77	200	0	0	0	0	0	0	0	0	
14:02	3.13	200	1	7.54	0	13.4	3.74	10.65	2.4	-189	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013

Time: *(i.e. 14:32)* 14:55

Total Volume of Water Purged: 4 gal

HORRIBA		HACH TEST KITS	
pH	6.79	Alkalinity (g/g)	8.20
Spec. Cond. (mS/cm)	7.08	Carbon Dioxide (mg/L)	112
Turbidity (NTU)	4.56	Ferrous Iron (mg/L)	1.8
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	11.17	Hydrogen Sulfide (mg/L)	3
ORP (mv)	-202	DTW (ft)	3.21
TDS (g/L)	4.47	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Bubbler 3:25 - 3:45 (20 mins @ 200 mL/min)

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1 FILTER = 1000 mL		
Hydrogen Acetylene	☑			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-2D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/04/2013

Time: 10:05 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
10:05	7.09	200	0	6.78	12....	0	4.39	11.55	2.81	-348	solids, strong odor

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/04/2013

Time: *(i.e. 14:32)* 15:50

Total Volume of Water Purged: 3.16 gal

HORRIBA		HACH TEST KITS	
pH	7.18	Alkalinity (g/g)	328
Spec. Cond. (mS/cm)	3.79	Carbon Dioxide (mg/L)	440
Turbidity (NTU)	14.2	Ferrous Iron (mg/L)	0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	12.67	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-371	DTW (ft)	17.2
TDS (g/L)	2.43	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Well purged dry @ 11.40

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	Filter 1: 510 mL		
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-2S

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 3.11

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/03/2013

Time: 10:56 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:06	5.21	150	0.39	6.68	3.62	39.9	8.112	8.3	5.911	-234.4	clear w/particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013

Time: *(i.e. 14:32)* 12:08

Total Volume of Water Purged: 4.5 gal

HORRIBA	
pH	6.72
Spec. Cond. (mS/cm)	10.17
Turbidity (NTU)	4.33
DO (mg/L)	0.31
Temp.(^oC)	9.01
ORP (mv)	-278.9
TDS (g/L)	6.610

HACH TEST KITS	
Alkalinity (g/g)	500
Carbon Dioxide (mg/L)	302
Ferrous Iron (mg/L)	1.2
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	5
DTW (ft)	5.39

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1-FILTER	none	1000mL
Hydrogen Acetylene	☑	1-20 mL VIAL	Non	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-3D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/09/2013

Time: 13:40 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:40	7.4	200	0	7.45	3.02	246	4.77	15.81	3.07	-301	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* dedicated tubing

Date: 04/09/2013

Time: *(i.e. 14:32)* 15:00

Total Volume of Water Purged: 3 gal

HORRIBA	
pH	6.85
Spec. Cond. (mS/cm)	3.84
Turbidity (NTU)	3.68
DO (mg/L)	0
Temp.(^oC)	16.58
ORP (mv)	-310
TDS (g/L)	2.45

HACH TEST KITS	
Alkalinity (g/g)	460
Carbon Dioxide (mg/L)	452
Ferrous Iron (mg/L)	0
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	2
DTW (ft)	11.01

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-3S

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.9

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/03/2013

Time: 15:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
14:07	6.98	150	0.39	6.47	5.87	8.85	5.412	9.72	3.518	-57.6	Clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/03/2013

Time: *(i.e. 14:32)* 15:15

Total Volume of Water Purged: 5 gal

HORRIBA		HACH TEST KITS	
pH	6.56	Alkalinity (g/g)	960
Spec. Cond. (mS/cm)	6.053	Carbon Dioxide (mg/L)	966
Turbidity (NTU)	2.53	Ferrous Iron (mg/L)	0.3
DO (mg/L)	0	Manganese (mg/L)	0.4
Temp.(^oC)	9.72	Hydrogen Sulfide (mg/L)	5
ORP (mv)	-277.5	DTW (ft)	8.13
TDS (g/L)	4.006	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

Dissolved hydrogen: 15:43 - 16:08. bubbled for 25 mins.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1 - FILTER	None	1000 mL
Hydrogen Acetylene	☑	1 - 20 mL VIAL	Non	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-4D

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 4.69

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/12/2013

Time: 08:22 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:32	5.34	125	0.33	6.71	2.99	8.7	4.759	9.71	3.093	-385	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/12/2013

Time: *(i.e. 14:32)* 09:35

Total Volume of Water Purged: 3 gal

HORRIBA	
pH	6.69
Spec. Cond. (mS/cm)	5.398
Turbidity (NTU)	1.16
DO (mg/L)	0.54
Temp.(^oC)	10.87
ORP (mv)	-362
TDS (g/L)	3.507

HACH TEST KITS	
Alkalinity (g/g)	25 drops ...
Carbon Dioxide (mg/L)	516
Ferrous Iron (mg/L)	0.1
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	2
DTW (ft)	5.6

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-4S

Manual Entry:

Well Diameter: 2 inches

Samplers: C Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 5.42

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/08/2013

Time: 15:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
15:10	6.45	120	0.32	6.65	4.75	7.45	7.567	11.04	4.918	-52.8	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/08/2013

Time: *(i.e. 14:32)* 16:32

Total Volume of Water Purged: 3 gal

HORRIBA	
pH	6.64
Spec. Cond. (mS/cm)	7.495
Turbidity (NTU)	0.38
DO (mg/L)	0.8
Temp.(^oC)	10.51
ORP (mv)	-26.8
TDS (g/L)	4.87

HACH TEST KITS	
Alkalinity (g/g)	340
Carbon Dioxide (mg/L)	390
Ferrous Iron (mg/L)	0.4
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	0.1
DTW (ft)	8.13

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-5D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/08/2013 Time: 13:20 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:20	7.22	200	0	7.55	2	0	3.68	19.21	2.73	-362	grayish, solid, odor

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/08/2013 Time: *(i.e. 14:32)* 15:20

Total Volume of Water Purged: 3.6 gal

HORRIBA		HACH TEST KITS	
pH	6.71	Alkalinity (g/g)	760
Spec. Cond. (mS/cm)	10.4	Carbon Dioxide (mg/L)	620
Turbidity (NTU)		Ferrous Iron (mg/L)	0.2
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	-363	Hydrogen Sulfide (mg/L)	1.3
ORP (mv)	6.48	DTW (ft)	16.60
TDS (g/L)	6.48	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Turbidity: OR

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☐	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-5S

Manual Entry:

Well Diameter: 2 inches

Samplers: R. Piurek

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/05/2013 Time: 11:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:32	3.52	150	0	0	0	0	0	0	0	0	
11:37	4.6	150	0.75	7.02	0	0	3.53	13.06	2.26	47	brown silty

Sampling Data

Method: *(i.e. low flow)* Low Flow

Date: 04/05/2013 Time: *(i.e. 14:32)* 15:00

Total Volume of Water Purged: 8.95 L

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	221
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	212
Turbidity (NTU)		Ferrous Iron (mg/L)	0.4
DO (mg/L)		Manganese (mg/L)	0.5
Temp.(^oC)		Hydrogen Sulfide (mg/L)	0
ORP (mv)		DTW (ft)	3.85
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Well purged dry @ 12:10

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: EKONOL FACILITY

Well ID: PMW-6D

Manual Entry:

Well Diameter: 2 inches

Samplers: DC Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* peristaltic

Date: 04/04/2013

Time: 11:03 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
11:47	8.27	200	1	7.2	0	19.4	3.69	12.87	2.36	-284	

Sampling Data

Method: *(i.e. low flow)* peristaltic

Date:

Time: *(i.e. 14:32)*

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Manganese (mg/L)	
Temp.(^{o}C)		Hydrogen Sulfide (mg/L)	
ORP (mv)		DTW (ft)	
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: well dry

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-6D

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low flow-peristaltic

Date: 04/08/2013 Time: *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:06	14.1	400	2	6.77	0	28.4	3.35	14.53	2.14	-269	clear

Sampling Data

Method: *(i.e. low flow)* peristaltic

Date: 04/09/2013 Time: *(i.e. 14:32)* 08:03

Total Volume of Water Purged: 3 gal

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Manganese (mg/L)	
Temp.(^oC)		Hydrogen Sulfide (mg/L)	
ORP (mv)		DTW (ft)	5
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑			
Hydrogen Acetylene	☐			

Comments:

Insufficient water to collect samples: collected all non-filtered samples. Collected these samples at 16.30.
Microbial Census - Vial 1: 400 mL Vial 2: 600 mL

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-6S

Manual Entry:

Well Diameter: 2 inches

Samplers: C Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 6.5

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/09/2013

Time: 08:02 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
08:30	7.74	110	0.29	6.3	2.07	4.69	2.935	10.52	1.907	-49.4	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/09/2013

Time: *(i.e. 14:32)* 09:53

Total Volume of Water Purged: 3.25 gal

HORRIBA	
pH	6.38
Spec. Cond. (mS/cm)	3.081
Turbidity (NTU)	5.84
DO (mg/L)	0.59
Temp.(^oC)	11.53
ORP (mv)	-114.4
TDS (g/L)	2.003

HACH TEST KITS	
Alkalinity (g/g)	1000
Carbon Dioxide (mg/L)	216
Ferrous Iron (mg/L)	1.5
Manganese (mg/L)	0.6
Hydrogen Sulfide (mg/L)	0.5
DTW (ft)	8.61

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

Collected duplicate. VOCs-3 MEE-2 C/S/N-2, DI-1, TOC-2.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-7D

Manual Entry:

Well Diameter: 2 inches

Samplers: Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/04/2013

Time: 14:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
14:12	7.07	200	0	0	0	0	0	0	0	0	
14:17	7.75	200	1	8.64	0	37.3	4.7	15.7	3.02	-292	

