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January 15, 2003

United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard, DE-9J
Chicago, IL 60604-3590

Attention: Mr. Kenneth Bardo

Subject: Progress Report, Fourth Quarter 2002
Delphi Corporation
Energy & Chassis Systems and Safety & Interior Systems Facility
Vandalia, Ohio
US EPA ID #OHD 052 151 701
US EPA ID #OHD 000 048 454

Dear Mr. Bardo:

This submittal constitutes the progress report for work undertaken during the fourth quarter 2002, related to the above-referenced Facility. This work is being conducted in accordance with RCRA 3008(h) Administrative Order on Consent, Docket No. R8H-5-02-001, January 22, 2002.

Work Performed This Quarter (October 1, 2002 – December 31, 2002)

- Installed and developed 2 "Sugar Rock" monitoring wells (Figure 1, Attachment A).
- Installed 20, one-inch diameter peizometers (Figure 2, Table 1).
- Sampled and analyzed 58 monitoring wells: 39 "Sugar Rock", 3 intermediate, 9 top of bedrock, and 7 overburden (Figures 1 and 3, Tables 2-3).
- Sampled and analyzed monthly groundwater migration control system monitoring points, consisting of extracted groundwater prior to treatment and treated groundwater effluent for NPDES compliance (Table 4).
- Collected three rounds of "Sugar Rock" and intermediate bedrock water levels, and two rounds of top of bedrock water levels (Figures 4-8, Attachment B).
- Sampled and analyzed 7 surface water samples from selected locations along the unnamed tributary of North Creek (Figure 9, Table 5).
- Validated lab data for fourth quarter groundwater and surface water samples. Data Usability Reports for the data presented in this report are included in Attachment C.
- One additional residential water use survey was received during the fourth quarter. A total of 463 surveys have now been returned out of the 1,713 sent to residents, rental property owners and businesses located within the second tier

project survey area. Eight water samples were collected and analyzed from three residential well locations (Figure 10, Table 6).

- Continued operation of the groundwater migration control system. Fourth quarter 2002 monthly discharge reports, system activity logs, shutdown reports and site inspection checklists are included in Attachments D-G, respectively.
- Submitted "Data Summary Report, RFI Investigation, Field Event I" to the USEPA.
- Provided a draft scope of work to USEPA and began Field Event II of the RFI investigation. Completed 11 soil borings, 8 piezometers and 9 monitoring wells in December 2002. Boring logs, analytical data and other information regarding this work will be included in a later submittal.
- The DNAPL recovery system was operated through October 30, 2002. A total of 11.6 gallons of DNAPL was removed from recovery wells R-5, R-6, R-12 and R-15 (Figure 11). System inspection and operation reports are included in Attachment H. Prepared the system for winter storage.
- Performed a pumping test to evaluate the effect of more aggressive pumping from the abandoned storm sewer. Control of water seepage near the facility entrance near Post 3 has been maintained by operating a sump pump with a float switch in an abandoned storm sewer manhole. However, groundwater quality data collected during RFI Field Event I indicated the presence of chlorinated solvents (primarily TCE) in shallow overburden wells south of Northwoods Boulevard. The float switch was lowered to the bottom of the manhole for one week to evaluate the extent of capture that could be generated.

Data Collected

- Field screening was conducted and groundwater samples were analyzed from 58 monitoring wells. The analytical results from groundwater sampling during the fourth quarter are included in Table 3. Updated historical sampling results for monitoring wells MW-301D, MW-413D, MW-416D, MW-418D, and MW-420D are included in Attachment I and the fourth quarter TCE levels in the "Sugar Rock" are illustrated in Figure 12.
- Analytical results of monthly migration control system samples are presented in Table 4.
- Analytical results of surface water samples were collected in the unnamed tributary of North Creek and are included in Table 5.
- Analytical results of residential water use survey samples are attached in Table 6.
- Analytical results of the co-recovered groundwater collected after DNAPL recovery system treatment indicates that no analytes were detected above reporting limits for EPA method 624.
- Water levels were monitored in the newly installed piezometers and shallow overburden wells during the sewer pumping test. Water levels measured at the

end of the test were used to generate the water table contour plan presented as Figure 13.

Performance Evaluation and Problems Encountered

- The groundwater migration control system was operational for 99.6 % of the quarter. System downtime was due to recovery well capacity adjustments and power interruptions.
  - The system shutdown from 12:05 to 12:50 on October 25, 2002 after the recovery well pump capacity was increased to 95%. The pump capacity was reduced to 90% and the system was restarted.
  - From 09:00 to 17:10 on December 23, 2002, electrical work at the facility necessitated that power to the treatment system be shut off. During this time, portable heaters were used to prevent the system from freezing. The system was restarted once power was restored.
  - An interruption to power caused the system to shut down from 08:30 to 09:20 on December 29, 2002. The system was restarted and monitored to verify that the power interruption did not affect system operation.
  - A pinhole-sized opening was detected in the influent piping, directly above the influent flow meter, during a weekly inspection on November 01, 2002. A negligible amount of water leaked from this hole for several seconds and then ceased. No additional water was observed leaking from the hole. On November 07, 2002, the hole was sealed with JB Water Weld, then covered with duct tape. The amount of water lost through this leak was negligible and was contained in the building's secondary containment system. No system downtime resulted from the hole or hole repairs.
  - In spite of the exceptional system uptime, water level data indicate diminished hydraulic capture (Figures 4, 5 and 7). It should be noted that water quality data indicate that the plume continues to be stabilized by the migration control system. The pumping rate has been increased incrementally to the effective maximum rate of approximately 45 GPM. The following actions are being considered for the first quarter 2003:
    - Evaluate condition of and rehabilitate MW-301D. The surface seal of this well has degraded. This will be repaired and the well will be re-developed. If the well screen is fouled, it may result in an underestimation of drawdown.
    - Upgrade and lower the pump in P-301D. The existing pump will be refurbished and kept as a backup pump.
    - Pursue a NPDES permit modification that will include an increase in the permissible volume of discharge (currently 72,000 GPD).

    - Confirm that the existing system can effectively treat the higher flow rate.
- The reconfigured DNAPL recovery system is not currently designed to operate on an automated basis. Therefore, the system was operated during times when an operator was on-site. In October 2002 there were a total of 23 days available for operation of the system. During this time period the system was operated on 19 of the 23 days, or 83% of the time. No operational problems were encountered.
    - The redesign of the resin-based treatment system resulted in effective treatment of the co-recovered groundwater from the recovery wells. Laboratory analysis of the post-treatment containerized water identified no VOCs above detectable levels.
    - Additional evaluation of system performance and potential upgrades will be undertaken during the winter shutdown.
- Continuing negotiations with Oberer Development for access to a parcel that they purchased from CSX. Continued access to monitoring wells on this property is permitted by Oberer during negotiations.
- Ongoing negotiations with CSX Real Property for continued access to monitoring wells. Access to monitoring wells has been allowed by CSX during negotiations.

Project Schedule

- An updated project schedule showing the percent completion of individual tasks is included in Attachment J.

Feel free to contact me at (937) 455-0941 if you have any questions or require additional information.

Sincerely,

W. John Ridd

W. John Ridd
Project Manager
Delphi Corporation

Enclosures:

Tables

1 Fourth Quarter 2002 Piezometer Installation Data
2 Groundwater Sampling/Water Level Measurements
3 Fourth Quarter 2002 Analytical Results, Bedrock, Top of Bedrock and Overburden Monitoring Wells
4 Fourth Quarter 2002 Performance Monitoring Analytical Data, Groundwater Migration Control System
5 Fourth Quarter 2002 Analytical Results, Surface Water Samples
6 Fourth Quarter 2002 Analytical Results, Residential Wells

Figures

1 New Bedrock Monitoring Wells and Sampled Bedrock Monitoring Wells, Fourth Quarter 2002
2 Piezometer Locations
3 Sampled Monitoring Wells (Overburden)
4 Deep Bedrock Potentiometric Surface Contours – October 23, 2002
5 Deep Bedrock Potentiometric Surface Contours – November 27, 2002
6 Potentiometric Surface Contours – November 27, 2002, Top of Rock Zone
7 Deep Bedrock Potentiometric Surface Contours – December 05, 2002
8 Potentiometric Surface Contours – December 05, 2002, Top of Rock Zone
9 Surface Water Sampling Locations
10 Residential Water Use Survey Results
11 Recovery Well Locations
12 Fourth Quarter TCE in Sugar Rock
13 November 19, 2002 Pump Test, Overburden Potentiometric Surface Contours

Attachments

A Monitoring Well Test Boring Reports, Core Boring Reports and Well Installation Reports
B Water Level Measurements
C Data Usability Summary Reports
D Groundwater Migration Control System Monthly Discharge Reports
E Groundwater Migration Control System Activity Log
F Groundwater Migration Control System Shutdown Reports
G Groundwater Migration Control System Inspection Checklist
H DNAPL Recovery System Inspection and Operation Reports
I Historical Sampling Results, MW-301D, MW-413D, MW-416D, MW-418D, MW-420D
J Project Schedule

TABLE 1
Fourth Quarter 2002 Piezometer Installation Data
Delphi Corporation - Vandalia, Ohio

Piezometer ID	Installation Date	Top of Riser Elevation (feet)	DTB (feet BGS)	Piezometer Construction
PZ-1	10/31/02	978.64	10.33	1" PVC Riser, 5' PVC Screen
PZ-2	10/31/02	978.12	10.12	1" PVC Riser, 5' PVC Screen
PZ-3	10/31/02	981.44	8.67	1" PVC Riser, 5' PVC Screen
PZ-4	10/31/02	981.12	9.71	1" PVC Riser, 5' PVC Screen
PZ-5	10/31/02	979.45	9.87	1" PVC Riser, 5' PVC Screen
PZ-6	10/31/02	981.57	10.09	1" PVC Riser, 5' PVC Screen
PZ-7	10/31/02	982.50	9.87	1" PVC Riser, 5' PVC Screen
PZ-8	10/31/02	982.90	10.11	1" PVC Riser, 5' PVC Screen
PZ-9	10/31/02	982.34	9.79	1" PVC Riser, 5' PVC Screen
PZ-10	10/31/02	983.23	10.12	1" PVC Riser, 5' PVC Screen
PZ-11	10/31/02	983.34	9.2	1" PVC Riser, 5' PVC Screen
PZ-12	10/31/02	982.95	10.12	1" PVC Riser, 5' PVC Screen
PZ-13	10/31/02	983.61	10.15	1" PVC Riser, 5' PVC Screen
PZ-14	10/31/02	984.21	10.11	1" PVC Riser, 5' PVC Screen
PZ-15	10/31/02	985.51	8.97	1" PVC Riser, 5' PVC Screen
PZ-16	10/31/02	985.17	9.71	1" PVC Riser, 5' PVC Screen
PZ-17	10/31/02	983.49	9.34	1" PVC Riser, 5' PVC Screen
PZ-18	10/31/02	985.28	9.74	1" PVC Riser, 5' PVC Screen
PZ-19	10/31/02	983.58	10.12	1" PVC Riser, 5' PVC Screen
PZ-20	10/31/02	982.28	9.46	1" PVC Riser, 5' PVC Screen

TABLE 2
Groundwater Sampling / Water Level Measurements
Delphi Corporation - Vandalia, Ohio

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MW-101D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-101S	L			L			S/L			L		
MW-204D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-204S	L			L			S/L			L		
MW-301D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-301S	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-401D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-401S	L			L			S/L			L		
MW-402D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-402S	L			L			S/L			L		
MW-403D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-403S	L			L			S/L			L		
MW-404D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-404S	L			L			S/L			L		
MW-405D	L	L	L	L	L	L	S/L	L	L	S/L	L	L
MW-405S	L			L			S/L			L		
MW-407D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-407S	L			L			S/L			L		
MW-408D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-409D	L	L	L	L	L	L	S/L	L	L	S/L	L	L
MW-410D	L	L	L	L	L	L	S/L	L	L	S/L	L	L
MW-411D	L	L	L	L	L	L	S/L	L	L	S/L	L	L
MW-412D	L	L	L	L	L	L	S/L	L	L	S/L	L	L
MW-413D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-414D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-415S	L			L			S/L			S/L		
MW-416D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-417D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-418D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-419D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-419M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-420D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-420M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-421D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-422D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-422S	S/L			S/L			S/L			S/L		
MW-423S	S/L			S/L			S/L			S/L		
MW-424D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-424S	S/L			S/L			S/L			S/L		
MW-425S	S/L			S/L			S/L			S/L		
MW-426S	S/L			S/L			S/L			L		
MW-427S	S/L			S/L			S/L			L		
MW-428S	S/L			S/L			S/L			S/L		
MW-429S	S/L			S/L			S/L			L		
MW-430S	S/L			S/L			S/L			L		
MW-431S	S/L			S/L			S/L			L		
MW-432D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-432M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-433D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-434D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-435D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-436D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-437D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-438D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-439D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-440D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-441D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-442D	--	S/L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-443D	--	S/L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-444D	--	--	S/L	S/L	L	L	S/L	L	L	S/L	L	L
MW-445S	--	--	--	S/L	L	L	S/L	L	L	S/L	L	L
MW-446S	--	--	--	S/L	L	L	S/L	L	L	S/L	L	L
MW-447D	--	--	--	--	S/L	L	S/L	L	L	S/L	L	L
MW-448D	--	--	--	--	S/L	L	S/L	L	L	S/L	L	L
MW-449D	--	--	--	--	S/L	L	S/L	L	L	S/L	L	L
MW-450D	--	--	--	--	L	L	S/L	L	L	S/L	L	L
MW-451D	--	--	--	--	--	--	--	--	--	--	S/L	
MW-452S	--	--	--	--	--	--	--	S/L		L		
MW-453D	--	--	--	--	--	--	--	--	--	--	--	S/L
CSX-18D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
CSX-22	--	--	--	--	--	--	--	--	--	S/L		

S/L- sample well, water level L- water level

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	301D-100702-1450 10/07/2002 MW-301D	401D-093002-1350 9/30/2002 MW-401D	405D-100102-1515 10/1/2002 MW-405D	407D-100902-1118 10/9/2002 MW-407D	408D-100902-1408 10/9/2002 MW-408D
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 83	< 1	< 1	< 10	< 15
1,1,2,2-Tetrachloroethane	< 83	< 1	< 1	< 10	< 15
1,1,2-Trichloro-1,2,2-trifluoroethane	< 83	< 1	< 1	< 10	< 15
1,1,2-Trichloroethane	< 83	< 1	< 1	< 10	< 15
1,1-Dichloroethane	**30 J**	< 1	< 1	< 10	< 15
1,1-Dichloroethene	< 83	< 1	< 1	< 10	< 15
1,2,4-Trichlorobenzene	< 83	< 1	< 1	< 10	< 15
1,2-Dibromo-3-Chloropropane	< 170 UJ	< 2	< 2	< 20	< 31
1,2-Dibromoethane	< 83	< 1	< 1	< 10	< 15
1,2-Dichlorobenzene	< 83	< 1	< 1	< 10	< 15
1,2-Dichloroethane	< 83	< 1	< 1	< 10	< 15
1,2-Dichloropropane	< 83	< 1	< 1	< 10	< 15
1,3-Dichlorobenzene	< 83	< 1	< 1	< 10	< 15
1,4-Dichlorobenzene	< 83	< 1	< 1	< 10	< 15
2-Butanone	< 830	< 10	< 10	< 100	< 150
2-Hexanone	< 830	< 10 UJ	< 10	< 100	< 150
4-Methyl-2-pentanone	< 420	< 5	< 5	< 50	< 77
Acetone	< 830	< 10 UJ	< 10	< 100 UJ	< 150 UJ
Benzene	< 83	< 1	< 1	< 10	< 15
Bromodichloromethane	< 83	< 1	< 1	< 10	< 15
Bromoform	< 83 UJ	< 1	< 1	< 10	< 15
Bromomethane	< 170	< 2	< 2 UJ	< 20	< 31
Carbon Disulfide	< 83	< 1	< 1	< 10	< 15
Carbon Tetrachloride	< 83 UJ	< 1	< 1	< 10	< 15
Chlorobenzene	< 83	< 1	< 1	< 10	< 15
Chloroethane	< 170	< 2	< 2	< 20	< 31
Chloroform	< 83	< 1	< 1	< 10	< 15
Chloromethane	< 170	< 2	< 2	< 20 UJ	< 31 UJ
cis-1,2-Dichloroethene	**800**	< 0.5	< 0.5	**270**	**250**
cis-1,3-Dichloropropene	< 83	< 1	< 1	< 10	< 15
Cyclohexane	< 83 UJ	< 1	< 1 UJ	< 10	< 15
Dibromochloromethane	< 83	< 1	< 1	< 10	< 15
Dichlorodifluoromethane	< 170	< 2	< 2 UJ	< 20	< 31
Ethylbenzene	< 83	< 1	< 1	< 10	< 15
Isopropylbenzene	< 83	< 1	< 1	< 10	< 15
Methyl Acetate	< 830	< 10	< 10	< 100	< 150
Methyl tert-butyl ether	< 420	< 5	< 5	< 50	< 77
Methylcyclohexane	< 83	< 1	< 1 UJ	< 10	< 15
Methylene Chloride	< 83	< 1 UJ	< 1	< 10	< 15
Styrene (Monomer)	< 83	< 1	< 1	< 10	< 15
Tetrachloroethene	< 83	< 1	< 1	< 10	< 15
Toluene	< 83	< 1	< 1	< 10	< 15
trans-1,2-Dichloroethene	< 42	< 0.5	< 0.5	**3.4 J**	< 7.7
trans-1,3-Dichloropropene	< 83	< 1	< 1	< 10	< 15
Trichloroethene	**2300**	**0.20 J**	< 1	**280**	**440**
Trichlorofluoromethane	< 170	< 2	< 2 UJ	< 20	< 31
Vinyl chloride	< 170	< 2	< 2	< 20	< 31
Xylenes (total)	< 83	< 1	< 1	< 10	< 15

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	409D-100802-1245 10/8/2002 MW-409D	410D-101002-0955 10/10/2002 MW-410D	411D-100902-1045 10/9/2002 MW-411D	412D-101002-1000 10/10/2002 MW-412D	413D-100402-0945 10/4/2002 MW-413D
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 10	< 18	< 25	< 33	< 5
1,1,2,2-Tetrachloroethane	< 10	< 18 UJ	< 25	< 33 UJ	< 5
1,1,2-Trichloro-1,2,2-trifluoroethane	< 10	< 18	< 25	< 33	< 5
1,1,2-Trichloroethane	< 10	< 18	< 25	< 33	< 5
1,1-Dichloroethane	< 10	< 18	< 25	< 33	**1.3 J**
1,1-Dichloroethene	< 10	< 18	< 25	< 33	< 5
1,2,4-Trichlorobenzene	< 10	< 18	< 25	< 33	< 5
1,2-Dibromo-3-Chloropropane	< 20 UJ	< 36 UJ	< 50	< 67 UJ	< 10 UJ
1,2-Dibromoethane	< 10	< 18	< 25	< 33	< 5
1,2-Dichlorobenzene	< 10	< 18	< 25	< 33	< 5
1,2-Dichloroethane	< 10	< 18	< 25	< 33	< 5
1,2-Dichloropropane	< 10	< 18	< 25	< 33	< 5
1,3-Dichlorobenzene	< 10	< 18	< 25	< 33	< 5
1,4-Dichlorobenzene	< 10	< 18	< 25	< 33	< 5
2-Butanone	< 100	< 180	< 250	< 330	< 50 UJ
2-Hexanone	< 100	< 180	< 250	< 330	< 50 UJ
4-Methyl-2-pentanone	< 50	< 91	< 120	< 170	< 25 UJ
Acetone	< 100	< 180	< 250 UJ	< 330	< 50 UJ
Benzene	< 10	< 18	< 25	< 33	< 5
Bromodichloromethane	< 10	< 18	< 25	< 33	< 5
Bromoform	< 10 UJ	< 18 UJ	< 25	< 33 UJ	< 5.0 UJ
Bromomethane	< 20	< 36	< 50	< 67	< 10
Carbon Disulfide	< 10	< 18	< 25	< 33	< 5
Carbon Tetrachloride	< 10 UJ	< 18 UJ	< 25	< 33 UJ	< 5.0 UJ
Chlorobenzene	< 10	< 18	< 25	< 33	< 5
Chloroethane	< 20	< 36	< 50	< 67	< 10
Chloroform	< 10	< 18	< 25	< 33	< 5
Chloromethane	< 20	< 36	< 50 UJ	< 67	< 10
cis-1,2-Dichloroethene	**270**	**300**	**410**	**500**	**86**
cis-1,3-Dichloropropene	< 10	< 18	< 25	< 33	< 5
Cyclohexane	< 10 UJ	< 18 UJ	< 25	< 33 UJ	< 5.0 UJ
Dibromochloromethane	< 10	< 18	< 25	< 33 UJ	< 5.0 UJ
Dichlorodifluoromethane	< 20	< 36	< 50	< 67	< 10
Ethylbenzene	< 10	< 18	< 25	< 33	< 5
Isopropylbenzene	< 10	< 18	< 25	< 33	< 5
Methyl Acetate	< 100	< 180	< 250	< 330	< 50
Methyl tert-butyl ether	< 50	< 91 UJ	< 120	< 170	< 25 UJ
Methylcyclohexane	< 10	< 18	< 25	< 33	< 5
Methylene Chloride	< 10	< 18	< 25	< 33	< 5
Styrene (Monomer)	< 10	< 18	< 25	< 33	< 5
Tetrachloroethene	< 10	< 18	< 25	< 33	< 5
Toluene	< 10	< 18	< 25	< 33	< 5
trans-1,2-Dichloroethene	< 5	< 9.1	**11 J**	**6.1 J**	< 2.5
trans-1,3-Dichloropropene	< 10	< 18	< 25	< 33	< 5
Trichloroethene	**28**	**480**	**910**	**1300**	**140**
Trichlorofluoromethane	< 20	< 36 UJ	< 50	< 67	< 10
Vinyl chloride	< 20	< 36	< 50	< 67	< 10
Xylenes (total)	< 10	< 18	< 25	< 33	< 5

