GZA GeoEnvironmental

Engineers and Scientists

April 20, 2009
File No. 21.0056192.10

Mr. Glenn May
NYSDEC Region 9
270 Michigan
Buffalo, New York

Re: Results of November 2008, February 2009 & March 2009
Natural Attenuation Groundwater Sampling
Delphi Thermal Systems Facility
Lockport, New York
Registry Site #932113

535 Washington Street
11th Floor
Buffalo, New York
14203
716-685-2300
FAX 716-685-3629
www.gza.com

Dear Mr. May:

As requested by Delphi Automotive Systems LLC (Delphi), GZA GeoEnvironmental of New York (GZA) prepared this letter report to summarize the results of the groundwater sampling and natural attenuation parameter monitoring event at the referenced Registry Site. Groundwater sampling events discussed in this letter report were conducted on the following dates and consisted of the following wells (see Figure 1).

- November 2008 – Monitoring wells: MW-7, -11, -12, -13, -14 and -15.
- February 2009 – Monitoring wells: MW-7 and -14.
- March 2009 – Monitoring well: MW-12.

This work was completed in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Site Management Plan,[1] which includes an Operation, Maintenance & Monitoring Plan (OM&M Plan). The referenced Site Management Plan will be incorporated in a future Order on Consent to implement the NYSDEC March 2005 Record of Decision for the Registry Site.

In addition to the sampling required by the Site Management Plan, groundwater samples were collected from four additional downgradient groundwater wells (MW-6-1, MW-6-2, MW-7-2 and MW-7-4) and the three monitoring wells installed as part of the Building 6 UST Area Focused Environmental Assessment (MW-6-F-7, MW-6-F-8 and MW-6-F-9) in November 2008. The four downgradient monitoring wells were sampled as per our June 5, 2008 Work Plan which was approved in a July 18, 2008 letter from you to Delphi. The three monitoring wells associated with the Building 6 UST Area were sampled voluntarily by Delphi to confirm the results of the previous groundwater sampling in August 2008.

[1] "Site Management Plan, Delphi Thermal Systems Site, Lockport, New York, Site Number 932113" dated August 2007. Prepared for the New York State Department of Environmental Conservation, prepared by GZA GeoEnvironmental of New York. GZA File No. 21.0056192.10

The report discussing the results of the downgradient and Building 6 UST sampling is located in Appendix A. The laboratory reports for all data generated are included in Appendix B.

GROUNDWATER MONITORING & SAMPLING

BACKGROUND

Six monitoring wells (MW-7, MW-11, MW-12, MW-13, MW-14 and MW-15) were initially monitored and sampled (see Figure 1 for locations) from November 3rd through November 5th, 2008. Monitoring wells MW-7 and MW-14 were resampled on February 24, 2009 and MW-12 was resampled on March 16, 2009.

Based on the analytical results of the November 2008 sampling, monitoring wells MW-7 and MW-12 were required to be resampled.

- MW-7: The results for trichloroethylene (1.1 mg/L) were two orders of magnitude lower than previous sample rounds and inconsistent with historic data from this location.
- MW-12: The results for total 1,2-dichloroethylene and vinyl chloride were two times the concentration of the previous sample round which triggered the Contingency Plan as per Section 9.0 of the Operation, Maintenance & Monitoring Plan (OM&M Plan), Attachment 1 of the Site Management Plan.

The contingency plan requires Delphi notify the NYSDEC of the sampling results when they become apparent and collect an additional round of groundwater samples within two months of receipt of the analytical data. NYSDEC was notified in December 2008 and the resampling was done in February and March 2009.

It should be noted that monitoring well MW-14 was inadvertently sampled in February 2009 instead of MW-12. NYSDEC was notified of the mistake and MW-12 was resampled in March 2009.

METHODOLOGY

The natural attenuation monitoring and groundwater sampling was done using low flow sampling techniques. A peristaltic pump, disposable polyethylene tubing and a water quality meter with flow through cell, were used to collect water quality readings and groundwater samples. The sampling technique and analytical parameters were consistent with previous sample rounds as identified in the OM&M Plan.

Field Measured Parameters: temperature, specific conductance, pH, turbidity, dissolved oxygen (DO) and oxidation reduction potential (ORP).

Compounds of Concerns: tetrachloroethylene, trichloroethylene, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene and vinyl chloride.

Natural Attenuation Parameters: methane, iron, magnesium, manganese, potassium, sodium, alkalinity, total organic carbon, chloride, ammonia, nitrate, nitrite, sulfate and sulfide.

Groundwater pumping rates used during the monitoring/sampling varied at the monitoring locations in order to establish a relatively constant head during the pumping/monitoring. Once a constant head was established within the monitoring well, the flow rates were maintained throughout the monitoring/sampling period. The Monitoring Well Observations & Groundwater Sampling Logs are included in Appendix C. Samples were collected for analysis once a constant flow was established, water quality readings stabilized and after a minimum of at least one well volume were purged.

ANALYTICAL RESULTS

Groundwater samples were collected and analyzed for compounds of concern (chlorinated compounds) and natural attenuation parameters similar to previous sample rounds as identified in the August 2007 Site Management Plan. Results for the compounds of concern are shown on Figure 1 along with the data from previous sample rounds. Results of the natural attenuation parameter monitoring are shown on Table 1 along with the data from previous sample rounds. The laboratory report is included in Appendix B of this letter report.

Compounds of Concern

The November 2008 analytical results for MW-13, MW-14 and MW-15 (see Figure 1) are generally consistent with previous sample rounds. However, the February 2009 sample results for MW-14 indicate that trichloroethylene was present at a concentration of 0.016 mg/L, which is above its NYSDEC groundwater standard of 0.005 mg/L. This is the first time this compound was detected above method detection limits at this location, which has been monitored since 2001.

The November 2008 detected concentration of trichloroethylene at MW-7 was 1.1 mg/L, which is a significant decrease from previous rounds. The concentrations of the other compounds of concern were within expected values. The February 2009 detected concentration of trichloroethylene was 530 mg/L, which is consistent with the historical range of detected concentrations at MW-7. The February 2009 detected concentrations of tetrachloroethylene, total-1,2-dichloroethylene and vinyl chloride are also consistent with previous sample rounds. Therefore, the November 2008 trichloroethylene data for this location is considered anomalous.

The November 2008 detected concentrations of total-1,2-dichloroethylene (0.044 mg/L)

and vinyl chloride (0.091 mg/L) at MW-12 are an increase of 4 and 6 times, respectively, from the results of the November 2007 sample round. Therefore, MW-12 was resampled in March 2009, in accordance with Contingency Plan, to verify the analytical results. The results of the March 2009 results confirmed the increase levels of total-1,2-dichloroethylene (0.150 mg/L) and vinyl chloride (0.081 mg/L). Also, trichloroethylene (0.005 mg/L) and tetrachloroethylene (0.002 mg/L) were detected above method detection limits for the first time at this location, which has been monitored since 1997.

Vinyl chloride was detected at a concentration of 0.0058 mg/L at MW-11, which is slightly less than 2 times the detected concentration from the November 2007 sample round. The detected concentration of total-1,2-dichloroethylene (0.003 mg/L) is consistent with last years results and below the NYSDEC groundwater standard (0.005 mg/L) for this compound.

Natural Attenuation Parameters

In general, the natural attenuation parameters were consistent with previous sample rounds (see Table 1).

RECOMMENDATIONS

GZA recommends a comprehensive special sampling event in May 2009 be conducted at the Site to evaluate if conditions in the central portion of the groundwater plume are changing and having an effect on the downgradient wells (MW-11, -12, -13, -14 and -15) currently monitored. This sampling event will include monitoring well locations: MW-4, -7, -8, -9, -10, -11, -12, -13, -14 and -15. These locations will be sampled for compounds of concern and natural attenuation parameters.

Please do not hesitate to contact the under signed if you have any questions or require any additional information.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

Christopher Boron
Senior Project Manager

Ernest R. Hanna, P.E.
Principal

Table 1 – Natural Attenuation Parameter Results
Figure 1 – Site Plan & Compound of Concern Analytical Data
Appendix A: Downgradient Well Sampling Letter Report
Appendix B: Free Col Laboratories Analytical Reports
Appendix C: Monitoring Well Observations & Groundwater Sampling Logs

cc: Mr. Richard Eisenman (Delphi, Rochester)

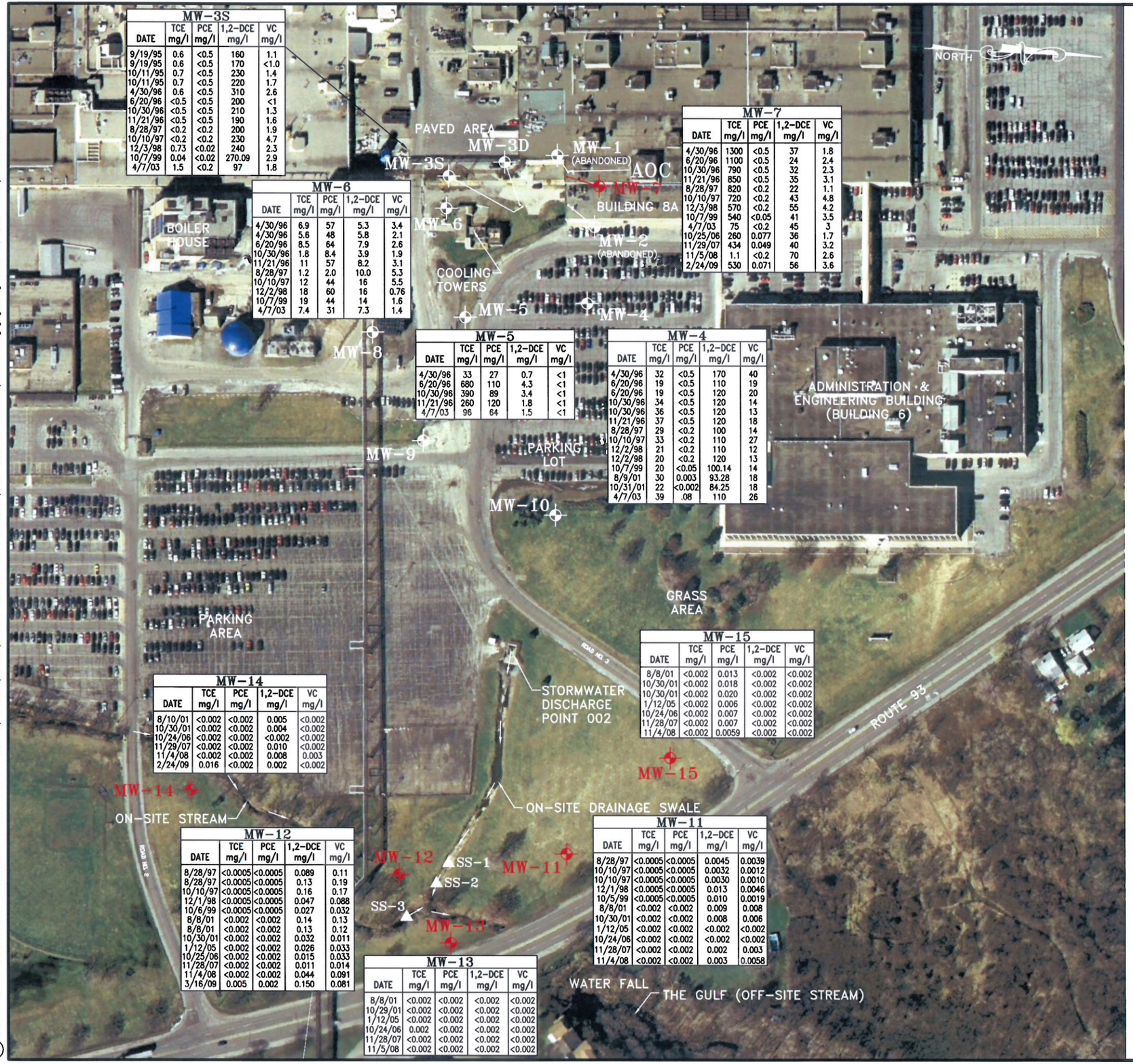
TABLE

Table 1
Summary of Groundwater Field Measurements and Analytical Test Results for Natural Attenuation Parameters
November 2008, February 2009 & March 2009 Groundwater Sampling
Delphi Thermal Systems
West Lockport Complex
Lockport, New York