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/04/2013

Time: *(i.e. 14:32)* 15:10

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	7.41	Alkalinity (g/g)	510
Spec. Cond. (mS/cm)	4.82	Carbon Dioxide (mg/L)	708
Turbidity (NTU)	4.28	Ferrous Iron (mg/L)	0.3
DO (mg/L)	0	Manganese (mg/L)	1
Temp.(^{o}C)	14.64	Hydrogen Sulfide (mg/L)	5
ORP (mv)	-310	DTW (ft)	8.13
TDS (g/L)	308	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: PEkonol Facility

Well ID: PMW-7S

Manual Entry:

Well Diameter: 2 inches

Samplers: D.C. Burkert

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 11.51

Purging Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/05/2013

Time: 10:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
09:58	6.35	150	0	0	0	0	0	0	0	0	
10:03	7.35	150	0.75	7.2	0	38.6	4.34	10.72	2.78	-25	clear

Sampling Data

Method: *(i.e. low flow)* low flow

Date: 04/05/2013

Time: *(i.e. 14:32)* 13:45

Total Volume of Water Purged: 8.25 L

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	221
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	352
Turbidity (NTU)		Ferrous Iron (mg/L)	0.4
DO (mg/L)		Manganese (mg/L)	0.3
Temp.(^{o}C)		Hydrogen Sulfide (mg/L)	0
ORP (mv)		DTW (ft)	8.55
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments: Well purged dry @10:53.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-8D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/08/2013 Time: 11:30 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
11:30	7.05	200	0	7.69	0	41.1	3.56	13.26	2.28	-414	Clear

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/08/2013 Time: *(i.e. 14:32)* 12:30

Total Volume of Water Purged: 3 gal

HORRIBA		HACH TEST KITS	
pH	6.93	Alkalinity (g/g)	840
Spec. Cond. (mS/cm)	4.54	Carbon Dioxide (mg/L)	692
Turbidity (NTU)	10.8	Ferrous Iron (mg/L)	0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	14.10	Hydrogen Sulfide (mg/L)	3
ORP (mv)	-392	DTW (ft)	8.92
TDS (g/L)	2.89	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-8S

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 6.61

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/05/2013

Time: 09:52 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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
10:02	7.22	100	0.26	6.8	2.35	10.67	4.717	8.59	3.066	-140.2	Clear w/ few particles

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/05/2013

Time: *(i.e. 14:32)* 11:35

Total Volume of Water Purged: 3 gal

HORRIBA	
pH	6.61
Spec. Cond. (mS/cm)	5.309
Turbidity (NTU)	4.01
DO (mg/L)	0.22
Temp.(^{o}C)	9.66
ORP (mv)	-302.2
TDS (g/L)	3.45

HACH TEST KITS	
Alkalinity (g/g)	204
Carbon Dioxide (mg/L)	546
Ferrous Iron (mg/L)	1.4
Manganese (mg/L)	0
Hydrogen Sulfide (mg/L)	0.3
DTW (ft)	8.73

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-9D

Manual Entry:

Well Diameter: 4 inches

Samplers: R. Piurek

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): 6.95

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low flow

Date: 04/08/2013

Time: 15:45 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	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	6.95	399	9	6.18	1.22	82	4.69	13.59	3.02	-195	gray

Sampling Data

Method: *(i.e. low flow)* Low Flow

Date: 04/08/2013

Time: *(i.e. 14:32)* 16:35

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	6.09	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	4.31	Carbon Dioxide (mg/L)	
Turbidity (NTU)	672	Ferrous Iron (mg/L)	
DO (mg/L)	0	Manganese (mg/L)	
Temp.(^{o}C)	12.74	Hydrogen Sulfide (mg/L)	5
ORP (mv)	-260	DTW (ft)	-
TDS (g/L)	2.74	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

DTW - Difficult to get reading. veg. oil on end of WL meter.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: PMW-9S

Manual Entry:

Well Diameter: 2 inches

Samplers: C. Huey

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft): 6.83

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/08/2013

Time: 10:07 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
10:07	8.21	125	0.33	6.77	3.67	2.15	5.498	10.94	3.573	199.5	clear

Sampling Data

Method: *(i.e. low flow)* Peristaltic

Date: 04/08/2013

Time: *(i.e. 14:32)* 11:20

Total Volume of Water Purged: 4 gal

HORRIBA		HACH TEST KITS	
pH	6.81	Alkalinity (g/g)	400
Spec. Cond. (mS/cm)	5.432	Carbon Dioxide (mg/L)	256
Turbidity (NTU)	0.22	Ferrous Iron (mg/L)	0
DO (mg/L)	2.59	Manganese (mg/L)	0
Temp.(^oC)	11.13	Hydrogen Sulfide (mg/L)	0
ORP (mv)	145.1	DTW (ft)	8.87
TDS (g/L)	3.53	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1- Filter	None	1000 mL
Hydrogen Acetylene	☑	1-20 mL VIAL	Non	

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: RMW-2D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Geopump

Date: 04/04/2013

Time: 15:00 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:55	8.48	200	0	6.52	0.46	0	1.14	14.1	0.736	-281	milky, substrate

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/04/2013

Time: *(i.e. 14:32)* 15:00

Total Volume of Water Purged:

HORRIBA		HACH TEST KITS	
pH	6.46	Alkalinity (g/g)	
Spec. Cond. (mS/cm)	4.66	Carbon Dioxide (mg/L)	
Turbidity (NTU)	1,000	Ferrous Iron (mg/L)	
DO (mg/L)	0	Manganese (mg/L)	
Temp.(^oC)	12.93	Hydrogen Sulfide (mg/L)	0
ORP (mv)	-429	DTW (ft)	9.948
TDS (g/L)	2.99	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☑	1-Filter:240 mL		
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: RMW-2D

Manual Entry:

Well Diameter: 2 inches

Samplers: R. Piurek

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft):

Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow

Date: 04/10/2013

Time: 12:15 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
12:15	0	150	0	6.25	3.34	0	4.58	11.01	2.94	-217	Clear, black specs.

Sampling Data

Method: *(i.e. low flow)* low flow

Date: 04/10/2013

Time: *(i.e. 14:32)* 13:40

Total Volume of Water Purged: 3.9 gal

HORRIBA		HACH TEST KITS	
pH		Alkalinity (g/g)	
Spec. Cond. (mS/cm)		Carbon Dioxide (mg/L)	
Turbidity (NTU)		Ferrous Iron (mg/L)	
DO (mg/L)		Manganese (mg/L)	
Temp.(^oC)		Hydrogen Sulfide (mg/L)	2.0
ORP (mv)		DTW (ft)	*
TDS (g/L)		* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

*Heavy substrate on surface, cannot get reading. Sample for Sulfide only.

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☐	3-40mL glass vial	HCl	EPA 8260
MEE	☐	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☐	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☐	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☐	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☐	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☐	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: RMW-3D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/08/2013 Time: 09:05 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
09:00	7.32	200	0	6.91	5.59	0	3.23	12.72	2.02	-345	Vegetable oil, milky, ...

Sampling Data

Method: *(i.e. low flow)* Dedicated tubing

Date: 04/08/2013 Time: *(i.e. 14:32)* 10:30

Total Volume of Water Purged: 3 gal

HORRIBA		HACH TEST KITS	
pH	7.46	Alkalinity (g/g)	450
Spec. Cond. (mS/cm)	1.86	Carbon Dioxide (mg/L)	268
Turbidity (NTU)	15.5	Ferrous Iron (mg/L)	0
DO (mg/L)	0	Manganese (mg/L)	0
Temp.(^oC)	13.13	Hydrogen Sulfide (mg/L)	1
ORP (mv)	-375	DTW (ft)	7.37
TDS (g/L)	1.19	* NOTE * HACH test kits are only required for MNA analysis wells.	

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

LOW FLOW WELL SAMPLING RECORD

Site Name: Ekonol Facility

Well ID: RMW-4D

Manual Entry:

Well Diameter: 2 inches

Samplers: Dan Chamberland

WATER VOLUME CALCULATION

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

Initial Depth to Water (ft): Depth to Well Bottom (ft):

Purging Data

Method: *(i.e. low flow)* Low Flow - Peristaltic

Date: 04/10/2013 Time: 13:55 *(i.e. 14:32)*

1-inch=0.041	1.5-inch=0.092	2-inch=0.16	3-inch=0.36
4-inch=0.64	6-inch=1.4	8-inch=2.5	10-inch=4

Time (24hrs) (hh:mm)	DTW (ft)	Pump Rate (ml/min)	Volume (gal.)	pH	DO (mg/L)	Turbidity (NTU)	Spec Cond (mS/cm)	Temp (^oC)	TDS (g/L)	ORP (mV)	Comments
13:55	6.47	200	0	6.88	2.67	95.7	4.07	12.17	2.89	-360	Clear

Sampling Data

Method: *(i.e. low flow)* Dedicated Tubing

Date: 04/10/2013 Time: *(i.e. 14:32)* 16:55

Total Volume of Water Purged:

HORRIBA	
pH	6.22
Spec. Cond. (mS/cm)	5.01
Turbidity (NTU)	9.4
DO (mg/L)	0
Temp.(^oC)	12.37
ORP (mv)	-349
TDS (g/L)	3.26

HACH TEST KITS	
Alkalinity (g/g)	720
Carbon Dioxide (mg/L)	690
Ferrous Iron (mg/L)	0
Manganese (mg/L)	6
Hydrogen Sulfide (mg/L)	1
DTW (ft)	8.18

* NOTE * HACH test kits are only required for MNA analysis wells.