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	414D-100202-1705 10/2/2002 MW-414D	415S-100102-1415 10/1/2002 MW-415S	416D-100102-1820 10/1/2002 MW-416D	417D-100202-1135 10/2/2002 MW-417D	418D-100302-1525 10/3/2002 MW-418D
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 1	< 1	< 5	< 1.4	< 10
1,1,2,2-Tetrachloroethane	< 1 UJ	< 1	< 5	< 1.4 UJ	< 10 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1	< 1	< 5	< 1.4	< 10
1,1,2-Trichloroethane	< 1	< 1	< 5	< 1.4	< 10
1,1-Dichloroethane	< 1	< 1	< 5	< 1.4	**2.7 J**
1,1-Dichloroethene	< 1	< 1	< 5	< 1.4	< 10
1,2,4-Trichlorobenzene	< 1	< 1	< 5	< 1.4	< 10
1,2-Dibromo-3-Chloropropane	< 2 UJ	< 2	< 10	< 2.9 UJ	< 20 UJ
1,2-Dibromoethane	< 1	< 1	< 5	< 1.4	< 10
1,2-Dichlorobenzene	< 1	< 1	< 5	< 1.4	< 10
1,2-Dichloroethane	< 1	< 1	< 5	< 1.4	< 10
1,2-Dichloropropane	< 1	< 1	< 5	< 1.4	< 10
1,3-Dichlorobenzene	< 1	< 1	< 5	< 1.4	< 10
1,4-Dichlorobenzene	**0.21 J**	< 1	< 5	< 1.4	< 10
2-Butanone	< 10 UJ	< 10	< 50	< 14 UJ	< 100 UJ
2-Hexanone	< 10 UJ	< 10	< 50	< 14 UJ	< 100 UJ
4-Methyl-2-pentanone	< 5	< 5	< 25	< 7.2	< 50 UJ
Acetone	< 10	< 10	< 50	< 14	< 100 UJ
Benzene	< 1	< 1	< 5	< 1.4	< 10
Bromodichloromethane	< 1	< 1	< 5	< 1.4	< 10
Bromoform	< 1 UJ	< 1	< 5	< 1.4 UJ	< 10 UJ
Bromomethane	< 2	0.34 U	1.7 U	< 2.9	< 20
Carbon Disulfide	< 1	< 1	< 5	< 1.4	< 10
Carbon Tetrachloride	< 1 UJ	< 1	< 5	< 1.4 UJ	< 10 UJ
Chlorobenzene	< 1	< 1	< 5	< 1.4	< 10
Chloroethane	< 2	< 2	< 10	< 2.9	< 20
Chloroform	< 1	< 1	< 5	< 1.4	< 10
Chloromethane	< 2	< 2	< 10	< 2.9	< 20
cis-1,2-Dichloroethene	**1.4**	< 0.5	**110**	**51**	**310**
cis-1,3-Dichloropropene	< 1	< 1	< 5	< 1.4	< 10
Cyclohexane	< 1	< 1 UJ	< 5.0 UJ	< 1.4	< 10 UJ
Dibromochloromethane	< 1 UJ	< 1	< 5	< 1.4 UJ	< 10 UJ
Dichlorodifluoromethane	< 2	< 2 UJ	< 10 UJ	< 2.9	< 20
Ethylbenzene	< 1	< 1	< 5	< 1.4	< 10
Isopropylbenzene	< 1	< 1	< 5	< 1.4	< 10
Methyl Acetate	< 10	< 10	< 50	< 14	< 100
Methyl tert-butyl ether	< 5	< 5	< 25	< 7.2	< 50 UJ
Methylcyclohexane	< 1	< 1 UJ	< 5.0 UJ	< 1.4	< 10
Methylene Chloride	< 1	< 1	< 5	< 1.4	< 10
Styrene (Monomer)	< 1	< 1	< 5	< 1.4	< 10
Tetrachloroethene	< 1	< 1	< 5	< 1.4	< 10
Toluene	< 1	< 1	< 5	< 1.4	< 10
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 2.5	< 0.72	**1.8 J**
trans-1,3-Dichloropropene	< 1	< 1	< 5	< 1.4	< 10
Trichloroethene	0.73 U	**1.0**	**3.4 J**	0.75 U	**44**
Trichlorofluoromethane	< 2	< 2	< 10 UJ	< 2.9	< 20
Vinyl chloride	< 2	< 2	< 10	< 2.9	**6.1 J**
Xylenes (total)	< 1	< 1	< 5	< 1.4	< 10

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	0840-100302-0004 10/3/2002 MW-418D	419D-100302-0950 10/3/2002 MW-419D	419M-093002-1453 9/30/2002 MW-419M	420D-100302-1029 10/3/2002 MW-420D	420M-100702-1200 10/7/2002 MW-420M
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 11	< 8.3	< 1	< 20	< 50
1,1,2,2-Tetrachloroethane	< 11 UJ	< 8.3 UJ	< 1 UJ	< 20 UJ	< 50
1,1,2-Trichloro-1,2,2-trifluoroethane	< 11	< 8.3	< 1	< 20	< 50
1,1,2-Trichloroethane	< 11	< 8.3	< 1	< 20	< 50
1,1-Dichloroethane	**3.3 J**	< 8.3	< 1	< 20	< 50
1,1-Dichloroethene	< 11	< 8.3	< 1	< 20	< 50
1,2,4-Trichlorobenzene	< 11	< 8.3	< 1	< 20	< 50
1,2-Dibromo-3-Chloropropane	< 22 UJ	< 17 UJ	< 2	< 40 UJ	< 100 UJ
1,2-Dibromoethane	< 11	< 8.3	< 1	< 20	< 50
1,2-Dichlorobenzene	< 11	< 8.3	< 1	< 20	< 50
1,2-Dichloroethane	< 11	< 8.3	< 1	< 20	< 50
1,2-Dichloropropane	< 11	< 8.3	< 1	< 20	< 50
1,3-Dichlorobenzene	< 11	< 8.3	< 1	< 20	< 50
1,4-Dichlorobenzene	< 11	< 8.3	< 1	< 20	< 50
2-Butanone	< 110 UJ	< 83 UJ	**0.82 J**	< 200 UJ	< 500
2-Hexanone	< 110 UJ	< 83 UJ	< 10 UJ	< 200 UJ	< 500
4-Methyl-2-pentanone	< 56 UJ	< 42 UJ	< 10 UJ	< 100 UJ	< 250
Acetone	< 110 UJ	< 83 UJ	< 10 UJ	< 200 UJ	< 500
Benzene	< 11	< 8.3	< 1	< 20	< 50
Bromodichloromethane	< 11	< 8.3	< 1	< 20	< 50
Bromoform	< 11 UJ	< 8.3 UJ	< 1 UJ	< 20 UJ	< 50 UJ
Bromomethane	< 22	< 17	< 1	< 40	< 100
Carbon Disulfide	< 11	< 8.3	< 1	< 20	< 50
Carbon Tetrachloride	< 11 UJ	< 8.3 UJ	< 1 UJ	< 20 UJ	< 50 UJ
Chlorobenzene	< 11	< 8.3	< 1	< 20	< 50
Chloroethane	< 22	< 17	< 1	< 40	< 100
Chloroform	< 11	< 8.3	< 1	< 20	< 50
Chloromethane	< 22	< 17	< 1	< 40	< 100
cis-1,2-Dichloroethene	**330**	**220**	**0.35 J**	**580**	**610**
cis-1,3-Dichloropropene	< 11	< 8.3	< 1	< 20	< 50
Cyclohexane	< 11 UJ	< 8.3 UJ	< 1 UJ	< 20 UJ	< 50 UJ
Dibromochloromethane	< 11 UJ	< 8.3 UJ	< 1 UJ	< 20 UJ	< 50
Dichlorodifluoromethane	< 22	< 17	< 1	< 40	< 100
Ethylbenzene	< 11	< 8.3	< 1	< 20	< 50
Isopropylbenzene	< 11	< 8.3	< 1	< 20	< 50
Methyl Acetate	< 110	< 83	< 10	< 200	< 500
Methyl tert-butyl ether	< 56 UJ	< 42 UJ	< 5.0 UJ	< 100 UJ	< 250
Methylcyclohexane	< 11	< 8.3	< 1	< 20	< 50
Methylene Chloride	< 11	< 8.3	< 1	< 20	< 50
Styrene (Monomer)	< 11	< 8.3	< 1	< 20	< 50
Tetrachloroethene	< 11	< 8.3	< 1	< 20	< 50
Toluene	< 11	< 8.3	< 1	< 20	< 50
trans-1,2-Dichloroethene	**1.8 J**	< 4.2	< 0.5	**3.3 J**	< 25
trans-1,3-Dichloropropene	< 11	< 8.3	< 1	< 20	< 50
Trichloroethene	**50**	**59**	< 1	**70**	**1300**
Trichlorofluoromethane	< 22	< 17	< 1	< 40	< 100
Vinyl chloride	**6.3 J**	**11 J**	< 1	**18 J**	< 100
Xylenes (total)	< 11	< 8.3	< 1	< 20	< 50

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	421D-100702-1155 10/7/2002 MW-421D	422D-100202-1550 10/2/2002 MW-422D	422S-100902-1425 10/9/2002 MW-422S	423S-093002-1600 9/30/2002 MW-423S	424D-100802-1025 10/8/2002 MW-424D
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 2 UJ	< 1	< 6200	< 1	< 1000
1,1,2,2-Tetrachloroethane	< 2 UJ	< 1 UJ	< 6200	< 1	< 1000
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2 UJ	< 1	< 6200	< 1	< 1000
1,1,2-Trichloroethane	< 2 UJ	< 1	< 6200	< 1	< 1000
1,1-Dichloroethane	< 2 UJ	< 1	**2100 J**	< 1	**290 J**
1,1-Dichloroethene	< 2 UJ	< 1	< 6200	< 1	< 1000
1,2,4-Trichlorobenzene	< 2 UJ	< 1	< 6200	< 1	< 1000
1,2-Dibromo-3-Chloropropane	< 4 UJ	< 2 UJ	< 12000	< 2	< 2000 UJ
1,2-Dibromoethane	< 2 UJ	< 1	< 6200	< 1	< 1000
1,2-Dichlorobenzene	< 2 UJ	< 1	< 6200	< 1	< 1000
1,2-Dichloroethane	< 2 UJ	< 1	< 6200	< 1	< 1000
1,2-Dichloropropane	< 2 UJ	< 1	< 6200	< 1	< 1000
1,3-Dichlorobenzene	< 2 UJ	< 1	< 6200	< 1	< 1000
1,4-Dichlorobenzene	< 2 UJ	< 1	< 6200	< 1	< 1000
2-Butanone	< 20 UJ	< 10 UJ	< 62000	< 10	< 10000
2-Hexanone	< 20 UJ	< 10 UJ	< 62000	< 10 UJ	< 10000
4-Methyl-2-pentanone	< 20 UJ	< 5	< 31000	< 5	< 5000
Acetone	< 20 UJ	< 10	< 62000	< 10 UJ	< 10000
Benzene	< 2 UJ	< 1	< 6200	< 1	< 1000
Bromodichloromethane	< 2 UJ	< 1	< 6200	< 1	< 1000
Bromoform	< 2 UJ	< 1 UJ	< 6200	< 1	< 1000 UJ
Bromomethane	< 2 UJ	< 2	< 12000	< 2	< 2000
Carbon Disulfide	< 2 UJ	< 1	< 6200	< 1	< 1000
Carbon Tetrachloride	< 2 UJ	< 1 UJ	< 6200	< 1	< 1000 UJ
Chlorobenzene	< 2 UJ	< 1	< 6200	< 1	< 1000
Chloroethane	< 2 UJ	< 2	< 12000	< 2	< 2000
Chloroform	< 2 UJ	< 1	< 6200	< 1	< 1000
Chloromethane	< 2 UJ	< 2	< 12000	< 2	< 2000
cis-1,2-Dichloroethene	**45 J**	**0.90**	**24000**	< 0.5	**5000**
cis-1,3-Dichloropropene	< 2 UJ	< 1	< 6200	< 1	< 1000
Cyclohexane	< 2 UJ	< 1	< 6200	< 1	< 1000 UJ
Dibromochloromethane	< 2 UJ	< 1 UJ	< 6200	< 1	< 1000
Dichlorodifluoromethane	< 2 UJ	< 2	< 12000	< 2	< 2000
Ethylbenzene	< 2 UJ	< 1	< 6200	< 1	< 1000
Isopropylbenzene	< 2 UJ	< 1	< 6200	< 1	< 1000
Methyl Acetate	< 20 UJ	< 10	< 62000	< 10	< 10000
Methyl tert-butyl ether	< 10 UJ	< 5	< 31000	< 5	< 5000
Methylcyclohexane	< 2 UJ	< 1	< 6200	< 1	< 1000
Methylene Chloride	< 2 UJ	< 1	< 6200	< 1 UJ	< 1000
Styrene (Monomer)	< 2 UJ	< 1	< 6200	< 1	< 1000
Tetrachloroethene	< 2 UJ	< 1	< 6200	< 1	< 1000
Toluene	< 2 UJ	< 1	< 6200	< 1	< 1000
trans-1,2-Dichloroethene	< 1 UJ	< 0.5	< 3100	< 0.5	< 500
trans-1,3-Dichloropropene	< 2 UJ	< 1	< 6200	< 1	< 1000
Trichloroethene	< 2 UJ	0.45 U	**200000**	< 1	**30000**
Trichlorofluoromethane	< 2 UJ	< 2	< 12000	< 2	< 2000
Vinyl chloride	**1.6 J**	0.47 U	< 12000	< 2	< 2000
Xylenes (total)	< 2 UJ	< 1	< 6200	< 1	< 1000

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

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TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	424S-100802-1240 10/8/2002 MW-424S	425S-100302-1341 10/3/2002 MW-425S	428S-100802-1645 10/8/2002 MW-428S	432D-100202-1510 10/2/2002 MW-432D	432M-093002-1705 9/30/2002 MW-432M
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 2000	< 5.6	**2100 J**	< 1	< 1
1,1,2,2-Tetrachloroethane	< 2000	< 5.6 UJ	< 5000	< 1 UJ	< 1
1,1,2-Trichloro-1,2,2-trifluoroethane	< 2000	< 5.6	< 5000	< 1	< 1
1,1,2-Trichloroethane	< 2000	< 5.6	< 5000	< 1	< 1
1,1-Dichloroethane	**640 J**	**15**	< 5000	< 1	< 1
1,1-Dichloroethene	< 2000	**1.7 J**	< 5000	< 1	< 1
1,2,4-Trichlorobenzene	< 2000	< 5.6	< 5000	< 1	< 1
1,2-Dibromo-3-Chloropropane	< 4000	< 11 UJ	< 10000 UJ	< 2 UJ	< 2
1,2-Dibromoethane	< 2000	< 5.6	< 5000	< 1	< 1
1,2-Dichlorobenzene	< 2000	< 5.6	< 5000	< 1	< 1
1,2-Dichloroethane	< 2000	< 5.6	< 5000	< 1	< 1
1,2-Dichloropropane	< 2000	< 5.6	< 5000	< 1	< 1
1,3-Dichlorobenzene	< 2000	< 5.6	< 5000	< 1	< 1
1,4-Dichlorobenzene	< 2000	< 5.6	< 5000	< 1	< 1
2-Butanone	< 20000	< 56 UJ	< 50000	< 10 UJ	< 10
2-Hexanone	< 20000	< 56 UJ	< 50000	< 10 UJ	< 10 UJ
4-Methyl-2-pentanone	< 10000	< 28 UJ	< 25000	< 5	< 5
Acetone	< 20000	< 56 UJ	< 50000	< 10	< 10 UJ
Benzene	< 2000	< 5.6	< 5000	< 1	< 1
Bromodichloromethane	< 2000	< 5.6	< 5000	< 1	< 1
Bromoform	< 2000	< 5.6 UJ	< 5000 UJ	< 1 UJ	< 1
Bromomethane	< 4000	< 11	< 10000	< 2	< 2
Carbon Disulfide	< 2000	< 5.6	< 5000	< 1	< 1
Carbon Tetrachloride	< 2000	< 5.6 UJ	< 5000 UJ	< 1 UJ	< 1
Chlorobenzene	< 2000	< 5.6	< 5000	< 1	< 1
Chloroethane	< 4000	< 11	< 10000	< 2	< 2
Chloroform	< 2000	< 5.6	< 5000	< 1	< 1
Chloromethane	< 4000	< 11	< 10000	< 2	< 2
cis-1,2-Dichloroethene	**12000**	**89**	**11000**	**16**	< 0.5
cis-1,3-Dichloropropene	< 2000	< 5.6	< 5000	< 1	< 1
Cyclohexane	< 2000	< 5.6 UJ	< 5000 UJ	< 1	< 1
Dibromochloromethane	< 2000	< 5.6 UJ	< 5000	< 1 UJ	< 1
Dichlorodifluoromethane	< 4000	< 11	< 10000	< 2	< 2
Ethylbenzene	< 2000	< 5.6	< 5000	< 1	< 1
Isopropylbenzene	< 2000	< 5.6	< 5000	< 1	< 1
Methyl Acetate	< 20000	< 56	< 50000	< 10	< 10
Methyl tert-butyl ether	< 10000	< 28 UJ	< 25000	< 5	< 5
Methylcyclohexane	< 2000	< 5.6	< 5000	< 1	< 1
Methylene Chloride	< 2000	< 5.6	< 5000	< 1	< 1 UJ
Styrene (Monomer)	< 2000	< 5.6	< 5000	< 1	< 1
Tetrachloroethene	< 2000	< 5.6	< 5000	< 1	< 1
Toluene	< 2000	< 5.6	< 5000	< 1	< 1
trans-1,2-Dichloroethene	< 1000	< 2.8	< 2500	< 0.5	< 0.5
trans-1,3-Dichloropropene	< 2000	< 5.6	< 5000	< 1	< 1
Trichloroethene	**66000**	**160**	**190000**	**12**	**0.35 J**
Trichlorofluoromethane	< 4000	< 11	< 10000	< 2	< 2
Vinyl chloride	< 4000	**1.4 J**	< 10000	< 2	< 2
Xylenes (total)	< 2000	< 5.6	< 5000	< 1	< 1

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	433D-100202-1140 10/2/2002 MW-433D	434D-100402-0935 10/4/2002 MW-434D	435D-100802-1510 10/8/2002 MW-435D	0741-100802-0001 10/8/2002 MW-435D	436D-100402-1115 10/4/2002 MW-436D
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 20	< 20	< 20	< 18	< 3.3
1,1,2,2-Tetrachloroethane	< 20 UJ	< 20	< 20	< 18	< 3.3
1,1,2-Trichloro-1,2,2-trifluoroethane	< 20	< 20	< 20	< 18	< 3.3
1,1,2-Trichloroethane	< 20	< 20	< 20	< 18	< 3.3
1,1-Dichloroethane	< 20	< 20	< 20	< 18	< 3.3
1,1-Dichloroethene	< 20	< 20	< 20	< 18	< 3.3
1,2,4-Trichlorobenzene	< 20	< 20	< 20	< 18	< 3.3
1,2-Dibromo-3-Chloropropane	< 40 UJ	< 40 UJ	< 40 UJ	< 36 UJ	< 6.7 UJ
1,2-Dibromoethane	< 20	< 20	< 20	< 18	< 3.3
1,2-Dichlorobenzene	< 20	< 20	< 20	< 18	< 3.3
1,2-Dichloroethane	< 20	< 20	< 20	< 18	< 3.3
1,2-Dichloropropane	< 20	< 20	< 20	< 18	< 3.3
1,3-Dichlorobenzene	< 20	< 20	< 20	< 18	< 3.3
1,4-Dichlorobenzene	< 20	< 20	< 20	< 18	< 3.3
2-Butanone	< 200 UJ	< 200 UJ	< 200	< 180	< 33 UJ
2-Hexanone	< 200 UJ	< 200 UJ	< 200	< 180	< 33 UJ
4-Methyl-2-pentanone	< 100	< 100 UJ	< 100	< 91	< 17 UJ
Acetone	< 200	< 200 UJ	**240**	**190**	< 33 UJ
Benzene	< 20	< 20	< 20	< 18	< 3.3
Bromodichloromethane	< 20	< 20	< 20	< 18	< 3.3
Bromoform	< 20 UJ	< 20 UJ	< 20 UJ	< 18 UJ	< 3.3 UJ
Bromomethane	< 40	< 40	< 40	< 36	< 6.7
Carbon Disulfide	< 20	< 20	< 20	< 18	< 3.3
Carbon Tetrachloride	< 20 UJ	< 20 UJ	< 20 UJ	< 18 UJ	< 3.3 UJ
Chlorobenzene	< 20	< 20	< 20	< 18	< 3.3
Chloroethane	< 40	< 40	< 40	< 36	< 6.7
Chloroform	< 20	< 20	< 20	< 18	< 3.3
Chloromethane	< 40	< 40	< 40	< 36	< 6.7
cis-1,2-Dichloroethene	**690**	**610**	**420**	**450**	**22**
cis-1,3-Dichloropropene	< 20	< 20	< 20	< 18	< 3.3
Cyclohexane	< 20	< 20 UJ	< 20 UJ	< 18 UJ	< 3.3 UJ
Dibromochloromethane	< 20 UJ	< 20 UJ	< 20	< 18	< 3.3 UJ
Dichlorodifluoromethane	< 40	< 40	< 40	< 36	< 6.7
Ethylbenzene	< 20	< 20	< 20	< 18	< 3.3
Isopropylbenzene	< 20	< 20	< 20	< 18	< 3.3
Methyl Acetate	< 200	< 200	< 200	< 180	< 33
Methyl tert-butyl ether	< 100	< 100 UJ	< 100	< 91	< 17 UJ
Methylcyclohexane	< 20	< 20	< 20	< 18	< 3.3
Methylene Chloride	< 20	< 20	< 20	< 18	< 3.3
Styrene (Monomer)	< 20	< 20	< 20	< 18	< 3.3
Tetrachloroethene	< 20	< 20	< 20	< 18	< 3.3
Toluene	< 20	< 20	< 20	< 18	< 3.3
trans-1,2-Dichloroethene	< 10	< 10	< 10	< 9.1	< 1.7
trans-1,3-Dichloropropene	< 20	< 20	< 20	< 18	< 3.3
Trichloroethene	**130**	**200**	**340**	**360**	**100**
Trichlorofluoromethane	< 40	< 40	< 40	< 36	< 6.7
Vinyl chloride	< 40	< 40	< 40	< 36	< 6.7
Xylenes (total)	< 20	< 20	< 20	< 18	< 3.3

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	437D-100302-1150 10/3/2002 MW-437D	438D-100302-0950 10/3/2002 MW-438D	439D-100102-1120 10/1/2002 MW-439D	440D-100202-1655 10/2/2002 MW-440D	0713-100202-0001 10/2/2002 MW-440D
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 4	< 1.2	< 1	< 1.2	< 1.2
1,1,2,2-Tetrachloroethane	< 4 UJ	< 1.2 UJ	< 1	< 1.2 UJ	< 1.2 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 4	< 1.2	< 1	< 1.2	< 1.2
1,1,2-Trichloroethane	< 4	< 1.2	< 1	< 1.2	< 1.2
1,1-Dichloroethane	< 4	< 1.2	< 1	< 1.2	< 1.2
1,1-Dichloroethene	< 4	< 1.2	< 1	< 1.2	< 1.2
1,2,4-Trichlorobenzene	< 4	< 1.2	< 1	< 1.2	< 1.2
1,2-Dibromo-3-Chloropropane	< 8 UJ	< 2.5 UJ	< 2	< 2.5 UJ	< 2.5 UJ
1,2-Dibromoethane	< 4	< 1.2	< 1	< 1.2	< 1.2
1,2-Dichlorobenzene	< 4	< 1.2	< 1	< 1.2	< 1.2
1,2-Dichloroethane	< 4	< 1.2	< 1	< 1.2	< 1.2
1,2-Dichloropropane	< 4	< 1.2	< 1	< 1.2	< 1.2
1,3-Dichlorobenzene	< 4	< 1.2	< 1	< 1.2	< 1.2
1,4-Dichlorobenzene	< 4	< 1.2	< 1	< 1.2	< 1.2
2-Butanone	< 40 UJ	< 12 UJ	< 10	< 12 UJ	< 12 UJ
2-Hexanone	< 40 UJ	< 12 UJ	< 10	< 12 UJ	< 12 UJ
4-Methyl-2-pentanone	< 20 UJ	< 6.2 UJ	< 5	< 6.2	< 6.2
Acetone	< 40 UJ	< 12 UJ	< 10	< 12	< 12
Benzene	< 4	< 1.2	< 1	< 1.2	< 1.2
Bromodichloromethane	< 4	< 1.2	< 1	< 1.2	< 1.2
Bromoform	< 4 UJ	< 1.2 UJ	< 1	< 1.2 UJ	< 1.2 UJ
Bromomethane	< 8	< 2.5	0.38 U	< 2.5	< 2.5
Carbon Disulfide	< 4	< 1.2	< 1	< 1.2	< 1.2
Carbon Tetrachloride	< 4 UJ	< 1.2 UJ	< 1	< 1.2 UJ	< 1.2 UJ
Chlorobenzene	< 4	< 1.2	< 1	< 1.2	< 1.2
Chloroethane	< 8	< 2.5	< 2	< 2.5	< 2.5
Chloroform	< 4	< 1.2	**0.36 J**	< 1.2	< 1.2
Chloromethane	< 8	< 2.5	< 2	< 2.5	< 2.5
cis-1,2-Dichloroethene	**44**	**11**	< 0.5	**47**	**46**
cis-1,3-Dichloropropene	< 4	< 1.2	< 1	< 1.2	< 1.2
Cyclohexane	< 4 UJ	< 1.2 UJ	< 1 UJ	< 1.2	< 1.2
Dibromochloromethane	< 4 UJ	< 1.2 UJ	< 1	< 1.2 UJ	< 1.2 UJ
Dichlorodifluoromethane	< 8	< 2.5	< 2 UJ	< 2.5	< 2.5
Ethylbenzene	< 4	< 1.2	< 1	< 1.2	< 1.2
Isopropylbenzene	< 4	< 1.2	< 1	< 1.2	< 1.2
Methyl Acetate	< 40	< 12	< 10	< 12	< 12
Methyl tert-butyl ether	< 20 UJ	< 6.2 UJ	< 5	< 6.2	< 6.2
Methylcyclohexane	< 4	< 1.2	< 1 UJ	< 1.2	< 1.2
Methylene Chloride	< 4	< 1.2	< 1	< 1.2	< 1.2
Styrene (Monomer)	< 4	< 1.2	< 1	< 1.2	< 1.2
Tetrachloroethene	< 4	< 1.2	< 1	< 1.2	< 1.2
Toluene	< 4	< 1.2	< 1	< 1.2	< 1.2
trans-1,2-Dichloroethene	**0.74 J**	< 0.62	< 0.5	**0.32 J**	**0.31 J**
trans-1,3-Dichloropropene	< 4	< 1.2	< 1	< 1.2	< 1.2
Trichloroethene	**100**	**32**	**0.79 J**	**16**	**16**
Trichlorofluoromethane	< 8	< 2.5	< 2 UJ	< 2.5	< 2.5
Vinyl chloride	< 8	< 2.5	< 2	< 2.5	< 2.5
Xylenes (total)	< 4	< 1.2	< 1	< 1.2	< 1.2