		Field Parameters					Analytical Test Results - Inorganic and Miscellaneous Water Quality Parameters																					
Location	Sample Date	Temp. (Deg. C)	Specific Cond. (mS/cm)	DO (mg/l)	ORP (mv)	pH (Std Units)	Methane (mg/l)	Organic Carbon (mg/l)	Alkalinity (mg/l)	Ammonia (mg/l)	Chloride (mg/l)	Nitrate (mg/l)	Nitrite (mg/l)	Nitrate Nitrite (mg/l)	Sulfate (mg/l)	Sulfide (mg/l)	Calcium (mg/l)	Dissolved Calcium (mg/l)	Iron (mg/l)	Dissolved Iron (mg/l)	Magnesium (mg/l)	Dissolved Magnesium (mg/l)	Manganese (mg/l)	Dissolved Manganese (mg/l)	Sodium (mg/l)	Dissolved Sodium (mg/l)	Potassium (mg/l)	Dissolved Potassium (mg/l)
MW-3S	12/3/1998	15.8	1,300	1.27	-49	7.2	0.1	28	487	0.26	173	0.41	<0.05		2	0.3	238	223	7.31	6.84	35.6	31.8	1.31	1.17	67.1	66.5	5.46	4.71
MW-3S[2]	10/7/99 (during purging)	16.1	1,422	0.67	-133	7.2																						
MW-3S[2]	10/7/99 (prior to sampling)	15.8	1,254	7.8	24.3	7.0	0.007	51	480	0.16	233			0.07	14	0.3	190	184	1.01	0.10	35.8	36.4	1.00	0.98	55.4	64.3	4.1	4.4
MW-4	12/2/1998	14.2	2,730	0.23	-56	6.6	2.9	19	354	1.23	986	0.30	<0.05		120	0.2	503	443	0.58	0.51	105	106	0.40	0.32	282	293	13.3	12.8
MW-4 DUP	12/2/1998	NA	NA	NA	NA	NA	5.5	8	368	1.57	971	0.05	<0.05		120	0.2	431	335	0.59	0.52	107	100	0.39	0.34	282	306	13.2	13.5
MW-4	10/7/1999	13.8	3,412	0.08	-92.8	6.7	4.2	47	360	1.03	1010			0.08	110	0.3	269	318	0.42	0.45	98	116	0.23	0.34	240	305	10.4	13.1
MW-4	8/9/2001	12.6	3,420	0.12	-5.1	6.5	0.12	20.2	366	1.20	1300	0.11	<0.05		190	0.2	371		1.01		107		0.54		384		12.7	
MW-4	10/31/2001	13.8	3,444	0.10	-128.0	6.6	3.3	10.8	366	1.17	1100	<0.05	<0.05		160	1.2			0.77		102		0.46		358		12.3	
MW-6	12/2/1998	19.5	3,740	0.30	-67	6.8	0.84	9	319	0.45	897	0.22	<0.05		160	0.2	161	156	7.98	1.13	35.6	28.8	0.48	0.29	619	638	9.64	9.51
MW-6	10/7/1999	21.9	3,283	0.12	-145.8	7.1	0.34	30	260	0.32	476			0.09	140	0.4	86.4	108	3.62	0.55	24	30.2	0.24	0.19	300	311	7.4	8.8
MW-7	12/3/1998	17.3	3,130	0.33	-35	7.0	0.06	36	376	1.43	944	0.29	<0.05		200	0.4	382	375	0.14	0.02	118	136	<0.01	<0.01	288	351	20.5	23.0
MW-7[3]	10/7/1999	19.4	3,049	0.69	-52	7.1	0.02	58	420	1.10	1,180			0.11	180	0.4	286	255	0.86	0.05	138	145	0.05	0.02	292	306	21.4	24.0
MW-7	10/25/2006	17.4	2,620	1.08	-92	7.1	0.06	28	376	1.33	600	<0.05	<0.05		470	<0.01			0.23		112		0.02		237		19.4	
MW-7	11/29/2007	15.5	2,162	0.83	-195	7.2	0.13	14	322	1.14	430	<0.05	<0.05		519	0.8			0.58		98.5		0.05		278		20.7	
MW-7	11/4/2008	16.2	3,152	0.33	-80	6.8	0.11	4.4	348	0.08	980	<0.05	<0.05		23	<0.1	327		6.06		74		2.28		277		4.39	
MW-7	2/24/2009	13.1	1,718	1.22	-68	7.3	0.04	NM	270	0.98	410	<0.05	<0.05		430	<0.1	193		0.09		86.7		0.04		213		14.2	
MW-8	12/2/1998	16.7	3,210	0.90	-68	6.9	0.09	12	300	0.40	138	<0.05	<0.05		550	0.2	215	227	0.33	0.17	76	78	0.31	0.32	102	114	6.31	6.67
MW-8	10/7/1999	19.7	1,640	0.08	-116.1	7.1	0.04	19	280	0.33	144			0.10	570	0.3	174	188	0.22	0.15	82.4	97.5	0.30	0.31	112	110	7.6	8.1
MW-9	12/2/1998	16.2	7,150	1.6	120	6.9	0.04	3	309	0.23	640	0.25	<0.05		680	<0.1	330	300	0.33	<0.01	89	84.5	1.74	0.93	444	445	5.52	5.91
MW-9	10/5/1999	18.7	4,042	0.08	103.5	6.9	0.02	24	330	0.20	963	0.46	<0.05		520	<0.1	250	283	0.20	0.02	63.8	89	1.36	0.99	476	535	4.6	26.5
MW-9 DUP	10/5/1999	NA	NA	NA	NA	NA	0.02	27	340	0.14	833	0.63	<0.05		490	<0.1	252	284	0.20	0.02	72	86	1.46	0.94	478	560	5.0	5.6
MW-10	12/1/1998	14.5	4,100	0.40	-13.7	6.7	0.23	11	320	0.32	1220	0.19	<0.05		270	0.2	310	305	1.95	0.76	54.6	85.5	2.30	2.07	584	645	13.4	13.2
MW-10	10/5/1999	14.2	4,775	0.07	-2.0	6.8	0.14	24	280	0.29	1010	0.15	0.10		240	<0.1	39.8	254	0.73	0.04	9.94	102	0.99	1.12	33.2	635	18.8	10.1
MW-10	8/9/2001	12.2	5,033	0.17	249.1	6.6	0.018	10.0	334	0.16	1700	0.08	<0.05		330	0.1	330		0.14		98.9	99.6	1.66		857	845	9.2	
MW-10	10/31/2001	14.4	3,990	0.15	90.9	6.7	0.20	3.6	336	0.12	2800	0.17	<0.05		280	1.6			0.05		92.1		0.91		720		7.6	
MW-11	12/1/1998	11.9	4,360	0.22	-271	7.6	0.01	17	275	0.58	188	0.17	<0.05		110	0.2	122	97.3	1.00	0.26	39.0	36.4	0.11	0.08	116	129	8.88	10.1
MW-11	10/5/1999	11.9	5,228	2.34	-231	7.7	0.05	20	270	0.76	192	0.05	<0.05		210	0.5	93.4	150	0.34	0.30	46.4	103	0.08	0.08	180	695	10.9	27
MW-11	8/8/2001	10.4	3,576	0.12	-73.6	7.4	<0.002	12.0	285	0.46	250	<0.05	<0.05		140	0.1	111		0.14		43.2		0.12		130		8.0	
MW-11	10/30/2001	12.0	4,126	0.04	-248.8	7.5	<0.002	3.1	265	0.46	230	<0.05	<0.05		110	2.8			0.02		38.7		0.41		120		9.1	
MW-11	10/24/2006	13.1	800	1.61	-106	7.3	0.008	1.9	341	0.12	108	0.16	<0.05		66	<0.1			0.80		30.7		0.08		85		7.6	
MW-11	11/28/2007	10.7	1390	0.38	-309	7.2	0.008	3.0	233	0.38	410	0.18	<0.05		144	1.0			0.74		42.1		0.08		235		12.3	
MW-11	11/4/2008	14.4	1,377	0.56	-200	7.3	0.005	2.38	249	0.28	200	<0.05	<0.05		101	0.2	95.6		0.38		38.8		0.08		134		8.4	
MW-12	12/1/1998	13.4	2,006	0.39	-41	6.9	0.5	7	284	0.94	294	0.48	<0.05		73	0.2	119	104	7.48	4.01	26.8	25.3	4.41	4.40	183	197	4.1	3.81
MW-12	10/5/1999	15.8	1,849	0.10	-105.2	7.0	0.36	30	300	0.90	342	0.27	<0.05		66	0.2	104	126	<0.01	3.66	27.8	31.6	<0.01	4.90	166	226	4.9	5.3
MW-12	8/8/2001	13.5	3,300	0.24	-38.5	6.6	0.50	13.9	336	1.77	920	<0.05	<0.05		160	<0.1	217		16.9		57.5		8.41		427		6.3	
MW-12 DUP	8/8/2001	NA	NA	NA	NA	NA	0.74	14.9	338	1.85	930	<0.05	<0.05		160	<0.1	217		14.8		56.2		8.14		433		6.0	
MW-12	10/30/2001	14.2	2,850	0.14	-127.1	6.8	0.57	5.7	309	1.35	590	0.18	<0.05		110	3.5			4.73		37.0		4.69		342		5.0	
MW-12	10/25/2006	13.7	3,500	1.26	-127.1	6.9	0.024	6.5	333	1.55	1,300	<0.05	<0.05		110	<0.1			7.50		44.8		6.02		684		4.5	
MW-12	11/28/2007	11.2	3,307	0.18	-302	7.0	0.012	4.0	274	1.47	1,300	<0.05	<0.05		79	<0.04			6.68		46.0		4.44		666		3.9	
MW-12	11/4/2008	14.3	6,319	0.02	-88	6.7	0.12	2.74	332	2.08	2,000	<0.05	<0.05		138	<0.1	259		13.70		69.7		7.82		1110		5.6	
MW-12	3/16/2009	6.1	4,516	1.08	-48	6.6	0.87	NM	270	1.89	2,300	<0.05	<0.05		140	<0.1	269		11.50		81.7		8.60		1060		5.1	
MW-13	8/8/2001	15.4	5,742	0.23	-118.5	7.8	0.08	15.2	255	1.45	1,900	0.05	<0.05		160	<0.1	209		2.59		49.6		2.67		1,200		12.1	
MW-13	10/29/2001	15.5	6,625	0.20	-136	7.4	0.07	9.9	426	1.29	1,700	0.61	0.08		120	2.2			3.75		40.9		2.96		1,160		8.2	
MW-13	10/24/2006	15.2	6,090	2.67	-146	7.3	0.16	8.4	431	1.35	2,200	<0.05	<0.05		98	<0.1			9.21		53.7		6.03		1,210		9.1	
MW-13	11/28/2007	12.7	5,696	0.08	-274	7.3	0.003	7.0	420	1.74	2,200	0.05	<0.05		95	0.4			7.83		50.8		4.95		1,250		9.6	
MW-13	11/5/2008	7.08	6,782	0.12	-97	7.1	0.021	3.8	410	1.57	2,000	<0.05	<0.5		91	<0.1	196		7.60		52.3		5.40		1,430		11.0	
MW-14	8/9/2001	11.5	2,064	3.66	330.7	7.2	<0.002	14.1	328	0.19	680	0.08	<0.05		130	<0.1	144		0.18		64.1		0.04		394		6.4	
MW-14	10/30/2001	13.2	2,478	0.80	-39.1	7.2	0.013	4.3	334	0.31	770	<0.05	<0.05		120	2.5			0.06		64.8		0.06		466		7.3	
MW-14	10/24/2006	12.9	4,310	3.11	-60.6	7.2	0.31	3.3	336	0.25	1,700	<0.05	<0.05		88	<0.1			0.15		94.9		0.20		831		8.0	
MW-14	11/29/2007	10.3	4,402	1.27	-110	7.1	0.16	4.0	371	0.53	1,800	<0.05	<0.05		87	0.12			0.44		111		0.25		777		10.5	
MW-14	11/4/2008	14.5	6,397	-0.13	11.2	6.8	0.14	2.4	340	0.39	2,100	<0.05	<0.05		80	<0.1	320		0.39		138		0.28		1010		13.5	
MW-14	2/24/2009	5.3	3,534	0.73	-34	7.2	0.15	NM	299	0.23	1,500	0.07	<0.05		68	<0.1	165		0.06		79.8		0.18		833		7.3	
MW-15	8/8/2001	13.0	2011	0.20	289.1	6.7	<0.002	11.7	410	0.08	600	1.34	<0.05		160	0.1	281		2.33		70.4		0.46		204		4.9	
MW-15	10/30/2001	14.6	1656	0.16	83.9	6.8	<0.002	4.1	395	0.07	410	0.85	<0.05		110	1.4			0.02		47.5		0.40		196		3.8	
MW-15 DUP	10/30/2001	NA	NA	NA	NA	NA	<0.002	3.7	386	0.05	450	0.91	<0.05		110	1.5			0.03		47.6		0.39		198		4.0	
MW-15	10/24/2006	13.9	2,180	1.14	64.2	6.8	<0.002	3.6	434	0.09	660	1.89	<0.05		84	<0.1			<0.02		62.3		0.27		311		4.7	
MW-15	11/28/2007	11.7	3,085	3.16	-128	7.1	<0.002	2.0	346	1.03	1100	<0.05	<0.05		74	<0.04			0.14		71.7		0.39		455		4.9	
MW-15 DUP	11/4/2008	14.3	4,719	2.42	75	6.8	<0.002	1.77	345	0.07	1,900	0.34	<0.05		110	<0.1	327		<0.02		82.3		0.82		594		6.1	
TK-2	10/6/1999	13.3	702	0.19	66.9	7.5			380		20.2																	
Stream (SS-1)	12/2/1998	8.0	300	10.0	50	8.0																						
Stream (SS-2)	10/7/1999	10.2	718	17.5	53.1	8.4																						
Stream (SS-3)	10/7/1999	8.5	1552	8.9	-28.9	7.7																						

Notes:
1. In general the field parameters were stable with very little variation. However, as noted, some readings varied.
2. Readings were collected using a low flow peristalic pump and water quailty meter with flow through cell..
3. Analytical Testing completed by Free-Col Laboratories, Inc.
4. Results shown for MW-15 are the higher of the results from the sample designated MW-15 or its duplicate sample (MW-DUPE).
5. < - Indicates compound not detected above the specified detection limit.
6. Blank = Not tested.
7. NM = not measured
8. MW-14 results are identified as MW-Split in the November 2008 laboratory report from Free-Col.

FIGURE



NOTES:

1. BASE MAP ADAPTED FROM A 2005 AERIAL PHOTOGRAPH DOWNLOADED FROM http://www.nysgis.state.ny.us/gateway/mg/interactive_main.html AND SITE OBSERVATIONS.

2. ANALYTICAL TESTING WAS COMPLETED BY FREE-COL LABORATORIES, INC.

3. UNITS ARE LISTED IN MILLIGRAMS PER LITER (mg/l). (< - INDICATES COMPOUND NOT DETECTED ABOVE THE SPECIFIED DETECTION LIMIT)

4. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

LEGEND:

MW-8 — APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL INSTALLED BY GZA

▲SS-1 — APPROXIMATE LOCATION AND DESIGNATION OF STREAM WATER SAMPLE

AOC — DENOTES AREA OF CONCERN

TCE = TRICHLOROETHENE

PCE = TETRACHLOROETHENE

1,2-DCE = TRANS & CIS 1,2-DICHLOROETHENE

VC = VINYL CHLORIDE

DRAWN BY: DEW

DATE: MARCH 2009

GZA GeoEnvironmental of New York

APPROXIMATE SCALE IN FEET
0 90 180 360

DELPHI THERMAL SYSTEMS
200 UPPER MOUNTAIN ROAD
LOCKPORT, NEW YORK
NOVEMBER 2008 AND FEBRUARY/MARCH 2009 SAMPLING
GROUNDWATER ANALYTICAL TEST RESULTS FOR TARGET CHLORINATED COMPOUNDS

PROJECT No.
21.0056192.10

FIGURE No.
1

© 2009 GZA GeoEnvironmental of New York

GZA-T:\PROJECTS\56100s\56192.1 DELPHI 2006 GW SAMPLING\2008-2009 GW SAMPLING\FIGURE 1.dwg [Figure 1] March 26, 2009 - 3:25pm daniel.wulf

APPENDIX A

DOWNGRADIENT & BUILDING 6 UST AREA SAMPLING LETTER

GZA GeoEnvironmental

Engineers and Scientists

April 20, 2009
File No. 21.0056192.10

Mr. Richard Eisenman
Delphi Automotive Systems LLC
1000 Lexington Ave
Rochester, New York

Re: Additional Downgradient & Building 6 UST Area Groundwater Sampling
November 2008
Delphi Thermal Systems Facility
Lockport, New York

535 Washington Street
11th Floor
Buffalo, New York
14203
716-685-2300
FAX 716-685-3629
www.gza.com

Dear Mr. Eisenman:

GZA GeoEnvironmental of New York (GZA) prepared this letter report to summarize the results of resampling the four downgradient monitoring wells (MW-6-1, MW-6-2, MW-7-2 and MW-7-4) and the three monitoring wells (MW-6-7, MW-6-8 and MW-6-9) associated with the Building 6 UST Area Focused Environmental Assessment (FEA) at the above referenced Site.

The four downgradient monitoring wells were sampled as per our June 5, 2008 Work Plan which was approved in a July 18, 2008 letter from NYSDEC to Delphi. The three monitoring wells associated with the Building 6 UST Area were sampled voluntarily by Delphi to confirm the results of the previous groundwater sampling in August 2008.

I. DOWNGRADIENT MONITORING

BACKGROUND

In late 2007, Delphi began an assessment of downgradient groundwater conditions on the eastern portion of the Site, north and south of the trichloroethylene (TCE) spill area (NYSDEC Site #932113). The purpose of the downgradient groundwater sampling was to assess if contaminated groundwater was migrating off-site at locations not previously investigated in the eastern portion of the Site.

The following is a summary of the downgradient groundwater work to date which is further described in detail later in this report.

- Fall 2007 – Five monitoring wells, designated MW-6-1, MW-6-2, MW-7-1, MW-7-2 and MW-7-3, were installed in November 2007 and sampled in December 2007.
- February 2008 – The above mentioned monitoring wells were sampled for a second time.

An Equal Opportunity Employer M/F/V/H

- April 2008 – Monitoring well MW-6-2 was resampled. A split sample was also collected by the New York State Department of Environmental Conservation (NYSDEC).
- Summer 2008 - Monitoring well MW-7-4 was installed in July 2008 at the request of NYSDEC. This well was sampled for the first time and wells MW-6-1, MW-6-2 and MW-7-2 were also resampled in August 2008.
- November 2008 – Monitoring wells MW-6-1, MW-6-2, MW-7-2 and MW-7-4 were resampled in November 2008 in conjunction with the monitored natural attenuation groundwater sampling associated with the trichloroethylene spill area.

GROUNDWATER SAMPLING EVENT

November 2007

On November 29 and 30, 2007, groundwater samples were collected from five downgradient monitoring wells (MW-6-1, MW-6-2, MW-7-1, MW-7-2 and MW-7-3) and submitted to Free-Col Laboratories (Free-Col) for analytical testing for volatile organic compounds (VOCs) via EPA Method 8260 Target Analyte List (TCL). Low-flow sampling methodologies were used to purge and collect the groundwater samples in general accordance with our work plan dated October 11, 2007. The attached table presents a summary of the November 2007 analytical results.

VOCs were detected in two of the five monitoring wells (MW-6-2 and MW-7-1). Trichloroethylene (TCE) was detected above method detection limits in the sample collected from MW-6-2 at a concentration of 25 parts per billion (ppb), which exceeds its respective Class GA[1] groundwater criteria of 5 ppb (see attached table).

Four VOCs; TCE (110 ppb), 1,2-dichloroethenes (total) (8 ppb), benzene (3 ppb) and toluene (7 ppb) were detected at a concentration above their method detection limits and above their respective NYSDEC groundwater criteria in the sample collected from MW-7-1.

No VOCs were detected above method detection limits in the groundwater samples analyzed from MW-6-1, MW-7-2 and MW-7-3.

The laboratory report and information on the monitoring wells (i.e., well logs, hydraulic conductivities, etc.) was provided in a letter report dated February 7, 2008.