Comments:

SAMPLE SET

Parameter		Bottle	Pres.	Method
Select VOCs	☑	3-40mL glass vial	HCl	EPA 8260
MEE	☑	2-40mL glass vial	HCl	Lab SOP
Dissolved Inorganics	☑	1-250 mL plastic (Field Filtered)	HNO3	SW6010B
Chloride / Nitrate / Sulfate	☑	2-40mL glass (Field Filtered)	None	lab specified
Ortho Phosphate	☑	1-250 mL plastic (Field filtered)	None	EPA 365.1
Sulfide	☑	1-250 mL plastic (Field filtered)	NaOH/Zn Acetate	MS-45000-S2-F
Total Organic Carbon	☑	2-40mL amber glass vial	H3PO4	SW9060
Total Inorganic Carbon	☑	1-120mL glass amber	None	SW9060
Microbial Census	☐			
Hydrogen Acetylene	☐			

PARSONS

ATTACHMENT C

DATA USABILITY REPORT

DATA USABILITY SUMMARY REPORT

EKONOL FACILITY

Prepared For:

Atlantic Richfield Company

4850 East 49th Street
MBC 3-147
Cuyahoga Heights, Ohio 44125

Prepared By:

PARSONS

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Buffalo, New York 14202
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JUNE 2013

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LIST OF ATTACHMENTS

SECTION 1

DATA USABILITY SUMMARY

Groundwater samples were collected for the 2013 1st Quarter Monitoring from the Ekonol Facility site in Wheatfield, New York from April 2, 2013 through April 12, 2013. 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 Lancaster Laboratories, Inc. (LLI), Microseeps, Inc. (Microseeps), and Microbial Insights (MI). LLI 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 28-31 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 volatile samples OR-4SM, -6SM, -13SM, -14SM, -140SM, -15SM, PMW-2D, and RMW-2D were received and analyzed at LLI with a pH of 4-8 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; metals; chloride; nitrate; orthophosphate; sulfate; sulfide; total organic carbon (TOC); total inorganic carbon (TIC); total carbon; hydrogen; acetylene; 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,

"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 8260B analytical method. In addition, certain groundwater samples were analyzed for methane, ethane, and ethene using the modified USEPA approved RSK-175 analytical method. Certain reported results for these samples were considered estimated based upon instrument calibrations and field duplicate precision. The reported VOC and methane, ethane, and ethene analytical results were 100% complete (i.e., usable) based upon the groundwater data presented by LLI. 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 6010B analytical method. Certain reported results for the metals samples were considered estimated based upon instrument calibrations. The reported metals analytical results were 100% complete (i.e., usable) based upon the groundwater data presented by LLI. PARCC requirements were met.

1.3.3 Other Parameters

The groundwater samples collected from the Ekonol site were analyzed for chloride, nitrate, and sulfate using the USEPA 300.0 analytical method; sulfide using the SM20 4500 analytical method; orthophosphate using the USEPA 365.3; TOC, TIC, and total carbon using the SM20 5310C analytical method; hydrogen and acetylene using the Microseeps SOP AM20GAX; 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 with the exception of the sulfate results for the samples collected on 4/9/13 which were considered estimated, possibly biased low, and qualified “J” based upon a low matrix spike recovery (89%R; QC limit 90-110%R). The reported analytical results for these parameters were 100% complete (i.e., usable) based upon the groundwater data presented by LLI, Microseeps, 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 LLI containing 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 LLI within the following sample delivery groups (SDGs): BPW48, BPW49, BPW50, BPW51, BPW52, BPW53, BPW54, BPW55, and BPW56. 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 MS/MSD precision and accuracy, initial calibrations, and field duplicate precision as discussed below.

MS/MSD Precision and Accuracy

All MS/MSD precision (relative percent difference; RPD) and accuracy (percent recovery; %R) measurements were considered acceptable and within QC limits for designated spiked project samples with the exception of the low MS accuracy result for methane (11%R; QC limit 35-157%R) and the ethene precision (21%RPD; QC limit 0-20%RPD) during the spiked analyses of sample MW-16D; and the high MS/MSD accuracy results for ethene (199%R/217%R; QC limit 35-162%R) during the spiked analyses of OR-4SM. Validation qualification was not required.

Initial Calibrations

All initial calibration compounds had relative response factors (RRFs) greater than 0.05 and maximum percent relative standard deviations (%RSDs) of 20% with the exception of methane (31%RSD) in the initial calibration associated with samples collected on 4/3/13 and 4/5/13. Therefore, the methane results were considered estimated with positive results qualified "J" and nondetected results qualified "UJ" for the affected samples.

It was noted that the trans-1,2-dichloroethene concentration in sample INJ-7D exceeded the instrument calibration range. Therefore, this result is qualified "J" for this sample.

Field Duplicate Precision

All field duplicate precision results were considered acceptable with the exception of the trans-1,2-dichloroethene precision (86%RPD) for the field duplicate pair PMW-12D and PMW-112D. Therefore, the trans-1,2-dichloroethene results for these samples were considered estimated and qualified "J".

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 also noted that many samples were diluted and reanalyzed due to the exceedance in instrument calibration ranges for cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, trichloroethene, tetrachloroethene, 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 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 instrument calibrations and blank contamination as discussed below.

Instrument Calibrations

All initial and continuing calibration verifications were analyzed at the appropriate frequency with recoveries within QC limits. All instrument calibration reference standards were analyzed at the appropriate frequency with recoveries within the 50-150%R QC limit with the exception of the high standard recovery for dissolved calcium (240.4%R, 150.3%R) associated with samples collected on 4/8/13 except OR-15SM and PMW-4S and 4/12/13 except INJ-02; and dissolved magnesium (192.3%R, 191%R) associated with all samples collected on 4/8/13 and 4/13/13. Positive dissolved calcium and dissolved magnesium results were considered estimated, possibly biased high, and qualified "J" for the associated samples.

Blank Contamination

The laboratory preparation blank associated with samples collected on 4/5/13 and 4/8/13 contained dissolved calcium at a concentration of 417.66 µg/L. Therefore, dissolved calcium results less than the validation action concentration were considered not detected and qualified "U" for the affected 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 LLI 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 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	INJ-01 INJ-01_041113 7020188 LANCASTERLABS BPW55 WATER 4/11/2013 15:45 5/28/2013	INJ-02 INJ-02_041213 7021488 LANCASTERLABS BPW56 WATER 4/12/2013 9:25 5/28/2013	INJ-04 INJ-04_041213 7021492 LANCASTERLABS BPW56 WATER 4/12/2013 12:40 5/28/2013	INJ-05 INJ-05_041213 7021490 LANCASTERLABS BPW56 WATER 4/12/2013 11:05 5/28/2013	INJ-7D INJ-7D_040313 7009766/014KD-3/8554005/6 LANCASTERLABS/MI/MS BPW49/014KD/8554 WATER 4/3/2013 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	80 U	160 U	160 U	160 U	48
75-34-3	1,1-DICHLOROETHANE	ug/l	140 J	200 U	200 U	200 U	71
75-35-4	1,1-DICHLOROETHENE	ug/l	110 J	160 U	160 U	160 U	460
75-00-3	CHLOROETHANE	ug/l	100 U	200 U	200 U	200 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	150000	200000	110000	110000	280000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	84 J	190 J	160 U	200 J	1200
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	220 J	220 J	160 U	160 U	1900 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	5300	26000	2400	27000	340000
75-01-4	VINYL CHLORIDE	ug/l	3600	2500	2500	1700	1300
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	190	140	440	290	340
74-84-0	ETHANE	ug/l	13	13	26	28	40
74-82-8	METHANE	ug/l	1700	1400	3700	4400	470 J
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0076 J
7440-70-2	CALCIUM	mg/l	535	594	390 J	409 J	534
7439-89-6	IRON	mg/l	1.32	13.4	0.365	0.528	72.1
7439-95-4	MAGNESIUM	mg/l	248	231 J	331 J	297 J	126
7439-96-5	MANGANESE	mg/l	1.03	0.869	0.765	0.692	1.39
9/7/7440	POTASSIUM	mg/l	9.06	8.21	11.5	8.69	7.26
7782-49-2	SELENIUM	mg/l	0.0075 U	0.011 J	0.0082 J	0.0078 J	0.0075 U
7440-23-5	SODIUM	mg/l	317	274	440	291	467
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	1500				1260
TOC	TOTAL ORGANIC CARBON	mg/l	1060	1170	302	566	935
TIC	TOTAL INORGANIC CARBON	mg/l	438				321
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	501	472	1040	529	902
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.4 J	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.6 U	0.6 U	0.6 U	0.6 U	0.078 J
14808-79-8	SULFATE (AS SO4)	mg/l	304	270	833	500	293
18496-25-8	SULFIDE	mg/l	169	135	133	211	0.17
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					137000
DHBt	DHBt	cells/mL					309000
DHC	DHC	cells/mL					2260000
TCE	TCE	cells/mL					2210000
VCR	VCR	cells/mL					36300
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					180
1333-74-0	HYDROGEN	nM					1700