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	441D-100302-1205 10/3/2002 MW-441D	442D-100102-0925 10/1/2002 MW-442D	443D-100102-0940 10/1/2002 MW-443D	444D-100202-0945 10/2/2002 MW-444D	445S-100102-1120 10/1/2002 MW-445S
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 6.7	< 1	< 1	< 2	< 1
1,1,2,2-Tetrachloroethane	< 6.7 UJ	< 1	< 1	< 2 UJ	< 1
1,1,2-Trichloro-1,2,2-trifluoroethane	< 6.7	< 1	< 1	< 2	< 1
1,1,2-Trichloroethane	< 6.7	< 1	< 1	< 2	< 1
1,1-Dichloroethane	< 6.7	< 1	< 1	< 2	< 1
1,1-Dichloroethene	< 6.7	< 1	< 1	< 2	< 1
1,2,4-Trichlorobenzene	< 6.7	< 1	< 1	< 2	< 1
1,2-Dibromo-3-Chloropropane	< 13 UJ	< 2	< 2 UJ	< 4 UJ	< 2 UJ
1,2-Dibromoethane	< 6.7	< 1	< 1	< 2	< 1
1,2-Dichlorobenzene	< 6.7	< 1	< 1	< 2	< 1
1,2-Dichloroethane	< 6.7	< 1	< 1	< 2	< 1
1,2-Dichloropropane	< 6.7	< 1	< 1	< 2	< 1
1,3-Dichlorobenzene	< 6.7	< 1	< 1	< 2	< 1
1,4-Dichlorobenzene	< 6.7	< 1	< 1	< 2	< 1
2-Butanone	< 67 UJ	< 10	< 10 UJ	< 20 UJ	< 10 UJ
2-Hexanone	< 67 UJ	< 10	< 10 UJ	< 20 UJ	< 10 UJ
4-Methyl-2-pentanone	< 33 UJ	< 5	< 10	< 10	< 10
Acetone	< 67 UJ	< 10	< 10 UJ	< 20	< 10 UJ
Benzene	< 6.7	< 1	< 1	< 2	< 1
Bromodichloromethane	< 6.7	< 1	< 1	< 2	< 1
Bromoform	< 6.7 UJ	< 1	< 1 UJ	< 2 UJ	< 1 UJ
Bromomethane	< 13	0.33 U	< 1	< 4	< 1
Carbon Disulfide	< 6.7	< 1	< 1	< 2	< 1
Carbon Tetrachloride	< 6.7 UJ	< 1	< 1	< 2 UJ	< 1
Chlorobenzene	< 6.7	< 1	< 1	< 2	< 1
Chloroethane	< 13	< 2	< 1	< 4	< 1
Chloroform	< 6.7	< 1	< 1	< 2	< 1
Chloromethane	< 13	< 2	< 1	< 4	< 1
cis-1,2-Dichloroethene	**170**	< 0.5	< 0.5	**68**	< 0.5
cis-1,3-Dichloropropene	< 6.7	< 1	< 1	< 2	< 1
Cyclohexane	< 6.7 UJ	< 1 UJ	< 1	< 2	< 1
Dibromochloromethane	< 6.7 UJ	< 1	< 1	< 2 UJ	< 1
Dichlorodifluoromethane	< 13	< 2 UJ	< 1	< 4	< 1
Ethylbenzene	< 6.7	< 1	< 1	< 2	< 1
Isopropylbenzene	< 6.7	< 1	< 1	< 2	< 1
Methyl Acetate	< 67	< 10	< 10	< 20	< 10
Methyl tert-butyl ether	< 33 UJ	< 5	< 5.0 UJ	< 10	< 5.0 UJ
Methylcyclohexane	< 6.7	< 1 UJ	< 1	< 2	< 1
Methylene Chloride	< 6.7	< 1	< 1	< 2	< 1
Styrene (Monomer)	< 6.7	< 1	< 1	< 2	< 1
Tetrachloroethene	< 6.7	< 1	< 1	< 2	< 1
Toluene	< 6.7	< 1	< 1	< 2	< 1
trans-1,2-Dichloroethene	< 3.3	< 0.5	< 0.5	0.57 U	< 0.5
trans-1,3-Dichloropropene	< 6.7	< 1	< 1	< 2	< 1
Trichloroethene	**150**	< 1	< 1	**4.8**	< 1
Trichlorofluoromethane	< 13	< 2 UJ	< 1	< 4	< 1
Vinyl chloride	< 13	< 2	< 1	< 4	< 1
Xylenes (total)	< 6.7	< 1	< 1	< 2	< 1

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	446S-100102-1415 10/1/2002 MW-446S	0713-100102-0001 10/1/2002 MW-446S	447D-100102-1630 10/1/2002 MW-447D	448D-100102-1625 10/1/2002 MW-448D	449D-100302-1455 10/3/2002 MW-449D
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1.4
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1	< 1	< 1.4 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1	< 1	< 1	< 1	< 1.4
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1	< 1.4
1,1-Dichloroethane	< 1	< 1	< 1	< 1	< 1.4
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1.4
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1.4
1,2-Dibromo-3-Chloropropane	< 2 UJ	< 2 UJ	< 2	< 2	< 2.9 UJ
1,2-Dibromoethane	< 1	< 1	< 1	< 1	< 1.4
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1.4
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1.4
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1.4
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1.4
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1.4
2-Butanone	< 0.6 UJ	< 10 UJ	< 10	< 10	< 14 UJ
2-Hexanone	< 10 UJ	< 10 UJ	< 10	< 10	< 14 UJ
4-Methyl-2-pentanone	< 10	< 10	< 5	< 5	< 7.2 UJ
Acetone	< 10 UJ	< 10 UJ	< 10	< 10	< 14 UJ
Benzene	< 1	< 1	< 1	< 1	< 1.4
Bromodichloromethane	< 1	< 1	< 1	< 1	< 1.4
Bromoform	< 1 UJ	< 1 UJ	< 1	< 1	< 1.4 UJ
Bromomethane	< 1	< 1	0.33 U	0.36 U	< 2.9
Carbon Disulfide	< 1	< 1	< 1	< 1	**0.55 J**
Carbon Tetrachloride	< 1	< 1	< 1	< 1	< 1.4 UJ
Chlorobenzene	< 1	< 1	< 1	< 1	< 1.4
Chloroethane	< 1	< 1	< 2	< 2	< 2.9
Chloroform	< 1	< 1	< 1	< 1	< 1.4
Chloromethane	< 1	< 1	< 2	< 2	< 2.9
cis-1,2-Dichloroethene	< 0.5	< 0.5	**3.9**	**6.5**	**15**
cis-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1.4
Cyclohexane	< 1	< 1	< 1 UJ	< 1 UJ	< 1.4 UJ
Dibromochloromethane	< 1	< 1	< 1	< 1	< 1.4 UJ
Dichlorodifluoromethane	< 1	< 1	< 2 UJ	< 2 UJ	< 2.9
Ethylbenzene	< 1	< 1	< 1	< 1	< 1.4
Isopropylbenzene	< 1	< 1	< 1	< 1	< 1.4
Methyl Acetate	< 10	< 10	< 10	< 10	< 14
Methyl tert-butyl ether	< 5.0 UJ	< 5.0 UJ	< 5	< 5	< 7.2 UJ
Methylcyclohexane	< 1	< 1	< 1 UJ	< 1 UJ	< 1.4
Methylene Chloride	< 1	< 1	< 1	< 1	< 1.4
Styrene (Monomer)	< 1	< 1	< 1	< 1	**0.36 J**
Tetrachloroethene	< 1	< 1	< 1	< 1	< 1.4
Toluene	< 1	< 1	< 1	< 1	< 1.4
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.72
trans-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1.4
Trichloroethene	< 1	< 1	< 1	**1.5**	**42**
Trichlorofluoromethane	< 1	< 1	< 2 UJ	< 2	< 2.9
Vinyl chloride	< 1	< 1	< 2	< 2	< 2.9
Xylenes (total)	< 1	< 1	< 1	< 1	< 1.4

Notes and Abbreviations:

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2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

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TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	450D-100202-0935 10/2/2002 MW-450D	451D-112602-1605 11/26/2002 MW-451D	453D-120202-1310 12/2/2002 MW-453D	CSX18D-100802-1020 10/8/2002 CSX-18D	CSX22-101002-1315 10/10/2002 CSX-22
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 1	< 1.4	< 2	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1 UJ	< 1.4	< 2	< 1	< 1 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1	< 1.4	< 2	< 1	< 1
1,1,2-Trichloroethane	< 1	< 1.4	< 2	< 1	< 1
1,1-Dichloroethane	< 1	< 1.4	< 2	< 1	< 1
1,1-Dichloroethene	< 1	< 1.4	< 2	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1.4	< 2 UJ	< 1	< 1
1,2-Dibromo-3-Chloropropane	< 2 UJ	< 2.9	< 4	< 2 UJ	< 2 UJ
1,2-Dibromoethane	< 1	< 1.4	< 2	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1.4	< 2	< 1	< 1
1,2-Dichloroethane	< 1	< 1.4	< 2	< 1	< 1
1,2-Dichloropropane	< 1	< 1.4	< 2	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1.4	< 2	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1.4	< 2	< 1	< 1
2-Butanone	< 10 UJ	< 14 UJ	< 20	< 10	< 10
2-Hexanone	< 10 UJ	< 14 UJ	< 20 UJ	< 10	< 10
4-Methyl-2-pentanone	< 5	< 14	< 20	< 5	< 5
Acetone	< 10	< 14 UJ	< 20	< 10	< 10
Benzene	< 1	< 1.4	< 2	< 1	< 1
Bromodichloromethane	< 1	< 1.4	< 2	< 1	< 1
Bromoform	< 1 UJ	< 1.4	< 2 UJ	< 1 UJ	< 1 UJ
Bromomethane	< 2	< 1.4 UJ	< 2	< 2	< 2
Carbon Disulfide	< 1	< 1.4	< 2	< 1	< 1
Carbon Tetrachloride	< 1 UJ	< 1.4	< 2	< 1 UJ	< 1 UJ
Chlorobenzene	< 1	< 1.4	< 2	< 1	< 1
Chloroethane	< 2	< 1.4	< 2	< 2	< 2
Chloroform	< 1	< 1.4	< 2	< 1	< 1
Chloromethane	< 2	< 1.4	< 2	< 2	< 2
cis-1,2-Dichloroethene	< 0.5	**34**	**43**	**3.3**	< 0.5
cis-1,3-Dichloropropene	< 1	< 1.4	< 2	< 1	< 1
Cyclohexane	< 1	< 1.4	< 2	< 1 UJ	< 1
Dibromochloromethane	< 1 UJ	< 1.4	< 2	< 1	< 1 UJ
Dichlorodifluoromethane	< 2	< 1.4	< 2	< 2	< 2
Ethylbenzene	< 1	< 1.4	< 2	< 1	< 1
Isopropylbenzene	< 1	< 1.4	< 2	< 1	< 1
Methyl Acetate	< 10	< 14	< 20	< 10	< 10
Methyl tert-butyl ether	< 5	< 7.2	< 10	< 5	< 5
Methylcyclohexane	< 1	< 1.4	< 2	< 1	< 1
Methylene Chloride	< 1	0.42 U	< 2	< 1	< 1
Styrene (Monomer)	< 1	< 1.4	< 2	< 1	< 1
Tetrachloroethene	< 1	**0.73 J**	< 2	< 1	< 1
Toluene	< 1	< 1.4	< 2	< 1	< 1
trans-1,2-Dichloroethene	< 0.5	< 0.72	**1.1**	< 0.5	< 0.5
trans-1,3-Dichloropropene	< 1	< 1.4	< 2	< 1	< 1
Trichloroethene	< 1	**41**	**51**	0.28 U	**2.8**
Trichlorofluoromethane	< 2	< 1.4	< 2	< 2	< 2
Vinyl chloride	< 2	< 1.4	< 2	< 2	< 2
Xylenes (total)	< 1	< 1.4	< 2	< 1	< 1

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	0763-101002-0002 10/10/2002 CSX-22	501-101802-1142 10/18/2002 MW-501	502-101802-1305 10/18/2002 MW-502	503-101802-1437 10/18/2002 MW-503	513-102602-1550 10/26/2002 MW-513
Volatile Organic Compounds (µg/l)					
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1 UJ	< 1	< 1	< 1	< 1
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethene	< 1	< 1	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1 UJ
1,2-Dibromo-3-Chloropropane	< 2 UJ	< 2	< 2	< 2	< 2
1,2-Dibromoethane	< 1	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1	< 1	< 1
2-Butanone	< 10	< 10	< 10	< 10	< 10 UJ
2-Hexanone	< 10	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
4-Methyl-2-pentanone	< 5	< 5	< 5	< 5	< 5
Acetone	< 10	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Benzene	< 1	< 1	< 1	< 1	< 1
Bromodichloromethane	< 1	< 1	< 1	< 1	< 1
Bromoform	< 1 UJ	< 1	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2	< 2	< 2
Carbon Disulfide	< 1	< 1	< 1	< 1	< 1
Carbon Tetrachloride	< 1 UJ	< 1	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1	< 1	< 1
Chloroethane	< 2	< 1	< 1	< 1	< 1
Chloroform	< 1	< 1	< 1	< 1	< 1
Chloromethane	< 2	< 2	< 2	< 2	< 2
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1
Cyclohexane	< 1	< 1	< 1	< 1	< 1
Dibromochloromethane	< 1 UJ	< 1	< 1	< 1	< 1
Dichlorodifluoromethane	< 2	< 2	< 2	< 2	< 2
Ethylbenzene	< 1	< 1	< 1	< 1	< 1
Isopropylbenzene	< 1	< 1	< 1	< 1	< 1
Methyl Acetate	< 10	< 10	< 10	< 10	< 10
Methyl tert-butyl ether	< 5	< 5	< 5	< 5	< 5
Methylcyclohexane	< 1	< 1	< 1	< 1	< 1
Methylene Chloride	< 1	< 1	< 1	< 1	< 1
Styrene (Monomer)	< 1	< 1	< 1	< 1	< 1
Tetrachloroethene	< 1	< 1	< 1	< 1	< 1
Toluene	< 1	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	< 1	< 1	< 1	< 1	< 1
Trichloroethene	**3.2**	**0.29 J**	**1.3**	**0.93 J**	0.36 U
Trichlorofluoromethane	< 2	< 2	< 2	< 2	< 2
Vinyl chloride	< 2	< 2	< 2	< 2	< 2
Xylenes (total)	< 1	< 1	< 1	< 1	< 1

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	514-101802-1553 10/18/2002 MW-514	715-102602-1042 10/26/2002 MW-715	716-102602-1300 10/26/2002 MW-716
Volatile Organic Compounds (µg/l)			
1,1,1-Trichloroethane	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane	< 1	< 1	< 1
1,1,2-Trichloro-1,2,2-trifluoroethane	< 1	< 1	< 1
1,1,2-Trichloroethane	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1
1,1-Dichloroethene	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 1	< 1 UJ	< 1 UJ
1,2-Dibromo-3-Chloropropane	< 2	< 2	< 2
1,2-Dibromoethane	< 1	< 1	< 1
1,2-Dichlorobenzene	< 1	< 1	< 1
1,2-Dichloroethane	< 1	< 1	< 1
1,2-Dichloropropane	< 1	< 1	< 1
1,3-Dichlorobenzene	< 1	< 1	< 1
1,4-Dichlorobenzene	< 1	< 1	< 1
2-Butanone	< 10	< 10 UJ	< 10 UJ
2-Hexanone	< 10 UJ	< 10 UJ	< 10 UJ
4-Methyl-2-pentanone	< 5	< 5	< 5
Acetone	< 10 UJ	< 10 UJ	< 10 UJ
Benzene	< 1	< 1	< 1
Bromodichloromethane	< 1	< 1	< 1
Bromoform	< 1	< 1	< 1
Bromomethane	< 2	< 2	< 2
Carbon Disulfide	< 1	< 1	< 1
Carbon Tetrachloride	< 1	< 1	< 1
Chlorobenzene	< 1	< 1	< 1
Chloroethane	< 1	< 1	< 1
Chloroform	< 1	< 1	< 1
Chloromethane	< 2	< 2	< 2
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 1	< 1	< 1
Cyclohexane	< 1	< 1	< 1
Dibromochloromethane	< 1	< 1	< 1
Dichlorodifluoromethane	< 2	< 2	< 2
Ethylbenzene	< 1	< 1	< 1
Isopropylbenzene	< 1	< 1	< 1
Methyl Acetate	< 10	< 10	< 10
Methyl tert-butyl ether	< 5	< 5	< 5
Methylcyclohexane	< 1	< 1	< 1
Methylene Chloride	< 1	< 1	< 1
Styrene (Monomer)	< 1	< 1	< 1
Tetrachloroethene	< 1	< 1	< 1
Toluene	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	< 1	< 1	< 1
Trichloroethene	**0.22 J**	**2.2**	0.24 U
Trichlorofluoromethane	< 2	< 2	< 2
Vinyl chloride	< 2	**2.7**	< 2
Xylenes (total)	< 1	< 1	< 1

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Fourth Quarter 2002 Analytical Results
Bedrock, Top of Bedrock and Overburden Monitoring Wells
Delphi Corporation - Vandalia, Ohio

Compounds	301D-100702-1450 10/07/2002 MW-301D	405D-100102-1515 10/1/2002 MW-405D	413D-100402-0945 10/4/2002 MW-413D	414D-100202-1705 10/2/2002 MW-414D	422D-100202-1550 10/2/2002 MW-422D
Semi-Volatile Compounds (µg/l)					
2,4-Dinitrophenol	< 50	< 50 UJ	< 50	< 50	< 50
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 50	< 50
4-Nitrophenol	< 50	< 50 UJ	< 50	< 50	< 50
Acetophenone	**15**	< 10	< 10	< 10	< 10
Benzo(ghi)perylene	< 10	< 10	< 10 UJ	< 10 UJ	< 10 UJ
Dibenz(a,h)anthracene	< 10	< 10 UJ	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	< 10	< 10	< 10 UJ	< 10 UJ	< 10 UJ
Phenol	**11**	< 10	**2.7 J**	< 10	< 10
TAL Metals (mg/l)					
Arsenic	**0.010**	**0.0025 J**	**0.011**	**0.017**	**0.011**
Barium	**0.12 J**	**0.12 J**	**0.092 J**	**0.15 J**	**0.11 J**
Beryllium	< 0.0050	**0.00061 J**	< 0.0050	< 0.0050	< 0.0050
Cadmium	< 0.0050	**0.00053 J**	< 0.0050	0.00046 U	0.00043 U
Chromium	**0.017**	**0.0065 J**	**0.010**	**0.0023 J**	**0.0070 J**
Cobalt	< 0.050	< 0.050	< 0.050	< 0.050	**0.00090 J**
Copper	< 0.025	0.0054 U	**0.0038 J**	< 0.025	0.0040 U
Lead	< 0.0030	< 0.0030	**0.0019 J**	< 0.0030	< 0.0030
Manganese	**0.12**	**0.014 J**	**0.040**	**0.076**	**0.048**
Nickel	**0.011 J**	**0.0034 J**	**0.0053 J**	< 0.040	**0.0071 J**
Zinc	**0.025**	< 0.020	**0.049**	**0.024**	**0.017 J**

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis methods SW8270 and SW6010B.
3. See Figures 1 and 3 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R: The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

TABLE 4
Fourth Quarter 2002 Performance Monitoring Analytical Data
Groundwater Migration Control System
Delphi Corporation - Vandalia, Ohio

Compound	RW-10/03 10/03/02 Recovery Well	Eff-10/03 10/03/02 Effluent	RW-11/08 11/08/02 Recovery Well	Eff-11/08 11/08/02 Effluent	RW-12/09 12/09/02 Recovery Well	Eff-12/09 12/09/02 Effluent
VOLATILE ORGANICS - µg/L **METHOD: EPA 624**						
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	**22.2**	< 1	**11.6**	< 1	**22.9**	< 1
1,1-Dichloroethene	**4.5**	< 1	**2.8**	< 1	**4.72**	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	**755**	< 1	**479**	< 1	**674**	< 1
trans-1,2-Dichloroethene	**6.1**	< 1	**3.4**	< 1	**6.4**	< 1
Trichloroethene	**2,670**	< 1	**1,340**	< 1	**1,890**	< 1
Vinyl chloride	**4.5**	< 2	**2.8**	< 2	**5.02**	< 2
TOTAL ORGANIC CARBON - µg/L **METHOD: SM 5310C**	**1,300**	**3,500**	1,300 U	**3,400**	**1,600**	**3,600**
TOTAL DISSOLVED SOLIDS - µg/L **METHOD: EPA 160.1**	**531,000**	**529,000**	**500,000**	**503,000**	**502,000**	**516,000**
pH (Lab) - S.U. (standard units) **METHOD: EPA 150.1**	**7.06**	**8.26**	**7.20**	**8.07**	**7.26**	**7.1**

Notes and Abbreviations:
1. Summary includes compounds detected in one or more samples.
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 5
Fourth Quarter 2002 Analytical Results
Surface Water Samples
Delphi Corporation - Vandalia, Ohio

Compound	SW1-101002-1412 10/10/2002 SW-1	SW2-101002-1450 10/10/2002 SW-2	SW3-101002-1430 10/10/2002 SW-3	SW4-101002-1445 10/10/2002 SW-4	SW5-101002-1300 10/10/2002 SW-5	SW6-101002-1245 10/10/2002 SW-6	SW7-101002-1235 10/10/2002 SW-7
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	< 1	< 1	< 1	**25 J**	< 1	< 1	< 1
1,1-Dichloroethane	< 1	< 1	< 1	**18 J**	< 1	< 1	< 1
2-Butanone	< 10 UJ	< 10 UJ	< 10 UJ	< 500 UJ	**5.3 J**	< 10 UJ	< 10 UJ
2-Hexanone	< 10 UJ	< 10 UJ	< 10 UJ	< 500 UJ	< 10 UJ	< 10 UJ	< 10 UJ
4-Methyl-2-pentanone	< 10	< 10	< 10	< 500 U	**0.70 J**	< 10	< 10
Acetone	< 10 UJ	< 10 UJ	< 10 UJ	< 500 UJ	< 10	< 10 UJ	< 10 UJ
cis-1,2-Dichloroethene	< 0.50	**2.0**	< 0.50	**220**	< 0.50	< 0.50	< 0.50
Trichloroethene	**0.47 J**	**3.5**	< 1	**1300**	< 1	< 1	< 1
Trichlorofluoromethane	< 1	< 1	< 1	**59**	< 1	< 1	< 1

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 9 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 6
Fourth Quarter 2002 Analytical Results Summary
Residential Wells
Delphi Corporation- Vandalia, Ohio