[1] Division of Water Technical and Operational Guidance Series (1.1.1) "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" prepared by the New York State Department of Environmental Conservations, dated October 1993, revised 1998, ERRATA Sheet dated January 1999; and Addendum dated April 2000.

February 2008

Due to the VOCs detected in monitoring wells MW-6-2 and MW-7-1, GZA resampled the five monitoring wells in February 2008. The results are summarized on the attached table. Low-flow sampling methodologies were used to purge and collect the groundwater samples. Water quality readings were not collected, but a minimum of 1.5 well volumes were purged after a constant head was established (MW-6-1, MW-6-2 and MW-7-3) or the well was purged dry (MW-7-1 and MW-7-2), prior to sample collection. Samples were submitted to Free-Col for VOC TCL analysis.

Trichloroethylene (TCE) was detected above method detection limits at one sampling location, MW-7-1, at a concentration of 56 ppb. No other VOCs were detected above method detection limits at this sampling location and no VOCs were detected above method detection limits in the groundwater samples analyzed from MW-6-1, MW-6-2, MW-7-2 and MW-7-3. However, the 7 day holding time for unpreserved groundwater samples was exceeded. NYSDEC requested that monitoring well MW-6-2 be resampled and a split sample be collected by NYSDEC for analysis by a laboratory of their choice (Test America in Buffalo, New York).

The laboratory report was provided in a letter report dated March 17, 2008.

April 2008

Monitoring well MW-6-2 was resampled on April 15, 2008. In addition to the sample collected by GZA, NYSDEC collected a split sample. GZA's sample was submitted to Free-Col for VOC TCL analysis. NYSDEC submitted their sample to Test America for VOC TCL analysis. The results from both analytical laboratories are summarized on the attached table (Free-Col sample is identified as Delphi and the Test America sample is identified as NYSDEC).

Free-Col Sample Results

TCE was detected above method detection limits at a concentration of 4 ppb in the sample from MW-6-2, which is below its respective Class GA groundwater criteria of 5 ppb. No other VOCs were detected above method detection limits at this sampling location.

Test America Sample Results

TCE was detected above method detection limits at a concentration of 4.2 ppb in the NYSDEC split sample from MW-6-2. No other VOCs were detected above method detection limits at this sampling location.

The laboratory report was provided in a letter report dated May 2, 2008.

Summer 2008

Groundwater monitoring well, MW-7-4 was installed as part of our additional downgradient groundwater condition assessment as requested by NYSDEC in their May 13, 2008 letter to Delphi. This 2-inch diameter bedrock monitoring well is located downgradient of MW-7-1 and south of MW-7-2. It was installed consistent with the methodologies used to install the other five downgradient wells as per our October 11, 2007 Work Plan[2].

In August 2008, downgradient groundwater samples were collected from MW-6-1, MW-6-2, MW-7-2 and MW-7-4. Low-flow sampling methodologies consistent with those outlined in the Operations, Monitoring & Maintenance Plan in the Site Management Plan dated August 2007 were followed. The four groundwater samples collected were submitted to Free-Col Laboratories for analytical testing for VOCs via EPA Method 8260 TCL. The analytical results are summarized on the attached table.

No VOCs were detected above method detection limits in the four downgradient wells sampled as part of the August 2008 sampling event. It does not appear that impacted groundwater is migrating from the Delphi facility.

Delphi also conducted a review of documents and files to determine a potential source of the TCE contamination that was detected in monitoring well MW-6-2, located downgradient of Building 6. According to Delphi records, TCE was not used within Building 6. Also, there does not appear to be subsurface utilities in the vicinity of MW-6-2 which are coming from Building 6 which could act as a potential preferential pathway.

The laboratory report was provided in a letter report dated October 1, 2008.

DOWNGRADIENT GROUNDWATER SAMPLING – NOVEMBER 2008

As part of NYSDEC's request in their May 13, 2008 letter to Delphi, four monitoring wells (MW-6-1, MW-6-2, MW-7-2 and MW-7-4) were resampled in November 2008 in conjunction with the monitored natural attenuation groundwater sampling associated with the TCE spill area.

Low-flow sampling methodologies consistent with previous sampling rounds were used. The four groundwater samples collected were submitted to Free-Col Laboratories for analytical testing for VOCs via EPA Method 8260 TCL. The attached table is a summary of the analytical results.

No VOCs were detected above method detection limits in the four downgradient wells sampled as part of the November 2008 sample round. This sample round completes the

[2] "Work Plan for Downgradient Monitoring Installation, Eastern portion of Delphi Lockport Facility, Lockport, New York" letter to Mr. Glenn May, NYSDEC, dated October 11, 2007.

NYSDEC required sampling of the downgradient locations. It does not appear that impacted groundwater is migrating from the Delphi facility and the sampling of the downgradient wells is no longer required.

The laboratory report for the November 2008 downgradient sampling event is included in Appendix B with the analytical data from the monitoring natural attenuation sampling from November 2008.

II. BUILDING 6 UST AREA

BACKGROUND

In 2006, Delphi completed a site-wide Current Conditions Summary and Field Investigation Report (Study) to identify areas of soil and/or groundwater contamination at the Lockport facility. The findings of the study included the identification of petroleum contamination in two wells (MW-6-F-1 and MW-6-F-5) located adjacent to the gasoline and diesel USTs at Building 6.

In 2008 Delphi completed a Focused Environmental Assessment (FEA) for the Building 6 UST Area to determine the extent of petroleum contamination. Three new monitoring wells (MW-6-F-7, MW-6-F-8 and MW-6-F-9) were installed in July 2008 and sampled in August 2008. No VOCs were detected in the new wells. Results of the FEA were reported to NYSDEC in a report dated October 1, 2008, revised January 13, 2009.

BUILDING 6 UST AREA GROUNDWATER SAMPLING – NOVEMBER 2008

The three monitoring wells were resampled in November 2008 in conjunction with the monitored natural attenuation groundwater sampling associated for the TCE spill area. The purpose of this sampling event was to confirm the results of the previous groundwater sampling in August 2008.

Low-flow sampling methodologies were used to collect groundwater samples that were submitted to Free-Col Laboratories for VOCs analysis via EPA Method 8260 TCL.

No VOCs were detected above method detection limits in two of the three monitoring wells (MW-6-F-8 and MW-6-F-9). One compound, cis-1,2-dichloroethylene (2 ppb), was detected at a concentration below its respective NYSDEC groundwater standard of 5 ppb in MW-6-F-7.

Based on the results of the August 2008 and November 2008 sampling events, no additional sampling of these wells is planned.

Please do not hesitate to contact the undersigned if you have any questions or require any additional information.

Sincerely,

GZA GEOENVIRONMENTAL

Christopher Boron
Senior Project Manager

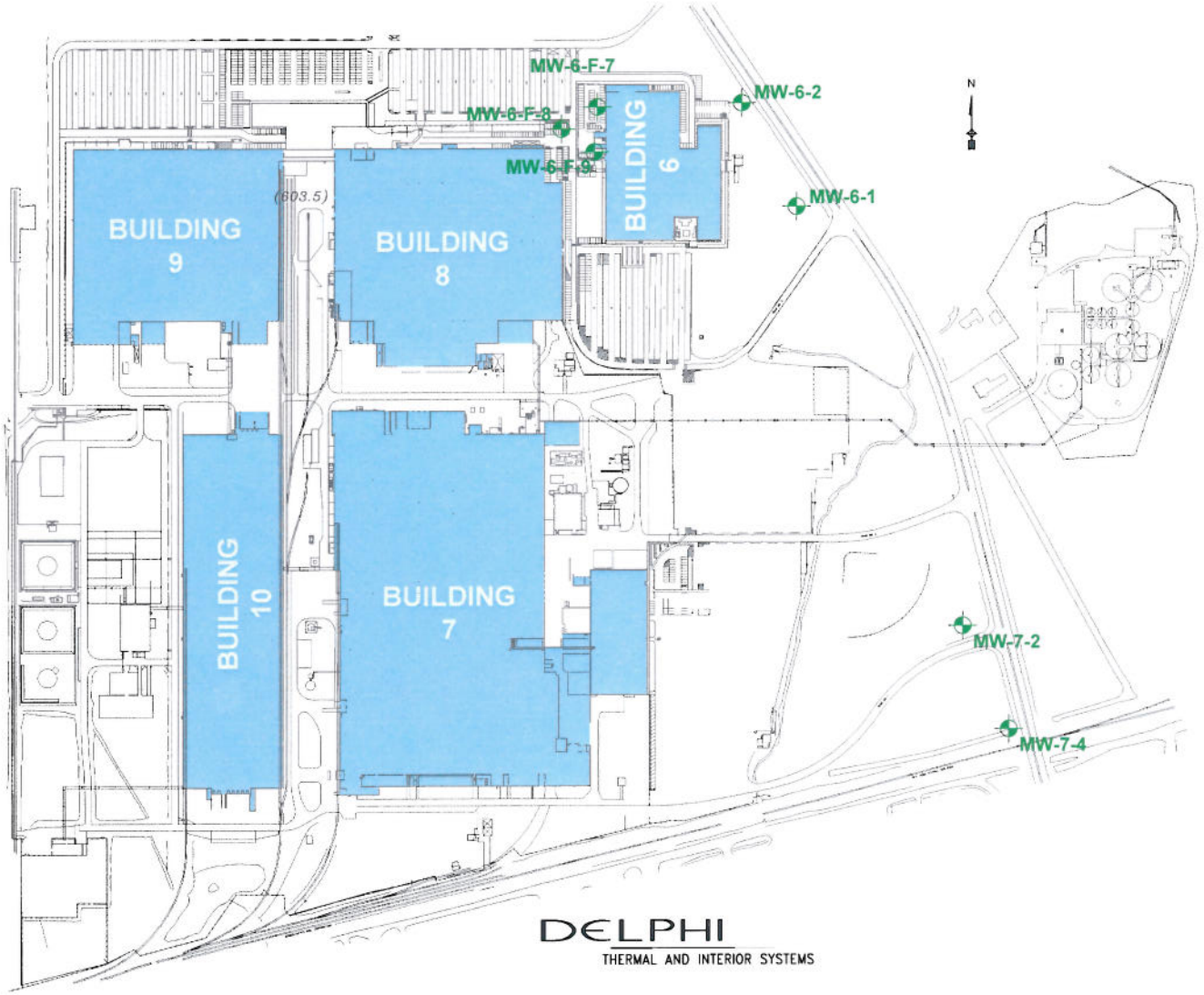
Ernest R. Hanna, P.E.
Principal

Attachments
Figure — Building 6 UST Area & Downgradient Monitoring Well Locations
Table — Groundwater Analytical Testing Results Summary Table

Groundwater Analytical Testing Results Summary Table
Additional Downgradient Groundwater Monitoring Wells
Delphi Lockport Complex
Lockport, New York

		Volatile Organic Compounds			
Location	Sample Date	Benzene	1,2-Dichloroethenes (total)	Trichloroethylene	Toluene
	NYSDEC Class GA Criteria	1	5	5	5
MW-6-1	November 2007				
	February 2008				
	August 2008				
	November 2008				
MW-6-2	November 2007			**25**	
	February 2008				
	April 2008 - Delphi			4	
	April 2008 - NYSDEC			4.2	
	August 2008				
	November 2008				
MW-7-1	November 2007	**3**	**8**	**110**	7
	February 2008			**56**	
MW-7-2	November 2007				
	February 2008				
	August 2008				
	November 2008				
MW-7-3	November 2007				
	February 2008				
MW-7-4	August 2008				
	November 2008				

Notes:
1. Compounds detected in one or more samples are presented on this table.
2. Analytical testing completed by Free-Col Laboratory except the NYSDEC April 2008 split sample which was tested by Test America. Samples were analyzed for volatile organic compounds (VOCs) via EPA Method 8260 Target Compound List (TCL), only.
3. NYSDEC Class GA criteria obtained from Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), June 1998.
4. ug/L = part per billion (ppb).
5. Blank indicates compound was not detected.
6. **BOLD** values exceeding guidance criteria.



LEGEND:

MW-7-2 — APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELLS.

NOTES:

1. BASE MAP ADAPTED FROM A DRAWING PROVIDED BY DELPHI THERMAL AND INTERIOR SYSTEMS SEPT. 2007.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

DRAWN BY: MDK

DATE: APRIL 2009

GZA GeoEnvironmental of New York

APPROXIMATE SCALE IN FEET

0 200 400 800

DELPHI AUTOMOTIVE SYSTEMS
DELPHI LOCKPORT FACILITY
200 UPPER MOUNTAIN ROAD, LOCKPORT, NEW YORK
BUILDING 6 UST AREA DOWNGRADIENT WELL SAMPLING NOVEMBER 2008
MONITORING WELL LOCATION PLAN

PROJECT No.
21.0056192.10

FIGURE No.

© 2009 GZA GeoEnvironmental of New York
G:\PROJECTS\56100s\56192.1 DELPHI 2008 GW SAMPLING\2008-2009 GW SAMPLING\FIGURE APRIL 2009.dwg [APRIL 2009 FIGURE] April 02, 2009 - 11:47am michael.kress

APPENDIX B

FREE COL LABORATORIES ANALYTICAL REPORTS

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: 2008:0011833-1 **Client's Sample ID:** MW-7-2
Date Sampled: 11/ 3/2008 **Time Sampled:** 13:00 **Date Received:** 11/ 4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics						
Chloromethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Bromomethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Vinyl Chloride	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Chloroethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Methylene chloride	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Acetone	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Carbon Disulfide	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
1,1-Dichloroethene	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
1,1-Dichloroethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
1,2-Dichloroethenes (Total)	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Chloroform	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
1,2-Dichloroethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
2-Butanone	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
1,1,1-Trichloroethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Carbon Tetrachloride	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Vinyl Acetate	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Bromodichloromethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
1,1,2,2-Tetrachloroethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
1,2-Dichloropropane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
trans-1,3-Dichloropropene	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Trichloroethene	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Dibromochloromethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
1,1,2-Trichloroethane	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Benzene	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
cis-1,3-Dichloropropene	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
2-Chloroethylvinylether	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Bromoform	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
2-Hexanone	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
4-Methyl-2-Pentanone (MIBK)	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Tetrachloroethene	<0.0020	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: 2008:0011833-1 **Client's Sample ID:** MW-7-2
Date Sampled: 11/ 3/2008 **Time Sampled:** 13:00 **Date Received:** 11/ 4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics (Continued)						
Toluene	**<0.0020**	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Chlorobenzene	**<0.0020**	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Ethylbenzene	**<0.0020**	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Styrene	**<0.0020**	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
Xylenes (total)	**<0.0020**	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
cis-1,2-Dichloroethene	**<0.0020**	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B
trans-1,2-Dichloroethene	**<0.0020**	mg/L	11/12/08	19:02	Lindquist	SW-846 8260B

Sample ID: 2008:0011833-2 **Client's Sample ID:** MW-6-1
Date Sampled: 11/ 3/2008 **Time Sampled:** 15:00 **Date Received:** 11/ 4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics						
Chloromethane	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Bromomethane	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Vinyl Chloride	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Chloroethane	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Methylene chloride	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Acetone	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Carbon Disulfide	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
1,1-Dichloroethene	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
1,1-Dichloroethane	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
1,2-Dichloroethenes (Total)	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Chloroform	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
1,2-Dichloroethane	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
2-Butanone	**<0.0020**	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

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100 Lexington Ave.
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Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: 2008:0011833-2 **Client's Sample ID:** MW-6-1
Date Sampled: 11/ 3/2008 **Time Sampled:** 15:00 **Date Received:** 11/ 4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics (Continued)						
1,1,1-Trichloroethane	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Carbon Tetrachloride	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Vinyl Acetate	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Bromodichloromethane	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
1,1,2,2-Tetrachloroethane	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
1,2-Dichloropropane	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
trans-1,3-Dichloropropene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Trichloroethene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Dibromochloromethane	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
1,1,2-Trichloroethane	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Benzene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
cis-1,3-Dichloropropene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
2-Chloroethylvinylether	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Bromoform	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
2-Hexanone	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
4-Methyl-2-Pentanone (MIBK)	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Tetrachloroethene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Toluene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Chlorobenzene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Ethylbenzene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Styrene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
Xylenes (total)	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
cis-1,2-Dichloroethene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B
trans-1,2-Dichloroethene	<0.0020	mg/L	11/12/08	21:02	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: **2008:0011833-3** **Client's Sample ID:** **MW-6-2**
Date Sampled: **11/ 3/2008** **Time Sampled:** **17:00** **Date Received:** **11/ 4/2008**