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	INJ-8D INJ-8D_041013 7018281 LANCASTERLABS BPW54 WATER 4/10/2013 13:45 5/28/2013	INJ-9D INJ-9D_040313 7009769/014KD-6/8554009/10 LANCASTERLABS/MI/MS BPW49/014KD/8554 WATER 4/3/2013 5/28/2013	INJ-10D INJ-10D_040413 7011245/014KD-12 LANCASTERLABS/MI BPW50/014KD WATER 4/4/2013 5/28/2013	INJ-11D INJ-11D_040513 7012546 LANCASTERLABS BPW51 WATER 4/5/2013 9:40 5/28/2013	INJ-12D INJ-12D_040513 7012548 LANCASTERLABS BPW51 WATER 4/5/2013 11:50 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	110	170	400	170	120
75-34-3	1,1-DICHLOROETHANE	ug/l	200	100	280	78	70
75-35-4	1,1-DICHLOROETHENE	ug/l	15 J	69	33	290	80
75-00-3	CHLOROETHANE	ug/l	5 U	10 U	2 U	10 U	10 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	9800	81000	9900	170000	94000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	4 U	110	16	360	130
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	12 J	58	19	170	110
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	6.3 J	12000	47	72000	10000
75-01-4	VINYL CHLORIDE	ug/l	2300	720	1200	1700	2100
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	63	80	430	420	990
74-84-0	ETHANE	ug/l	6.7	18	19	62	92
74-82-8	METHANE	ug/l	16000	6000 J	3500	970 J	5900 J
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U
7440-70-2	CALCIUM	mg/l	315	358	528	300 U	472 U
7439-89-6	IRON	mg/l	3.36	67.5	28.2	0.457	18.2
7439-95-4	MAGNESIUM	mg/l	93.6	53.3	61.7	161	90.1
7439-96-5	MANGANESE	mg/l	0.761	1.22	0.827	0.326	0.845
9/7/7440	POTASSIUM	mg/l	18.9	11.2	18.7	7.37	9.59
7782-49-2	SELENIUM	mg/l	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0098 J
7440-23-5	SODIUM	mg/l	127	452	2060	180	349
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	550	885	801	504	861
TOC	TOTAL ORGANIC CARBON	mg/l	463	709	629	270	659
TIC	TOTAL INORGANIC CARBON	mg/l	86.9	175	171	233	202
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	193	783	3670	330	1170
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.6 U	0.03 U	0.34	0.6 U	0.62
14808-79-8	SULFATE (AS SO4)	mg/l	7.3 J	15.9	4.1 J	325	36.1
18496-25-8	SULFIDE	mg/l	55.3	13.5	51.2	206	31.3
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL		2780	243000		
DHBt	DHBt	cells/mL		6850	14200		
DHC	DHC	cells/mL		16700	3660000		
TCE	TCE	cells/mL		10800	5440000		
VCR	VCR	cells/mL		12.5	34300		
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l		7.4			
1333-74-0	HYDROGEN	nM		40			

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	INJ-13D INJ-13D_040513 7012553 LANCASTERLABS BPW51 WATER 4/5/2013 13:50 5/28/2013	MW-1S MW-1S_040213 7008436 LANCASTERLABS BPW48 WATER 4/2/2013 13:10 5/28/2013	MW-2S MW-2S_040313 7009768/014KD-5 LANCASTERLABS/MI BPW49/014KD WATER 4/3/2013 5/28/2013	MW-3S MW-3S_041013 7018276 LANCASTERLABS BPW54 WATER 4/10/2013 9:00 5/28/2013	MW-4S MW-4S_041013 7018278 LANCASTERLABS BPW54 WATER 4/10/2013 11:50 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	110	0.8 U	47 J	0.8 U	4 U
75-34-3	1,1-DICHLOROETHANE	ug/l	79	1 U	38 J	1 U	6.2 J
75-35-4	1,1-DICHLOROETHENE	ug/l	100	1.3 J	560	0.8 U	8 J
75-00-3	CHLOROETHANE	ug/l	10 U	1 U	20 U	1 U	5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	110000	140	250000	0.8 U	3400
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	120	0.8 U	44 J	0.8 U	4 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	130	5.6	1800	0.8 U	55
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	15000	8.4	2000	1 U	39
75-01-4	VINYL CHLORIDE	ug/l	1800	7.7	28000	1 U	1700
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	680	1 U	230	1 U	380
74-84-0	ETHANE	ug/l	100	1 U	45	1 U	31
74-82-8	METHANE	ug/l	4500 J	14	950 J	3 U	6100
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0085 J	0.0068 U	0.0068 U	0.0068 U	0.0079 J
7440-70-2	CALCIUM	mg/l	495 U	320	439	139	360
7439-89-6	IRON	mg/l	1.97	0.427	0.958	0.0842 J	0.186 J
7439-95-4	MAGNESIUM	mg/l	100	379	259	36.4	487
7439-96-5	MANGANESE	mg/l	0.661	0.257	1.94	0.139	0.722
9/7/7440	POTASSIUM	mg/l	9.96	3.49	2.66	30.4	7.34
7782-49-2	SELENIUM	mg/l	0.0095 J	0.0075 U	0.0075 U	0.0075 U	0.0119 J
7440-23-5	SODIUM	mg/l	322	78.4	345	4170	208
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	1010	77.1	169	40.2	185
TOC	TOTAL ORGANIC CARBON	mg/l	767	1.6	4	8.3	9.2
TIC	TOTAL INORGANIC CARBON	mg/l	239	75.5	165	31.9	176
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	697	64.4	1050	7990	444
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.6 U	0.03 U	0.03 U	0.03 U	0.25
14808-79-8	SULFATE (AS SO4)	mg/l	80.4	2030	1230	254	2320
18496-25-8	SULFIDE	mg/l	65	0.054 U	0.054 U	0.054 U	22.9
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL			68200		
DHBt	DHBt	cells/mL			470		
DHC	DHC	cells/mL			142000		
TCE	TCE	cells/mL			265		
VCR	VCR	cells/mL			0.8		
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-5S MW-5S_040213 7008441 LANCASTERLABS BPW48 WATER 4/2/2013 16:05 5/28/2013	MW-6S MW-6S_041113 7020184 LANCASTERLABS BPW55 WATER 4/11/2013 12:37 5/28/2013	MW-7D MW-7D_040913 7016360 LANCASTERLABS BPW53 WATER 4/9/2013 9:15 5/28/2013	MW-7S MW-7S_041013 7018275 LANCASTERLABS BPW54 WATER 4/10/2013 8:15 5/28/2013	MW-8S MW-8S_041013 7018282 LANCASTERLABS BPW54 WATER 4/10/2013 14:30 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.8 U	0.8 U	2600	0.8 U	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	1000	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.8 U	0.8 U	130 J	0.8 U	0.8 U
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	50 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.99 J	1.9 J	64000	2.1 J	1.7 J
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	0.8 U	46 J	0.8 U	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.8 U	0.8 U	81 J	0.8 U	0.8 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1 U	190 J	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	3.3 J	1.3 J	740	1 U	1 U
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	1 U	1 U	79	1 U	1 U
74-84-0	ETHANE	ug/l	1 U	1 U	8.1	1 U	1 U
74-82-8	METHANE	ug/l	5.6	3 U	1100	3 U	3 U
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U		0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U		0.0068 U	0.0068 U	0.0068 U
7440-70-2	CALCIUM	mg/l	291		241	759	371
7439-89-6	IRON	mg/l	0.152 J		0.0459 J	0.0446 J	0.0333 U
7439-95-4	MAGNESIUM	mg/l	172		122	516	488
7439-96-5	MANGANESE	mg/l	0.161		0.608	0.325	0.394
9/7/7440	POTASSIUM	mg/l	2.76		6.01	4.85	6.82
7782-49-2	SELENIUM	mg/l	0.0075 U		0.0075 U	0.0138 J	0.0102 J
7440-23-5	SODIUM	mg/l	123		152	246	980
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l			434		
TOC	TOTAL ORGANIC CARBON	mg/l	1.5		210	2.6	5.3
TIC	TOTAL INORGANIC CARBON	mg/l			223		
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	237		245	1910	1660
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U		0.25 U	0.25 U	0.31 J
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.03 U		0.6 U	0.03 U	0.03 U
14808-79-8	SULFATE (AS SO4)	mg/l	1060		10 J	2210	3840
18496-25-8	SULFIDE	mg/l	0.054 U		224	0.054 U	0.054 U
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					
DHBt	DHBt	cells/mL					
DHC	DHC	cells/mL					
TCE	TCE	cells/mL					
VCR	VCR	cells/mL					
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-9S MW-9S_040213 7008442 LANCASTERLABS BPW48 WATER 4/2/2013 16:40 5/28/2013	MW-10D MW-10D_040213 7008440 LANCASTERLABS BPW48 WATER 4/2/2013 16:00 5/28/2013	MW-10S MW-10S_040513 7012549 LANCASTERLABS BPW51 WATER 4/5/2013 13:20 5/28/2013	MW-11D PMW-11D_040913 7016369 LANCASTERLABS BPW53 WATER 4/9/2013 16:50 5/28/2013	MW-11S MW-11S_041213 7021491 LANCASTERLABS BPW56 WATER 4/12/2013 12:35 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	2.6 J	230	0.8 U	630	14
75-34-3	1,1-DICHLOROETHANE	ug/l	7.7	17	1 U	55	48
75-35-4	1,1-DICHLOROETHENE	ug/l	4.3 J	9	0.91 J	9.6	1.7 J
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1100	770	330	210	180
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	0.8 U	0.8 U	1.1 J	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	8.8	2.3 J	6.8	1.3 J	9.6
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	2.6 J	3 J	9.6	44
75-01-4	VINYL CHLORIDE	ug/l	640	160	280	160	160
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	35	5.5	280	6.9	97
74-84-0	ETHANE	ug/l	1 U	19	5.2	9.6	2 J
74-82-8	METHANE	ug/l	54	270	570 J	59	950
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U			
7440-38-2	ARSENIC	mg/l	0.0068 U	0.0068 U			
7440-70-2	CALCIUM	mg/l	418	329			
7439-89-6	IRON	mg/l	0.627	0.0773 J			
7439-95-4	MAGNESIUM	mg/l	479	81.8			
7439-96-5	MANGANESE	mg/l	0.428	0.104			
9/7/7440	POTASSIUM	mg/l	5.17	4.93			
7782-49-2	SELENIUM	mg/l	0.0075 U	0.0075 U			
7440-23-5	SODIUM	mg/l	247	295			
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l					
TOC	TOTAL ORGANIC CARBON	mg/l	5.8	2.5			
TIC	TOTAL INORGANIC CARBON	mg/l					
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	331	493			
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U			
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.12	0.075 J			
14808-79-8	SULFATE (AS SO4)	mg/l	2480	815			
18496-25-8	SULFIDE	mg/l	15.2	7.5			
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					
DHBt	DHBt	cells/mL					
DHC	DHC	cells/mL					
TCE	TCE	cells/mL					
VCR	VCR	cells/mL					
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-12D MW-12D_040213 7008438 LANCASTERLABS BPW48 WATER 4/2/2013 14:30 5/28/2013	MW-12S MW-12S_041113 7020185 LANCASTERLABS BPW55 WATER 4/11/2013 12:50 5/28/2013	MW-13D MW-13D_040213 7008433 LANCASTERLABS BPW48 WATER 4/2/2013 11:35 5/28/2013	MW-14D MW-14D_040813 7015037 LANCASTERLABS BPW52 WATER 4/8/2013 10:05 5/28/2013	MW-15D MW-15D_040213 7008431 LANCASTERLABS BPW48 WATER 4/2/2013 9:45 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	5.1	51	0.8 U	0.8 U	49
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	45	16	1 U	25
75-35-4	1,1-DICHLOROETHENE	ug/l	0.8 U	2.6 J	0.99 J	0.8 U	4.2 J
75-00-3	CHLOROETHANE	ug/l	1 U	2 U	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	16	960	230	0.8 U	480
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	1.6 U	0.8 U	0.8 U	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.8 U	22	2.2 J	0.8 U	4.5 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1800	1 U	1 U	2.7 J
75-01-4	VINYL CHLORIDE	ug/l	7.9	210	230	1 U	240
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	1 U	400	26	1 U	3.3 J
74-84-0	ETHANE	ug/l	29	27	15	15	1 U
74-82-8	METHANE	ug/l	160	6200	110	45	15
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U		0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U		0.0068 U	0.0068 U	0.0068 U
7440-70-2	CALCIUM	mg/l	566		570	295 UJ	165
7439-89-6	IRON	mg/l	0.0333 U		0.0333 U	0.0333 U	0.169 J
7439-95-4	MAGNESIUM	mg/l	120		169	149 J	73.8
7439-96-5	MANGANESE	mg/l	0.0226		0.0202	0.224	0.0879
9/7/7440	POTASSIUM	mg/l	3.2		5.58	3.15	3.85
7782-49-2	SELENIUM	mg/l	0.0075 U		0.0075 U	0.0093 J	0.0075 U
7440-23-5	SODIUM	mg/l	52.4		124	88.1	61.4
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l					
TOC	TOTAL ORGANIC CARBON	mg/l	0.5 U		2.2	1.8	1.1
TIC	TOTAL INORGANIC CARBON	mg/l					
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	102		172	120	92.7
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U		0.25 U	0.25 U	0.35 J
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.03 U		0.03 U	0.03 U	0.03 U
14808-79-8	SULFATE (AS SO4)	mg/l	1540		1030	1050	506
18496-25-8	SULFIDE	mg/l	42.8		27	3.8	1.8
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					
DHBt	DHBt	cells/mL					
DHC	DHC	cells/mL					
TCE	TCE	cells/mL					
VCR	VCR	cells/mL					
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-16D MW-16D_040213 7008428 LANCASTERLABS BPW48 WATER 4/2/2013 9:35 5/28/2013	MW-17D MW-17D_040213 7008435 LANCASTERLABS BPW48 WATER 4/2/2013 12:20 5/28/2013	MW-18D MW-18D_040213 7008437 LANCASTERLABS BPW48 WATER 4/2/2013 14:00 5/28/2013	Dup of MW-18D_040213 MW-18D MW-180D_040213 7008434 LANCASTERLABS BPW48 WATER 4/2/2013 12:01 5/28/2013	MW-19D MW-19D_040213 7008432 LANCASTERLABS BPW48 WATER 4/2/2013 10:15 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	1.7 J	210	0.8 U	0.8 U	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	11	29	1 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	2 J	2.8 J	0.8 U	0.8 U	0.8 U
75-00-3	CHLOROETHANE	ug/l	1 U	1.7 J	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	270	75	0.8 U	0.8 U	22
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	1.3 J	0.8 U	0.8 U	0.8 U	0.8 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1.3 J	3.4 J	1 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	180	50	1 U	1 U	1 U
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	21	1.4 J	1 U	1 U	1 U
74-84-0	ETHANE	ug/l	11	4.1 J	1 U	1 U	1 U
74-82-8	METHANE	ug/l	150	59	29	33	23
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U		0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U		0.0068 U	0.0068 U	0.0068 U
7440-70-2	CALCIUM	mg/l	356		435	439	536
7439-89-6	IRON	mg/l	0.213		0.0333 U	0.0333 U	2.31
7439-95-4	MAGNESIUM	mg/l	135		146	146	645
7439-96-5	MANGANESE	mg/l	0.0625		0.0933	0.0945	0.107
9/7/7440	POTASSIUM	mg/l	4.01		2.55	2.56	5.08
7782-49-2	SELENIUM	mg/l	0.0075 U		0.0075 U	0.0075 U	0.0075 U
7440-23-5	SODIUM	mg/l	107		69.2	69.5	149
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l					
TOC	TOTAL ORGANIC CARBON	mg/l	2.6		3.2	3.2	8.1
TIC	TOTAL INORGANIC CARBON	mg/l					
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	231		97.5	98.7	244
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U		0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.03 U		0.039 J		0.03 U
14808-79-8	SULFATE (AS SO4)	mg/l	1020		1290	1320	3120
18496-25-8	SULFIDE	mg/l	1.8		1.6		0.054 U
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					
DHBt	DHBt	cells/mL					
DHC	DHC	cells/mL					
TCE	TCE	cells/mL					
VCR	VCR	cells/mL					
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	MW-20D MW-20D_041113 7020187 LANCASTERLABS BPW55 WATER 4/11/2013 15:00 5/28/2013	MW-21D MW-21D_041113 7020186 LANCASTERLABS BPW55 WATER 4/11/2013 14:00 5/28/2013	OR-3SM OR-3SM_040413 7011246 LANCASTERLABS BPW50 WATER 4/4/2013 14:50 5/28/2013	OR-4SM OR-4SM_040413 7011250 LANCASTERLABS BPW50 WATER 4/4/2013 16:45 5/28/2013	OR-5SM OR-5SM_040313 7009764/014KD-1/85540001/2 LANCASTERLABS/MI/MS BPW49/014KD/8554 WATER 4/3/2013 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	3700	260	0.8 U	0.8 U	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	290	41	1 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	53	7	0.8 U	0.8 U	0.8 U
75-00-3	CHLOROETHANE	ug/l	2.5 U	1 U	1 U	1 U	1.6 J
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	1700	780	0.8 U	1 J	72
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	5.8 J	0.8 U	0.8 U	0.8 U	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	8.6 J	5.3	0.8 U	0.8 U	2.6 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	47	5.4	1 U	6.9	1 U
75-01-4	VINYL CHLORIDE	ug/l	330	730	1 U	1 U	230
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	22	11	1 U	1 U	400
74-84-0	ETHANE	ug/l	1.4 J	1 U	170	1.4 J	380
74-82-8	METHANE	ug/l	190	36	23000	8100	28000 J
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l			0.0743 U	0.372 U	0.0743 U
7440-38-2	ARSENIC	mg/l			0.0096 J	0.0068 U	0.008 J
7440-70-2	CALCIUM	mg/l			499	470	528
7439-89-6	IRON	mg/l			37.7	48.2	11.5
7439-95-4	MAGNESIUM	mg/l			147	113	112
7439-96-5	MANGANESE	mg/l			2.72	7.73	2.32
9/7/7440	POTASSIUM	mg/l			38.6	36.5	22
7782-49-2	SELENIUM	mg/l			0.0075 U	0.0075 U	0.0075 U
7440-23-5	SODIUM	mg/l			737	120	1260
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l			348	615	181
TOC	TOTAL ORGANIC CARBON	mg/l			69.4	54.6	12.8
TIC	TOTAL INORGANIC CARBON	mg/l			279	560	169
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l			1520	165	2930
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l			0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l			0.03 U	0.03 U	0.03 U
14808-79-8	SULFATE (AS SO4)	mg/l			276	2.8 J	276
18496-25-8	SULFIDE	mg/l			0.39	0.15 J	1.7
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					12900
DHBt	DHBt	cells/mL					344
DHC	DHC	cells/mL					114000
TCE	TCE	cells/mL					5910
VCR	VCR	cells/mL					871
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					0.5 U
1333-74-0	HYDROGEN	nM					0.6