Compound	10440 SOFT IN 1 10/18/02 10440 Cassel Rd.	10440 RO IN 2 10/18/02 10440 Cassel Rd.	10440 CRAWL 10/18/02 10440 Caseel Rd.	10440 OUT 10/18/02 10440 Cassel Rd.	10591 ENG-IN 10/07/02 10591 Engle Rd.	10591 ENG-IN2 10/07/02 10591 Engle Rd.	10591 ENG-OUT 10/07/02 10591 Engle Rd.	77 Ken Out 11/15/02 77 Kenneth Ave.
Volatile Organic Compounds (ug/L)								
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	**11.2**	**0.8**	**11.8**	< 0.5
Tetrachloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**1.9**
Trichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	**1.6**	< 0.5	**1.5**	**1.1**

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method EPA 524.2.
3. See Figure 10 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

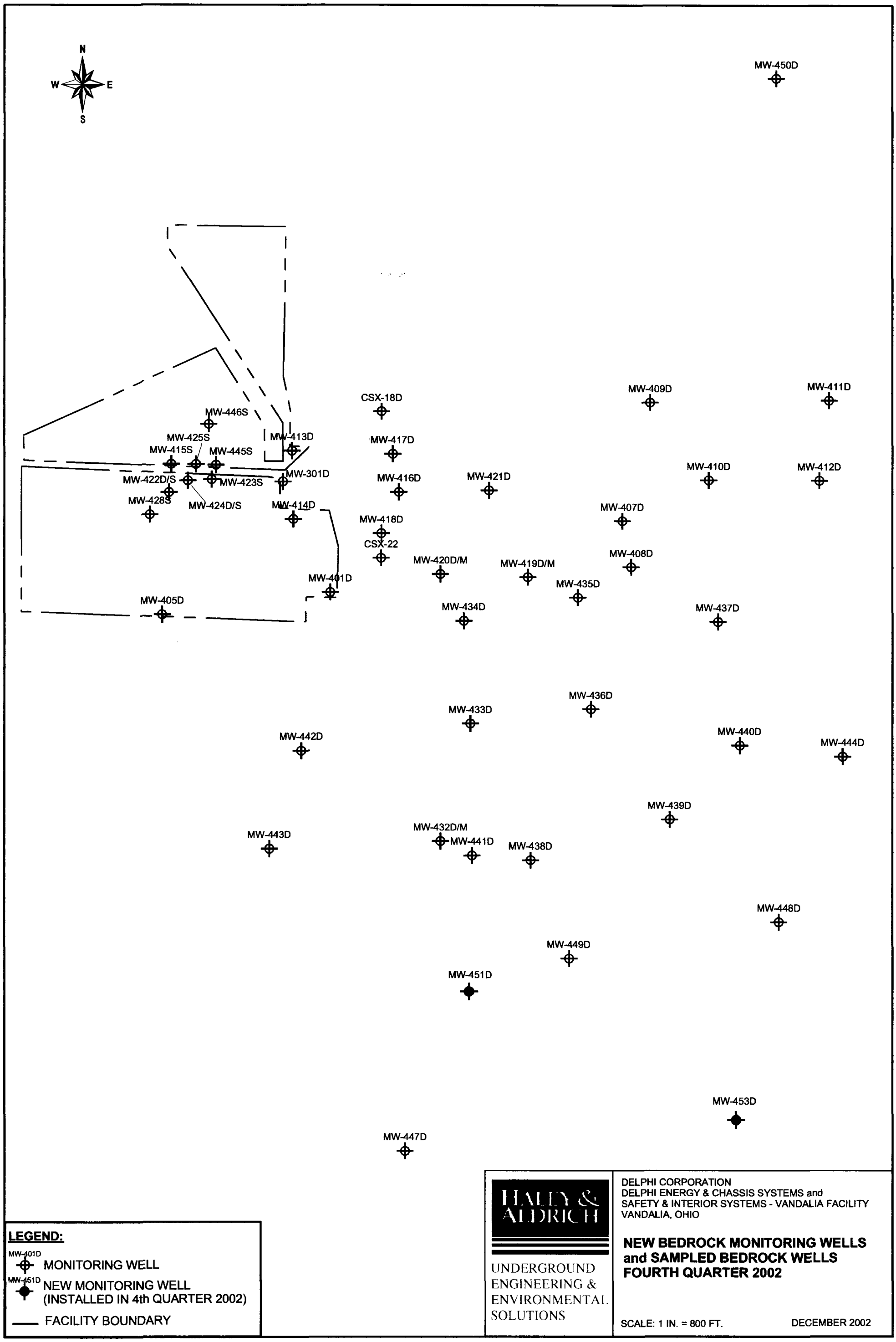

N
W
E
S
MW-450D
MW-409D
MW-411D
CSX-18D
MW-446S
MW-425S
MW-415S
MW-445S
MW-413D
MW-417D
MW-422D/S
MW-423S
MW-301D
MW-416D
MW-421D
MW-410D
MW-412D
MW-428S
MW-424D/S
MW-414D
MW-407D
MW-418D
CSX-22
MW-420D/M
MW-419D/M
MW-408D
MW-401D
MW-435D
MW-405D
MW-434D
MW-437D
MW-436D
MW-433D
MW-442D
MW-440D
MW-444D
MW-439D
MW-443D
MW-432D/M
MW-441D
MW-438D
MW-448D
MW-449D
MW-451D
MW-453D
MW-447D
LEGEND:
MW-401D
MONITORING WELL
MW-451D
NEW MONITORING WELL
(INSTALLED IN 4th QUARTER 2002)
FACILITY BOUNDARY
HALEY & ALDRICH
UNDERGROUND
ENGINEERING &
ENVIRONMENTAL
SOLUTIONS
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and
SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO
NEW BEDROCK MONITORING WELLS
and SAMPLED BEDROCK WELLS
FOURTH QUARTER 2002
SCALE: 1 IN. = 800 FT.
DECEMBER 2002

FIGURE 1

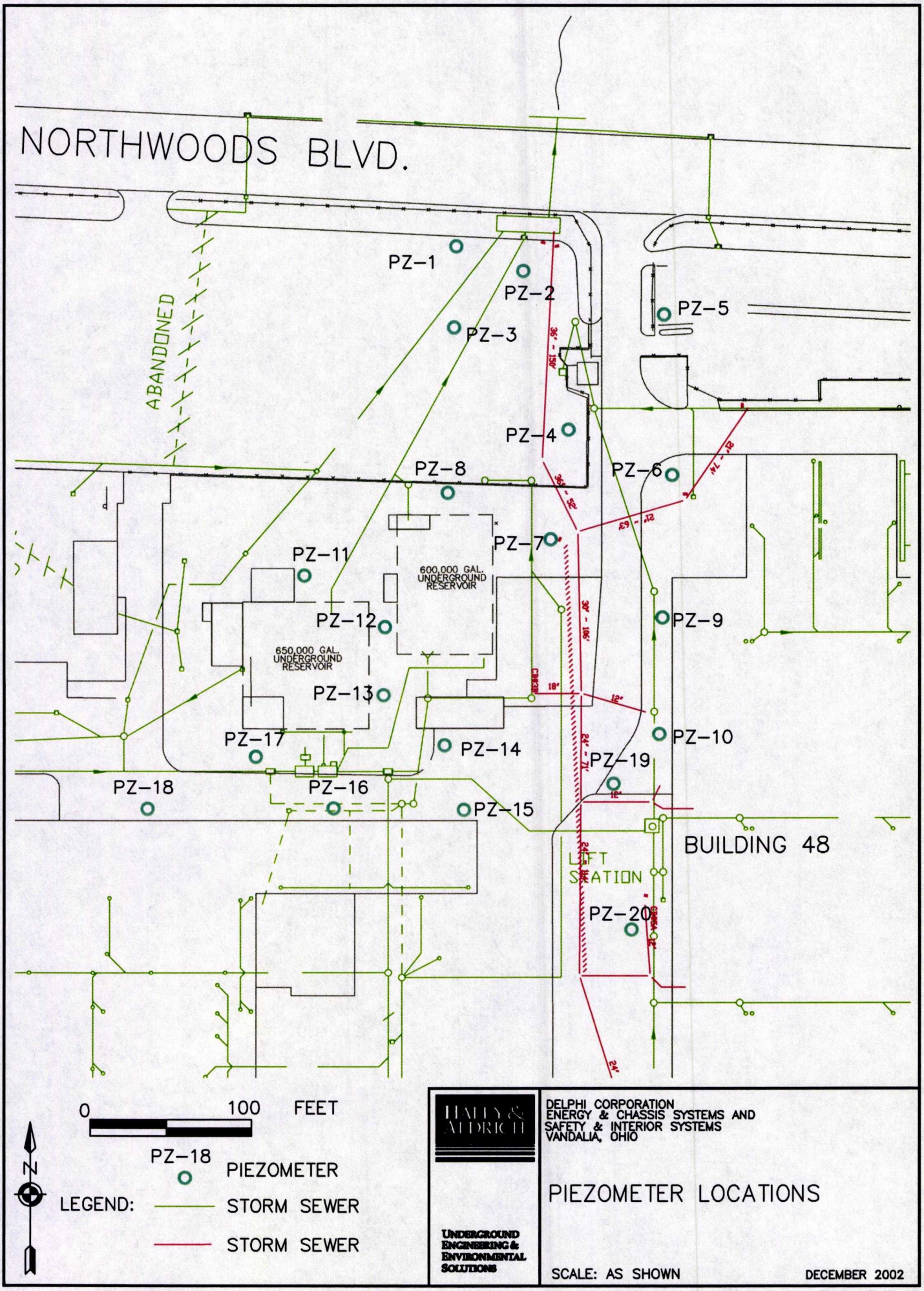
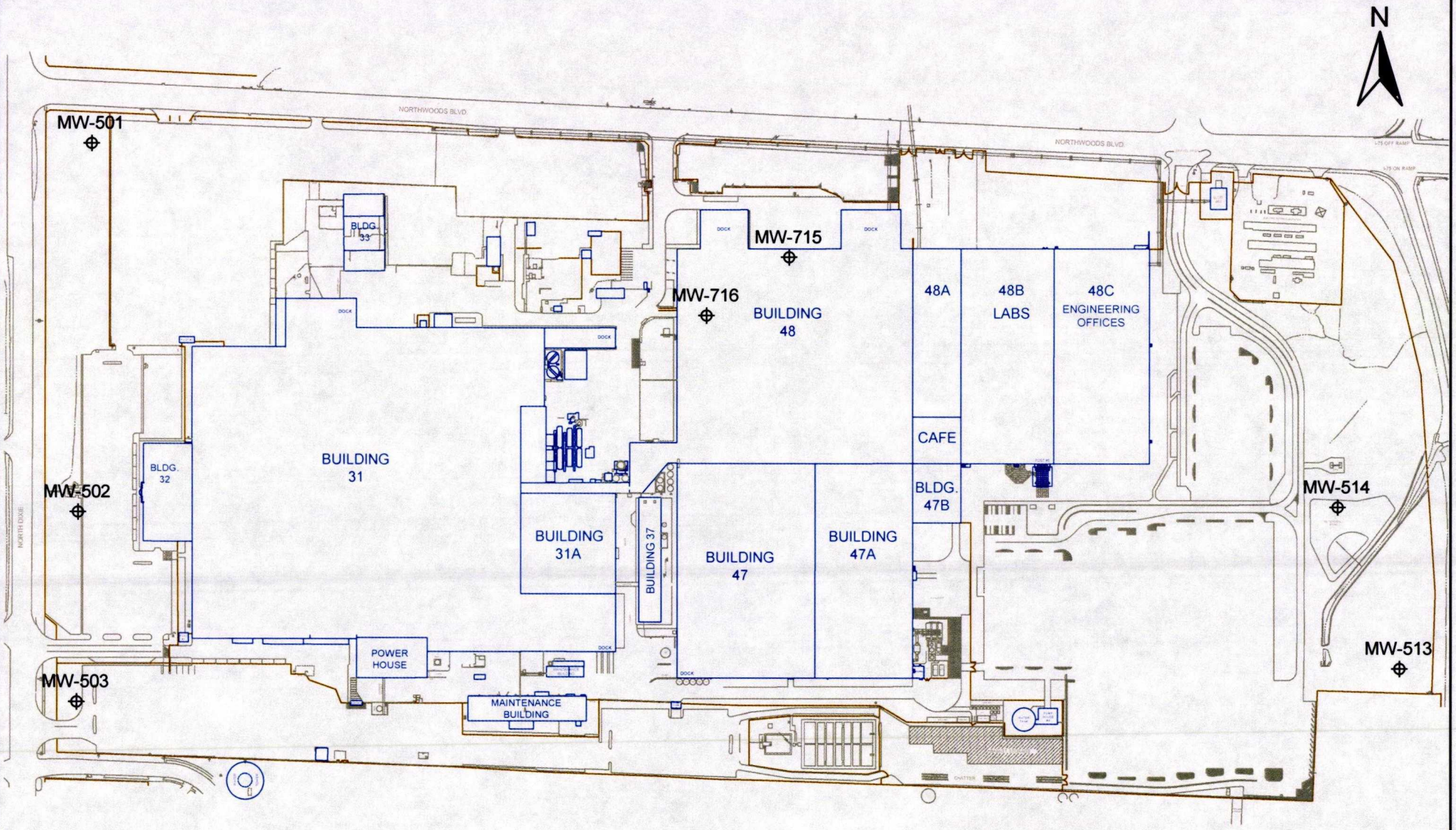

NORTHWOODS BLVD.
ABANDONED
PZ-1
PZ-2
PZ-3
PZ-4
PZ-5
PZ-6
PZ-7
PZ-8
PZ-9
PZ-10
PZ-11
PZ-12
PZ-13
PZ-14
PZ-15
PZ-16
PZ-17
PZ-18
PZ-19
PZ-20
600,000 GAL. UNDERGROUND RESERVOIR
650,000 GAL. UNDERGROUND RESERVOIR
BUILDING 48
LIFT STATION
0
100
FEET
PZ-18
PIEZOMETER
LEGEND:
STORM SEWER
STORM SEWER
N
HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS
DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO
PIEZOMETER LOCATIONS
SCALE: AS SHOWN
DECEMBER 2002
79022\22-065\FIGURE 2.DWG

FIGURE 2



200 0 200 400 Feet

MW-501 MONITORING WELL SAMPLED DURING 4th QUARTER 2002

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

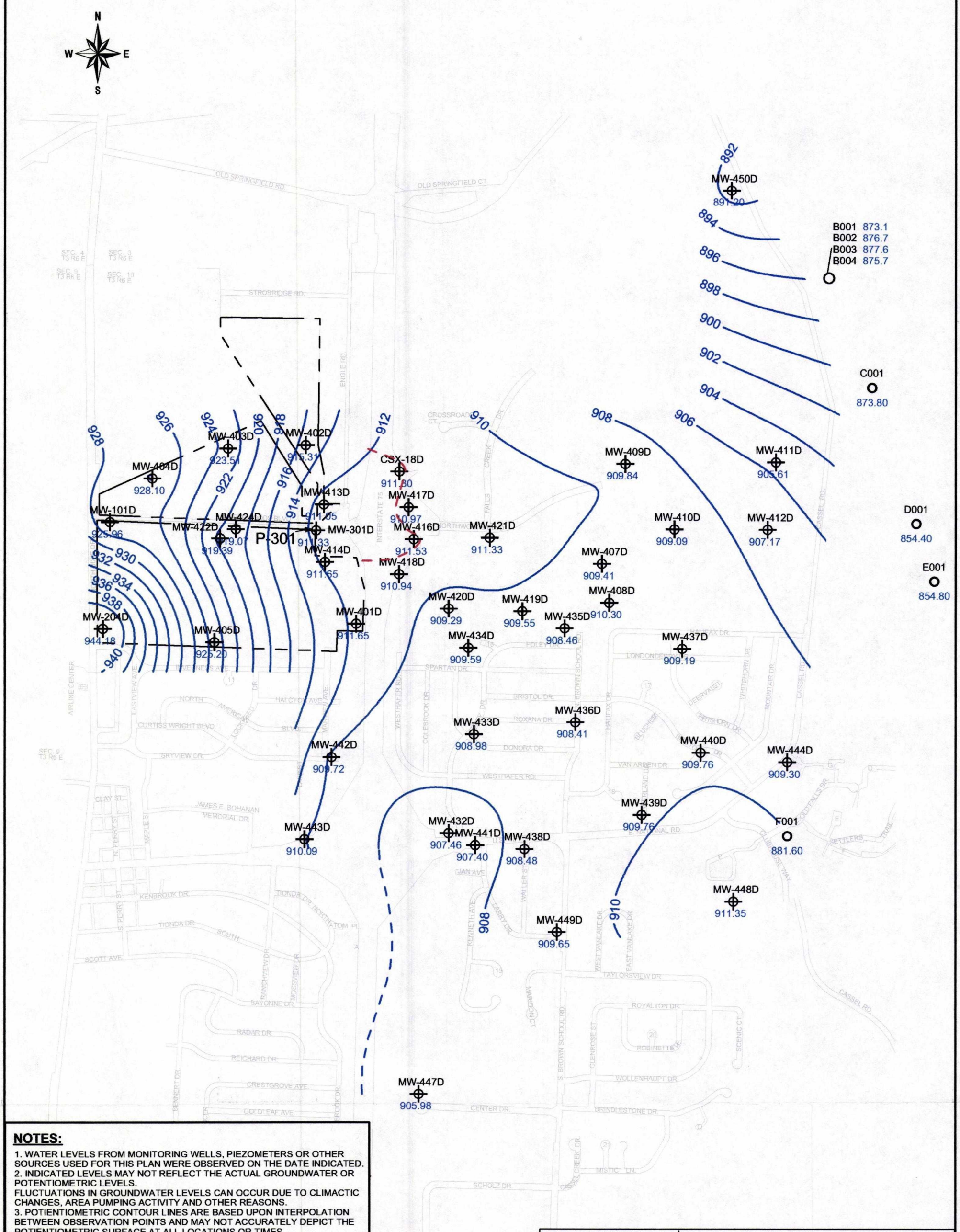
DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO

FOURTH QUARTER 2002
SAMPLED OVERBURDEN
MONITORING WELLS

SCALE: AS SHOWN

DECEMBER 2002

FIGURE 3



NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.

LEGEND:

- FACILITY BOUNDARY
- MW-401D — MONITORING WELL
- 935.0 — WATER ELEVATION
- SPRING LOCATION
- POTENTIOMETRIC SURFACE CONTOUR
- EASTERN LIMITS OF APPARENT CAPTURE ZONE

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UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

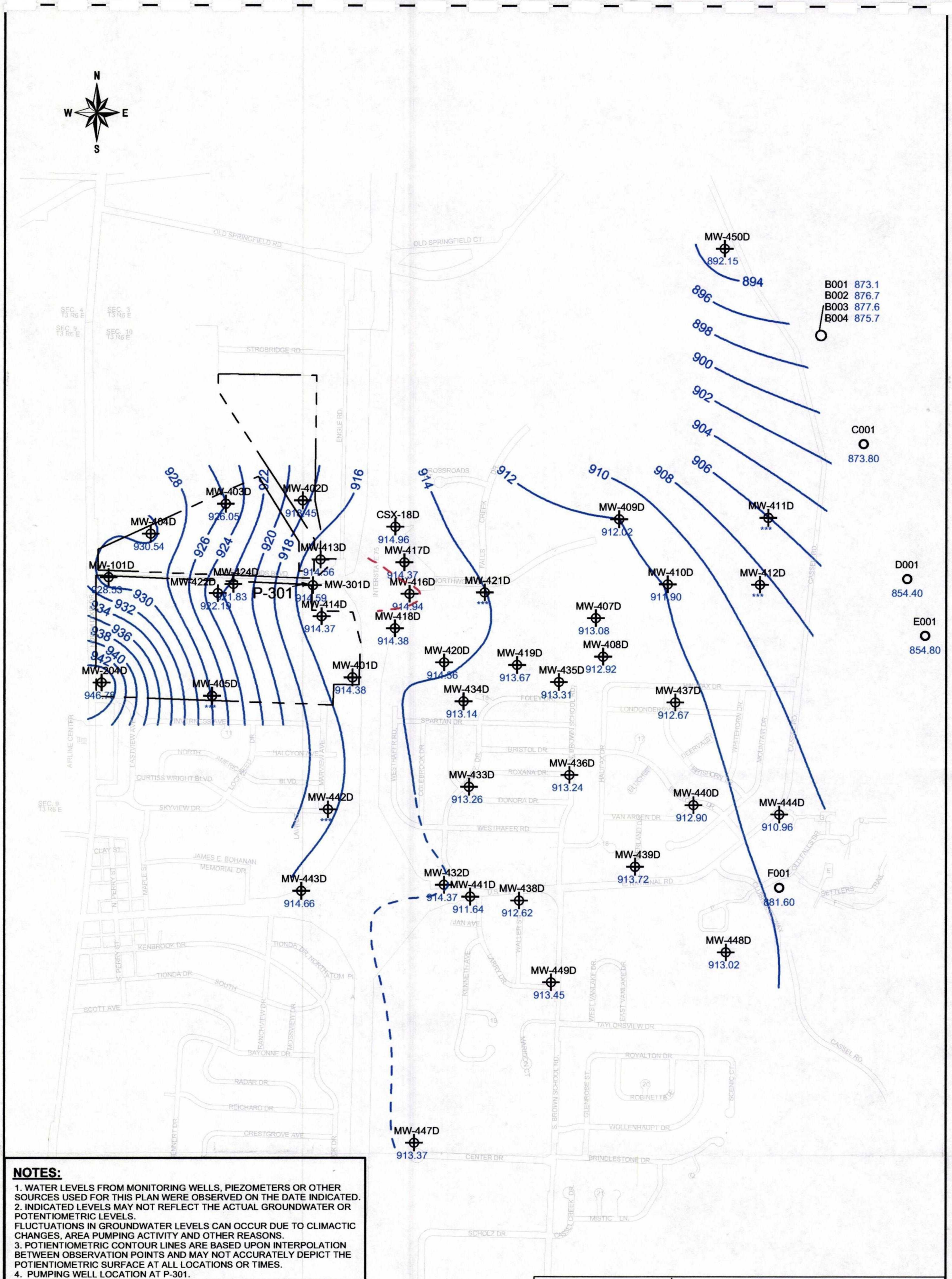
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and
SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 23 OCTOBER 2002

SCALE: 1 IN. = 1000 FT.