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics						
Chloromethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Bromomethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Vinyl Chloride	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Chloroethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Methylene chloride	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Acetone	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Carbon Disulfide	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
1,1-Dichloroethene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
1,1-Dichloroethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
1,2-Dichloroethenes (Total)	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Chloroform	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
1,2-Dichloroethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
2-Butanone	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
1,1,1-Trichloroethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Carbon Tetrachloride	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Vinyl Acetate	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Bromodichloromethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
1,1,2,2-Tetrachloroethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
1,2-Dichloropropane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
trans-1,3-Dichloropropene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Trichloroethene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Dibromochloromethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
1,1,2-Trichloroethane	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Benzene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
cis-1,3-Dichloropropene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
2-Chloroethylvinylether	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Bromoform	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
2-Hexanone	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
4-Methyl-2-Pentanone (MIBK)	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Tetrachloroethene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: 2008:0011833-3 **Client's Sample ID:** MW-6-2
Date Sampled: 11/3/2008 **Time Sampled:** 17:00 **Date Received:** 11/4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics (Continued)						
Toluene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Chlorobenzene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Ethylbenzene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Styrene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
Xylenes (total)	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
cis-1,2-Dichloroethene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B
trans-1,2-Dichloroethene	<0.0020	mg/L	11/12/08	21:42	Lindquist	SW-846 8260B

Sample ID: 2008:0011833-4 **Client's Sample ID:** MW-7-4
Date Sampled: 11/3/2008 **Time Sampled:** 17:30 **Date Received:** 11/4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics						
Chloromethane	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Bromomethane	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Vinyl Chloride	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Chloroethane	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Methylene chloride	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Acetone	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Carbon Disulfide	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
1,1-Dichloroethene	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
1,1-Dichloroethane	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
1,2-Dichloroethenes (Total)	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Chloroform	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
1,2-Dichloroethane	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
2-Butanone	<0.0020	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B

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MEADVILLE, PENNSYLVANIA 16335
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Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: **2008:0011833-4** **Client's Sample ID:** **MW-7-4**
Date Sampled: **11/ 3/2008** **Time Sampled:** **17:30** **Date Received:** **11/ 4/2008**

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics (Continued)						
1,1,1-Trichloroethane	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Carbon Tetrachloride	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Vinyl Acetate	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Bromodichloromethane	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
1,1,2,2-Tetrachloroethane	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
1,2-Dichloropropane	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
trans-1,3-Dichloropropene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Trichloroethene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Dibromochloromethane	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
1,1,2-Trichloroethane	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Benzene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
cis-1,3-Dichloropropene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
2-Chloroethylvinylether	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Bromoform	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
2-Hexanone	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
4-Methyl-2-Pentanone (MIBK)	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Tetrachloroethene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Toluene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Chlorobenzene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Ethylbenzene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Styrene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
Xylenes (total)	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
cis-1,2-Dichloroethene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B
trans-1,2-Dichloroethene	**<0.0020**	mg/L	11/12/08	22:22	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: 2008:0011833-5 **Client's Sample ID:** MW-15
Date Sampled: 11/ 4/2008 **Time Sampled:** 09:15 **Date Received:** 11/ 4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			11/07/08	12:30	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	**<0.0020**	mg/L	11/12/08	23:02	Lindquist	SW-846 8260B
trans-1,2-Dichloroethylene	**<0.0020**	mg/L	11/12/08	23:02	Lindquist	SW-846 8260B
Methane	**<0.001**	mg/L	11/14/08	07:53	Williams	In House
Tetrachloroethylene	**0.0059**	mg/L	11/12/08	23:02	Lindquist	SW-846 8260B
Trichloroethylene	**<0.0020**	mg/L	11/12/08	23:02	Lindquist	SW-846 8260B
Vinyl chloride	**<0.0020**	mg/L	11/12/08	23:02	Lindquist	SW-846 8260B
Metals						
Calcium (Ca)	**327**	mg/L	11/26/09	17:00	Kozakovsky	SW-846 6010B
Iron (Fe)	**<0.02**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Magnesium (Mg)	**82.3**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Manganese (Mn)	**0.43**	mg/L	11/21/08	17:20	Kozakovsky	SW-846 6010B
Potassium (K)	**6.1**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Sodium (Na)	**594**	mg/L	12/02/08	14:00	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	**345**	mg/L	11/10/08	15:30	Bleicher	SM 2320 B
Total Organic Carbon	**1.77**	mg/L	11/06/08	01:22	Lindquist	SW-846 9060
Chloride	**1400**	mg/L	11/11/08	09:00	Parker	EPA 325.3
Nitrogen, Ammonia	**0.05**	mg/L	11/12/08	06:00	Semroc	EPA 350.2
Nitrogen, Nitrate	**0.34**	mg/L	11/04/08	17:45	Bleicher	EPA 353.2
Nitrogen, Nitrite	**<0.05**	mg/L	11/05/08	07:30	Macko	EPA 353.2
Sulfate	**110**	mg/L	11/11/08	11:00	Semroc	SW-846 9038
Sulfide, Direct	**<0.1**	mg/L	11/07/08	12:15	Bleicher	EPA 376.1

Metal analyses were performed by Modern Industries Inc., Erie, PA.

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: 2008:0011833-6 **Client's Sample ID:** MW-11
Date Sampled: 11/4/2008 **Time Sampled:** 10:45 **Date Received:** 11/4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			11/07/08	12:30	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	**0.0029**	mg/L	11/12/08	23:41	Lindquist	SW-846 8260B
trans-1,2-Dichloroethylene	**<0.0020**	mg/L	11/23/08	23:41	Lindquist	SW-846 8260B
Methane	**0.005**	mg/L	11/14/08	07:53	Williams	In House
Tetrachloroethylene	**<0.0020**	mg/L	11/12/08	23:41	Lindquist	SW-846 8260B
Trichloroethylene	**<0.0020**	mg/L	11/12/08	23:41	Lindquist	SW-846 8260B
Vinyl chloride	**0.0058**	mg/L	11/12/08	23:41	Lindquist	SW-846 8260B
Metals						
Calcium (Ca)	**95.6**	mg/L	11/26/09	17:00	Kozakovsky	SW-846 6010B
Iron (Fe)	**0.38**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Magnesium (Mg)	**38.8**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Manganese (Mn)	**0.08**	mg/L	11/21/08	17:20	Kozakovsky	SW-846 6010B
Potassium (K)	**8.4**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Sodium (Na)	**134**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	**249**	mg/L	11/10/08	15:30	Bleicher	SM 2320 B
Total Organic Carbon	**2.38**	mg/L	11/06/08	01:52	Lindquist	SW-846 9060
Chloride	**200**	mg/L	11/11/08	09:00	Parker	EPA 325.3
Nitrogen, Ammonia	**0.28**	mg/L	11/12/08	06:00	Semroc	EPA 350.2
Nitrogen, Nitrate	**<0.05**	mg/L	11/04/08	17:45	Bleicher	EPA 353.2
Nitrogen, Nitrite	**<0.05**	mg/L	11/05/08	07:30	Macko	EPA 353.2
Sulfate	**101**	mg/L	11/11/08	11:00	Semroc	SW-846 9038
Sulfide, Direct	**0.2**	mg/L	11/07/08	12:15	Bleicher	EPA 376.1

Metal analyses were performed by Modern Industries Inc., Erie, PA.

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: 2008:0011833-7 **Client's Sample ID:** MW-Dup
Date Sampled: 11/ 4/2008 **Time Sampled:** 12:00 **Date Received:** 11/ 4/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			11/07/08	12:30	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	**<0.0020**	mg/L	11/13/08	00:21	Lindquist	SW-846 8260B
trans-1,2-Dichloroethylene	**<0.0020**	mg/L	11/13/08	00:21	Lindquist	SW-846 8260B
Methane	**<0.002**	mg/L	11/14/08	07:53	Williams	In House
Tetrachloroethylene	**0.0055**	mg/L	11/13/08	00:21	Lindquist	SW-846 8260B
Trichloroethylene	**<0.0020**	mg/L	11/13/08	00:21	Lindquist	SW-846 8260B
Vinyl chloride	**<0.0020**	mg/L	11/13/08	00:21	Lindquist	SW-846 8260B
Metals						
Calcium (Ca)	**327**	mg/L	11/26/09	17:00	Kozakovsky	SW-846 6010B
Iron (Fe)	**<0.02**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Magnesium (Mg)	**79.5**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Manganese (Mn)	**0.82**	mg/L	11/21/08	17:20	Kozakovsky	SW-846 6010B
Potassium (K)	**5.8**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Sodium (Na)	**550**	mg/L	12/02/08	14:00	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	**340**	mg/L	11/10/08	15:30	Bleicher	SM 2320 B
Total Organic Carbon	**1.58**	mg/L	11/06/08	02:21	Lindquist	SW-846 9060
Chloride	**1900**	mg/L	11/11/08	09:00	Parker	EPA 325.3
Nitrogen, Ammonia	**0.07**	mg/L	11/12/08	06:00	Semroc	EPA 350.2
Nitrogen, Nitrate	**0.32**	mg/L	11/04/08	17:45	Bleicher	EPA 353.2
Nitrogen, Nitrite	**<0.05**	mg/L	11/05/08	07:30	Macko	EPA 353.2
Sulfate	**108**	mg/L	11/11/08	11:00	Semroc	SW-846 9038
Sulfide, Direct	**<0.1**	mg/L	11/07/08	12:15	Bleicher	EPA 376.1

Metal analyses were performed by Modern Industries Inc., Erie, PA.

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Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011833 8 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 4/2008
Time Received: 16:15
Delivered By: Field Services

P.O. 460016825

Project Name: 21.0056192.10

Printed on 04/20/2009 at 12:54PM

Sample ID: **2008:0011833-8** **Client's Sample ID:** **MW-12**
Date Sampled: **11/ 4/2008** **Time Sampled:** **13:00** **Date Received:** **11/ 4/2008**

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			11/07/08	12:30	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	**0.044**	mg/L	11/13/08	01:01	Lindquist	SW-846 8260B
trans-1,2-Dichloroethylene	**<0.0020**	mg/L	11/13/08	01:01	Lindquist	SW-846 8260B
Methane	**0.12**	mg/L	11/14/08	07:53	Williams	In House
Tetrachloroethylene	**<0.0020**	mg/L	11/13/08	01:01	Lindquist	SW-846 8260B
Trichloroethylene	**<0.0020**	mg/L	11/13/08	01:01	Lindquist	SW-846 8260B
Vinyl chloride	**0.091**	mg/L	11/13/08	01:01	Lindquist	SW-846 8260B
Metals						
Calcium (Ca)	**259**	mg/L	11/21/08	17:20	Kozakovsky	SW-846 6010B
Iron (Fe)	**13.7**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Magnesium (Mg)	**69.7**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Manganese (Mn)	**7.82**	mg/L	11/21/08	17:20	Kozakovsky	SW-846 6010B
Potassium (K)	**5.6**	mg/L	11/26/08	17:00	Kozakovsky	SW-846 6010B
Sodium (Na)	**1110**	mg/L	12/02/08	14:00	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	**332**	mg/L	11/10/08	15:30	Bleicher	SM 2320 B
Total Organic Carbon	**2.74**	mg/L	11/06/08	02:51	Lindquist	SW-846 9060
Chloride	**2000**	mg/L	11/11/08	09:00	Parker	EPA 325.3
Nitrogen, Ammonia	**2.08**	mg/L	11/12/08	06:00	Semroc	EPA 350.2
Nitrogen, Nitrate	**<0.05**	mg/L	11/04/08	17:45	Bleicher	EPA 353.2
Nitrogen, Nitrite	**<0.05**	mg/L	11/05/08	07:30	Macko	EPA 353.2
Sulfate	**138**	mg/L	11/11/08	11:00	Semroc	SW-846 9038
Sulfide, Direct	**<0.1**	mg/L	11/07/08	12:15	Bleicher	EPA 376.1

Metal analyses were performed by Modern Industries Inc., Erie, PA.
CC: GZA

Supplemental Report Revision to Calcium Results, Analysis Date, and Time on 04/20/09 to Report 2008:0011833-5 to 8 original print date of 12/03/08.

Jane A Baugh

PARADIGM ENVIRONMENTAL SERVICES, INC.

179 Lake Avenue
Rochester, NY 14608
(585) 647-2530 • (800) 724-1997
FAX: (585) 647-3311

FREE COL LAB

CHAIN OF CUSTODY

REPORT TO:	INVOICE TO:	
COMPANY: GZA	COMPANY:	LAB PROJECT #: / CLIENT PROJECT #:
ADDRESS: 535 Washington St	ADDRESS:	
CITY: Buffalo STATE: New York ZIP: 14203	CITY: STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)
PHONE: (716) 685-2300 FAX: 685-3629	PHONE: FAX:	STD / OTHER
ATTN: CHRIS BOREN	ATTN:	1 2 3 5
COMMENTS: Project # 21.0056192.10		QUOTE #:

PROJECT NAME/SITE NAME: Delphi Thermal Systems

11833

DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	VOC - TCL	Natural Attenuation see remarks	REMARKS	PARADIGM LAB SAMPLE NUMBER
1 11/3/08	13:00			MW-7-2	GW	3	X		Boxes checked "Natural Attenuation" Require Following Analysis: Methane Alkalinity Chloride Ammonia Nitrate Nitrite Sulfate Sulfide Iron Manganese Magnesium Potassium Sodium Calcium	
2 11/3/08	15:00			MW-6-1	GW	3	X			
3 11/3/08	17:00			MW-6-2	GW	3	X			
4 11/3/08	17:30			MW-7-4	GW	3	X			
5 11/4/08	9:15			MW-15	GW	14	X	X		
6 11/4/08	10:45			MW-11	GW	14	X	X		
7 11/4/08	DUP			MW-DUPE	GW	14	X	X		
8 11/4/08	1300			MW-12	GW	14	X	X		
9										
10										

****LAB USE ONLY BELOW THIS LINE****

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type: Comments:	Y	N
Preservation: Comments:	Y	N
Holding Time: Comments:	Y	N
Temperature: Comments:	Y	N

Jen Davide 11/4/08 13:30
Sampled By Date/Time

Relinquished By Date/Time 11/4/08 13:30

Received By Date/Time 11-4-08 13:30

Received @ Lab By Date/Time 11.4.08

Total Cost:

P.I.F.