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	OR-6SM OR-6SM_040313 7009765/014KD-2/85540003/4 LANCASTERLABS/MI/MS BPW49/014KD/8554 WATER 4/3/2013 5/28/2013	OR-9SM OR-9SM_040513 7012544 LANCASTERLABS BPW51 WATER 4/5/2013 9:00 5/28/2013	OR-10SM OR-10SM_040513 7012545 LANCASTERLABS BPW51 WATER 4/5/2013 9:15 5/28/2013	OR-13SM OR-13SM_040413 7011242/014KD-10 LANCASTERLABS/MI BPW50/014KD WATER 4/4/2013 5/28/2013	OR-14SM OR-14SM_040413 7011241/014KD-9 LANCASTERLABS/MI BPW50014KD WATER 4/4/2013 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	3.6 J	13	0.8 U	0.8 U	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	12	6.7	1 U	1.9 J	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	7.3	2.3 J	0.8 U	0.8 U	0.8 U
75-00-3	CHLOROETHANE	ug/l	1 U	4 J	12	17	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	8900	530	0.8 U	0.8 U	0.8 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	260	3.8 J	0.84 J	1.8 J	0.86 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	3.6 J	1.5 J	1 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	3000	290	1 U	1 U	1 U
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	660	160	1.2 J	5.2	5.2
74-84-0	ETHANE	ug/l	1000	50	30	7.7	5.8
74-82-8	METHANE	ug/l	10000 J	16000 J	18000 J	15000	15000
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0166 J	0.0068 U	0.0113 J	0.0173 J	0.0081 J
7440-70-2	CALCIUM	mg/l	689	366 U	429 U	494	666
7439-89-6	IRON	mg/l	15.2	0.0333 U	4	25.5	17.9
7439-95-4	MAGNESIUM	mg/l	220	104	175	187	286
7439-96-5	MANGANESE	mg/l	6.57	1.06	3.27	5.91	6.82
9/7/7440	POTASSIUM	mg/l	48.4	14.3	25.2	42.9	130
7782-49-2	SELENIUM	mg/l	0.0075 U	0.0075 U	0.0094 J	0.0075 U	0.0075 U
7440-23-5	SODIUM	mg/l	329	555	319	313	168
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	595	214	465	618	898
TOC	TOTAL ORGANIC CARBON	mg/l	64.9	13.9	31.2	54.9	68.1
TIC	TOTAL INORGANIC CARBON	mg/l	530	200	434	563	829
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	972	1190	759	619	206
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.09	0.6 U	0.92	0.03 U	0.03 U
14808-79-8	SULFATE (AS SO4)	mg/l	254	172	226	50	231
18496-25-8	SULFIDE	mg/l	18.4	104	13.5	11.4	7.4
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL	3830			24.6	73.9
DHBt	DHBt	cells/mL	1780			1610	2050
DHC	DHC	cells/mL	505000			6080	10500
TCE	TCE	cells/mL	12500			704	987
VCR	VCR	cells/mL	4910			16	51.4
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l	0.5 U				
1333-74-0	HYDROGEN	nM	0.86				