OCTOBER 2002

FIGURE 4



NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

LEGEND:

- FACILITY BOUNDARY
- MW-401D — MONITORING WELL
- 935.0 — WATER ELEVATION
- SPRING LOCATION
- POTENTIOMETRIC SURFACE CONTOUR
- EASTERN LIMITS OF APPARENT CAPTURE ZONE

HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

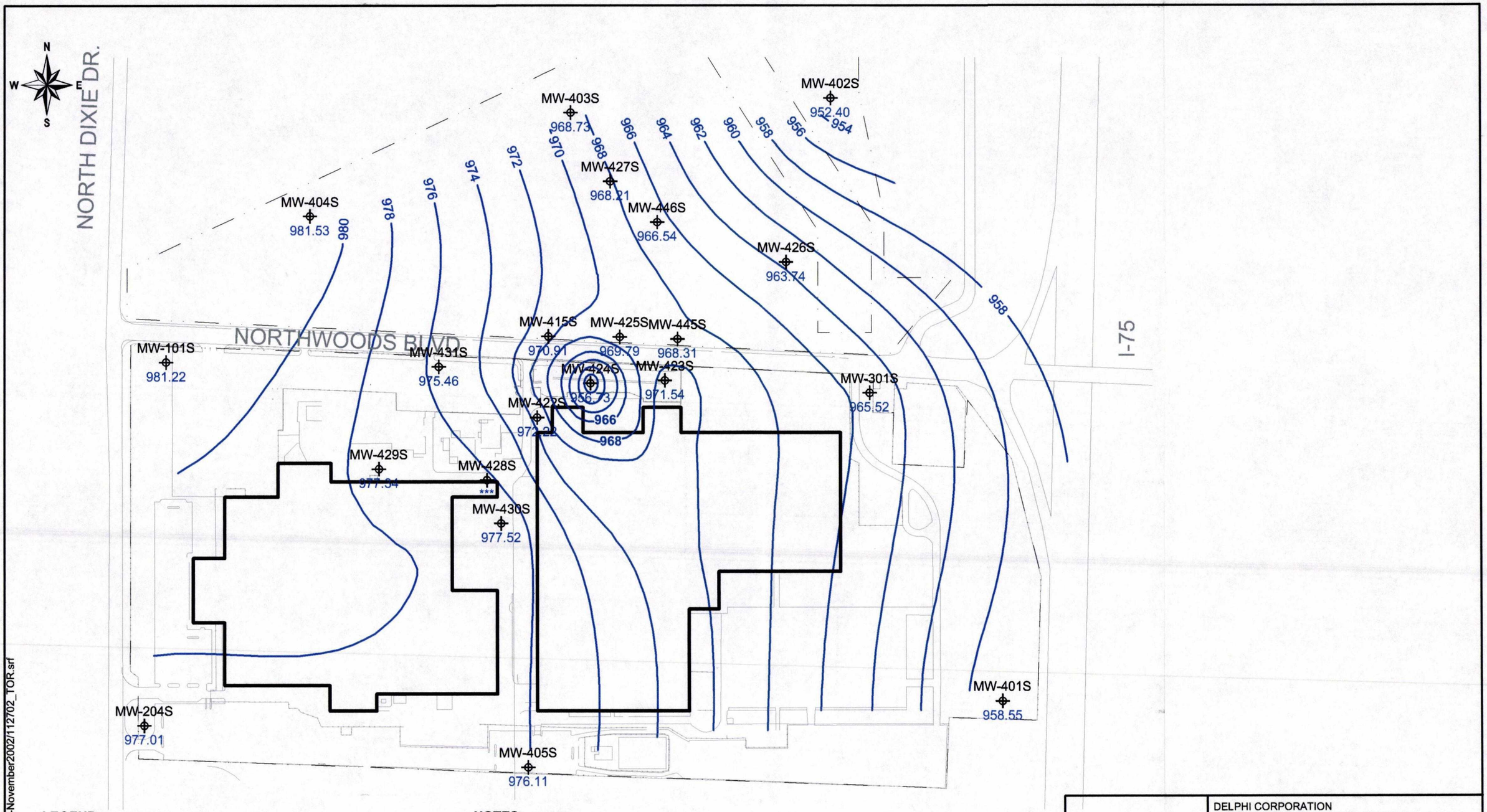
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 27 NOVEMBER 2002

SCALE: 1 IN. = 1000 FT.

NOVEMBER 2002

FIGURE 5



LEGEND:

- PROPERTY LINE
- FACILITY OUTLINE
- MW-401S — MONITORING WELL
- 935.0 — WATER ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR

NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

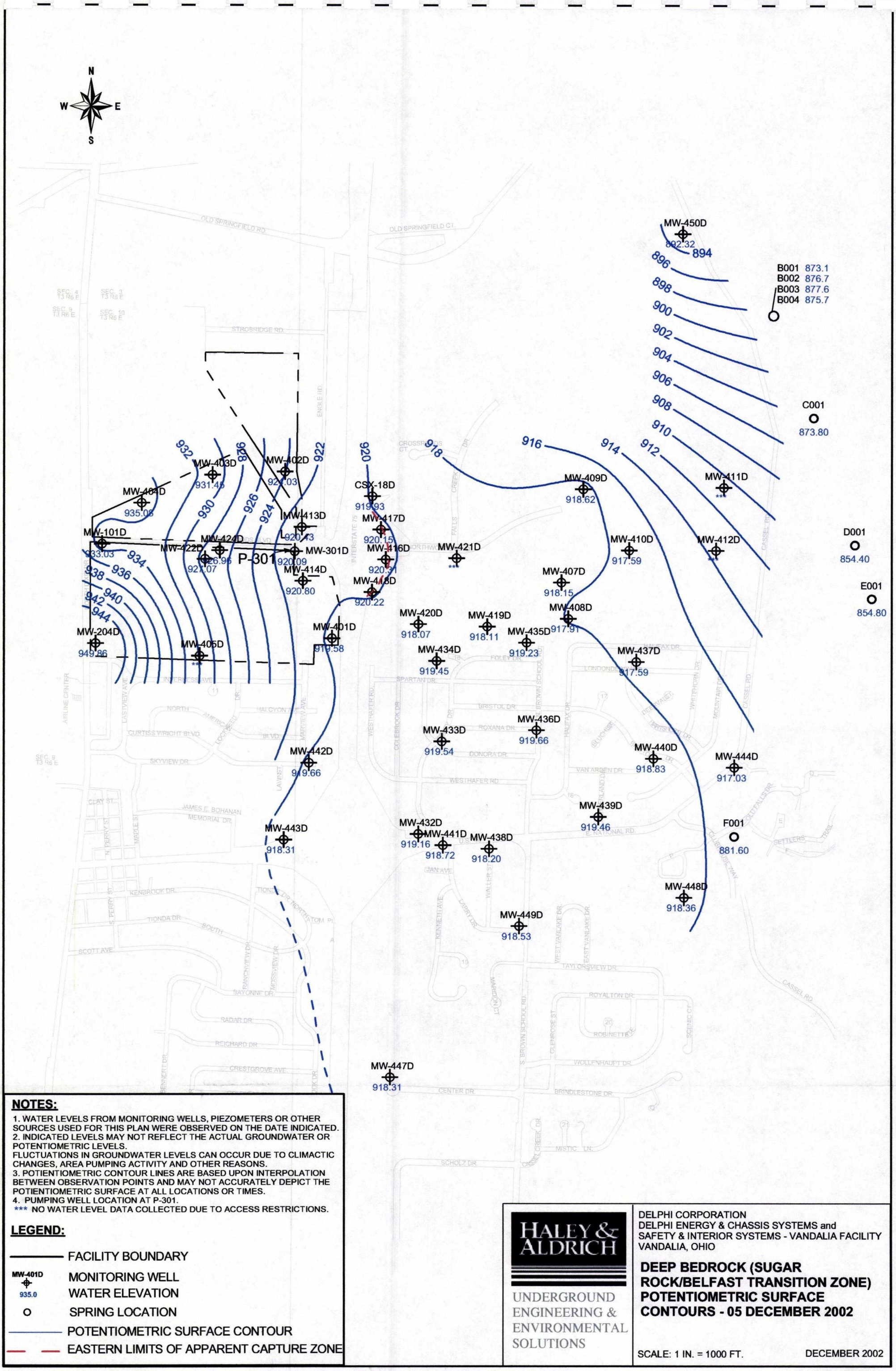
POTENTIOMETRIC SURFACE CONTOURS - 27 NOVEMBER 2002 TOP OF ROCK ZONE

SCALE: 1 IN. = 300 FT.

NOVEMBER 2002

FILE NO.: 79022/056/Surfer/33-November2002/112702_TOR.srf

FIGURE 6



NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

LEGEND:

- FACILITY BOUNDARY
- MW-401D — MONITORING WELL
- 935.0 — WATER ELEVATION
- SPRING LOCATION
- POTENTIOMETRIC SURFACE CONTOUR
- EASTERN LIMITS OF APPARENT CAPTURE ZONE

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UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

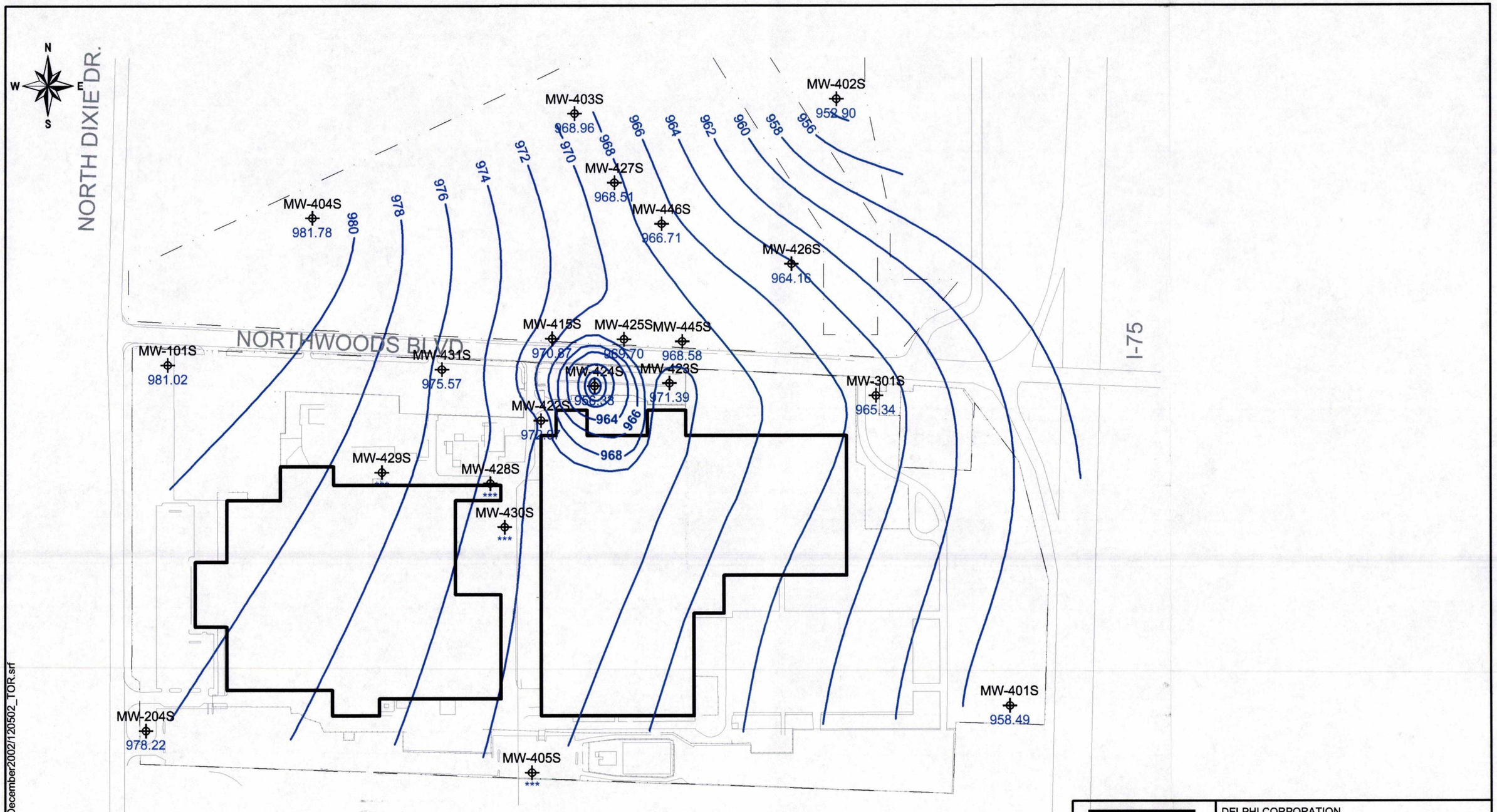
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 05 DECEMBER 2002

SCALE: 1 IN. = 1000 FT.

DECEMBER 2002

FIGURE 7



LEGEND:

- PROPERTY LINE
- FACILITY OUTLINE
- MW-401S — MONITORING WELL
- 935.0 — WATER ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR

NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

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UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

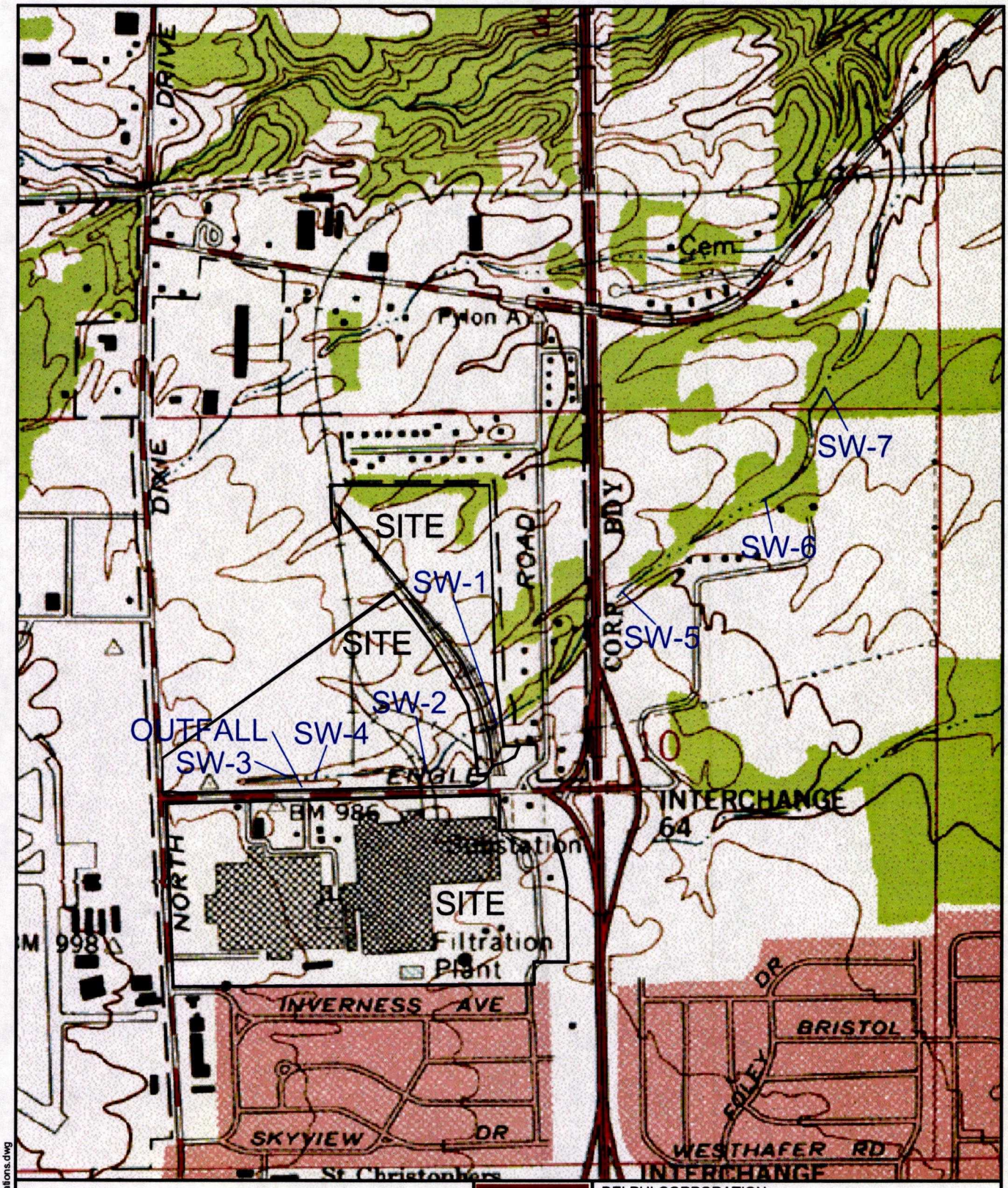
POTENTIOMETRIC SURFACE CONTOURS - 05 DECEMBER 2002 TOP OF ROCK ZONE

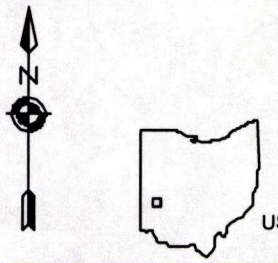
SCALE: 1 IN. = 300 FT.

DECEMBER 2002

FIGURE 8

FILE NO.: 79022/056/Surfer/34-December2002/120502_TOR.srf





USGS QUADRANGLE:
TIPP CITY, OHIO

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DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO

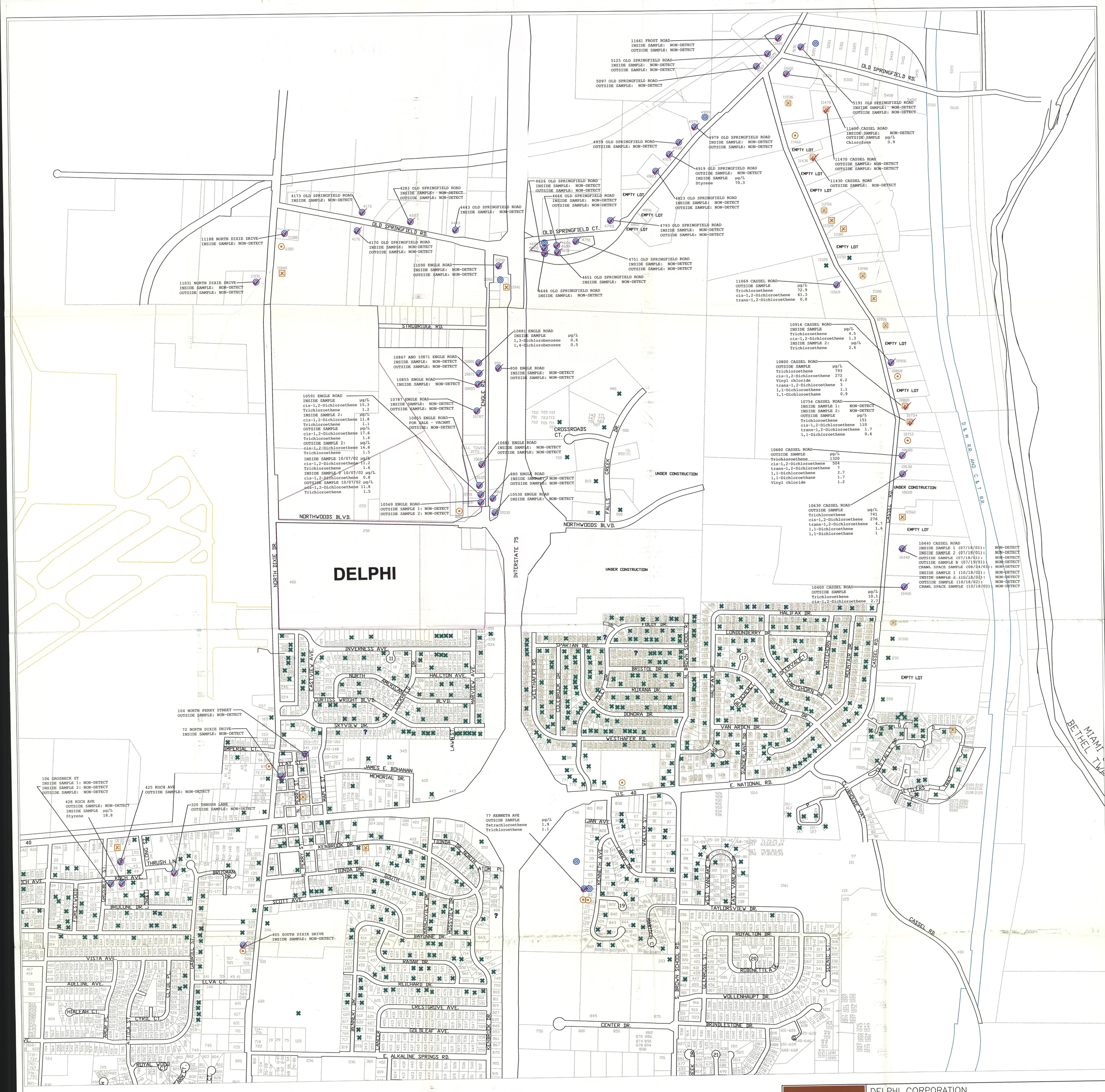
SURFACE WATER SAMPLING LOCATIONS

SCALE: 1 INCH = 1,000 FEET

DECEMBER 2002

de\projects\79022\acad\surface_water_locations.dwg

FIGURE 9



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UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

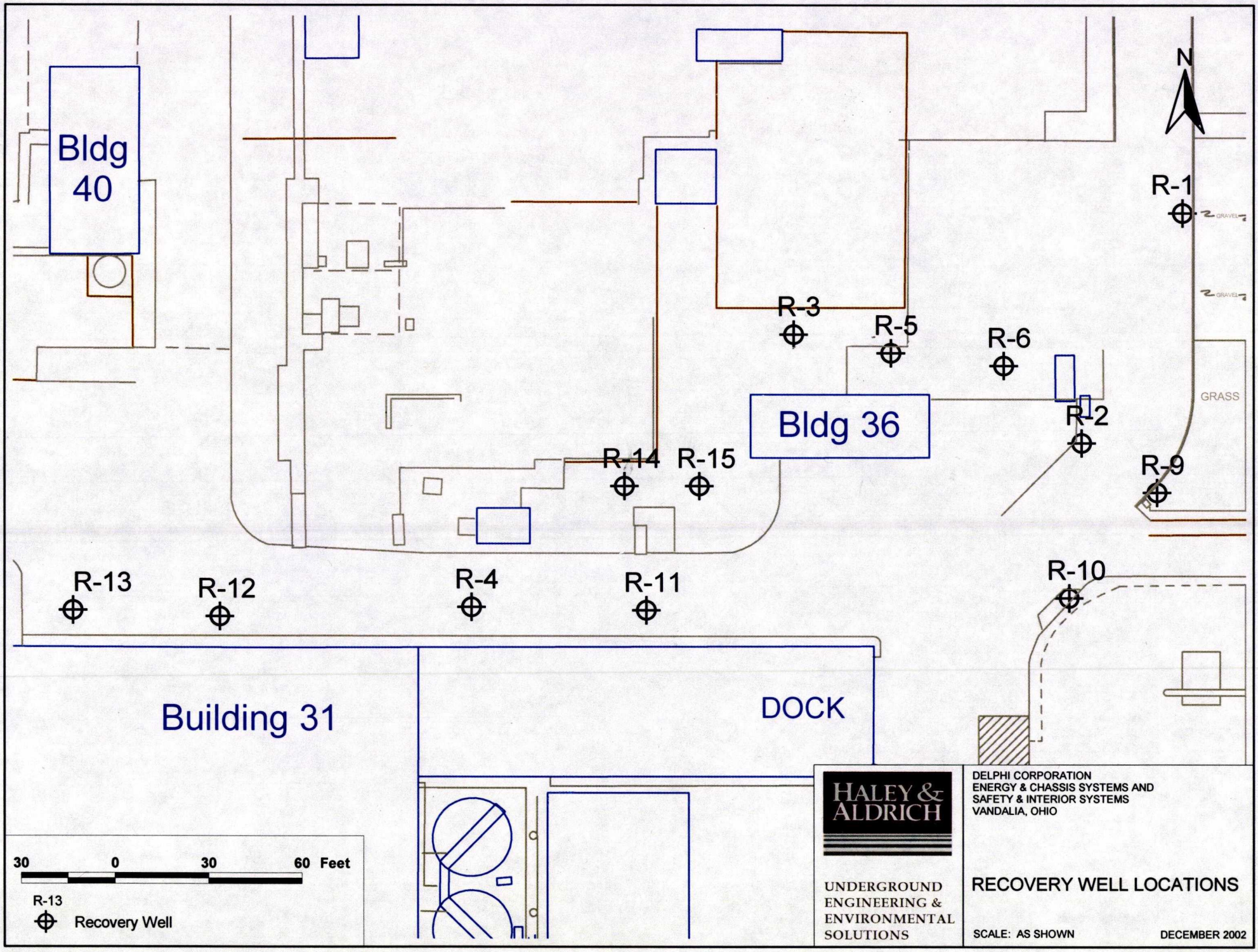
DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO

WATER USE SURVEY RESULTS

SCALE: 1 INCH = 500 FEET

DECEMBER 2002

FIGURE


Bldg 40
Bldg 36
Building 31
DOCK
N
R-1
R-2
R-3
R-4
R-5
R-6
R-9
R-10
R-11
R-12
R-13
R-14
R-15
GRAVEL
GRAVEL
GRASS
30 0 30 60 Feet
R-13
Recovery Well
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DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO
RECOVERY WELL LOCATIONS
SCALE: AS SHOWN
DECEMBER 2002