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011918 6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 6/2008
Time Received: 09:45
Delivered By: UPS

P.O. 460016825

Project Name: Delphi 21.0056196.10

Printed on 11/26/2008 at 10:17AM

Sample ID: 2008:0011918-1 **Client's Sample ID:** MW-6-F-9
Date Sampled: 11/ 5/2008 **Time Sampled:** 09:30 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics						
Chloromethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Bromomethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Vinyl Chloride	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Chloroethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Methylene chloride	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Acetone	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Carbon Disulfide	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
1,1-Dichloroethene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
1,1-Dichloroethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
1,2-Dichloroethenes (Total)	<0.0040	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Chloroform	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
1,2-Dichloroethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
2-Butanone	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
1,1,1-Trichloroethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Carbon Tetrachloride	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Vinyl Acetate	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Bromodichloromethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
1,1,2,2-Tetrachloroethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
1,2-Dichloropropane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
trans-1,3-Dichloropropene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Trichloroethene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Dibromochloromethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
1,1,2-Trichloroethane	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Benzene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
cis-1,3-Dichloropropene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
2-Chloroethylvinylether	<0.0040	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Bromoform	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
2-Hexanone	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
4-Methyl-2-Pentanone (MIBK)	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Tetrachloroethene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011918 6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 6/2008
Time Received: 09:45
Delivered By: UPS

P.O. 460016825

Project Name: Delphi 21.0056196.10

Printed on 11/26/2008 at 10:17AM

Sample ID: 2008:0011918-1 **Client's Sample ID:** MW-6-F-9
Date Sampled: 11/ 5/2008 **Time Sampled:** 09:30 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics (Continued)						
Toluene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Chlorobenzene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Ethylbenzene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Styrene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
Xylenes (total)	<0.0060	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
cis-1,2-Dichloroethene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B
trans-1,2-Dichloroethene	<0.0020	mg/L	11/13/08	16:48	Lindquist	SW-846 8260B

Sample ID: 2008:0011918-2 **Client's Sample ID:** MW-6-F-8
Date Sampled: 11/ 5/2008 **Time Sampled:** 12:30 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics						
Chloromethane	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Bromomethane	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Vinyl Chloride	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Chloroethane	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Methylene chloride	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Acetone	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Carbon Disulfide	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
1,1-Dichloroethene	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
1,1-Dichloroethane	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
1,2-Dichloroethenes (Total)	<0.0040	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Chloroform	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
1,2-Dichloroethane	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
2-Butanone	<0.0020	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B

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EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011918 6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 6/2008
Time Received: 09:45
Delivered By: UPS

P.O. 460016825

Project Name: Delphi 21.0056196.10

Printed on 11/26/2008 at 10:17AM

Sample ID: 2008:0011918-2 **Client's Sample ID:** MW-6-F-8
Date Sampled: 11/ 5/2008 **Time Sampled:** 12:30 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics (Continued)						
1,1,1-Trichloroethane	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Carbon Tetrachloride	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Vinyl Acetate	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Bromodichloromethane	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
1,1,2,2-Tetrachloroethane	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
1,2-Dichloropropane	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
trans-1,3-Dichloropropene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Trichloroethene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Dibromochloromethane	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
1,1,2-Trichloroethane	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Benzene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
cis-1,3-Dichloropropene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
2-Chloroethylvinylether	**<0.0040**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Bromoform	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
2-Hexanone	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
4-Methyl-2-Pentanone (MIBK)	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Tetrachloroethene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Toluene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Chlorobenzene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Ethylbenzene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Styrene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
Xylenes (total)	**<0.0060**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
cis-1,2-Dichloroethene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B
trans-1,2-Dichloroethene	**<0.0020**	mg/L	11/13/08	17:28	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
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Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011918 6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 6/2008
Time Received: 09:45
Delivered By: UPS

P.O. 460016825

Project Name: Delphi 21.0056196.10

Printed on 11/26/2008 at 10:17AM

Sample ID: 2008:0011918-3 **Client's Sample ID:** MW-6-F-7
Date Sampled: 11/ 5/2008 **Time Sampled:** 13:00 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics						
Chloromethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Bromomethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Vinyl Chloride	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Chloroethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Methylene chloride	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Acetone	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Carbon Disulfide	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
1,1-Dichloroethene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
1,1-Dichloroethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
1,2-Dichloroethenes (Total)	0.0024	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Chloroform	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
1,2-Dichloroethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
2-Butanone	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
1,1,1-Trichloroethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Carbon Tetrachloride	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Vinyl Acetate	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Bromodichloromethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
1,1,2,2-Tetrachloroethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
1,2-Dichloropropane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
trans-1,3-Dichloropropene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Trichloroethene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Dibromochloromethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
1,1,2-Trichloroethane	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Benzene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
cis-1.3-Dichloropropene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
2-Chloroethylvinylether	<0.0040	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Bromoform	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
2-Hexanone	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
4-Methyl-2-Pentanone (MIBK)	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Tetrachloroethene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
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PHONE: (814) 724-6242
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EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011918 6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 6/2008
Time Received: 09:45
Delivered By: UPS

P.O. 460016825

Project Name: Delphi 21.0056196.10

Printed on 11/26/2008 at 10:17AM

Sample ID: 2008:0011918-3 **Client's Sample ID:** MW-6-F-7
Date Sampled: 11/ 5/2008 **Time Sampled:** 13:00 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics (Continued)						
Toluene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Chlorobenzene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Ethylbenzene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Styrene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
Xylenes (total)	<0.0060	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
cis-1,2-Dichloroethene	0.0024	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B
trans-1,2-Dichloroethene	<0.0020	mg/L	11/13/08	18:08	Lindquist	SW-846 8260B

Sample ID: 2008:0011918-4 **Client's Sample ID:** MW-Split
Date Sampled: 11/ 4/2008 **Time Sampled:** 15:00 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			11/13/08	18:45	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	0.0078	mg/L	11/13/08	18:48	Lindquist	SW-846 8260B
trans-1,2-Dichloroethylene	<0.0020	mg/L	11/13/08	18:48	Lindquist	SW-846 8260B
Methane	0.14	mg/L	11/14/08	07:53	Williams	In House
Tetrachloroethylene	<0.0020	mg/L	11/13/08	18:48	Lindquist	SW-846 8260B
Trichloroethylene	<0.0020	mg/L	11/13/08	18:48	Lindquist	SW-846 8260B
Vinyl chloride	0.0033	mg/L	11/13/08	18:48	Lindquist	SW-846 8260B
Metals						
Calcium (Ca)	320	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Iron (Fe)	0.39	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Magnesium (Mg)	138	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Manganese (Mn)	0.28	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B

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Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011918 6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 6/2008
Time Received: 09:45
Delivered By: UPS

P.O. 460016825

Project Name: Delphi 21.0056196.10

Printed on 11/26/2008 at 10:17AM

Sample ID: 2008:0011918-4 **Client's Sample ID:** MW-Split
Date Sampled: 11/ 4/2008 **Time Sampled:** 15:00 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Metals (Continued)						
Potassium (K)	13.5	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Sodium (Na)	1010	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	340	mg/L	11/10/08	15:30	Bleicher	SM 2320 B
Total Organic Carbon	2.4	mg/L	11/10/08	21:32	Lindquist	SW-846 9060
Chloride	2100	mg/L	11/11/08	09:00	Parker	EPA 325.3
Nitrogen, Ammonia	0.39	mg/L	11/14/08	06:00	Semroc	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	11/10/08	16:30	Bleicher	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	11/06/08	13:40	Macko	EPA 353.2
Sulfate	80	mg/L	11/11/08	11:00	Semroc	SW-846 9038
Sulfide, Direct	<0.1	mg/L	11/07/08	12:15	Bleicher	EPA 376.1

Metal analyses were performed by Modern Industries Inc., Erie, PA.

Sample ID: 2008:0011918-5 **Client's Sample ID:** MW-7
Date Sampled: 11/ 5/2008 **Time Sampled:** 08:00 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			11/13/08	18:45	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	70	mg/L	11/18/08	18:46	Lindquist	SW-846 8260B
trans-1,2-Dichloroethylene	<0.20	mg/L	11/18/08	18:46	Lindquist	SW-846 8260B
Methane	0.11	mg/L	11/14/08	07:53	Williams	In House
Tetrachloroethylene	<0.2	mg/L	11/18/08	18:46	Lindquist	SW-846 8260B
Trichloroethylene	1.1	mg/L	11/18/08	18:46	Lindquist	SW-846 8260B
Vinyl chloride	2.6	mg/L	11/18/08	18:46	Lindquist	SW-846 8260B

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011918 6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 6/2008
Time Received: 09:45
Delivered By: UPS

P.O. 460016825

Project Name: Delphi 21.0056196.10

Printed on 11/26/2008 at 10:17AM

Sample ID: 2008:0011918-5 **Client's Sample ID:** MW-7
Date Sampled: 11/ 5/2008 **Time Sampled:** 08:00 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Metals						
Calcium (Ca)	327	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Iron (Fe)	6.06	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Magnesium (Mg)	74	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Manganese (Mn)	2.28	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Potassium (K)	4.39	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Sodium (Na)	277	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	348	mg/L	11/10/08	15:30	Bleicher	SM 2320 B
Total Organic Carbon	4.4	mg/L	11/10/08	22:01	Lindquist	SW-846 9060
Chloride	980	mg/L	11/11/08	09:00	Parker	EPA 325.3
Nitrogen, Ammonia	0.08	mg/L	11/14/08	06:00	Semroc	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	11/10/08	16:30	Bleicher	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	11/06/08	13:40	Macko	EPA 353.2
Sulfate	23	mg/L	11/11/08	11:00	Semroc	SW-846 9038
Sulfide, Direct	<0.1	mg/L	11/07/08	12:15	Bleicher	EPA 376.1

Metal analyses were performed by Modern Industries Inc., Erie, PA.

Sample ID: 2008:0011918-6 **Client's Sample ID:** MW-13
Date Sampled: 11/ 5/2008 **Time Sampled:** 14:00 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			11/13/08	18:45	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	<0.0020	mg/L	11/18/08	16:49	Lindquist	SW-846 8260B
trans-1,2-Dichloroethylene	<0.0020	mg/L	11/18/08	16:49	Lindquist	SW-846 8260B
Methane	0.021	mg/L	11/14/08	07:53	Williams	In House

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2008:0011918 6 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 11/ 6/2008
Time Received: 09:45
Delivered By: UPS

P.O. 460016825

Project Name: Delphi 21.0056196.10

Printed on 11/26/2008 at 10:17AM

Sample ID: 2008:0011918-6 **Client's Sample ID:** MW-13
Date Sampled: 11/ 5/2008 **Time Sampled:** 14:00 **Date Received:** 11/ 6/2008

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Organics (Continued)						
Tetrachloroethylene	**<0.0020**	mg/L	11/18/08	16:49	Lindquist	SW-846 8260B
Trichloroethylene	**<0.0020**	mg/L	11/18/08	16:49	Lindquist	SW-846 8260B
Vinyl chloride	**<0.0020**	mg/L	11/18/08	16:49	Lindquist	SW-846 8260B
Metals						
Calcium (Ca)	**196**	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Iron (Fe)	**7.60**	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Magnesium (Mg)	**52.3**	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Manganese (Mn)	**5.40**	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Potassium (K)	**11**	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
Sodium (Na)	**1430**	mg/L	11/14/08	20:47	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	**410**	mg/L	11/10/08	15:30	Bleicher	SM 2320 B
Total Organic Carbon	**3.8**	mg/L	11/10/08	22:29	Lindquist	SW-846 9060
Chloride	**2000**	mg/L	11/11/08	09:00	Parker	EPA 325.3
Nitrogen, Ammonia	**1.57**	mg/L	11/14/08	06:00	Semroc	EPA 350.2
Nitrogen, Nitrate	**<0.05**	mg/L	11/10/08	16:30	Bleicher	EPA 353.2
Nitrogen, Nitrite	**<0.05**	mg/L	11/06/08	13:40	Macko	EPA 353.2
Sulfate	**91**	mg/L	11/11/08	11:00	Semroc	SW-846 9038
Sulfide, Direct	**<0.1**	mg/L	11/07/08	12:15	Bleicher	EPA 376.1

Metal analyses were performed by Modern Industries Inc., Erie, PA.
CC: GZA

CHAIN OF CUSTODY RECORD

Page _____ of _____

FREE-COL LABORATORIES, a Division of Modern Ind.

11618 COTTON ROAD 814 724 - 6242
MEADVILLE , PA 16335 814 333 - 1466 Fax

Website: www.modernind.com

1 CLIENT INFORMATION		2 SAMPLE REPORTING INFORMATION		
COMPANY GZA		Check all that apply	Sample Type	DEP drinking water compliance provide the following:
CONTACT Chris Boron		NORMAL	Wastewater:	DRINKING WATER:
ADDRESS 535 Washington St		Rush (Specify)	Frequency	PWSID #:
CITY Buffalo NY		QA/QC	Monitoring Wells	Location:
STATE NY	Zip Code 14203	Due Date	Solid Waste:	Entry Point #:
Phone (716) 685-2300	Fax 685-3629	E-mail Data	Frequency	Sampling Frequency (Circle One):
E-MAIL Christopher.boron@gza.com		Non-Compliance	Other:	Quarterly/Monthly/Annual
PURCHASE ORDER NUMBER		Compliance	Frequency	Check Sample: Yes / No

3 PROJECT NAME / NUMBER: Delphi 21.0056192.10

4 SAMPLER'S NAME / DATE: Jen Davide / 11/5/08

SAMPLE RANGE:

5 SAMPLE INFORMATION

	DATE	TIME	SAMPLE IDENTIFICATION	FOR FREE-COL USE ONLY FREE-COL ID	RESULTS	GRAB/ COMP	ANALYSIS REQUESTED/COMMENTS (If composite, please use inclusive dates and times.)
1	11/4/08	15:00	MW-SPLIT		4	GW	See Note
2	11/5/08	8:00	MW-7		5		See Note
3	11/5/08	9:30	MW-6-F-9	11918.	1		VOC-TCL
4	11/5/08	12:30	MW-6-F-8		2		VOC-TCL
5	11/5/08	13:00	MW-6-F-7		3		VOC-TCL
6	11/5/08	14:00	MW-13		6		See Note
7							
8							MW-SPLIT, MW-7 + MW-13
9							Also Get analysis of VOCs
10							for following compounds:
11							tetrachlorethylene
12							trichlorethylene
13							cis 1,2-dichloroethylene
14							trans-1,2-dichloroethylene
15							Vinyl Chloride

Note: MW-SPLIT, MW-7 + MW-13 Get the following Analysis:

Methane:	SW-846, 8015 B Modified
Alkalinity:	SM 2320 B
Chloride:	EPA 325.3
Ammonia:	EPA 350.2
Nitrate: ✓	EPA 353.2
Nitrite: ✓	EPA 353.2
Sulfate:	SW-846, 9038
Sulfide:	EPA 376.1
Iron	SW-846, 6010B
Magnesium	SW-846, 6010B
Manganese	SW-846, 6010B
Potassium	SW-846, 6010B
Sodium	SW-846, 6010B
Calcium	SW-846, 6010B

6 SAMPLE TRACEABILITY

	Date Received	SIGNATURE	ORGANIZATION	DATE RELINQUISHED
1	11/5/08	[signature]	GZA	11/5/08
2	11-6	[signature]	UPS	11/5/08
3	11.6	[signature]	Free Col Laboratories	11.6
4	11/6	[signature]	Free Col Laboratories	11/26/08
5			Free Col Laboratories	
6				
7				

USE BY LABORATORY ONLY

	Date	Time	Refrigerated upon receipt?
Samples received at lab	11/6	945	YES NO
Means of delivery to lab	UPS		
Sample cooler temp. upon receipt		(deg. C)	on Dec
Sample check in started	11-6	Completed	11-6-08
Analyst		Date Run	
Reviewed by		Date	
Worksheet Number			

ZAM 4.250 [illegible]

CHAIN OF CUSTODY RECORD

FREE-COL LABORATORIES, a Division of Modern Ind.
800 836 - 4130
11618 COTTON ROAD 814 724 - 6242
MEADVILLE, PA 814 333 - 1466 Fax
16335

1 CLIENT INFORMATION			
COMPANY	GZA Geoenvironmentel of New York		
CONTACT	Christopher Boron		
ADDRESS	535 washington street 11th floor		
CITY	Buffalo		
STATE	New York	ZIP CODE	14203
PHONE	716-685-2300	FAX	716-685-3629
E-MAIL ADDRESS			
PURCHASE ORDER NUMBER			

2 SAMPLE REPORTING INFORMATION		
Check all that apply	Sample Type	DEP drinking water compliance provide the following:
NORMAL	Wastewater:	DRINKING WATER:
Rush (Specify)	Frequency -	PWSID #:
QA/QC	Monitoring Wells	Location:
Due Date	Solid Waste:	Entry Point #:
Fax Data	Frequency	Sampling Frequency (Circle One):
Non-Compliance	Other:	Quarterly/Monthly/Annual
Compliance	Frequency	Check Sample: Yes / No

3 PROJECT NAME / NUMBER	
monitoring wells	21.0056192.10
4 SAMPLER'S NAME / DATE	
Jen Davide	2/24/09
SAMPLE RANGE:	

5 SAMPLE INFORMATION						
DATE	TIME	SAMPLE IDENTIFICATION	FOR FREE-COL USE ONLY FREE-COL ID	RESULTS	GRAB/ COMP	ANALYSIS REQUESTED/COMMENTS (If composite, please use inclusive dates and times.)
1 2/24/09	19:00	MW-7	1850-2		GW	tetrachloroethylene,trichloroethylene,cis-1,2-dichloroethylene,trans-1,2-dichloroethylene,vinyl chloride
2						methane
3						alkalinity
4						chloride
5						ammonia
6						nitrate
7						nitrite
8						sulfate
9						~~sulfite~~ sulfide
10						iron,magnesium,manganese,potassium,sodium,calaium
11						
12						
13						
14						
15						