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	Dup of OR-14SM_040413 OR-14SM OR-140SM_040413 7011243 LANCASTERLABS BPW50 WATER 4/4/2013 12:01 5/28/2013	OR-15SM OR-15SM_040813 7015043 LANCASTERLABS BPW52 WATER 4/8/2013 15:10 5/28/2013	OR-18SM OR-18SM_040813 7015041 LANCASTERLABS BPW52 WATER 4/8/2013 13:15 5/28/2013	PMW-1D PMW-1D_040913 7016364 LANCASTERLABS BPW53 WATER 4/9/2013 12:37 5/28/2013	PMW-1S PMW-1S_040313 7009770/014KD-7/85540011/12 LANCASTERLABS/MI/MS BPW49/014KD8554 WATER 4/3/2013 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.8 U	0.8 U	0.8 U	40 U	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	1 U	50 U	5.5
75-35-4	1,1-DICHLOROETHENE	ug/l	0.8 U	0.8 U	0.8 U	40 U	3.5 J
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	1 U	50 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.8 U	0.8 U	16	43000	710
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	0.8 U	0.8 U	40 U	1.3 J
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.85 J	0.8 U	2.3 J	180 J	16
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1 U	1 U	230 J	110
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	22	3100	380
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	4.9 J	1 U	27	140	340
74-84-0	ETHANE	ug/l	5.7	2.3 J	23	36	240
74-82-8	METHANE	ug/l	14000	17000	16000	2600	15000 J
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0083 J	0.0068 U	0.0068 U	0.034 U	0.0068 U
7440-70-2	CALCIUM	mg/l	654	705 U	272 UJ	380	440
7439-89-6	IRON	mg/l	17.4	78.6	0.0333 U	180	1.65
7439-95-4	MAGNESIUM	mg/l	277	131 J	76.9 J	112	74
7439-96-5	MANGANESE	mg/l	6.72	11.3	1.37	3.3	1.93
9/7/7440	POTASSIUM	mg/l	128	154	21	17.5	19.3
7782-49-2	SELENIUM	mg/l	0.0075 U	0.0134 J	0.0075 U	0.0075 U	0.0075 U
7440-23-5	SODIUM	mg/l	163	191	118	216	935
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l		935	246	1640	175
TOC	TOTAL ORGANIC CARBON	mg/l	99.7	177	22.3	1380	20.3
TIC	TOTAL INORGANIC CARBON	mg/l		757	224	256	155
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	225	214	170	153	2170
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l		0.03 U	1.3	0.03 U	0.14
14808-79-8	SULFATE (AS SO4)	mg/l	233	1.5 U	226	5.5 J	136
18496-25-8	SULFIDE	mg/l		0.054 U	29.6	14.4	9.1
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					6790
DHBt	DHBt	cells/mL					1200
DHC	DHC	cells/mL					300000
TCE	TCE	cells/mL					16700
VCR	VCR	cells/mL					1060
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					0.5 U
1333-74-0	HYDROGEN	nM					0.82

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-2D PMW-2D_040413 7011249/014KD-14 LANCASTERLABS/MI BPW50/014KD WATER 4/4/2013 5/28/2013	PMW-2S PMW-2S_040313 7009767/014KD-4/85540007/8 LANCASTERLABS/MI/MS BPW49/014KD/8554 WATER 4/3/2013 5/28/2013	PMW-3D PMW-3D_040913 7016367 LANCASTERLABS BPW53 WATER 4/9/2013 15:00 5/28/2013	PMW-3S PMW-3S_040313 7009771/014KD-8/85540013/14 LANCASTERLABS/MI/MS BPW49/014KD/8554 WATER 4/3/2013 5/28/2013	PMW-4D PMW-4D_041213 7021489 LANCASTERLABS BPW56 WATER 4/12/2013 9:35 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	40 U	0.8 U	40 U	16 U	40 U
75-34-3	1,1-DICHLOROETHANE	ug/l	56 J	1.2 J	50 U	24 J	61 J
75-35-4	1,1-DICHLOROETHENE	ug/l	71 J	0.8 U	40 U	44 J	45 J
75-00-3	CHLOROETHANE	ug/l	50 U	1 U	50 U	20 U	50 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	130000	180	25000	29000	24000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	40 U	0.8 U	40 U	23 J	78 J
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	160 J	7.1	40 U	510	90 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	700	1.5 J	1700	330	730
75-01-4	VINYL CHLORIDE	ug/l	1500	130	350	4900	2500
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	140	74	28	1500	620
74-84-0	ETHANE	ug/l	15	340	12	660	37
74-82-8	METHANE	ug/l	2900	20000 J	5500	17000 J	7700
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U	0.0068 U	0.0068 U	0.007 J	0.0068 U
7440-70-2	CALCIUM	mg/l	336	534	348	613	406 J
7439-89-6	IRON	mg/l	0.0333 U	1.61	0.342	0.502	0.0333 U
7439-95-4	MAGNESIUM	mg/l	192	105	137	230	362 J
7439-96-5	MANGANESE	mg/l	0.299	1.5	0.239	2.97	0.645
9/7/7440	POTASSIUM	mg/l	10.3	24.3	16.5	10.7	10.9
7782-49-2	SELENIUM	mg/l	0.0075 U	0.0075 U	0.0075 U	0.0075 U	0.0075 U
7440-23-5	SODIUM	mg/l	261	4100	396	588	367
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	1120	103	507	253	333
TOC	TOTAL ORGANIC CARBON	mg/l	821	6.6	323	13.7	85.5
TIC	TOTAL INORGANIC CARBON	mg/l	296	96.7	184	239	248
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	606	3760	692	1600	789
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.6 U	0.06 J	0.6 U	0.63	0.6 U
14808-79-8	SULFATE (AS SO4)	mg/l	41.6	319	309 J	950	895
18496-25-8	SULFIDE	mg/l	206	4.9	279	17.2	157
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL	17600	6870		166000	
DHBt	DHBt	cells/mL	12300	4060		850	
DHC	DHC	cells/mL	46000	210000		1440000	
TCE	TCE	cells/mL	1960	11000		86300	
VCR	VCR	cells/mL	91.8	1490		19300	
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l		0.5 U		0.5 U	
1333-74-0	HYDROGEN	nM		1.1		0.68	