FIGURE 11

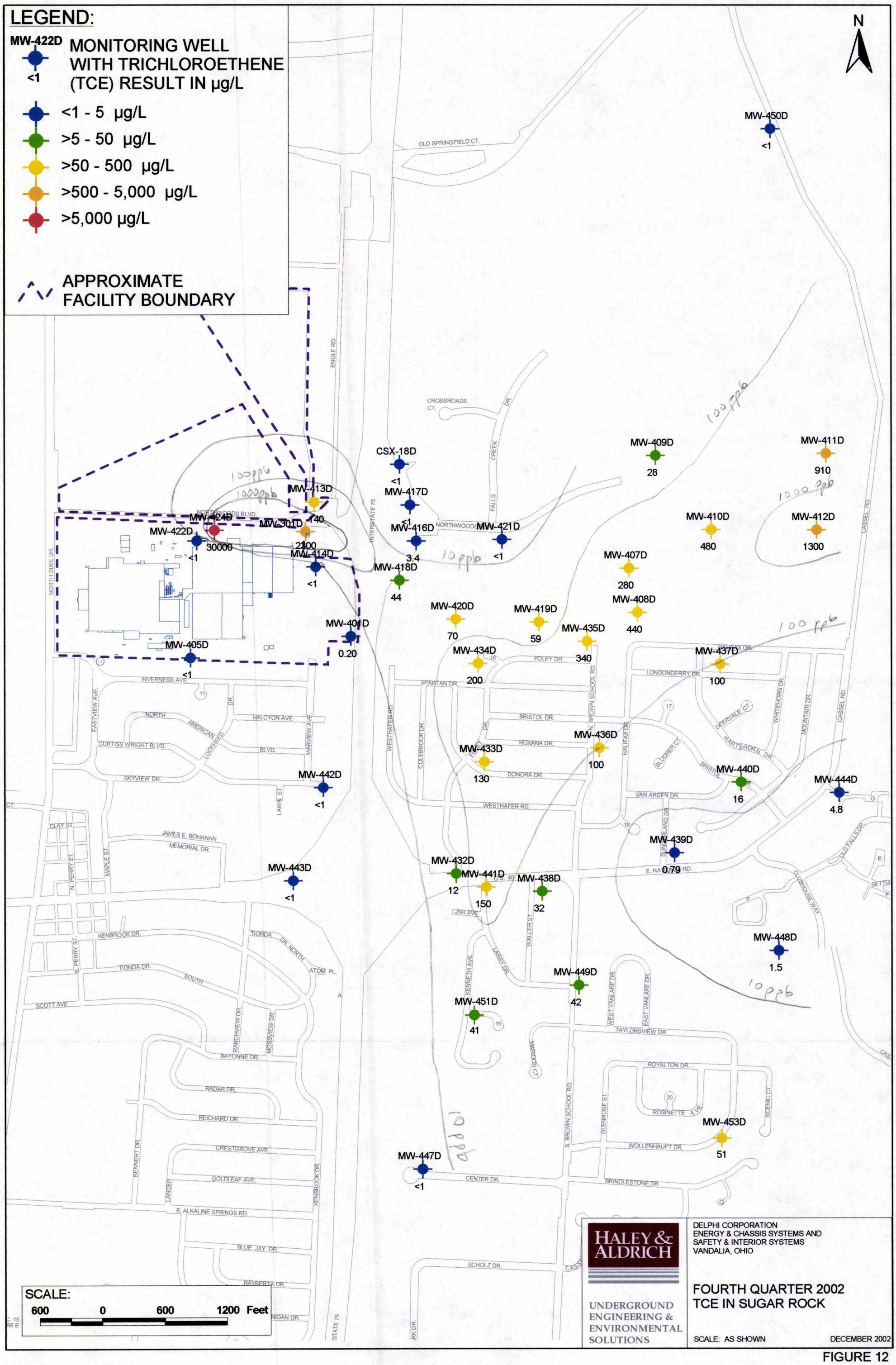
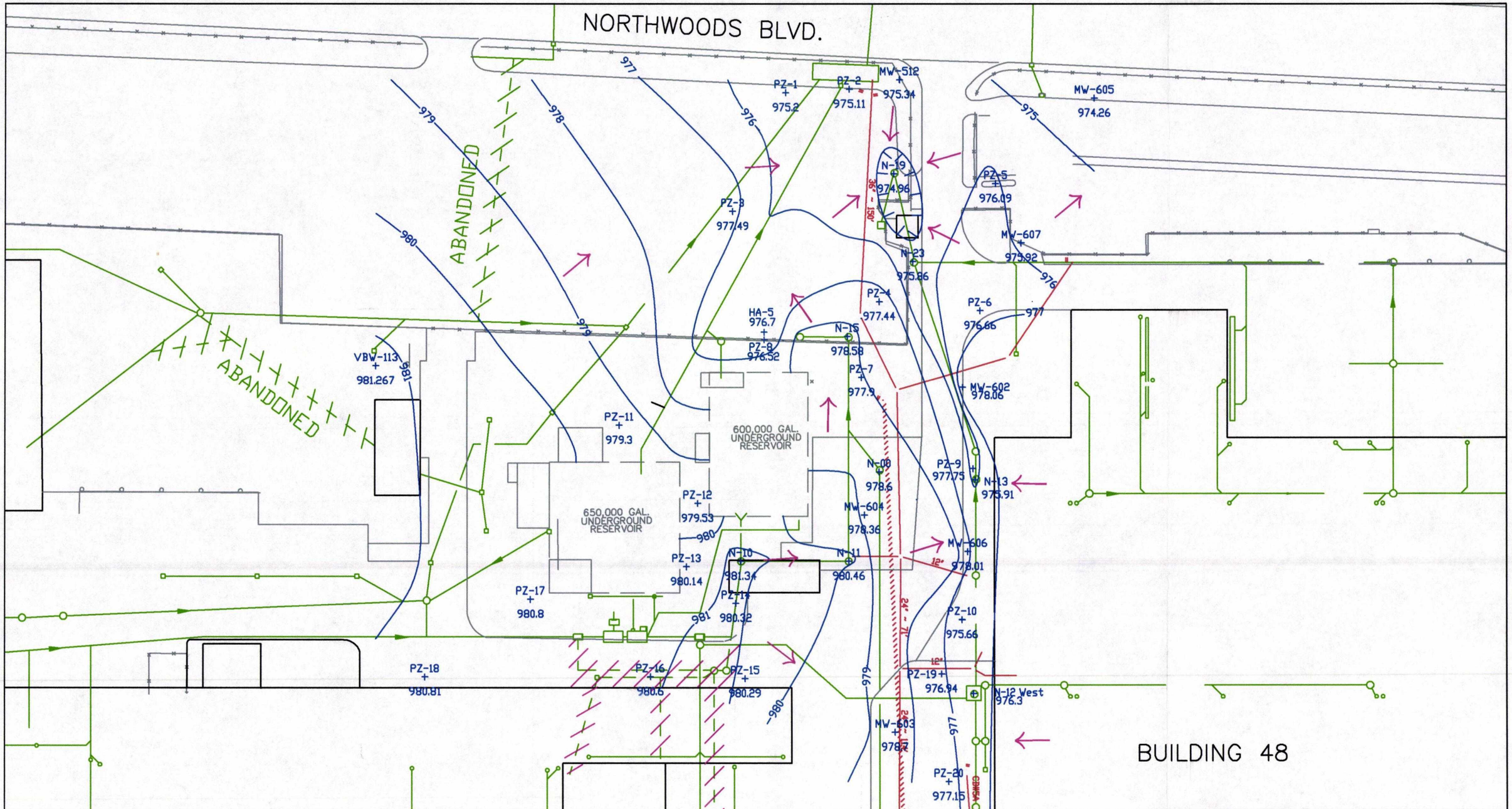


FIGURE 12

1/21/03 - Isoconcentration Contours
KB



LEGEND:

- STORM SEWER
- STORM SEWER
- WATER LEVEL MEASUREMENT POINTS
- POTENTIOMETRIC SURFACE CONTOUR
- INFERRED FLOW DIRECTION

NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
3. POTENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMP LOCATED AT N-19.

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UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS
AND SAFETY INTERIOR SYSTEMS
VANDALIA, OHIO

19 NOVEMBER 2002 PUMP TEST
OVERBURDEN POTENTIOMETRIC
SURFACE CONTOURS

SCALE: 1 INCH = 60 FEET

DECEMBER 2002

79022/22-065/QUARTERLYREPORTS/4Q_2002/SHALLOWSEWER-PRETEST NOV19.DWG

FIGURE 13

Attachment A
Monitoring Well Test Boring Reports,
Core Boring Reports, and Well Installation Reports

TEST BORING REPORT

Boring No. MW-451D

Project: On-site and Residential DrillingVandalia, Ohio
Client: Delphi Corporation
Contractor: H.C. Nutting Co.

File No.: 79022-058
Sheet No.: 1 of 4
Location:

ITEM	CASING	DRIVE SAMPLER	CORE BARREL
Type	Steel (temp)	SS	HQ
Inside Diameter (in.)	6	2.0	4
Hammer Weight (lb.)	---	140	---
Hammer Fall (in.)	---	30	---

DRILLING EQUIPMENT & PROCEDURES

Rig Type: Diedrich D-120 ATC
Method: HSA and HQ coring
Bit Type: ---
Other: Rotary HSA and rotary wash 6" casing into rock and HQ rotary wash core.

Elevation:
Datum: Site
Start: 6 November 2002
Finish: 6 November 2002
Driller: L. Wanstrath
H&A Rep: T. Vanage

DEPTH (FT)	PID FIELD SCREENING (PPM)	SAMPLER BLOWS PER 6 IN.	SAMPLE NUMBER & REC. (IN.)	SAMPLE DEPTH (FT)	ELEV./ DEPTH (FT)	VISUAL DESCRIPTION AND REMARKS
0	ND	21 11 7 5	S-1 23	0.0 – 2.0		-ASPHALT-
					1.5	Medium stiff, olive brown clayey SILT, trace sand, trace gravel, moist.
	ND	8 8 7 6	S-2 21	2.0 – 4.0		Same, light brown, some gravel.
5	ND	6 9 11 13	S-3 20	4.0 – 6.0		
	ND	6 7 8 10	S-4 28	6.0 – 8.0		
	ND	4 7 9 12	S-5 28	8.0 – 10.0		Same, brown, trace gravel.
10	ND	9 12 13 13	S-6 27	10.0 – 12.0	10.1	Stiff, light brown sandy SILT with gravel, moist.
					10.9	Stiff, brown clayey SILT, trace gravel, trace sand, moist.
	ND	9 12 16 45	S-7 27	12.0 – 14.0		
					13.7	Highly weathered LIMESTONE/DOLOSTONE.
15	ND	75 66 45 43	S-8	14.0 – 16.0		
	ND	34 79 57 100/5"	S-9	16.0 – 17.9		Top of Bedock at 17.9 feet.
20						
25						

NOTES:

SAMPLE IDENTIFICATION

- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon
- G Geoprobe

SUMMARY

Overburden (lin ft):	17.9
Rock Core (lin ft):	100.4
Samples:	No soil samples

Boring No. **MW-451D**

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **MW-451D**
File No. 79022-058
Sheet No. 2 of 4

DEPTH (FT)	DRILLING RATE (MIN./FT)	CORE NO. / DEPTH (FT)	RECOVERY / RQD IN.	RECOVERY / RQD %	ROCK MASS WEATH.	ELEV./ DEPTH (FT)	VISUAL DESCRIPTION AND REMARKS
15							
		17.9					Moderately fractured, hard, slightly to moderately weathered, gray fine grained DOLOSTONE, thin horizontal beds. Joints are horizontal, close, rough discolored and open. Solution pits throughout.
20		R-1	52 / 11	87 / 21	MOD	19.7	-UPPER DAYTON DOLOMITE- Moderately hard, slightly weathered, light gray with tan banding, fine grained DOLOSTONE, thin horizontal bedding. Joints are horizontal to vertical, close to moderate, rough and discolored with tight aperture. Interbedded shale throughout.
		22.9					
		22.9					-LOWER DAYTON DOLOMITE-
25		R-2	52 / 33	87 / 65	MOD/SL		
		27.9					
		27.9					
30		R-3	60 / 53	100 / 88	SL		
		32.9					
		32.9					
35		R-4	62 / 62	103 / 100	SL		
		37.9					
		37.9					
40		R-5	63 / 52	105 / 83	SL		
		42.9					
		42.9					
45		R-6	62 / 54	103 / 87	SL		
		47.9					
		47.9					
50							

HALEY & ALDRICH

CORE BORING REPORT

Boring No. **MW-451D**
File No. 79022-058
Sheet No. 3 of 4

DEPTH (FT)	DRILLING RATE (MIN./FT)	CORE NO. / DEPTH (FT)	RECOVERY / RQD IN.	RECOVERY / RQD %	ROCK MASS WEATH.	ELEV./ DEPTH (FT)	VISUAL DESCRIPTION AND REMARKS
50		R-7 52.9	60 / 37	100 / 62	SL		
		52.9 R-8 57.9	51 / 49	85 / 96	SL		
55							
		57.9 R-9 62.9	64 / 64	107 / 100	SL		
60							
		62.9 R-10 67.9	64 / 61	106 / 95	SL		
65							
		67.9 R-11 72.9	63 / 60	105 / 95	SL	67.9	Moderately hard, slightly weathered, light gray, pink and green, fine grained DOLOSTONE, thin to medium bedding, horizontal, moderately spaced, rough joints with tight aperture. -UPPER BRASSFIELD-
70							
		72.9 R-12 77.9	62 / 60	103 / 93	SL		
75							
		77.9 R-13 82.9	59 / 59	98 / 100	SL	80.6	Moderately hard, slightly weathered, light grey to white, fine grained DOLOSTONE, thickly bedded. Joints are horizontal, close to moderately spaced, rough, fresh, tight. -LOWER BRASSFIELD-
80							
		82.9					
85							

CORE BORING REPORT

HALEY & ALDRICH

Boring No. **MW-451D**
File No. 79022-058
Sheet No. 4 of 4

DEPTH (FT)	DRILLING RATE (MIN./FT)	CORE NO. / DEPTH (FT)	RECOVERY / RQD IN.	RECOVERY / RQD %	ROCK MASS WEATH.	ELEV./ DEPTH (FT)	VISUAL DESCRIPTION AND REMARKS
85		R-14	62 / 62	103 / 100	SL		
		87.9					
		87.9					
90		R-15	60 / 60	100 / 100	SL		
		92.9				90.9	Moderately hard, slightly weathered, yellow to green to gray, fine grained DOLOSTONE, thin to medium bedding. Joints are horizontal, close to moderately spaced, rough, fresh, tight.
							-BELFAST TRANSITION ZONE-
		92.9				93.2	Moderately hard, slightly weathered, dark gray, fine grained shaley DOLOSTONE, thin to medium bedding. Joints are horizontal, close to moderately spaced, smooth, fresh, tight.
95		R-16	55 / 55	92 / 100	SL		-ELKHORN SHALE-
		97.9					
		97.9					
		R-17	21 / 21	70 / 100	SL		Bottom of Exploration at 100.4 feet.
100		100.4					
						100.4	

HALEY & ALDRICH

MONITORING WELL REPORT

Well No. MW-451D

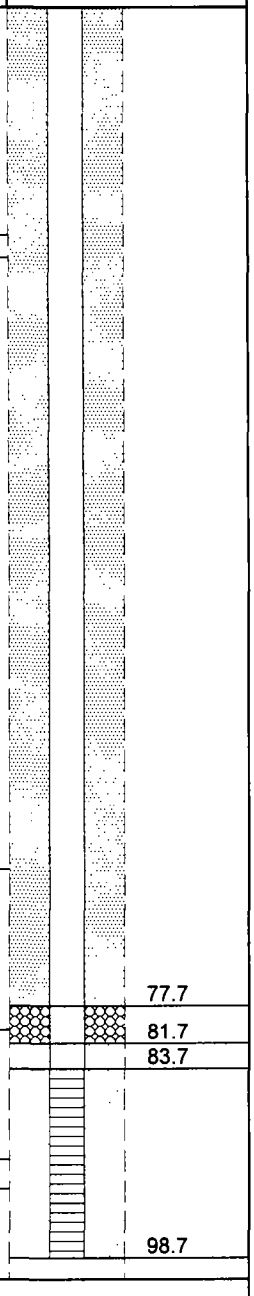
Project: On-site and Residential Drilling
Location: Vandalia, Ohio
Client: Delphi Corporation
Contractor: H.C. Nutting **Driller:** L. Wanstrath
Rig Type: Diedrich D-120 ATC
H&A Rep: T. Vanage
Installation Date: 11/13/02 - 11/13/02

File No.: 79022-058
Location:
Top of Protective Casing: ft.
Top of Riser: ft.
Ground Surface: ft.
Survey Datum:

SUMMARY OF SOIL/ROCK CONDITIONS

-OVERBURDEN-
17.9
19.7 -UPPER DAYTON DOLOMITE-
-LOWER DAYTON DOLOMITE-
67.9
-UPPER BRASSFIELD-
80.6
-LOWER BRASSFIELD-
90.9
93.2 -BELFAST TRANSITION ZONE-
ELKHORN SHALE-
100.4

SUMMARY OF WELL CONSTRUCTION MATERIALS



(NOT TO SCALE)
(NUMBERS REFER TO DEPTH FROM GROUND SURFACE IN FEET)

REMARKS:

SUMMARY OF WELL INSTALLATION SPECIFICATIONS

BOREHOLE		
Diameter:	6.0	in.
SURFACE COMPLETION		
Type:	Flush Manhole	
Top (DBGS):	0.0	ft.
PROTECTIVE CASING		
Type:	Roadway box	
Diameter:	7.0	in.
Top (DBGS):	0.0	ft.
Length:	1.0	ft.
SURFACE SEAL		
Type:	NA	
Top:	NA	ft.
Length:	NA	ft.
RISER		
Type:	PVC	
Diameter:	2.0	in.
Top (DBGS)	0.3	ft.
Length:	83.4	ft.
Coupling Type:	Threaded	
RISER BACKFILL		
Type:	Cement-Bentonite Grout	
Top:	0.0	ft.
Length:	77.7	ft.
SANDPACK SEAL		
Type:	Bentonite Pellets	
Top:	78.7	ft.
Length:	3.0	ft.
SANDPACK		
Type:	# 4 Silica Sand	
Top:	81.7	ft.
Length:	17.0	ft.
SCREEN		
Type:	Stainless Steel	
Diameter:	2	in.
Slot Size:	# 10 Slot	in.
Top (DBGS):	83.7	ft.
Length:	15.0	ft.
SUMP		
Type:	NA	
Top:	NA	ft.
Length:	NA	ft.
LOWER SEAL		
Type:	NA	
Top:	NA	ft.
Length:	NA	ft.
BACKFILL		
Type:	NA	
Top:	NA	ft.
Length:	NA	ft.
BOTTOM OF BOREHOLE:	100.4	ft.

DBGS - Depth Below Ground Surface

Well No. MW-451D

HALEY & ALDRICH

TEST BORING REPORT

Boring No. MW-453D

Project: On-site and Residential DrillingVandalia, Ohio
Client: Delphi Corporation
Contractor: H.C. Nutting Co.

File No.: 79022-058
Sheet No.: 1 of 3
Location:

ITEM	CASING	DRIVE SAMPLER	CORE BARREL	DRILLING EQUIPMENT & PROCEDURES
Type	Steel (temp)	SS	HQ	Rig Type: Diedrich D-120 ATC
Inside Diameter (in.)	6	2.0	4	Method: HSA and HQ coring
Hammer Weight (lb.)	---	140	---	Bit Type: ---
Hammer Fall (in.)	---	30	---	Other: Rotary HSA and rotary wash 6" casing into rock and HQ rotary wash core.

Elevation:
Datum: Site
Start: 15 November 2002
Finish: 15 November 2002
Driller: L. Wanstrath
H&A Rep: T. Vanage

DEPTH (FT)	PID FIELD SCREENING (PPM)	SAMPLER BLOWS PER 6 IN.	SAMPLE NUMBER & REC. (IN.)	SAMPLE DEPTH (FT)	ELEV./ DEPTH (FT)	VISUAL DESCRIPTION AND REMARKS
0	ND	29 12 11 6	S-1 24	0.0 – 2.0	1.0	-ASPHALT-
						Very stiff, tan sandy SILT, dry.
	ND	9 12 14 21	S-2 20	2.0 – 4.0	2.0	Very stiff, light brown silty CLAY.
	ND	18 21 30 32	S-3 24	4.0 – 6.0		Hard, light brown silty CLAY, trace gravel, dry.
5					5.0	Hard, tan weathered LIMESTONE/DOLOSTONE.
	ND	15 15 35 36	S-4 15	6.0 – 8.0		
	ND	39 19	S-5 14	8.0 – 9.0		Same, with interbedded layers of glacial till.
						-Top of Rock at 9.0 feet-
10						
15						
20						
25						

NOTES:

SAMPLE IDENTIFICATION

- O Open End Rod
- T Thin Wall Tube
- U Undisturbed Sample
- S Split Spoon
- G Geoprobe

SUMMARY

Overburden (lin ft):	9
Rock Core (lin ft):	44.5
Samples:	No soil samples

Boring No. **MW-453D**

CORE BORING REPORT

HALEY & ALDRICH

Boring No. **MW-453D**
File No. 79022-058
Sheet No. 2 of 3

DEPTH (FT)	DRILLING RATE (MIN./FT)	CORE NO. DEPTH (FT)	RECOVERY / RQD IN.	RECOVERY / RQD %	ROCK MASS WEATH.	ELEV./ DEPTH (FT)	VISUAL DESCRIPTION AND REMARKS
5							
		9.0					Moderately hard, slightly weathered, light gray, green and pink fine grained DOLOSTONE, thin to medium bedding, moderately spaced, rough, fresh joints with tight aperture.
10		R-1	15 / 15	31 / 100	SL		-UPPER BRASSFIELD-
		12.5					
		12.5					
15		R-2	64 / 64	107 / 100	SL		
		17.5					
		17.5					
20		R-3	61 / 59	102 / 97	SL		
		22.5				22.0	Moderately hard, highly weathered, light gray to white, fine grained DOLOSTONE, thickly bedded, horizontal and vertical joints, close to moderately spaced, rough, fresh joints with tight aperture and solution pits.
		22.5					-LOWER BRASSFIELD-
25		R-4	60 / 60	100 / 100	HW		
		27.5					
		27.5					
30		R-5	59 / 59	98 / 100	HW		
		32.5					
		32.5					
35		R-6	63 / 56	105 / 89	SL	35.1	Moderately hard, slightly weathered, yellow-green to gray, fine grained DOLOSTONE, thinly bedded, horizontal, close to moderately spaced, smooth, fresh, tight joints.
		37.5					-BELFAST TRANSITION ZONE-
		37.5				37.5	Moderately hard, slightly weathered, dark gray, fine grained shaley DOLOSTONE, thin to medium bedding, horizontal, moderately spaced, smooth, fresh joints with tight aperture.
40							

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CORE BORING REPORT

Boring No. **MW-453D**
File No. 79022-058
Sheet No. 3 of 3

DEPTH (FT)	DRILLING RATE (MIN./FT)	CORE NO. DEPTH (FT)	RECOVERY / RQD IN.	RECOVERY / RQD %	ROCK MASS WEATH.	ELEV./ DEPTH (FT)	VISUAL DESCRIPTION AND REMARKS
40		R-7	58 / 58	97 / 100	SL		-ELKHORN SHALE-
		42.5					
		42.5					
		R-8	22 / 22	92 / 100	SL		Bottom of Exploration at 44.5 feet.
		44.5					
						44.5	

HALEY & ALDRICH

MONITORING WELL REPORT

Well No. MW-453D

Project: On-site and Residential Drilling
Location: Vandalia, Ohio
Client: Delphi Corporation
Contractor: H.C. Nutting **Driller:** L. Wanstrath
Rig Type: Diedrich D-120 ATC
H&A Rep: T. Vanage
Installation Date: 11/20/02 - 11/20/02

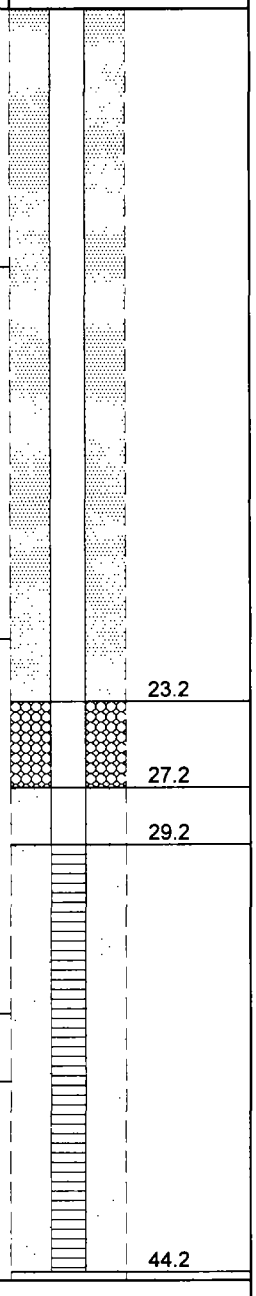
File No.: 79022-058
Location:

Top of Protective Casing: ft.
Top of Riser: ft.
Ground Surface: ft.
Survey Datum:

SUMMARY OF SOIL/ROCK CONDITIONS

-OVERBURDEN-
9.0
-UPPER BRASSFIELD-
22.0
-LOWER BRASSFIELD-
35.1
-BELFAST TRANSITION ZONE-
37.5
-ELKHORN SHALE-
44.5

SUMMARY OF WELL CONSTRUCTION MATERIALS



(NOT TO SCALE)
(NUMBERS REFER TO DEPTH FROM GROUND SURFACE IN FEET)

REMARKS:

SUMMARY OF WELL INSTALLATION SPECIFICATIONS

BOREHOLE		
Diameter:	5.25	in.
SURFACE COMPLETION		
Type:	Flush Manhole	
Top (DBGS):	0.0	ft.
PROTECTIVE CASING		
Type:	Roadway box	
Diameter:	-	in.
Top (DBGS):	0.0	ft.
Length:	1.0	ft.
SURFACE SEAL		
Type:	NA	
Top:	NA	ft.
Length:	NA	ft.
RISER		
Type:	PVC	
Diameter:	2.0	in.
Top (DBGS)	0.3	ft.
Length:	28.9	ft.
Coupling Type:	Threaded	
RISER BACKFILL		
Type:	Cement-Bentonite Grout	
Top:	0.0	ft.
Length:	23.2	ft.
SANDPACK SEAL		
Type:	Bentonite	
Top:	24.2	ft.
Length:	3.0	ft.
SANDPACK		
Type:	# 4 Silica Sand	
Top:	27.2	ft.
Length:	17.0	ft.
SCREEN		
Type:	Stainless Steel	
Diameter:	2.0	in.
Slot Size:	# 10 Slot	in.
Top (DBGS):	29.2	ft.
Length:	15.0	ft.
SUMP		
Type:	NA	
Top:	NA	ft.
Length:	NA	ft.
LOWER SEAL		
Type:	NA	
Top:	NA	ft.
Length:	NA	ft.
BACKFILL		
Type:	NA	
Top:	NA	ft.
Length:	NA	ft.
BOTTOM OF BOREHOLE:	44.5	ft.