6 SAMPLE TRACEABILITY			
Date Received	SIGNATURE	ORGANIZATION	DATE RELINQUISHED
1	Jen Davide	FREE-COL LABORATORIES Fed-Ex	
2 2.25	[signature]	FREE-COL LABORATORIES	2-25
3 2/25	[signature]	FREE-COL LABORATORIES	3/12/07
4			
5			
6			
7			

USE BY LABORATORY ONLY

	Date	Time	Refrigerated upon receipt?
Samples received at lab	2/25	9:00	YES NO
Means of delivery to lab	UPS		
Sample cooler temp. upon receipt	(deg. C) 5°		
Sample check in started	2-25	Completed	2-25-09
Analyst		Date Run	
Reviewed by		Date	
Worksheet Number			

CHAIN OF CUSTODY RECORD

Page 1 of 2

FREE-COL LABORATORIES, a Division of Modern Ind.
11618 COTTON ROAD
MEADVILLE, PA
16335
800 836 - 4130
814 724 - 6242
814 333 - 1466 Fax

1	CLIENT INFORMATION		
COMPANY	GZA Geoenvironmentel of New York		
CONTACT	Christopher Boron		
ADDRESS	535 washington street 11th floor		
CITY	Buffalo		
STATE	New York	ZIP CODE	14203
PHONE	716-685-2300	FAX	716-685-3629
E-MAIL ADDRESS			
PURCHASE ORDER NUMBER			

2	SAMPLE REPORTING INFORMATION		
Check all that apply	Sample Type	DEP drinking water compliance provide the following:	
NORMAL	Wastewater:	DRINKING WATER:	
Rush (Specify)	Frequency -	PWSID #:	
QA/QC	Monitoring Wells	Location:	
Due Date	Solid Waste:	Entry Point #:	
Fax Data	Frequency	Sampling Frequency (Circle One):	
Non-Compliance	Other:	Quarterly/Monthly/Annual	
Compliance	Frequency	Check Sample: Yes / No	

3	PROJECT NAME / NUMBER
monitoring wells	21.0056192.10

4	SAMPLER'S NAME / DATE
Jen Davide	2/24/09

SAMPLE RANGE:

5	SAMPLE INFORMATION					
DATE	TIME	SAMPLE IDENTIFICATION	FOR FREE-COL USE ONLY FREE-COL ID	RESULTS	GRAB/ COMP	ANALYSIS REQUESTED/COMMENTS (If composite, please use inclusive dates and times.)
2/24/09	18:00	MW-14	1830	-1	G.W	tetrachloroethylene,trichloroethylene,cis-1,2-dichloroethylene,trans-1,2-dichloroethylene,vinyl chloride
						methane
						alkalinity — Neal headspace
						chloride
						ammonia
						nitrate ✓
						nitrite ✓
						sulfate
						~~sulfite~~ sulfide
						iron,magnesium,manganese,potassium,sodium,calaium

6	SAMPLE TRACEABILITY		
Date Received	SIGNATURE	ORGANIZATION	DATE RELINQUISHED
2/24/09	[signature]	FREE-COL LABORATORIES Fed-ex	
2/25	[signature]	FREE-COL LABORATORIES	2.25
2/25	[signature]	FREE-COL LABORATORIES	3/12/09

USE BY LABORATORY ONLY

	Date	Time	Refrigerated upon receipt?
Samples received at lab	2/25	9:00	YES NO
Means of delivery to lab	UPS		
Sample cooler temp. upon receipt		(deg. C)	5°
Sample check in started	2.25	Completed	2.25.09
Analyst		Date Run	
Reviewed by		Date	cocmaster2000 Rev 11-13-00
Worksheet Number			

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2009:0002530 1 Sample(s) are included in this Delivery Group.

Company Name: GZA Geoenvironmental, Inc.
Contact Name: Mr. Chris Boron

535 Washington St.
Buffalo NY 14225

Date Received 3/17/2009
Time Received: 09:30
Delivered By: Fed Ex

P.O. 4-04674

Project Name: Delphi 21.0056192.10

Printed on 03/27/2009 at 02:52PM

Sample ID: 2009:0002530-1 **Client's Sample ID:** MW-12
Date Sampled: 3/16/2009 **Time Sampled:** 11:00 **Date Received:** 3/17/2009

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			03/19/09	15:00	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	**0.15**	mg/L	03/19/09	04:31	Bleicher	SW-846 8260B
trans-1,2-Dichloroethylene	**<0.0020**	mg/L	03/19/09	04:31	Bleicher	SW-846 8260B
Methane	**0.87**	mg/L	03/19/09	6:46	Williams	In House
Tetrachloroethylene	**0.0020**	mg/L	03/19/09	04:31	Bleicher	SW-846 8260B
Trichloroethylene	**0.0055**	mg/L	03/19/09	04:31	Bleicher	SW-846 8260B
Vinyl chloride	**0.081**	mg/L	03/19/09	04:31	Bleicher	SW-846 8260B
Metals						
Calcium (Ca)	**269**	mg/L	03/20/09	17:30	Kozakovsky	SW-846 6010B
Iron (Fe)	**11.5**	mg/L	03/20/09	17:30	Kozakovsky	SW-846 6010B
Magnesium (Mg)	**81.7**	mg/L	03/20/09	17:30	Kozakovsky	SW-846 6010B
Manganese (Mn)	**8.60**	mg/L	03/20/09	17:30	Kozakovsky	SW-846 6010B
Potassium (K)	**5.1**	mg/L	03/20/09	17:30	Kozakovsky	SW-846 6010B
Sodium (Na)	**1060**	mg/L	03/20/09	17:30	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	**270**	mg/L	03/25/09	11:00	Bleicher	SM 2320 B
Chloride	**2300**	mg/L	03/24/09	10:30	Parker	EPA 325.3
Nitrogen, Ammonia	**1.89**	mg/L	03/20/09	10:00	Semroc	EPA 350.2
Nitrogen, Nitrate	**<0.05**	mg/L	03/17/09	11:30	Malinowski	EPA 353.2
Nitrogen, Nitrite	**<0.05**	mg/L	03/23/09	09:00	Malinowski	EPA 353.2
Sulfate	**140**	mg/L	03/25/09	11:00	Semroc	SW-846 9038
Sulfide, Direct	**<0.1**	mg/L	03/20/09	08:00	Malinowski	EPA 376.1

Metal analyses were performed by Modern Industries, Inc., Erie, PA.
CC: Rick Eisenman

Lab Director
3/27/09

CHAIN OF CUSTODY RECORD

Page 1 of 1

FREE-COL LABORATORIES, a Division of Modern Ind.

11618 COTTON ROAD 814 724 - 6242
MEADVILLE, PA 16335 814 333 - 1466 Fax

Website: www.modernind.com

1 CLIENT INFORMATION		2 SAMPLE REPORTING INFORMATION		
COMPANY GZA GeoEnvironmental		Check all that apply	Sample Type	DEP drinking water compliance provide the following:
CONTACT Chris Baron		NORMAL	Wastewater:	DRINKING WATER:
ADDRESS 535 Washington St		Rush (Specify)	Frequency	PWSID #:
CITY Buffalo		QA/QC	Monitoring Wells	Location:
STATE NY	ZIP CODE	Due Date	Solid Waste:	Entry Point #:
PHONE (716) 685-2300	FAX (716) 685-3629	E-mail Data	Frequency	Sampling Frequency (Circle One):
E-MAIL		Non-Compliance	Other:	Quarterly/Monthly/Annual
PURCHASE ORDER NUMBER		Compliance	Frequency	Check Sample: Yes / No

3 PROJECT NAME / NUMBER: Delphi 21.0056192.10

4 SAMPLER'S NAME / DATE: Jen Davide

SAMPLE RANGE:

5 SAMPLE INFORMATION

	DATE	TIME	SAMPLE IDENTIFICATION	FOR FREE-COL USE ONLY FREE-COL ID	RESULTS	GRAB/COMP	ANALYSIS REQUESTED/COMMENTS (If composite, please use inclusive dates and times.)
1	3/16/09	11:00	MW-12	2530	-1	GW	Natural Attenuation Parameters:
2							Methane SW-846, 8015 B Modified
3							Alkalinity - SM 2320 B
4							Chloride, Ammonia, Nitrate, Nitrite, Sulfate, Sulfide,
5							Iron, Magnesium, Maganese, Potassium, Sodium &
6							Calcium
7							
8							Method SW-846, 8260 B
9							
10							
11							
12							
13							
14							
15							

6 SAMPLE TRACEABILITY

	Date Received	SIGNATURE	ORGANIZATION	DATE RELINQUISHED
1	3/16/09	[signature]	GZA → FED Ex	3/16/09
2	3/17	[signature]	[signature]	3.17
3	3/27/09	[signature]		
4				
5				
6				
7				

USE BY LABORATORY ONLY

	Date	Time	Refrigerated upon receipt?
Samples received at lab	3/17	930	YES NO
Means of delivery to lab	[signature]		
Sample cooler temp. upon receipt		(deg. C)	[signature]
Sample check in started	3.17	Completed	3.17.09
Analyst		Date Run	
Reviewed by		Date	
Worksheet Number			

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2009:0001830

2 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Date Received 2/25/2009
Time Received: 09:00
Delivered By: UPS

P.O. Credit Card

Project Name: Monitoring Wells 21.0056192.10

Printed on 03/11/2009 at 09:24AM

Sample ID: 2009:0001830-2 **Client's Sample ID:** MW-7
Date Sampled: 2/24/2009 **Time Sampled:** 19:00 **Date Received:** 2/25/2009

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			03/02/09	18:00	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	56	mg/L	03/04/09	23:25	Bleicher	SW-846 8260B
trans-1,2-Dichloroethylene	0.38*	mg/L	03/04/09	23:25	Bleicher	SW-846 8260B
Methane	0.040	mg/L	02/25/09	11:16	Williams	In House
Tetrachloroethylene	0.071	mg/L	03/04/09	23:25	Bleicher	SW-846 8260B
Trichloroethylene	530	mg/L	03/04/09	23:25	Bleicher	SW-846 8260B
Vinyl chloride	3.6*	mg/L	03/04/09	23:25	Bleicher	SW-846 8260B
Metals						
Calcium (Ca)	193	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Iron (Fe)	0.09	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Magnesium (Mg)	86.7	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Manganese (Mn)	0.04	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Potassium (K)	14.2	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Sodium (Na)	213	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	270	mg/L	03/06/09	16:00	Bleicher	SM 2320 B
Chloride	410	mg/L	03/02/09	10:30	Parker	EPA 325.3
Nitrogen, Ammonia	0.98	mg/L	03/02/09	05:15	Semroc	EPA 350.2
Nitrogen, Nitrate	<0.05	mg/L	02/27/09	08:00	Malinowski	EPA 353.2
Nitrogen, Nitrite	<0.05	mg/L	02/26/09	08:00	Malinowski	EPA 353.2
Sulfate	430	mg/L	02/27/09	10:30	Semroc	SW-846 9038
Sulfide, Direct	<0.1	mg/L	03/03/09	10:30	Malinowski	EPA 376.1

*NOTE: Estimated value due to analyte concentration outside the calibration range.
Metal analyses were performed by Modern Industries Inc., Erie, PA.
CC: GZA Geo Environmental

FREE-COL LABORATORIES
11618 COTTON ROAD
MEADVILLE, PENNSYLVANIA 16335
PHONE: (814) 724-6242
FAX: (814) 333-1466
EMAIL: service@freecol.com

Accredited Lab ID#
Free-Col: 20-00073
Modern Erie: 25-03459

Certificate Of Analysis

Delivery Group ID: 2009:0001830

2 Sample(s) are included in this Delivery Group.

Company Name: Delphi Energy & Engine
Contact Name: Mr. Rick Eisenman

100 Lexington Ave.
Rochester NY 14606-2810

Project Name: Monitoring Wells 21.0056192.10

Date Received 2/25/2009
Time Received: 09:00
Delivered By: UPS

P.O. Credit Card

Printed on 03/11/2009 at 09:24AM

Sample ID: 2009:0001830-1 **Client's Sample ID:** MW-14
Date Sampled: 2/24/2009 **Time Sampled:** 18:00 **Date Received:** 2/25/2009

Analyte	Result	Units	Date Analyzed	Start Time	Analyst	Method Source
Prep Group						
Prep: 3005A Met Total Rec			03/02/09	18:00	Kozakovsky	SW-846 3005A
Organics						
cis-1,2-Dichloroethylene	**0.0022**	mg/L	03/04/09	21:26	Bleicher	SW-846 8260B
trans-1,2-Dichloroethylene	**<0.0020**	mg/L	03/04/09	21:26	Bleicher	SW-846 8260B
Methane	**0.15**	mg/L	02/25/09	11:16	Williams	In House
Tetrachloroethylene	**<0.0020**	mg/L	03/04/09	21:26	Bleicher	SW-846 8260B
Trichloroethylene	**0.016**	mg/L	03/04/09	21:26	Bleicher	SW-846 8260B
Vinyl chloride	**<0.0020**	mg/L	03/04/09	21:26	Bleicher	SW-846 8260B
Metals						
Calcium (Ca)	**165**	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Iron (Fe)	**0.06**	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Magnesium (Mg)	**79.8**	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Manganese (Mn)	**0.18**	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Potassium (K)	**7.3**	mg/L	03/06/09	19:00	Kozakovsky	SW-846 6010B
Sodium (Na)	**833**	mg/L	03/10/09	19:00	Kozakovsky	SW-846 6010B
General Chemistry						
Alkalinity (as CaCO3)	**299**	mg/L	03/06/09	16:00	Bleicher	SM 2320 B
Chloride	**1500**	mg/L	03/02/09	10:30	Parker	EPA 325.3
Nitrogen, Ammonia	**0.23**	mg/L	03/02/09	05:15	Semroc	EPA 350.2
Nitrogen, Nitrate	**0.07**	mg/L	02/27/09	08:00	Malinowski	EPA 353.2
Nitrogen, Nitrite	**<0.05**	mg/L	02/26/09	08:00	Malinowski	EPA 353.2
Sulfate	**68**	mg/L	02/27/09	10:30	Semroc	SW-846 9038
Sulfide, Direct	**<0.1**	mg/L	03/03/09	10:30	Malinowski	EPA 376.1

Metal analyses were performed by Modern Industries Inc., Erie, PA.