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-4S PMW-4S_040813 7015045 LANCASTERLABS BPW52 WATER 4/8/2013 16:32 5/28/2013	PMW-5D PMW-5D_040813 7015044 LANCASTERLABS BPW52 WATER 4/8/2013 15:20 5/28/2013	PMW-5S PMW-5S_040513 7012554 LANCASTERLABS BPW51 WATER 4/5/2013 15:00 5/28/2013	PMW-6D PMW-6D_040913 7016370/7016372/014KD-18 LANCASTERLABS/MI BPW53/014KD Water 4/9/2013 5/28/2013	PMW-6S PMW-6S_040913 7016361 LANCASTERLABS BPW53 WATER 4/9/2013 9:53 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.8 U	99	4 U	40 U	8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	19	85	11 J	83 J	10 U
75-35-4	1,1-DICHLOROETHENE	ug/l	33	40	69	40 U	8 U
75-00-3	CHLOROETHANE	ug/l	1 U	5 U	5 U	50 U	10 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	13000	45000	39000	44000	3300
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	3.2 J	20 J	4 U	40 U	8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	400	46	720	92 J	110
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	270	1200	2300	2400	10 U
75-01-4	VINYL CHLORIDE	ug/l	1100	560	7800	1000	1900
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	48	77	350	99	450
74-84-0	ETHANE	ug/l	110	15	58	9.7	45
74-82-8	METHANE	ug/l	11000	1500	2100 J	2800	11000
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U	0.0068 U	0.0068 U	0.0156 J	0.0068 U
7440-70-2	CALCIUM	mg/l	748 U	378 UJ	482 U	454	413
7439-89-6	IRON	mg/l	0.386	0.0601 J	0.258	0.0333 U	27.8
7439-95-4	MAGNESIUM	mg/l	417 J	120 J	252	173	143
7439-96-5	MANGANESE	mg/l	1.25	0.252	1.58	0.533	4.63
9/7/7440	POTASSIUM	mg/l	3.54	25.6	3.2	9.29	22.5
7782-49-2	SELENIUM	mg/l	0.0101 J	0.0075 U	0.0105 J	0.0086 J	0.0075 U
7440-23-5	SODIUM	mg/l	370	1420	138	224	171
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	120		153	319	475
TOC	TOTAL ORGANIC CARBON	mg/l	2.7	455	5.9	466	39.8
TIC	TOTAL INORGANIC CARBON	mg/l	117		148	12.5 U	436
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	1650	2750	566	314	305
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.03 U	0.6 U	0.03 U	0.6 U	0.072 J
14808-79-8	SULFATE (AS SO4)	mg/l	1770	97.7	1390	428 J	184 J
18496-25-8	SULFIDE	mg/l	0.054 U	182	0.054 U	152	0.68
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL				30200	
DHBt	DHBt	cells/mL				523	
DHC	DHC	cells/mL				201000	
TCE	TCE	cells/mL				17200	
VCR	VCR	cells/mL				6760	
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)			Dup of PMW-6S_040913				
		Location ID:	PMW-6S	PMW-7D	PMW-7S	PMW-8D	PMW-8S
		Sample ID:	PMW-106S_040913	PMW-7D_040413	PMW-7S_040513	PMW-8D_040813	PMW-8S_040513
		Lab Sample Id:	7016362	7011248	7012552	7015040	7012547
		Source:	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS	LANCASTERLABS
		SDG:	BPW53	BPW50	BPW51	BPW52	BPW51
		Matrix:	WATER	WATER	WATER	WATER	WATER
		Sampled:	4/9/2013 12:01	4/4/2013 15:10	4/5/2013 13:45	4/8/2013 12:30	4/5/2013 11:35
		Validated:	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	4 U	140	0.8 U	18	14
75-34-3	1,1-DICHLOROETHANE	ug/l	5 U	190	49	34	13
75-35-4	1,1-DICHLOROETHENE	ug/l	5.6 J	35 J	0.8 U	43	0.8 U
75-00-3	CHLOROETHANE	ug/l	5 U	10 U	1 U	2 U	4.9 J
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	3200	28000	3.7 J	31000	63
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	4 U	68	0.8 U	33	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	98	58	0.8 U	73	1.6 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	5 U	840	1 U	3400	2 J
75-01-4	VINYL CHLORIDE	ug/l	1700	1000	4.3 J	1800	150
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	350	430	1.7 J	97	280
74-84-0	ETHANE	ug/l	42	32	1 U	6	18
74-82-8	METHANE	ug/l	14000	4400	24 J	2700	4000 J
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U
7440-70-2	CALCIUM	mg/l	416	330	404 U	398 UJ	424 U
7439-89-6	IRON	mg/l	27.6	0.0333 U	0.621	0.0333 U	3.5
7439-95-4	MAGNESIUM	mg/l	142	395	618	417 J	369
7439-96-5	MANGANESE	mg/l	4.64	0.39	0.158	0.338	1.28
9/7/7440	POTASSIUM	mg/l	22.6	30.4	4.91	6.13	7.07
7782-49-2	SELENIUM	mg/l	0.0075 U	0.0075 U	0.0141 J	0.0075 U	0.0097 J
7440-23-5	SODIUM	mg/l	173	306	163	244	300
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l		348	158		182
TOC	TOTAL ORGANIC CARBON	mg/l	44.4	60.5	4	209	7.8
TIC	TOTAL INORGANIC CARBON	mg/l		287	154		174
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	300	618	334	320	667
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l		0.064 J	0.03 U	0.6 U	0.13
14808-79-8	SULFATE (AS SO4)	mg/l	194 J	1300	3300	1510	1670
18496-25-8	SULFIDE	mg/l		249	0.054 U	247	13.6
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					
DHBt	DHBt	cells/mL					
DHC	DHC	cells/mL					
TCE	TCE	cells/mL					
VCR	VCR	cells/mL					
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-9D PMW-9D_040813 7015046 LANCASTERLABS BPW52 WATER 4/8/2013 16:35 5/28/2013	PMW-9S PMW-9S_040813 7015039/014KD-15/86150001/2 LANCASTERLABS/MI/MS BPW52/014KD/8615 WATER 4/8/2013 5/28/2013	PMW-10D PMW-10D_041113 7020183 LANCASTERLABS BPW55 WATER 4/11/2013 10:15 5/28/2013	PMW-10S PMW-10S_040413 BPW50/014KD-11 LANCASTERLABS/MI BPW50/014KD WATER 4/4/2013 5/28/2013	PMW-11D PMW-11D_040813 7015042/014KD-16/86150003/4 LANCASTERLABS/MI/MS BPW52/014KD/8615 WATER 4/8/2013 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	16 U	1.6 J	380 J	0.8 U	32000
75-34-3	1,1-DICHLOROETHANE	ug/l	51 J	1 U	260 J	1 U	470
75-35-4	1,1-DICHLOROETHENE	ug/l	160	11	210 J	0.8 U	1900
75-00-3	CHLOROETHANE	ug/l	20 U	5.2	200 U	1 U	5 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	200000	2500	140000	0.8 U	5800
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1000	0.8 U	170 J	0.8 U	120
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	330	27	160 U	0.8 U	31
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	52000	4700	7600	1 U	670
75-01-4	VINYL CHLORIDE	ug/l	1300	49	3300	3.2 J	240
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	340	2.7 J	280	1 U	18
74-84-0	ETHANE	ug/l	45	3.8 J	15	1 J	4.1 J
74-82-8	METHANE	ug/l	1200	51	1200	44	190
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U
7440-70-2	CALCIUM	mg/l	532 UJ	442 UJ	420	408	252 UJ
7439-89-6	IRON	mg/l	116	0.0333 U	124	0.0333 U	0.753
7439-95-4	MAGNESIUM	mg/l	154 J	540 J	84.3	602	83.5 J
7439-96-5	MANGANESE	mg/l	1.87	0.292	2.01	0.271	0.241
9/7/7440	POTASSIUM	mg/l	14.4	5.89	6.39	4.57	3.11
7782-49-2	SELENIUM	mg/l	0.0137 J	0.0075 U	0.0075 U	0.0075 U	0.0076 J
7440-23-5	SODIUM	mg/l	360	213	1080	151	81.8
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	2260	124	853	119	142
TOC	TOTAL ORGANIC CARBON	mg/l	2110	2.7	652	2	32.6
TIC	TOTAL INORGANIC CARBON	mg/l	146 J	122	201	117	109
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	613	288	3180	192	133
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.21	0.03 U	0.03 U	0.03 U	0.6 U
14808-79-8	SULFATE (AS SO4)	mg/l	43.3	2930	22.9	2770	520
18496-25-8	SULFIDE	mg/l	6	0.054 U	7.9	0.054 U	34.9
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL		1.6		0.5 U	1920
DHBt	DHBt	cells/mL		48.9		189	1620
DHC	DHC	cells/mL		2.6		4.1	330
TCE	TCE	cells/mL		4.3		0.5 U	186
VCR	VCR	cells/mL		0.5 U		0.5 U	25.3
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l		0.5 U			0.5 U
1333-74-0	HYDROGEN	nM		0.76			14

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-11S PMW-11S_040413 7011240 LANCASTERLABS BPW50 WATER 4/4/2013 9:05 5/28/2013	PMW-11S PMW-11S_041113 7020182 LANCASTERLABS BPW55 WATER 4/11/2013 10:10 5/28/2013	PMW-12D PMW-12D_041013 7018283 LANCASTERLABS BPW54 WATER 4/10/2013 16:20 5/28/2013	Dup of PMW-12D_041013 PMW-12D PMW-112D_041013 7018284 LANCASTERLABS BPW54 WATER 4/10/2013 12:01 5/28/2013	PMW-13D PMW-13D_040913 7016363 LANCASTERLABS BPW53 WATER 4/9/2013 12:30 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	4 U		8.6 J	8 UJ	400 U
75-34-3	1,1-DICHLOROETHANE	ug/l	42		16	13 J	500 U
75-35-4	1,1-DICHLOROETHENE	ug/l	33		14	15 J	400 U
75-00-3	CHLOROETHANE	ug/l	5 U		2.7 J	10 U	500 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	15000		19000	19000	120000
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	4 U		35	32 J	590 J
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	220		53 J	21 J	400 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	310		1300	1300	85000
75-01-4	VINYL CHLORIDE	ug/l	3100		120	110	520 J
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	390		8.9	9.4	200
74-84-0	ETHANE	ug/l	40		7.7	6.9	40
74-82-8	METHANE	ug/l	5000		19	21	160
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U		0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U		0.0068 U	0.0068 U	0.034 U
7440-70-2	CALCIUM	mg/l	515		36.9	36.4	412
7439-89-6	IRON	mg/l	0.714		17.6	17.4	266
7439-95-4	MAGNESIUM	mg/l	299		7.62	7.4	109
7439-96-5	MANGANESE	mg/l	0.51		0.614	0.606	3.34
9/7/7440	POTASSIUM	mg/l	3.46		1.14	1.08	20.9
7782-49-2	SELENIUM	mg/l	0.0075 U		0.0075 U	0.0075 U	0.0075 U
7440-23-5	SODIUM	mg/l	171		16.1	15.4	266
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	141		104		1740
TOC	TOTAL ORGANIC CARBON	mg/l	2.5		92.3	142	1500
TIC	TOTAL INORGANIC CARBON	mg/l	139		11.5		248
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	416		17.2	17.1	311
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U		0.25 U	0.49 J	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.03 U		0.03 U		0.03 U
14808-79-8	SULFATE (AS SO4)	mg/l	1650		6.8	4.9 J	46.4 J
18496-25-8	SULFIDE	mg/l		0.054 U	0.054 U		2.7
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL					
DHBt	DHBt	cells/mL					
DHC	DHC	cells/mL					
TCE	TCE	cells/mL					
VCR	VCR	cells/mL					
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	PMW-14D PMW-14D_040913 7016368 LANCASTERLABS BPW53 WATER 4/9/2013 15:35 5/28/2013	PMW-15D PMW-15D_041013 7018277/014KD-19/86150007/8 LANCASTERLABS/MI/MS BPW54/014KD/8615 WATER 4/10/2013 5/28/2013	PMW-16D PMW-16D_041013 7018279 LANCASTERLABS BPW54 WATER 4/10/2013 12:45 5/28/2013	PMW-17D PMW-17D_040913 7016371/014KD-1786150005/6 LANCASTERLABS/MI/MS BPW53/014KD/8615 WATER 4/9/2013 5/28/2013	RMW-1D RMW-1D_040213 7008439 LANCASTERLABS BPW48 WATER 4/2/2013 14:50 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	740	48000	1500	5600	440
75-34-3	1,1-DICHLOROETHANE	ug/l	770	3100	950	860	8.3
75-35-4	1,1-DICHLOROETHENE	ug/l	130 J	620	92 J	93	6.5
75-00-3	CHLOROETHANE	ug/l	100 U	20 U	50 U	10 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	95000	14000	47000	10000	330
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	99 J	60 J	160 J	22 J	1.3 J
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	80 U	27 J	41 J	16 J	1 J
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	2100	3200	5300	370	10
75-01-4	VINYL CHLORIDE	ug/l	1100	370	1500	360	5.5
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	460	19	730	10	1 U
74-84-0	ETHANE	ug/l	14	17	11	9.1	14
74-82-8	METHANE	ug/l	1700	270	1500	6400	58
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U	0.0743 U	0.0743 U	0.0743 U	0.0743 U
7440-38-2	ARSENIC	mg/l	0.0068 U	0.0077 J	0.0068 U	0.0068 U	0.0068 U
7440-70-2	CALCIUM	mg/l	437	327	283	148	293
7439-89-6	IRON	mg/l	16.6	0.85	0.988	2.43	0.21
7439-95-4	MAGNESIUM	mg/l	112	94.8	75.9	51.8	93.3
7439-96-5	MANGANESE	mg/l	1.5	0.421	0.843	1.11	0.133
9/7/7440	POTASSIUM	mg/l	8.19	3.7	7.6	12.2	3.17
7782-49-2	SELENIUM	mg/l	0.0075 U	0.0089 J	0.0075 U	0.0075 U	0.0075 U
7440-23-5	SODIUM	mg/l	1570	145	1780	440	81.9
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	976	656	628	676	
TOC	TOTAL ORGANIC CARBON	mg/l	765	421	370	230	1.7
TIC	TOTAL INORGANIC CARBON	mg/l	211	235	257	447	
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	2730	249	3170	822	127
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.4	0.6 U	0.6 U	0.3 U	0.032 J
14808-79-8	SULFATE (AS SO4)	mg/l	11.7 J	139	28.7	21 J	759
18496-25-8	SULFIDE	mg/l	72.7	125	103	47.3	4.4
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL		30700		34000	
DHBt	DHBt	cells/mL		37500		2380	
DHC	DHC	cells/mL		16100		12600	
TCE	TCE	cells/mL		45900		67800	
VCR	VCR	cells/mL		778		27.9	
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l		0.5 U		0.5 U	
1333-74-0	HYDROGEN	nM		58		19	