DBGS - Depth Below Ground Surface

Well No. MW-453D

Attachment B
Water Level Measurements

MONTHLY GROUNDWATER ELEVATION DATA
TOP OF ROCK AND BEDROCK MONITORING WELLS, OCTOBER 2002
DELPHI CORPORATION - VANDALIA, OHIO FACILTIY

Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S				988.52	988.04	NA	
MW-101D	10/23/02	10:26	62.28	988.43	988.24	925.96	
MW-204S				994.87	993.94	NA	
MW-204D	10/23/02	10:38	50.08	994.64	994.26	944.18	
MW-301S				971.08	971.03	NA	
MW-301D	10/23/02	9:46	58.82	970.95	970.39	911.57	910.91' @ 12:46
MW-401S				975.17	974.73	NA	
MW-401D	10/23/02	10:03	62.92	974.79	974.57	911.65	
MW-402S				967.05	966.62	NA	
MW-402D	10/23/02	11:05	51.05	966.42	966.36	915.31	
MW-403S				976.96	976.61	NA	
MW-403D	10/23/02	11:17	53.85	977.82	977.36	923.51	
MW-404S				989.70	989.50	NA	
MW-404D	10/23/02	10:31	60.73	989.27	988.83	928.10	
MW-405S				983.04	982.47	NA	
MW-405D	10/23/02	10:48	57.25	983.12	982.45	925.20	
MW-407S				952.99	952.99	NA	
MW-407D	10/23/02	12:12	46.83	953.24	956.24	909.41	
MW-408D	10/23/02	12:17	46.77	955.00	957.07	910.30	
MW-409D	10/23/02	12:35	32.65	942.50	942.49	909.84	
MW-410D	10/23/02	12:25	38.54	945.20	947.63	909.09	
MW-411D	10/23/02	11:13	37.82	940.50	943.43	905.61	
MW-412D	10/23/02	11:22	42.47	947.00	949.64	907.17	
MW-413D	10/23/02	11:00	58.94	970.24	969.99	911.05	
MW-414D	10/23/02	9:58	60.13	972.00	971.78	911.65	
MW-415S				977.80	977.85	NA	
MW-416D	10/23/02	9:46	54.30	966.00	965.84	911.54	
MW-417D	10/23/02	11:27	53.99	965.10	964.96	910.97	
MW-418D	10/23/02	12:02	54.13	965.40	965.07	910.94	
MW-419M	10/23/02	11:48	55.90	965.00	967.50	911.60	
MW-419D	10/23/02	11:46	57.85	964.70	967.40	909.55	
MW-420M	10/23/02	11:39	52.79	962.50	964.85	912.06	
MW-420D	10/23/02	11:37	55.97	962.50	965.26	909.29	
MW-421D	10/23/02	11:31	47.17	958.80	958.50	911.33	
MW-422S				981.70	981.30	NA	
MW-422D	10/23/02	10:16	61.58	981.50	980.97	919.39	
MW-423S				979.30	978.96	NA	
MW-424S				980.20	980.06	NA	
MW-424D	10/23/02	10:21	60.67	980.04	979.74	919.07	
MW-425S				976.50	976.09	NA	
MW-426S				966.50	966.24	NA	
MW-427S				976.10	978.34	NA	
MW-428S				985.75	985.43	NA	
MW-429S				985.45	985.08	NA	
MW-430S				985.19	984.87	NA	
MW-431S				982.76	982.46	NA	
MW-432M	10/23/02	10:26	26.71	975.20	974.90	948.19	
MW-432D	10/23/02	10:22	67.04	974.80	974.5	907.46	
MW-433D	10/23/02	12:01	61.45	970.84	970.43	908.98	
MW-434D	10/23/02	12:24	55.74	965.54	965.33	909.59	
MW-435D	10/23/02	12:10	47.45	956.22	955.91	908.46	
MW-436D	10/23/02	12:05	53.96	962.67	962.37	908.41	
MW-437D	10/23/02	12:53	39.19	948.66	948.38	909.19	
MW-438D	10/23/02	10:43	64.11	972.95	972.59	908.48	
MW-439D	10/23/02	11:51	45.82	955.98	955.58	909.76	
MW-440D	10/23/02	12:40	26.94	937.10	936.70	909.76	
MW-441D	10/23/02	10:33	66.98	974.97	974.38	907.40	
MW-442D	10/23/02	10:09	65.96	976.08	975.68	909.72	
MW-443D	10/23/02	10:00	69.63	980.29	979.72	910.09	
MW-444D	10/23/02	11:36	24.88	934.78	934.18	909.30	
MW-445S				976.51	976.07	NA	
MW-446S				973.47	975.73	NA	
MW-447D	10/23/02	10:53	59.86	966.07	965.84	905.98	
MW-448D	10/23/02	11:43	24.03	935.58	935.38	911.35	
MW-449D	10/23/02	10:49	60.79	970.79	970.44	909.65	
MW-450D	10/23/02	11:04	19.31	910.72	910.51	891.20	
CSX-18D	10/23/02	11:23	53.66	961.95	964.96	911.30	

MONTHLY GROUNDWATER ELEVATION DATA
TOP OF ROCK AND BEDROCK MONITORING WELLS, NOVEMBER 2002
DELPHI CORPORATION - VANDALIA, OHIO FACILTIY

Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S	11/27/02	12:08	6.82	988.52	988.04	981.22	
MW-101D	11/27/02	12:02	59.71	988.43	988.24	928.53	
MW-204S	11/27/02	12:18	16.93	994.87	993.94	977.01	
MW-204D	11/27/02	13:16	47.48	994.64	994.26	946.78	
MW-301S	11/27/02	10:57	5.51	971.08	971.03	965.52	
MW-301D	11/27/02	10:55	55.41	970.95	970.39	914.98	914.96' @ 15:13
MW-401S	11/27/02	14:44	16.18	975.17	974.73	958.55	
MW-401D	11/27/02	14:47	60.19	974.79	974.57	914.38	
MW-402S	11/27/02	13:02	14.22	967.05	966.62	952.40	
MW-402D	11/27/02	13:06	47.91	966.42	966.36	918.45	
MW-403S	11/27/02	12:47	7.88	976.96	976.61	968.73	
MW-403D	11/27/02	12:49	51.31	977.82	977.36	926.05	
MW-404S	11/27/02	12:20	7.97	989.70	989.50	981.53	
MW-404D	11/27/02	12:18	58.29	989.27	988.83	930.54	
MW-405S	11/27/02	13:33	6.36	983.04	982.47	976.11	
MW-405D	11/27/02			983.12	982.45	NA	Not accessible.
MW-407S	11/27/02	14:07	6.55	952.99	952.99	946.44	
MW-407D	11/27/02	14:05	43.16	953.24	956.24	913.08	
MW-408D	11/27/02	14:11	44.15	955.00	957.07	912.92	
MW-409D	11/27/02	14:31	30.47	942.50	942.49	912.02	
MW-410D	11/27/02	14:20	35.73	945.20	947.63	911.90	
MW-411D	11/27/02			940.50	943.43	NA	Not accessible.
MW-412D	11/27/02			947.00	949.64	NA	Not accessible.
MW-413D	11/27/02	12:56	55.43	970.24	969.99	914.56	
MW-414D	11/27/02	14:45	57.41	972.00	971.78	914.37	
MW-415S	11/27/02	12:26	6.94	977.80	977.85	970.91	
MW-416D	11/27/02	10:38	50.90	966.00	965.84	914.94	
MW-417D	11/27/02	14:10	50.59	965.10	964.96	914.37	
MW-418D	11/27/02	14:30	50.69	965.40	965.07	914.38	
MW-419M	11/27/02	13:46	53.26	965.00	967.50	914.24	
MW-419D	11/27/02	13:48	53.73	964.70	967.40	913.67	
MW-420M	11/27/02	13:40	50.87	962.50	964.85	913.98	
MW-420D	11/27/02	13:42	50.90	962.50	965.26	914.36	
MW-421D	11/27/02			958.80	958.50	NA	Not accessible.
MW-422S	11/27/02	11:11	9.08	981.70	981.30	972.22	
MW-422D	11/27/02	11:12	58.78	981.50	980.97	922.19	
MW-423S	11/27/02	11:54	7.42	979.30	978.96	971.54	
MW-424S	11/27/02	11:44	23.33	980.20	980.06	956.73	
MW-424D	11/27/02	11:46	57.91	980.04	979.74	921.83	
MW-425S	11/27/02	14:51	6.30	976.50	976.09	969.79	
MW-426S	11/27/02	13:13	2.50	966.50	966.24	963.74	
MW-427S	11/27/02	12:43	10.13	976.10	978.34	968.21	
MW-428S	11/27/02			985.75	985.43	NA	Not accessible.
MW-429S	11/27/02	11:34	7.74	985.45	985.08	977.34	
MW-430S	11/27/02	11:28	7.35	985.19	984.87	977.52	
MW-431S	11/27/02	11:57	7.00	982.76	982.46	975.46	
MW-432M	11/27/02	11:18	25.51	975.20	974.90	949.39	
MW-432D	11/27/02	11:16	60.13	974.80	974.5	914.37	
MW-433D	11/27/02	13:30	57.17	970.84	970.43	913.26	
MW-434D	11/27/02	13:20	52.19	965.54	965.33	913.14	
MW-435D	11/27/02	13:15	42.60	956.22	955.91	913.31	
MW-436D	11/27/02	13:25	49.13	962.67	962.37	913.24	
MW-437D	11/27/02	13:08	35.71	948.66	948.38	912.67	
MW-438D	11/27/02	11:34	59.97	972.95	972.59	912.62	
MW-439D	11/27/02	12:53	41.86	955.98	955.58	913.72	
MW-440D	11/27/02	13:02	23.80	937.10	936.70	912.90	
MW-441D	11/27/02	11:27	62.74	974.97	974.38	911.64	
MW-442D	11/27/02			976.08	975.68	NA	Not accessible.
MW-443D	11/27/02	10:53	65.06	980.29	979.72	914.66	
MW-444D	11/27/02	12:01	23.22	934.78	934.18	910.96	
MW-445S	11/27/02	12:37	7.76	976.51	976.07	968.31	
MW-446S	11/27/02	12:39	9.19	973.47	975.73	966.54	
MW-447D	11/27/02	11:45	52.47	966.07	965.84	913.37	
MW-448D	11/27/02	11:55	22.36	935.58	935.38	913.02	
MW-449D	11/27/02	11:39	56.99	970.79	970.44	913.45	
MW-450D	11/27/02	12:08	18.36	910.72	910.51	892.15	
CSX-18D	11/27/02	13:50	50.00	961.95	964.96	914.96	

MONTHLY GROUNDWATER ELEVATION DATA
TOP OF ROCK AND BEDROCK MONITORING WELLS, DECEMBER 2002
DELPHI CORPORATION - VANDALIA, OHIO FACILTIY

Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S	12/05/02	12:40	7.02	988.52	988.04	981.02	
MW-101D	12/05/02	12:37	55.21	988.43	988.24	933.03	
MW-204S	12/05/02	12:23	15.72	994.87	993.94	978.22	
MW-204D	12/05/02	12:22	44.40	994.64	994.26	949.86	
MW-301S	12/05/02	11:08	5.69	971.08	971.03	965.34	
MW-301D	12/05/02	11:07	50.19	970.95	970.39	920.20	
MW-401S	12/05/02	14:46	16.24	975.17	974.73	958.49	
MW-401D	12/05/02	14:47	54.99	974.79	974.57	919.58	
MW-402S	12/05/02	11:35	13.72	967.05	966.62	952.90	
MW-402D	12/05/02	11:36	42.33	966.42	966.36	924.03	
MW-403S	12/05/02	11:56	7.65	976.96	976.61	968.96	
MW-403D	12/05/02	11:55	45.91	977.82	977.36	931.45	
MW-404S	12/05/02	17:13	7.72	989.70	989.50	981.78	
MW-404D	12/05/02	12:12	53.75	989.27	988.83	935.08	
MW-405S	12/05/02			983.04	982.47	NA	Not accessible.
MW-405D	12/05/02			983.12	982.45	NA	Not accessible.
MW-407S	12/05/02	15:14	6.73	952.99	952.99	946.26	
MW-407D	12/05/02	15:12	38.09	953.24	956.24	918.15	
MW-408D	12/05/02	15:06	39.16	955.00	957.07	917.91	
MW-409D	12/05/02	14:17	23.87	942.50	942.49	918.62	
MW-410D	12/05/02	15:20	30.04	945.20	947.63	917.59	
MW-411D	12/05/02			940.50	943.43	NA	Not accessible.
MW-412D	12/05/02			947.00	949.64	NA	Not accessible.
MW-413D	12/05/02	11:40	49.56	970.24	969.99	920.43	
MW-414D	12/05/02	11:15	50.98	972.00	971.78	920.80	
MW-415S	12/05/02	12:01	6.98	977.80	977.85	970.87	
MW-416D	12/05/02	11:26	45.53	966.00	965.84	920.31	
MW-417D	12/05/02	13:03	44.80	965.10	964.96	920.16	
MW-418D	12/05/02	13:00	44.85	965.40	965.07	920.22	
MW-419M	12/05/02	14:03	46.63	965.00	967.50	920.87	
MW-419D	12/05/02	14:04	49.29	964.70	967.40	918.11	
MW-420M	12/05/02	13:56	43.33	962.50	964.85	921.52	
MW-420D	12/05/02	13:57	47.19	962.50	965.26	918.07	
MW-421D	12/05/02			958.80	958.50	NA	Not accessible.
MW-422S	12/05/02	13:15	9.23	981.70	981.30	972.07	
MW-422D	12/05/02	13:17	53.90	981.50	980.97	927.07	
MW-423S	12/05/02	12:51	7.57	979.30	978.96	971.39	
MW-424S	12/05/02	12:47	23.73	980.20	980.06	956.33	
MW-424D	12/05/02	12:46	52.78	980.04	979.74	926.96	
MW-425S	12/05/02	11:59	6.39	976.50	976.09	969.70	
MW-426S	12/05/02	11:43	2.08	966.50	966.24	964.16	
MW-427S	12/05/02	11:51	9.83	976.10	978.34	968.51	
MW-428S	12/05/02			985.75	985.43	NA	Not accessible.
MW-429S	12/05/02			985.45	985.08	NA	Not accessible.
MW-430S	12/05/02			985.19	984.87	NA	Not accessible.
MW-431S	12/05/02		6.89	982.76	982.46	975.57	
MW-432M	12/05/02	12:11	25.30	975.20	974.90	949.60	
MW-432D	12/05/02	12:10	55.34	974.80	974.5	919.16	
MW-433D	12/05/02	12:17	50.89	970.84	970.43	919.54	
MW-434D	12/05/02	12:25	45.88	965.54	965.33	919.45	
MW-435D	12/05/02	12:32	36.68	956.22	955.91	919.23	
MW-436D	12/05/02	12:21	42.71	962.67	962.37	919.66	
MW-437D	12/05/02	12:38	30.79	948.66	948.38	917.59	
MW-438D	12/05/02	13:26	54.39	972.95	972.59	918.20	
MW-439D	12/05/02	12:46	36.12	955.98	955.58	919.46	
MW-440D	12/05/02	12:43	17.87	937.10	936.70	918.83	
MW-441D	12/05/02	13:31	55.66	974.97	974.38	918.72	
MW-442D	12/05/02	12:01	56.02	976.08	975.68	919.66	
MW-443D	12/05/02	13:37	61.41	980.29	979.72	918.31	
MW-444D	12/05/02	12:59	17.15	934.78	934.18	917.03	
MW-445S	12/05/02	11:47	7.49	976.51	976.07	968.58	
MW-446S	12/05/02	11:48	9.02	973.47	975.73	966.71	
MW-447D	12/05/02	13:16	47.53	966.07	965.84	918.31	
MW-448D	12/05/02	12:52	17.02	935.58	935.38	918.36	
MW-449D	12/05/02	13:21	51.91	970.79	970.44	918.53	
MW-450D	12/05/02	13:06	18.19	910.72	910.51	892.32	
CSX-18D	12/05/02	14:39	45.03	961.95	964.96	919.93	

Attachment C
Data Usability Summary Reports

Data Usability Report (DUR)
Vandalia 4th Quarter – September/October 2002 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 2J01179

Analytical results for twenty (20) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), **National Functional Guidelines for Inorganic Data Review** (EPA PB94-963502), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A2J0100179	Lot No.: A2J020311	Lot No.: A2J020298
401D-093002-1350	442D-100102-0925	0763-100102-0003
419M-093002-1453	443D-100102-0940	416D-100102-1820
423S-093002-1600	439D-100102-1120	
0713-093002-0001	445S-100102-1120	
0713-093002-0002	415S-100102-1415	
432M-093002-1705	446S-100102-1415	
	0713-100102-0001	
	448D-100102-1625	
	447D-100102-1630	
	405D-100102-1515	
	0763-100102-0001	
	0763-100102-0002	

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Inductively Coupled Plasma Metals	SW846 6010B	6 month analysis
ICP-MS	SW846 6020	6 month analysis
Mercury in Liquid Waste	SW846 7470A	28 day analysis
Polychlorinated Biphenyls	SW846 8082	40 day post extraction
Semivolative Organic Compounds by GC/MS	SW846 8270C	40 day post extraction
Trace Inductively Coupled Plasma Metals	SW846 6010B	6 month analysis
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:

SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ ICP Interference Check Sample Performance
- ❑ ICP Serial Dilution Replicate Percent Difference
- ❑ Sample Data Reporting Format

- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standards for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date	Target Analyte, %RSD	Associated Samples	Corrective Action
11	8/8	Methylene chloride, 32.5% 2-Hexanone, 30.3%	401D-093002-1350 423S-093002-1600 0713-093002-0002 432M-093002-1705	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	10/4	Acetone, 25.2% Methyl tert-butyl ether, -25.5% 2-Butanone,-28.1% Carbon tetrachloride, 38.3% 4-Methyl-2-pentanone, -25.7% 2-Hexanone, -32.5% Dibromochloromethane, 30.5% 1,1,2,2-Tetrachloroethane, 36.8% Bromoform, 67.3% 1,2-Dibromo-3-chloropropane, -53.3% Cyclohexane, -25.9%	419M-093002-1453 0713-093002-0001	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

7	10/10	Acetone, 37.1% Methyl tert-butyl ether, -29.5% 2-Butanone, -30.5% 2-Hexanone, -35.1% Bromoform, 46.8% 1,2-Dibromo-3-chloropropane, -48.4%	443D-100102-0940 445S-100102-1120 446S-100102-1415 0713-100102-0001 0763-100102-0001	
10	10/4	Dichlorodifluoromethane, -26.1% Bromomethane, 26.8% Trichlorofluoromethane, -25.2% Cyclohexane, -30.2% Methylcyclohexane, -30.4%	442D-100102-0925 439D-100102-1120 415S-100102-1415 448D-100102-1625 447D-100102-1630 405D-100102-1515 0763-100102-0002 0763-100102-0003 416D-100102-1820	
11	10/2	Acetone, -40.1% 2-Hexanone, 31.6%	401D-093002-1350 423S-093002-1600 0713-093002-0002 432M-093002-1705	

During the analysis of semivolatile organic compounds (SW846 8270C), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
9	10/11	2,4-Dinitrophenol, 29.2% 4-Nitrophenol, -26.7% Dibenz(a,h)anthracene, -26.1%	405D-101101-1515	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
0713-093002-0001 (Trip Blank)	Acetone	14 µg/L	419M-093002-1453	140 µg/L
0713-093002-0002 (Equip. Blank)	Bromodichloromethane Chloroform	0.34 µg/L 0.97 µg/L	401D-093002-1350 423S-093002-1600 432M-093002-1705	1.7 µg/L 4.9 µg/L
0763-100102-0001 (Trip Blank)	Acetone	3.1 µg/L	443D-100102-0940 445S-100102-1120 446S-100102-1415 0763-100102-0001	31 µg/L
0763-100102-0002 (Trip Blank)	Bromoethane Methylene chloride	0.36 µg/L 0.62 µg/L	442D-100102-0925 439D-100102-1120 415S-100102-1415	1.8 µg/L 6.2 µg/L

			448D-100102-1625 447D-100102-1630 405D-100102-1515	
0763-100102-0003 (Equip. Blank)	Bromoethane Chloroform	0.32 µg/L 0.46 µg/L	416D-100102-1820	1.6 µg/L 2.3 µg/L
Method Blank 10/04, 23:46, (10)	Bromoethane	0.37 µg/L	0763-100102-0003 416D-100102-1820 442D-100102-0925 439D-100102-1120 415S-100102-1415 448D-100102-1625 447D-100102-1630 405D-100102-1515 0763-100102-0002	1.85 µg/L
Method Blank 10/11, 12:12, (9)	Bis(2-Ethylhexyl)phthalate	3.4 µg/L	405D-100102-1515	34 µg/L
Method Blank 10/11	Copper Manganese Zinc	0.0039 mg/L 0.0014 mg/L 0.018 mg/L	405D-100102-1515	0.039 mg/L 0.007 mg/L 0.18 mg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Methods 8260B, 8270C, and 8082 to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Methods 8260B and 8270C to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and – 50% of the corresponding CCV standard.

ICP Interference Check Sample Performance

The results of the ICP Interference Check Samples analyzed concurrently with the project samples were all within the acceptance criteria +/- 20% of true value as prescribed by USEPA guidance. No qualification of the data is recommended.