APPENDIX C

MONITORING WELL OBSERVATION & GROUNDWATER SAMPLING LOGS

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-7
Date: 11/4/2008
Time In: 16:05
Sampling Personnel: J. Davide
Time Out: 17:50
Weather Conditions: Sunny 65F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rereading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water: 8.07
Length of Water Column: 19.63
Depth of Well (from Log): 27.7
Length of Time Pumping: 1 hour 20 min
Total Volume Removed: 10 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: Yes

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-7
Sample Time: 11/5/2008 8:00
# of Sample C: 14
Duplicate Sam: No
Sample Analy: Natural Attenuation

Reading: / Time:	1 16:30	2 16:38	3 16:45	4 16:51	5 16:58	6 17:04

Cumulative Volume Purged	0 gals	1 gals	2 gals	3 gals	4 gals	5 gals	NOTES
Depth to Water	10.98	13	144	16.55	18.64	20.91	
pH	6.94	6.91	6.86	6.79	6.77	6.7	
Conductance (mS/cm)	2.953	2.89	2.899	3.011	3.067	3.152	
Turbidity (NTUs)	16.1	14.4	16.7	13	101.5	225.1	
Tempurature (°C)	15.79	15.97	16.18	16.26	1618	16.16	
DO (mg/L)	0.02	0.73	1.93	0.29	0.21	0.33	
ORP (mV)	-85.1	-80	-94.7	-104.4	-104.5	-79.6	

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-7
Date: 11/4/2008
Time In: 16:05
Sampling Personnel: J. Davide
Time Out: 17:50
Weather Conditions: Sunny 65F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rereading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water: 8.07
Length of Water Column: 19.63
Depth of Well (from Log): 27.7
Length of Time Pumping: 1 hour 20 min
Total Volume Removed: 10 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: Yes

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-7
Sample Time: 11/5/2008 8:00
# of Sample C: 14
Duplicate Sam: No
Sample Analy: Natural Attenuation

Reading: / Time:	7 17:11	8 17:19	9 17:28	10 17:39	11 17:50	12 7:40

Cumulative Volume Purged	6 gals	7 gals	8 gals	9 gals	10 gals	Recharge	NOTES
Depth to Water	22.83	24.56	25.78	26.11	27.81	8.14	
pH	6.75	6.76	6.74	6.7	6.7		
Conductance (mS/cm)	3.183	3.176	3.211	3.245	3.247		
Turbidity (NTUs)	123.7	71.5	16.8	7.4	19.5		
Tempurature (°C)	16.02	15.91	15.7	15.72	15.7		
DO (mg/L)	1.32	1.65	1.92	0.64	0.88		
ORP (mV)	-58.4	-54.1	-37.4	-10.6	4.3		

Water Quality Meter: YSI 6820 MP Sonde 2.85" Dry 11/4/08 Recharge 11/5/08
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-11
Date: 11/4/2008
Time In: 9:15
Sampling Personnel: J. Davide
Time Out: 11:15
Weather Conditions: Sunny 65F

WELL CONDITION

Well Locked: No-broken cover
J-Plug Intacked: No-Bailer inside
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rerading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water:	5.91
Length of Water Column:	18.19
Depth of Well (from Log):	24.1
Length of Time Pumping:	1 hour 37 min
Total Volume Removed:	3.5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-11
Sample Time:	10:45
# of Sample C	14
Duplicate Sam	No
Sample Analy:	Natural Attenuation

Reading: / Time:	1 / 9:23	2 / 9:33	3 / 9:46	4 / 9:55	5 / 10:10	6 / 10:46

Cumulative Volume Purged	0 gals	0.5 gals	1 gals	1.5 gals	2 gals	3 gals	NOTES
Depth to Water	6.72	7.2	7.42	7.57	7.71	8.01	
pH	7.5	7.5	7.51	7.42	7.41	7.38	
Conductance (mS/cm)	4.485	2.691	1.927	1.515	1.407	1.439	
Turbidity (NTUs)	-3	-4.4	-4.2	-2.4	-2.5	-4.6	
Tempurature (°C)	12.9	13.35	13.48	13.68	13.85	14.1	
DO (mg/L)	-3.79	0.1	0.24	0.18	0.82	0.58	
ORP (mV)	-257.7	-252.2	-237	-213	-172.1	-196.6	

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-11
Date:	11/4/2008	Time In: 9:15
Sampling Personnel:	J. Davide	Time Out: 11:15
Weather Conditions:	Sunny 65F	

WELL CONDITION

Well Locked:	No-broken cover
J-Plug Intacked:	No-Bailer inside
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	5.91
Length of Water Column:	18.19
Depth of Well (from Log):	24.1
Length of Time Pumping:	1 hour 37 min
Total Volume Removed:	3.5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-11
Sample Time:	10:45
# of Sample C	14
Duplicate Sam	No
Sample Analy:	Natural Attenuation

Reading:	7						
Time:	11:04						
Cumulative Volume Purged	3.5 gals						NOTES
Depth to Water	8.12						
pH	7.28						
Conductance (mS/cm)	1.377						
Turbidity (NTUs)	-5.1						
Tempurature (°C)	14.43						
DO (mg/L)	0.56						
ORP (mV)	-200.1						

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-12
Date:	11/4/2008	Time In: 11:35
Sampling Personnel:	J. Davide	Time Out: 13:00
Weather Conditions:	Sunny 65F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	6.04
Length of Water Column:	10.56
Depth of Well (from Log):	16.6
Length of Time Pumping:	1 hour
Total Volume Removed:	3 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID:	MW-12
Sample Time:	3:00
# of Sample C	14
Duplicate Sam	No
Sample Analy:	Natural Attenuation

Reading:	1	2	3	4	5	6
Time:	11:48	12:05	12:11	12:23	12:34	12:45

Cumulative Volume Purged	0 gals	1 gals	1.5 gals	2 gals	2.5 gals	3 gals	NOTES
Depth to Water	6.17	6.17	6.17	6.17	6.16	6.17	
pH	6.73	6.69	6.7	6.71	6.72	6.72	
Conductance (mS/cm)	5.66	5.741	6.191	6.242	6.304	6.319	
Turbidity (NTUs)	329.8	31	5.1	4.1	1.2	1	
Tempurature (°C)	14.36	14.18	14.23	14.21	14.26	14.28	
DO (mg/L)	0.14	0.08	0.09	0.09	0.03	0.02	
ORP (mV)	-98.5	-86.9	-88.6	-89.8	-88.5	-88.4	

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-13
Date: 11/5/2008
Time In: 13:00
Sampling Personnel: J. Davide
Time Out: 14:00
Weather Conditions: Sunny 70F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rereading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water: 5.24
Length of Water Column: 9.76
Depth of Well (from Log): 15
Length of Time Pumping: 1 hour
Total Volume Removed: 4 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-13
Sample Time: 14:00
# of Sample C: 14
Duplicate Sam: No
Sample Analy: Natural Attenuation

Reading:	1	2	3	4	5	6
Time:	13:06	13:13	13:20	13:29	13:31	13:42

Cumulative Volume Purged	0 gals	.5 gals	1 gals	2 gals	3 gals	4 gals	NOTES
Depth to Water	5.4	5.4	5.41	5.42	5.42	5.43	
pH	7.22	7.17	7.41	7.1	7.09	7.08	
Conductance (mS/cm)	7.304	7.126	6.978	6.866	6.806	6.782	
Turbidity (NTUs)	106	57.2	9.7	-0.3	-1.7	-2	
Tempurature (°C)	16.24	15.68	15.52	15.37	15.35	15.33	
DO (mg/L)	-4.68	-0.79	-0.31	-0.08	0	-0.12	
ORP (mV)	-75.5	-80.1	-74.7	-89.3	-96.4	-97.1	

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-14
Date:	11/4/2008	Time In: 13:00
Sampling Personnel:	J. Davide	Time Out: 14:00
Weather Conditions:	Sunny 70F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rerading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	6.71
Length of Water Column:	12.39
Depth of Well (from Log):	19
Length of Time Pumping:	1 hour 15 min
Total Volume Removed:	4 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-14
Sample Time:	15:00
# of Sample C	14
Duplicate Sam	Split
Sample Analy:	Natural Attenuation

Reading: / Time:	1 13:58	2 14:17	3 14:27	4 14:38	5 14:58	6 15:16

Cumulative Volume Purged	0 gals	1 gals	1.5 gals	2 gals	3 gals	4 gals	NOTES
Depth to Water	7.98	11.08	11.78	11.88	12	12.08	
pH	6.83	6.69	6.68	6.81	6.84	6.83	
Conductance (mS/cm)	7.7	7.59	7.59	6.379	6.059	6.397	
Turbidity (NTUs)	-3.66	-4.2	-4.2	-4.5	-4.8	-4.7	
Tempurature (°C)	15.68	14.42	14.27	14.35	14.41	14.48	
DO (mg/L)	-0.98	-1.24	-0.69	-0.27	-0.16	-0.13	
ORP (mV)	22.1	41.5	46.5	43.2	12.9	11.2	

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems — Well ID: MW-15
Date: 11/4/2008 — Time In: 7:50
Sampling Personnel: J. Davide — Time Out: 9:15
Weather Conditions: Sunny 60F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rerading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water: 8.24
Length of Water Column: 9.66
Depth of Well (from Log): 17.9
Length of Time Pumping: 1 hour 25 min
Total Volume Removed: 3 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-15
Sample Time: 9:15
# of Sample C: 15
Duplicate Sam: MW-Dupe
Sample Analy: Natural Attenuation

Reading: / Time:	1 8:00	2 8:10	3 8:16	4 8:32	5 8:48	

Cumulative Volume Purged	0 gals	.5 gals	1 gals	2 gals	3 gals		NOTES
Depth to Water	8.93	9.02	9.03	9.08	9.09		
pH	6.9	6.85	6.84	6.83	6.82		
Conductance (mS/cm)	4.83	4.806	4.765	4.715	4.719		
Turbidity (NTUs)	3.1	-4	-4.2	-5	-5.1		
Tempurature (°C)	14.18	14.13	14.14	14.39	14.33		
DO (mg/L)	-6.64	-1.86	-1.09	0.89	2.42		
ORP (mV)	6.8	65	65.3	72.4	74.7		

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-6-1
Date:	11/3/2008	Time In: 13:30
Sampling Personnel:	J. Davide	Time Out: 15:15
Weather Conditions:	Cloudy 55F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rerading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	5.03
Length of Water Column:	13.82
Depth of Well (from Log):	18.85
Length of Time Pumping:	1 hour 11 min
Total Volume Removed:	4.5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-6-1
Sample Time:	15:00
# of Sample C	3
Duplicate Sam	No
Sample Analy:	VOC-TCL

Reading: / Time:	1 13:54	2 14:02	3 14:09	4 14:20	5 14:36	6 14:54

Cumulative Volume Purged	0 gals	.5 gals	1 gals	1.5 gals	2.5 gals	3.5 gals	NOTES
Depth to Water	5.03	6.35	6.35	6.41	6.53	6.58	
pH	6.78	6.77	6.77	6.76	6.75	6.74	
Conductance (mS/cm)	4.076	4.107	4.11	4.132	4.176	4.183	
Turbidity (NTUs)	51.1	6.9	17	13.2	4.3	1	
Tempurature (°C)	14.12	14.27	14.22	14.23	14.12	14.07	
DO (mg/L)	-11.76	0.85	0.69	1.35	3.2	3.81	
ORP (mV)	-52.9	-61.6	-60.4	-52.3	-25.4	-21.1	

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-6-1
Date:	11/3/2008	Time In: 13:30
Sampling Personnel:	J. Davide	Time Out: 15:15
Weather Conditions:	Cloudy 55F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	5.03
Length of Water Column:	13.82
Depth of Well (from Log):	18.85
Length of Time Pumping:	1 hour 11 min
Total Volume Removed:	4.5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-6-1
Sample Time:	15:00
# of Sample C	3
Duplicate Sam	No
Sample Analy:	VOC-TCL

Reading:	7						
Time:	15:05						
Cumulative Volume Purged	4.5 gals						NOTES
Depth to Water	6.62						
pH	6.74						
Conductance (mS/cm)	4.183						
Turbidity (NTUs)	-0.8						
Tempurature (°C)	14.07						
DO (mg/L)	3.94						
ORP (mV)	-23.5						

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-6-2
Date:	11/3/2008	Time in: 15:30
Sampling Personnel:	J. Davide	Time Out: 17:10
Weather Conditions:	Cloudy 55F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	5.61
Length of Water Column:	20.06
Depth of Well (from Log):	26.21
Length of Time Pumping:	1 hour 23 min
Total Volume Removed:	4.5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-6-2
Sample Time:	17:00
# of Sample C	15
Duplicate Sam	No
Sample Analy:	Natural Attenuation

Reading: / Time:	1 15:37	2 15:54	3 16:05	4 16:06	5 16:31	6 16:46

Cumulative Volume Purged	0 gals	1 gals	1.5 gals	2 gals	3 gals	4 gals	NOTES
Depth to Water	5.61	6.18	6.2	6.2	6.21	6.21	
pH	6.77	6.81	6.83	6.84	6.84	6.85	
Conductance (mS/cm)	6.404	6.234	6.096	6.011	5.971	5.943	
Turbidity (NTUs)	2.6	-2.8	-3.9	-4.6	-4.4	-4.7	
Tempurature (°C)	13.8	13.69	13.61	13.56	13.41	13.4	
DO (mg/L)	1.53	0.21	0.02	0.2	1.16	1.08	
ORP (mV)	48.9	33.8	32.5	34.6	37.1	41.3	

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-6-2
Date:	11/3/2008	Time in: 15:30
Sampling Personnel:	J. Davide	Time Out: 17:10
Weather Conditions:	Cloudy 55F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rerading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	5.61
Length of Water Column:	20.06
Depth of Well (from Log):	26.21
Length of Time Pumping:	1 hour 23 min
Total Volume Removed:	4.5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-6-2
Sample Time:	17:00
# of Sample C	15
Duplicate Sam	No
Sample Analy:	Natural Attenuation

Reading:	7						
Time:	17:00						
Cumulative Volume Purged	4.5 gals						NOTES
Depth to Water	6.21						
pH	686						
Conductance (mS/cm)	5.93						
Turbidity (NTUs)	-4.9						
Tempurature (°C)	13.38						
DO (mg/L)	0.93						
ORP (mV)	45						

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-7-2
Date: 11/3/2008
Time in: 10:10
Sampling Personnel: J. Davide
Time Out: 13:50
Weather Conditions: Cloudy 55F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rerading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water: 7.23
Length of Water Column: 14.47
Depth of Well (from Log): 21.7
Length of Time Pumping: 3 hour 25 min
Total Volume Removed: 6.5 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-7-2
Sample Time: 13:00
# of Sample C: 3
Duplicate Sam: No
Sample Analy: VOC-TCL

Reading:	1	2	3	4	5	6
Time:	10:25	10:40	10:49	11:05	11:23	12:05

Cumulative Volume Purged	0 gals	0.5 gals	1 gals	1.25 gals	2 gals	3 gals	NOTES
Depth to Water	7.23	11.22	12.12	13	14.3	15.82	
pH	7.18	7.14	7.13	7.14	7.22	7.15	
Conductance (mS/cm)	2.852	2.751	2.571	2.137	1.759	1.975	
Turbidity (NTUs)	-0.9	-2	-3.5	-2.2	-2.3	2.3	
Tempurature (^{o}C)	13.72	13.57	13.6	13.48	13.39	13.51	
DO (mg/L)	3.41	0.86	0.84	1.02	2.96	2.11	
ORP (mV)	2.7	-8.7	-11.1	-1.3	19.1	28.2	

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems — Well ID: MW-7-2

Date: 11/3/2008 — Time in: 10:10

Sampling Personnel: J. Davide — Time Out: 13:50

Weather Conditions: Cloudy 55F

WELL CONDITION

Well Locked: Yes

J-Plug Intacked: Yes

Does well appear to be functioning properly: Yes

Condition of Surface Seal: Good

Condition of Riser Pipe: Good

PID Rerading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water:	7.23
Length of Water Column:	14.47
Depth of Well (from Log):	21.7
Length of Time Pumping:	3 hour 25 min
Total Volume Removed:	6.5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-7-2
Sample Time:	13:00
# of Sample C	3
Duplicate Sam	No
Sample Analy:	VOC-TCL

Reading: / Time:	7 / 13:00	8 / 13:28	9 / 13:50			

Cumulative Volume Purged	.5 gals	5.5 gals	6.5 gals				NOTES
Depth to Water	16.31	17.68	19				
pH	7.12	7.13	7.16				
Conductance (mS/cm)	2.45	2.347	2.261				
Turbidity (NTUs)	7.2	4.7	6.1				
Tempurature (°C)	13.66	13.69	13.7				
DO (mg/L)	1.16	1.79	2.03				
ORP (mV)	5.9	7.9	11.1				

Water Quality Meter: YSI 6820 MP Sonde 2.85"

Peristaltic Pump: GeoPump

Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-7-4
Date:	11/3/2008	Time in: 9:00
Sampling Personnel:	J. Davide	Time Out: 9:40
Weather Conditions:	Cloudy 55F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	12.15
Length of Water Column:	6.85
Depth of Well (from Log):	19
Length of Time Pumping:	35 min
Total Volume Removed:	2 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	Yes

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-7-2
Sample Time:	17:30
# of Sample C	3
Duplicate Sam	No
Sample Analy:	VOC-TCL

Reading:	1	2	3	4	5	
Time:	9:05	9:16	9:28	9:40	17:25	

Cumulative Volume Purged	0 gals	1 gals	1.5 gals	2 gals	Recharge		NOTES
Depth to Water	12.15	17.23	18.83	21.5	17.4		
pH	7.02	7.05	7	7.01			
Conductance (mS/cm)	4.072	4.002	3.944	3.997			
Turbidity (NTUs)	206.3	9.9	4.1	-2.2			
Tempurature (°C)	14.1	14.17	14.07	14.01			
DO (mg/L)	38.1	2.5	1.72	1.37			
ORP (mV)	-23.9	47.9	70.6	22.1			

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-6-F-7
Date: 11/5/2008
Time in: 10:10
Sampling Personnel: J. Davide
Time Out: 10:55
Weather Conditions: Sunny 65F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rerading at Top of Well: 25 ppm