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	RMW-2D RMW-2D_040413 7011247/014KD-13 LANCASTERLABS/MI BPW50/014KD WATER 4/4/2013 5/28/2013	RMW-2D RMW-2D_041013 7018280 LANCASTERLABS BPW54 WATER 4/10/2013 13:40 5/28/2013	RMW-3D RMW-3D_040813 7015038 LANCASTERLABS BPW52 WATER 4/8/2013 10:30 5/28/2013	RMW-4D RMW-4D_041013 7018285 LANCASTERLABS BPW54 WATER 4/10/2013 16:55 5/28/2013	FIELDQC TB13050-A_03/12/2013 7008426 LANCASTERLABS BPW48 WATER 3/12/2013 0:00 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	210 J		17000	22 J	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	160 J		210	66 J	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	210 J		810	38 J	0.8 U
75-00-3	CHLOROETHANE	ug/l	100 U		2 U	20 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	150000		3500	31000	0.8 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	1500		19	19 J	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	80 U		20	57 J	0.8 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	300000		99	2100	1 U
75-01-4	VINYL CHLORIDE	ug/l	450 J		51	1300	1 U
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l	54		3.4 J	420	
74-84-0	ETHANE	ug/l	35		2.6 J	24	
74-82-8	METHANE	ug/l	250		41	6500	
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l	0.0743 U		0.0743 U	0.0743 U	
7440-38-2	ARSENIC	mg/l	0.0068 U		0.0068 U	0.0094 J	
7440-70-2	CALCIUM	mg/l	623		249 UJ	412	
7439-89-6	IRON	mg/l	58.2		0.0333 U	0.0333 U	
7439-95-4	MAGNESIUM	mg/l	141		80.1 J	325	
7439-96-5	MANGANESE	mg/l	1.59		0.165	0.555	
9/7/7440	POTASSIUM	mg/l	7.39		2.73	7.68	
7782-49-2	SELENIUM	mg/l	0.0075 U		0.0075 U	0.0096 J	
7440-23-5	SODIUM	mg/l	413		114	295	
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l	1430		136	448	
TOC	TOTAL ORGANIC CARBON	mg/l	1170		21.2	197	
TIC	TOTAL INORGANIC CARBON	mg/l	260		115	251	
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l	685		167	649	
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l	0.25 U		0.25 U	0.25 U	
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l	0.17		0.6 U	0.6 U	
14808-79-8	SULFATE (AS SO4)	mg/l	266		471	1090	
18496-25-8	SULFIDE	mg/l		6.8	63	209	
	MICRO GENE ANALYSIS						
BVC	BVC	cells/mL	10600				
DHBt	DHBt	cells/mL	2660				
DHC	DHC	cells/mL	85800				
TCE	TCE	cells/mL	76000				
VCR	VCR	cells/mL	463				
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB13050-B_03/12/2013 7008427 LANCASTERLABS BPW48 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-C_03/12/2013 7009762 LANCASTERLABS BPW49 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-D_03/12/2013 7009763 LANCASTERLABS BPW49 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-E_03/12/2013 7011238 LANCASTERLABS BPW50 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-F_03/12/2013 7011239 LANCASTERLABS BPW50 WATER 3/12/2013 0:00 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1 U	1 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	1 U	1 U	1 U
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l					
74-84-0	ETHANE	ug/l					
74-82-8	METHANE	ug/l					
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l					
7440-38-2	ARSENIC	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					
7782-49-2	SELENIUM	mg/l					
7440-23-5	SODIUM	mg/l					
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l					
TOC	TOTAL ORGANIC CARBON	mg/l					
TIC	TOTAL INORGANIC CARBON	mg/l					
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l					
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l					
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l					
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					
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB13050-G_03/12/2013 7012542 LANCASTERLABS BPW51 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-H_03/12/2013 7012543 LANCASTERLABS BPW51 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-I_03/12/2013 7015035 LANCASTERLABS BPW52 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-J_03/12/2013 7015036 LANCASTERLABS BPW52 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-K_03/12/2013 7016358 LANCASTERLABS BPW53 WATER 3/12/2013 0:00 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1 U	1 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	1 U	1 U	1 U
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l					
74-84-0	ETHANE	ug/l					
74-82-8	METHANE	ug/l					
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l					
7440-38-2	ARSENIC	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					
7782-49-2	SELENIUM	mg/l					
7440-23-5	SODIUM	mg/l					
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l					
TOC	TOTAL ORGANIC CARBON	mg/l					
TIC	TOTAL INORGANIC CARBON	mg/l					
	DISSOLVED WET CHEMISTRY						
16887-00-6	CHLORIDE (AS CL)	mg/l					
14797-55-8	NITROGEN, NITRATE (AS N)	mg/l					
7723-14-0	PHOSPHORUS, DISSOLVED ORTHOPHOSPHATE (AS P)	mg/l					
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					
	MICROSEEPS DATA						
74-86-2	ACETYLENE	ug/l					
1333-74-0	HYDROGEN	nM					

Ekonol Facility Validated Groundwater Analytical Results Wheatfield, New York 1st Quarter 2013 (April)		Location ID: Sample ID: Lab Sample Id: Source: SDG: Matrix: Sampled: Validated:	FIELDQC TB13050-L_03/12/2013 7016359 LANCASTERLABS BPW53 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-M_03/12/2013 7018273 LANCASTERLABS BPW54 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-N_03/12/2013 7018274 LANCASTERLABS BPW54 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-O_03/12/2013 7020181 LANCASTERLABS BPW55 WATER 3/12/2013 0:00 5/28/2013	FIELDQC TB13050-P_03/12/2013 7021487 LANCASTERLABS BPW56 WATER 3/12/2013 0:00 5/28/2013
CAS NO.	COMPOUND	UNITS:					
	VOLATILES						
71-55-6	1,1,1-TRICHLOROETHANE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
75-34-3	1,1-DICHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	1 U
75-35-4	1,1-DICHLOROETHENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
75-00-3	CHLOROETHANE	ug/l	1 U	1 U	1 U	1 U	1 U
156-59-2	CIS-1,2-DICHLOROETHYLENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
127-18-4	TETRACHLOROETHYLENE(PCE)	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
156-60-5	TRANS-1,2-DICHLOROETHENE	ug/l	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
79-01-6	TRICHLOROETHYLENE (TCE)	ug/l	1 U	1 U	1 U	1 U	1 U
75-01-4	VINYL CHLORIDE	ug/l	1 U	1 U	1 U	1 U	1 U
	RSK 175 VOLATILES						
74-85-1	ETHENE	ug/l					
74-84-0	ETHANE	ug/l					
74-82-8	METHANE	ug/l					
	DISSOLVED METALS						
7429-90-5	ALUMINUM	mg/l					
7440-38-2	ARSENIC	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					
7782-49-2	SELENIUM	mg/l					
7440-23-5	SODIUM	mg/l					
	WET CHEMISTRY						
7440-44-0	TOTAL CARBON	mg/l					
TOC	TOTAL ORGANIC CARBON	mg/l					
TIC	TOTAL INORGANIC CARBON	mg/l					
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