WELL WATER INFORMATION

Depth of Water: 5.12
Length of Water Column: 14.47
Depth of Well (from Log): 11.18
Length of Time Pumping: 16.3
Total Volume Removed: 5 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: Yes

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-6-F-7
Sample Time: 13:00
# of Sample C: 3
Duplicate Sam: No
Sample Analys: VOC-TCL

Reading:	1	2	3	4	5	6
Time:	10:15	10:23	10:30	10:30	10:41	10:46

Cumulative Volume Purged	0 gals	0.5 gals	1 gals	2 gals	3 gals	4 gals	NOTES
Depth to Water	6.5	8.2	9	9.75	10.81	12.63	
pH	7.11	7.08	7.07	7.05	7.01	7.01	
Conductance (mS/cm)	7.395	7.277	6.651	6612	7.528	7.861	
Turbidity (NTUs)	16.1	10.2	4.4	8	31.1	120.1	
Tempurature (°C)	17.12	17.25	17.08	17.15	1715	17.22	
DO (mg/L)	-0.8	-0.29	-0.16	-0.13	0.1	0.27	
ORP (mV)	-120.9	-110.9	-103.7	-101.2	-97.6	-101.6	

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-6-F-7
Date:	11/5/2008	Time in: 10:10
Sampling Personnel:	J. Davide	Time Out: 10:55
Weather Conditions:	Sunny 65F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rerading at Top of Well:	25 ppm

WELL WATER INFORMATION

Depth of Water:	5.12
Length of Water Column:	14.47
Depth of Well (from Log):	11.18
Length of Time Pumping:	16.3
Total Volume Removed:	5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	Yes

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-6-F-7
Sample Time:	13:00
# of Sample C	3
Duplicate Sam	No
Sample Analy:	VOC-TCL

Reading: / Time:	7 / 10:51	8 / 12:25				

Cumulative Volume Purged	5 gals	Recharge					NOTES
Depth to Water	14.67	5.28					
pH	6.99						
Conductance (mS/cm)	7.748						
Turbidity (NTUs)	473.8						
Tempurature (°C)	17.22						
DO (mg/L)	-0.83						
ORP (mV)	-102.3						

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-6-F-8
Date: 11/5/2008
Time in: 11:10
Sampling Personnel: J. Davide
Time Out: 12:40
Weather Conditions: Sunny 65F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rerading at Top of Well: 4 ppm

WELL WATER INFORMATION

Depth of Water: 3.31
Length of Water Column: 12.1
Depth of Well (from Log): 15.4
Length of Time Pumping: 1 hour
Total Volume Removed: 3 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-6-F-8
Sample Time: 12:30
# of Sample C: 3
Duplicate Sam: No
Sample Analys: VOC-TCL

Reading:	1	2	3	4	5	6
Time:	11:18	11:28	11:37	11:56	12:07	12:19

Cumulative Volume Purged	0 gals	.5 gals	1 gals	2 gals	2.5 gals	3 gals	NOTES
Depth to Water	3.63	3.64	3.62	3.61	3.64	3.63	
pH	6.48	6.47	6.43	6.4	6.43	6.45	
Conductance (mS/cm)	11.81	10.45	9.505	10.22	10.43	10.48	
Turbidity (NTUs)	37.5	48	19.1	7.2	2.5	2.4	
Tempurature (°C)	17.13	17.33	17.05	16.74	16.72	16.77	
DO (mg/L)	-3.79	-1.26	-0.48	-0.27	-0.14	-0.07	
ORP (mV)	6.9	14.5	25.6	38.9	36.7	33.3	

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-6-F-9
Date: 11/5/2008
Time in: 8:40
Sampling Personnel: J. Davide
Time Out: 10:00
Weather Conditions: Sunny 65F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rerading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water: 4.52
Length of Water Column: 9.98
Depth of Well (from Log): 14.5
Length of Time Pumping: 1 hour 5min
Total Volume Removed: 3 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-6-F-9
Sample Time: 9:30
# of Sample C: 3
Duplicate Sam: No
Sample Analy: VOC-TCL

Reading:	1	2	3	4	5	6
Time:	8:55	0:04	9:15	9:26	9:39	9:50

Cumulative Volume Purged	0 gals	.5 gals	1 gals	1.5 gals	2 gals	2.5 gals	NOTES
Depth to Water	5.9	5.72	5.75	5.8	5.79	5.8	
pH	6.93	6.93	6.9	6.91	6.9	6.89	
Conductance (mS/cm)	9.688	9.71	9.749	9.972	10.23	10.55	
Turbidity (NTUs)	70.3	54.8	47.2	31.4	13.9	9.8	
Tempurature (°C)	16.95	16.6	16.84	17.19	17.37	17.45	
DO (mg/L)	-1.44	-1.04	-1.11	-0.69	-0.72	-0.54	
ORP (mV)	-162.9	-185	-196.9	-227	-231.3	-211.7	

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-6-F-9
Date:	11/5/2008	Time in: 8:40
Sampling Personnel:	J. Davide	Time Out: 10:00
Weather Conditions:	Sunny 65F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	4.52
Length of Water Column:	9.98
Depth of Well (from Log):	14.5
Length of Time Pumping:	1 hour 5min
Total Volume Removed:	3 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-6-F-9
Sample Time:	9:30
# of Sample C	3
Duplicate Sam	No
Sample Analy:	VOC-TCL

Reading:	7						
Time:	10:00						
Cumulative Volume Purged	3 gals						NOTES
Depth to Water	5.81						
pH	6.88						
Conductance (mS/cm)	10.61						
Turbidity (NTUs)	7.5						
Tempurature (°C)	17.59						
DO (mg/L)	-0.48						
ORP (mV)	-221.3						

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems
Well ID: MW-7
Date: 2/24/2009
Time In: 13:00
Sampling Personnel: J. Davide
Time Out: 15:00
Weather Conditions: Cloudy 24F

WELL CONDITION

Well Locked: Yes
J-Plug Intacked: Yes
Does well appear to be functioning properly: Yes
Condition of Surface Seal: Good
Condition of Riser Pipe: Good
PID Rerading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water: 7.83
Length of Water Column: 19.37
Depth of Well (from Log): 27.2
Length of Time Pumping: 2 hours
Total Volume Removed: 9 gallons
Well Purge Pumping Rate:
Sheen Observed: No
DNAPL Observed: No
Did Well Go Dry: Yes

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID: MW-7
Sample Time: 18:30
# of Sample Containe: 14
Duplicate Sample ID: No
Sample Analysis: Natural Attenuation

Reading:	1	2	3	4	5	6
Time:	13:20	13:35	13:46	13:55	14:05	14:15

Cumulative Volume Purged	0 gals	1 gals	2 gals	3 gals	4 gals	5 gals	NOTES
Depth to Water	8.8	11.74	14.3	16.32	18.91	21.24	
pH	6.63	7.13	7.21	7.21	7.2	7.2	
Conductance (mS/cm)	1.736	1.719	1.673	1.662	1.669	1.688	
Turbidity (NTUs)	15.5	16.4	18	18	48.9	125.4	
Tempurature (°C)	13.27	12.97	12.25	12.25	12.22	12.55	
DO (mg/L)	3.26	2.19	2.2	1.84	1.59	1.48	
ORP (mV)	108.9	108.6	70.3	-50.7	-91.5	-95.6	

Water Quality Meter: YSI 6820 MP Sonde 2.85"
Peristaltic Pump: GeoPump
Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-7
Date:	2/24/2009	Time In: 13:00
Sampling Personnel:	J. Davide	Time Out: 18:30
Weather Conditions:	Cloudy 24F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	7.83
Length of Water Column:	19.37
Depth of Well (from Log):	27.2
Length of Time Pumping:	2 hours
Total Volume Removed:	9 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	Yes

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-7
Sample Time:	18:30
# of Sample Containe	14
Duplicate Sample ID:	No
Sample Analysis:	Natural Attenuation

Reading: / Time:	7 14:25	8 14:36	9 14:45	10 14:55	11 18:30		
Cumulative Volume Purged	6 gals	7 gals	8 gals	9 gals			NOTES
Depth to Water	23.76	25.96	27.22	28.29	18.91		
pH	7.23	7.25	7.27	7.31			
Conductance (mS/cm)	1.69	1.699	1.718	1.788			
Turbidity (NTUs)	148.5	75.5	17.9	16.3			
Tempurature (°C)	12.77	12.84	13.07	12.96			
DO (mg/L)	1.3	1.1	1.22	2.96			
ORP (mV)	-92.8	-76	-68.2	-55.8			

Water Quality Meter:	YSI 6820 MP Sonde 2.85"	DRY	RECHARGE
Peristaltic Pump:	GeoPump		
Tubing Type:	Polyethylene tubing		

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site: Delphi Thermal Systems — Well ID: MW-14

Date: 2/24/2009 — Time In: 15:20

Sampling Personnel: J. Davide — Time Out: 18:05

Weather Conditions: Cloudy 24F

WELL CONDITION

Well Locked: Yes

J-Plug Intacked: Yes

Does well appear to be functioning properly: Yes

Condition of Surface Seal: Good

Condition of Riser Pipe: Good

PID Rereading at Top of Well: 0 ppm

WELL WATER INFORMATION

Depth of Water: 5.27

Length of Water Column: 13.83

Depth of Well (from Log): 19.1

Length of Time Pumping: 2 hours 45 min

Total Volume Removed: 9 gallons

Well Purge Pumping Rate:

Sheen Observed: No

DNAPL Observed: No

Did Well Go Dry: No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION

Sample ID:	MW-14
Sample Time:	18:00
# of Sample Containe	14
Duplicate Sample ID:	No
Sample Analysis:	Natural Attenuation

Reading:	1	2	3	4	5	6
Time:	15:20	15:30	15:45	16:00	16:08	16:17

Cumulative Volume Purged	0 gals	1 gals	1.5 gals	2 gals	2.5 gals	3 gals	NOTES
Depth to Water	6.92	8.5	8.62	8.74	9.4	9.85	
pH	7.06	7.27	7.26	7.23	7.24	7.26	
Conductance (mS/cm)	5.081	3.554	3.659	3.82	3.85	3.737	
Turbidity (NTUs)	7.2	8.5	8.4	8.3	7.2	7.2	
Tempurature (°C)	7.49	5.73	5.44	5.91	6.33	6.29	
DO (mg/L)	3.86	4.28	3.83	2.89	2.52	2.39	
ORP (mV)	35.8	37.8	31.9	7.3	8.4	17.4	

Water Quality Meter: YSI 6820 MP Sonde 2.85"

Peristaltic Pump: GeoPump

Tubing Type: Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-14
Date:	2/24/2009	Time In: 15:20
Sampling Personnel:	J. Davide	Time Out: 18:05
Weather Conditions:	Cloudy 24F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	5.27
Length of Water Column:	13.83
Depth of Well (from Log):	19.1
Length of Time Pumping:	2 hours 45 min
Total Volume Removed:	9 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-14
Sample Time:	18:00
# of Sample Containe	14
Duplicate Sample ID:	No
Sample Analysis:	Natural Attenuation

Reading:	7	8	9	10	11	12	
Time:	16:30	16:45	17:05	17:15	17:25	17:35	
Cumulative Volume Purged	4 gals	5 gals	6 gals	6.5 gals	7 gals	7.5 gals	NOTES
Depth to Water	10.1	10.15	9.72	9.76	9.77	9.77	
pH	7.25	7.22	7.2	7.22	7.22	7.21	
Conductance (mS/cm)	3.714	3.715	3.662	3.666	3.594	3.555	
Turbidity (NTUs)	9.2	10.1	8.5	7.1	6.2	6	
Tempurature (°C)	6.11	6.14	5.62	5.82	5.66	5.52	
DO (mg/L)	2.02	1.56	1.14	1	0.88	0.81	
ORP (mV)	10.2	-4.6	-17.5	-21.8	-25.5	-29.2	

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-14
Date:	2/24/2009	Time In: 15:20
Sampling Personnel:	J. Davide	Time Out: 18:05
Weather Conditions:	Cloudy 24F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	5.27
Length of Water Column:	13.83
Depth of Well (from Log):	19.1
Length of Time Pumping:	2 hours 45 min
Total Volume Removed:	9 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-14
Sample Time:	18:00
# of Sample Containe	14
Duplicate Sample ID:	No
Sample Analysis:	Natural Attenuation

Reading:	13	14					
Time:	17:45	18:05					
Cumulative Volume Purged	8 gals	9 gals					NOTES
Depth to Water	9.75	9.76					
pH	7.2	7.19					
Conductance (mS/cm)	3.545	3.534					
Turbidity (NTUs)	5.9	5.8					
Tempurature (°C)	5.43	5.27					
DO (mg/L)	0.73	0.73					
ORP (mV)	-32.9	-33.7					

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-12
Date:	3/16/2009	Time In: 9:50
Sampling Personnel:	J. Davide	Time Out: 11:00
Weather Conditions:	Sunny, 50 F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	6.03
Length of Water Column:	9.07
Depth of Well (from Log):	15.1
Length of Time Pumping:	1 hour, 10 min
Total Volume Removed:	5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-12
Sample Time:	11:00
# of Sample Containe	14
Duplicate Sample ID:	No
Sample Analysis:	Natural Attenuation

Reading:	1	2	3	4	5	6
Time:	9:57	10:02	10:07	10:12	10:16	10:20

Cumulative Volume Purged	0 gals	0.5 gals	1 gals	1.5 gals	2 gals	2.5 gals	NOTES
Depth to Water	6.25	6.2	6.23	6.23	6.24	6.24	
pH	6.98	6.72	6.65	6.63	6.6	6.6	
Conductance (mS/cm)	4.441	4.228	4.438	4.506	4.521	4.516	
Turbidity (NTUs)	1,273	631	310.2	164.7	99.9	70.1	
Tempurature (°C)	6.88	6.38	6.26	6.2	6.1	6.05	
DO (mg/L)	4.61	1.52	1.38	1.24	1.16	1.08	
ORP (mV)	1.6	-25.2	-39.6	-46.8	-49.5	-49.7	

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems

MONITORING WELL OBSERVATIONS & GROUNDWATER SAMPLING LOG

Site:	Delphi Thermal Systems	Well ID: MW-12
Date:	3/16/2009	Time In: 9:50
Sampling Personnel:	J. Davide	Time Out: 11:00
Weather Conditions:	Sunny, 50 F	

WELL CONDITION

Well Locked:	Yes
J-Plug Intacked:	Yes
Does well appear to be functioning properly:	Yes
Condition of Surface Seal:	Good
Condition of Riser Pipe:	Good
PID Rereading at Top of Well:	0 ppm

WELL WATER INFORMATION

Depth of Water:	6.03
Length of Water Column:	9.07
Depth of Well (from Log):	15.1
Length of Time Pumping:	1 hour, 10 min
Total Volume Removed:	5 gallons
Well Purge Pumping Rate:	
Sheen Observed:	No
DNAPL Observed:	No
Did Well Go Dry:	No

PARAMETER STABILITY	
pH	+/- 0.1
Conductivity	+/- 3%
Tempurature	+/- 10%
Turbidity	+/- 10%
ORP	+/- 10 mV
DO	+/- 10%

SAMPLING INFORMATION	
Sample ID:	MW-12
Sample Time:	11:00
# of Sample Containe	14
Duplicate Sample ID:	No
Sample Analysis:	Natural Attenuation

Reading:	7	8	9	10	11	
Time:	10:25	10:30	10:35	10:40	10:45	

Cumulative Volume Purged	3 gals	3.5 gals	4 gals	4.5 gals	5 gals		NOTES
Depth to Water	6.23	6.23	6.24	6.23	6.23		
pH	6.61	6.6	6.58	6.56	6.56		
Conductance (mS/cm)	4.558	4.495	4.475	4.449	4.448		
Turbidity (NTUs)	67	65.7	57.5	24.6	33.5		
Tempurature (°C)	6.08	6.09	6.06	6.05	6.1		
DO (mg/L)	1.08	1.03	1.07	1.05	1.03		
ORP (mV)	-49.1	-48.7	-48.4	-47.3	-47		

Water Quality Meter:	YSI 6820 MP Sonde 2.85"
Peristaltic Pump:	GeoPump
Tubing Type:	Polyethylene tubing

Miscellaneous Observations/Notes/Problems