ICP Serial Dilution Replicate Percent Difference

No Form IX was included in this sample delivery group. The serial dilution was performed on a different SDG's sample from the same QC batch.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples. No corrective action is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 4th Quarter – October 2002 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 2J03290

Analytical results for twenty (24) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), **National Functional Guidelines for Inorganic Data Review** (EPA PB94-963502), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A2J030290	Lot No.: A2J050110	Lot No.: A2J050112
450D-100202-0935	419D-100303-0950	0840-100302-0005
444D-100202-0945	438D-100302-0950	
417D-100202-1135	0713-100302-0001	
433D-100202-1140	0713-100302-0002	
432D-100202-1510	420D-100302-1029	
422D-100202-1550	437D-100302-1150	
440D-100202-1655	441D-100302-1205	
0713-100202-0001	425S-100302-1341	
414D-100202-1705	0840-100302-0003	
0763-100202-0001	449D-100302-1455	
0713-100202-0002	418D-100302-1525	
	0840-100302-0004	

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Inductively Coupled Plasma Metals	SW846 6010B	6 month analysis
ICP-MS	SW846 6020	6 month analysis
Mercury in Liquid Waste	SW846 7470A	28 day analysis
Polychlorinated Biphenyls	SW846 8082	40 day post extraction
Semivolative Organic Compounds by GC/MS	SW846 8270C	40 day post extraction
Trace Inductively Coupled Plasma Metals	SW846 6010B	6 month analysis
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:

SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ ICP Interference Check Sample Performance
- ❑ ICP Serial Dilution Replicate Percent Difference
- ❑ Sample Data Reporting Format

- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD).

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	10/7	2-Butanone, -27.6% Carbon tetrachloride, 43.6% 2-Hexanone, -36.5% Dibromochloromethane, 35.7% 1,1,2,2-Tetrachloroethane, 39.6% Bromoform, 78.0% 1,2-Dibromo-3-chloropropane, -61.9%	450D-100202-0935 444D-100202-0945 417D-100202-1135 433D-100202-1140 432D-100202-1510 422D-100202-1550 440D-100202-1655 0713-100202-0001 414D-100202-1705 0763-100202-0001 0713-100202-0002	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.
7	10/8	Acetone, 39.2% Methyl tert-butyl ether, -29.7% 2-Butanone, -37.0% Carbon tetrachloride, 34.3% 4-Methyl-2-pentanone, -30.5% 2-Hexanone, -43.1% Dibromochloromethane, 27.9% 1,1,2,2-Tetrachloroethane, 31.3% Bromoform, 65.5% 1,2-Dibromo-3-chloropropane, -51.0% Cyclohexane, -28.5%	419D-100303-0950 438D-100302-0950 0713-100302-0001 0713-100302-0002 420D-100302-1029 437D-100302-1150 441D-100302-1205 425S-100302-1341 449D-100302-1455 418D-100302-1525 0840-100302-0004 0840-100302-0005	

7	10/9	Methyl tert-butyl ether, -26.5% Carbon tetrachloride, 37.5% Dibromochloromethane, 29.8% 1,1,2,2-Tetrachloroethane, 33.4% Bromoform, 66.7% 1,2-Dibromo-3-chloropropane, -54.2%	0840-100302-0003	

During the analysis of semivolatile organic compounds (SW846 8270C), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	10/11	Indeno(1,2,3-cd)pyrene, 25.1% Benzo(g,h,i)perylene, 25.5%	422D-100202-1550 414D-100202-1705	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
0762-100202-0001 (Trip Blank)	Acetone Trichloroethene	5.2 µg/L 0.33 µg/L	450D-100202-0935 444D-100202-0945 417D-100202-1135 433D-100202-1140 432D-100202-1510 422D-100202-1550 440D-100202-1655 0713-100202-0001 414D-100202-1705	52 µg/L 1.65 µg/L
0713-100202-0002 (Equip. Blank)	Bromodichloromethane Dibromochloromethane Chloroform	0.29 µg/L 0.27 µg/L 0.58 µg/L	450D-100202-0935 444D-100202-0945 417D-100202-1135 433D-100202-1140 432D-100202-1510 422D-100202-1550 440D-100202-1655 0713-100202-0001 414D-100202-1705	1.5 µg/L 1.4 µg/L 2.9 µg/L
0840-100302-0003 (Trip Blank)	Acetone 2-Butanone	1.8 µg/L 1.7 µg/L	419D-100303-0950 438D-100302-0950 0713-100302-0001 0713-100302-0002 420D-100302-1029 437D-100302-1150 441D-100302-1205	18 µg/L 17 µg/L

			425S-100302-1341 449D-100302-1455 418D-100302-1525 0840-100302-0004	
0840-100302-0005 (Equip. Blank)	Chloroform Toluene	0.36 µg/L 0.21 µg/L	419D-100303-0950 438D-100302-0950 0713-100302-0001 0713-100302-0002 420D-100302-1029 437D-100302-1150 441D-100302-1205 425S-100302-1341 449D-100302-1455 418D-100302-1525 0840-100302-0004	1.8 µg/L 1.1 µg/L
Method Blank 10/08, 09:46, (7)	1,2,4-Trichlorobenzene	0.25 µg/L	419D-100303-0950 438D-100302-0950 0713-100302-0001 0713-100302-0002 420D-100302-1029 437D-100302-1150 441D-100302-1205 425S-100302-1341 449D-100302-1455 418D-100302-1525 0840-100302-0004	1.25 µg/L
Method Blank 10/12	Cadmium Copper	0.0005 mg/L 0.0033 mg/L	414D-100202-1705 422D-100202-1550	0.0025 mg/L 0.033 mg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Methods 8260B, 8270C, and 8082 to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Methods 8260B and 8270C to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and – 50% of the corresponding CCV standard.

ICP Interference Check Sample Performance

The results of the ICP Interference Check Samples analyzed concurrently with the project samples were all within the acceptance criteria +/- 20% of true value as prescribed by USEPA guidance. No qualification of the data is recommended.

ICP Serial Dilution Replicate Percent Difference

No Form IX was included in this sample delivery group. The serial dilution was performed on a different SDG's sample from the same QC batch.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples. No corrective action is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 4th Quarter – October 2002 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 2J05176

Analytical results for twenty (20) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), **National Functional Guidelines for Inorganic Data Review** (EPA PB94-963502), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A2J050176	Lot No.: A2J080269	Lot No.: A2J090249
434D-100402-0935	421D-100702-1155	CSX18D-100802-1020
413D-100402-0945	420M-100702-1200	424D-100802-1025
436D-100402-1115	301D-100702-1450	409D-100802-1245
0840-100402-0001	0763-100702-0001	424S-100802-1240
0840-100402-0002	0763-100702-0002	0741-100802-0002
		435D-100802-1510
		0741-100802-0001
		0741-100802-0003
		428S-100802-1645
		0763-100802-0001

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Inductively Coupled Plasma Metals	SW846 6010B	6 month analysis
ICP-MS	SW846 6020	6 month analysis
Mercury in Liquid Waste	SW846 7470A	28 day analysis
Polychlorinated Biphenyls	SW846 8082	40 day post extraction
Semivolative Organic Compounds by GC/MS	SW846 8270C	40 day post extraction
Trace Inductively Coupled Plasma Metals	SW846 6010B	6 month analysis
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:

SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ ICP Interference Check Sample Performance
- ❑ ICP Serial Dilution Replicate Percent Difference
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group, with the following exception(s):

During the analysis of VOCs (EPA Method 8260B) the technical holding times were exceeded for project samples 421D-100702-1155, 0763-100702-0001, 0741-100802-0002, and 0741-100802-0003, therefore, positive results should be qualified with "J" and non-detects qualified "UJ".

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standards for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date	Target Analyte, %RSD	Associated Samples	Corrective Action
12	10/11	Acetone, 54.1%	0840-100402-0001 421D-100702-1155 0763-100702-0001 0741-100802-0002 0741-100802-0003	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	10/08	Acetone, 39.2% Methyl tert-butyl ether, -29.7% 2-Butanone, -37.0% Carbon tetrachloride, 34.3% 4-Methyl-2-pentanone, -30.5% 2-Hexanone, -43.1% Dibromochloromethane, 27.9% Bromoform, 65.5% 1,2-Dibromo-3-chloropropane, -44.4% Cyclohexane, -28.5%	434D-100402-0935 413D-100402-0945 436D-100402-1115 0840-100402-0002	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.
7	10/11	Carbon tetrachloride, 28.6% Bromoform, 41.1% 1,2-Dibromo-3-chloropropane, -44.4% Cyclohexane, -26.3%	420M-100702-1200 301D-100702-1450 0763-100702-0002 CSX18D-100802-1020 424D-100802-1025 409D-100802-1245 424S-100802-1240 435D-100802-1510 0741-100802-0001 428S-100802-1645 0763-100802-0001	
12	10/13	2-Hexanone, 25.4% Acetone, 68.7% 2-Butanone, 30.6%	0840-100402-0001	
12	10/14	Dichlorodifluoromethane, 36.4%	0763-100702-0001	
12	10/15	Dichlorodifluoromethane, 30.7%	421D-100702-1155	
12	10/16	Bromoform, 31.8% Dichlorodifluoromethane, 29.5%	0741-100802-0002 0741-100802-0003	

During the analysis of semivolatile organic compounds (SW846 8270C), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	10/11	Indeno(1,2,3-cd)pyrene, 25.1% Benzo(g,h,i)perylene, 25.5%	413D-100402-0945	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.
7	10/21	2,4-Dinitrophenol, 30.9% 4,6-Dinitro-2-methylphenol, 28.4%	424S-100802-1240 428S-100802-1645	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
0840-100402-0001	Acetone	25 µg/L	434D-100402-0935	250 µg/L

(Trip Blank)	Methylene chloride	0.62 µg/L	413D-100402-0945 436D-100402-1115	6.2 µg/L
0840-100402-0002 (Equip. Blank)	Chloroform	0.30 µg/L	434D-100402-0935 413D-100402-0945 436D-100402-1115	1.5 µg/L
0763-100702-0001 (Trip Blank)	Acetone Methylene chloride	27 µg/L 0.58 µg/L	421D-100702-1155 420M-100702-1200 301D-100702-1450	270 µg/L 5.8 µg/L
0763-100702-0002 (Equip. Blank)	Bromodichloromethane Chloroform	0.23 µg/L 0.54 µg/L	421D-100702-1155 420M-100702-1200 301D-100702-1450	1.2 µg/L 2.7 µg/L
0741-100802-0002 (Trip Blank)	Methylene chloride	1.1 µg/L	CSX18D-100802-1020 424D-100802-1025 409D-100802-1245 424S-100802-1240	11 µg/L
0741-100802-0003 (Trip Blank)	Methylene chloride	1.1 µg/L	435D-100802-1510 428S-100802-1645 0741-100802-0001	11 µg/L
0763-100802-0001 (Equip. Blank)	Bromodichloromethane Chloroform Trichloroethene	0.27 µg/L 0.58 µg/L 0.59 µg/L	CSX18D-100802-1020 424D-100802-1025 409D-100802-1245 424S-100802-1240 435D-100802-1510 0741-100802-0001 428S-100802-1645	1.4 µg/L 2.9 µg/L 2.9 µg/L
Method Blank 10/08, 09:46, (7)	1,2,4-Trichlorobenzene	0.25 µg/L	434D-100402-0935 413D-100402-0945 436D-100402-1115 0840-100402-0002	1.25 µg/L
Method Blank 10/11, 09:58, (7)	1,2,4-Trichlorobenzene	0.25 µg/L	CSX18D-100802-1020 424D-100802-1025 409D-100802-1245 424S-100802-1240 435D-100802-1510 0741-100802-0001 428S-100802-1645 0763-100802-0001	1.25 µg/L
Method Blank 10/13, 18:45, (12)	Methylene chloride	0.35 µg/L	0840-100402-0001	3.5 µg/L
Method Blank 10/16, 17:58, (12)	Methylene chloride	0.46 µg/L	0741-100802-0003	4.6 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Methods 8260B, 8270C, and 8082 to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the

instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Methods 8260B and 8270C to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and – 50% of the corresponding CCV standard, with the following exception(s):

During the analysis of SVOCs (EPA Method 8270C) the internal standard areas for Chrysene-d12 (6.2) and Perylene-d12 (6.9%) were extremely low for project sample 424S-100802-1240, which indicates a severe loss of sensitivity for those compounds quantitated using those internal standards. Positive results should be qualified as estimated (J) and non-detects qualified as unusable (R) for the following compounds: Pyrene, Butylbenzylphthalate, 3,3'Dichlorobenzidine, Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)phthalate, Di-n-octylphthalate, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(g,h,i)perylene.

ICP Interference Check Sample Performance

The results of the ICP Interference Check Samples analyzed concurrently with the project samples were all within the acceptance criteria +/- 20% of true value as prescribed by USEPA guidance. No qualification of the data is recommended.

ICP Serial Dilution Replicate Percent Difference

The results of the serial dilution were in accordance with the EPA QA acceptance criteria of less than 10% RPD.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples. No corrective action is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 4th Quarter – September/October 2002 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 2J10388

Analytical results for nineteen (19) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), **National Functional Guidelines for Inorganic Data Review** (EPA PB94-963502), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A2J100388	Lot No.: A2J110353
411D-100902-1045	410D-101002-0955
0763-100902-0001	0840-101002-0001
407D-100902-1118	412D-101002-1000
408D-100902-1408	SW5-101002-1300
422S-100902-1425	SW6-101002-1245
0763-100902-0002	SW7-101002-1235
	CSX22-101002-1315
	0763-101002-0002
	0763-101002-0003
	SW1-101002-1412
	SW2-101002-1450
	SW3-101002-1430
	SW4-101002-1445

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Inductively Coupled Plasma Metals	SW846 6010B	6 month analysis
ICP-MS	SW846 6020	6 month analysis
Mercury in Liquid Waste	SW846 7470A	28 day analysis
Polychlorinated Biphenyls	SW846 8082	40 day post extraction
Semivolative Organic Compounds by GC/MS	SW846 8270C	40 day post extraction
Trace Inductively Coupled Plasma Metals	SW846 6010B	6 month analysis
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ ICP Interference Check Sample Performance
- ❑ ICP Serial Dilution Replicate Percent Difference
- ❑ Sample Data Reporting Format

- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group, with the following exception(s):

During the analysis of SVOCs (EPA Method 8270C) project sample 422S-100902-1425 was re-extracted and re-analyzed due to surrogate/spike recoveries and/or RPDs outside the acceptance limits in the associated check samples. All QC criteria were met after re-extraction and re-analysis, however the holding time was exceeded. As a result, all positive results for sample 422S-100902-1425 should be qualified as estimated (J) and non-detect results qualified (UJ).

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standards for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date	Target Analyte, %RSD	Associated Samples	Corrective Action
12	7/17	Acetone, 54.1%	0763-100902-0001	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	10/14 09:22	Trichlorofluoromethane, 25.6% Methyl tert-butyl ether, -27.4% Carbon tetrachloride, 39.1% 1,1,2,2-Tetrachloroethane, 30.0% Bromoform, 46.1% 1,2-Dibromo-3-chloropropane, 47.0% Cyclohexane, -25.2%	410D-101002-0955	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.
7	10/14 19:39	Carbon tetrachloride, 37.1% Dibromochloromethane, 29.7% 1,1,2,2-Tetrachloroethane, 32.2% Bromoform, 57.3% 1,2-Dibromo-3-chloropropane, -60.0% Cyclohexane, -28.8%	412D-101002-1000	
7	10/15 07:53	Carbon tetrachloride, 49.5% Dibromochloromethane, 29.6% 1,1,2,2-Tetrachloroethane, 34.0% Bromoform, 43.5% 1,2-Dibromo-3-chloropropane, -53.7%	CSX22-101002-1315 0763-101002-0002 0763-101002-0003	
10	10/14 21:48	Dichlorodifluoromethane, -28.2% Acetone, 34.6% Methylcyclohexane, -25.3%	0763-100902-0002	
10	10/15 09:51	Chloromethane, -31.2% Acetone, 32.3%	411D-100902-1045 407D-100902-1118 408D-100902-1408 422S-100902-1425	
11	10/17 21:29	Acetone, 40.4% 2-Butanone, -28.3% 2-Hexanone, 40.1%	0840-101002-0001 SW5-101002-1300 SW6-101002-1245 SW7-101002-1235 SW1-101002-1412 SW2-101002-1450 SW3-101002-1430 SW4-101002-1445	
12	10/16 16:26	Dichlorodifluoromethane, 29.5% Bromoform, -31.8%	0763-100902-0001	

During the analysis of semivolatile organic compounds (SW846 8270C), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	11/07	Bis(2-ethylhexyl)phthalate	422S-100902-1425 Re-analysis	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target

compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
0763-100902-0001 (Trip Blank)	Acetone Methylene chloride	24 µg/L 0.56 µg/L	411D-100902-1045 407D-100902-1118 408D-100902-1408 422S-100902-1425	240 µg/L 5.6 µg/L
0763-100902-0002 (Equip. Blank)	Chloroform	0.49 µg/L	411D-100902-1045 407D-100902-1118 408D-100902-1408 422S-100902-1425	2.5 µg/L
0840-101002-0001 (Trip Blank)	Acetone Methylene chloride	17 µg/L 0.75 µg/L	410D-101002-0955 412D-101002-1000 SW5-101002-1300 SW6-101002-1245 SW7-101002-1235 CSX22-101002-1315 0763-101002-0002 SW1-101002-1412 SW2-101002-1450 SW3-101002-1430	170 µg/L 7.5 µg/L
0763-101002-0003 (Equip. Blank)	Chloroform Bromodichloromethane	0.58 µg/L 0.25 µg/L	410D-101002-0955 412D-101002-1000 SW5-101002-1300 SW6-101002-1245 SW7-101002-1235 CSX22-101002-1315 0763-101002-0002 SW1-101002-1412 SW2-101002-1450 SW3-101002-1430	2.9 µg/L 1.3 µg/L
Method Blank 10/14, 10:28, (7)	Methylene chloride	0.58 µg/L	410D-101002-0955	5.8 µg/L
Method Blank 10/16, 17:58 (12)	Methylene chloride	0.46 µg/L	0763-100902-0001	4.6 µg/L
Method Blank 10/18	Manganese	0.0009 mg/L	422S-100902-1425	0.0045 mg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Methods 8260B, 8270C, and 8082 to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria, with the following exception(s):

During the analysis of SVOCs (EPA Method 8270C), the spiked analyte recovery for 4-Nitrophenol in the LCS was below QC limits and the RPD for 4-Nitrophenol was above QC limits. Positive results for 4-Nitrophenol in project sample 422S-100902-1425 should be qualified as estimated (J) and non-detects should be rejected (R).

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Methods 8260B and 8270C to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and – 50% of the corresponding CCV standard.

ICP Interference Check Sample Performance

The results of the ICP Interference Check Samples analyzed concurrently with the project samples were all within the acceptance criteria +/- 20% of true value as prescribed by USEPA guidance. No qualification of the data is recommended.

ICP Serial Dilution Replicate Percent Difference

No Form IX was included in this sample delivery group. The serial dilution was performed on a different SDG's sample from the same QC batch.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples. No corrective action is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 4th Quarter – October 2002 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 2J29232

Analytical results for five (5) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506) and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A2J290232
715-102602-1042
716-102602-1300
513-102502-1550
0816-102602-0001
0816-102602-0002

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:

SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD).

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	10/31	Acetone, 31.5% 2-Butanone, -29.1% 2-Hexanone, -35.4% 1,2,4-Trichlorobenzene, -26.3%	715-102602-1042 716-102602-1300 513-102502-1550 0816-102602-0001 0816-102602-0002	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
0816-102602-0001 (Trip Blank)	Acetone Methylene chloride	3.3 µg/L 0.95 µg/L	715-102602-1042 716-102602-1300 513-102502-1550	33 µg/L 9.5 µg/L
0816-102602-0002 (Equip. Blank)	Chloroform Trichloroethene	0.47 µg/L 0.19 µg/L	715-102602-1042 716-102602-1300 513-102502-1550	2.4 µg/L 0.95 µg/L
Method Blank 10/31, 10:52, (7)	Acetone	1.2 µg/L	715-102602-1042 716-102602-1300 513-102502-1550 0816-102602-0001 0816-102602-0002	12 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve

instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 4th Quarter – October 2002 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # A2J190209

Analytical results for six (6) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506) and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A2J190209
501-101802-1142
502-101802-1305
503-101802-1437
0840-101802-0001
514-101802-1553
0840-101802-0002

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:

SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD).

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
11	10/22	Acetone, 30.9% 2-Hexanone, 36.0%	501-101802-1142 502-101802-1305 503-101802-1437 0840-101802-0001 514-101802-1553 0840-101802-0002	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
0840-101802-0001 (Trip Blank)	Methylene chloride	1.4 µg/L	501-101802-1142 502-101802-1305 503-101802-1437 514-101802-1553	14 µg/L
0840-101802-0002 (Equip. Blank)	Chloroform Bromodichloromethane	0.69 µg/L 0.22 µg/L	501-101802-1142 502-101802-1305 503-101802-1437 514-101802-1553	3.5 µg/L 1.1 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported

results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 4th Quarter Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # A2K270254

Analytical results for one (1) water sample were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506) and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following sample:

Lot No.: A2K270254
451D-112602-1605

Project sample was analyzed according to the following analytical method:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS	SW846 8260B	14 day analysis

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD).

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
10	12/05	Acetone, 50.7% Bromoethane, -39.1% 2-Butanone, -40.5% 2-Hexanone, -38.6%	451D-112602-1605	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Method Blank 12/05, 15:52, (10)	Bromoethane Methylene chloride	0.46 µg/L 0.31 µg/L	451D-112602-1605	2.3 µg/L 3.1 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm

the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 4th Quarter Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # A2L030179

Analytical results for two (2) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506) and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A2L030179
453D-120202-1310
0840-120202-0001

Project samples were analyzed according to the following analytical method:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS	SW846 8260B	14 day analysis

References:

SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD).

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	12/09	Bromoform, 30.5% 2-Hexanone, -31.3% 1,2,4-Trichlorobenzene, -25.4	453D-120202-1310 0840-120202-0001	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
0840-120202-0001 (Trip Blank)	Methylene chloride	1.1 µg/L	453D-120202-1310	11.0 µg/L
Method Blank 12/09, 09:43, (7)	Methylene chloride	0.36 µg/L	453D-120202-1310 0840-120202-0001	3.6 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Useability Summary Report
Vandalia Groundwater Migration Control - Fourth Quarter 2002 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. - Dayton, Ohio
Job Numbers: 02.20196 and 02.22951

Analytical results for four (4) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable.

This report pertains to the samples collected on 10/3/02 and 11/8/2002.

RW-10/03	RW-11/08
Eff-10/03	Eff-11/08

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
pH (Lab-OH)	EPA 150.1	14 days
Solids, Total Dissolved	EPA 160.1	7 days
Total Organic Carbon (TOC)	SM 5310 C	28 days
Volatile Organic Compounds	EPA 624	14 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field/Method/Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound/Surrogate Compound Recoveries
- Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times measured from the time of sample collection to the time of sample preparation or analysis were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank and trip blank samples prepared and analyzed concurrently with the project samples with the following exception.

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Method Blank	Total Organic Carbon	0.5 ppm	RW-11/08 Eff-11/08	2.5 ppm

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method specific criteria.

Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control (LCS) and matrix spike/matrix spike duplicate (MS/MSD) sample analyses performed concurrently with the project samples. For MS/MSD, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. Results indicate that the relative percent difference between the MS/MSD and LCS were within statistical advisory limit. No corrective action is recommended.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Groundwater Migration Control - Fourth Quarter 2002 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. - Dayton, Ohio
Job Number: 02.24938

Analytical results for two (2) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable.

This report pertains to the samples collected on 12/09/02.

RW-12/09
Eff-12/09

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
pH (Lab-OH)	EPA 150.1	14 days
Solids, Total Dissolved	EPA 160.1	7 days
Total Organic Carbon (TOC)	SM 5310 C	28 days
Volatile Organic Compounds	EPA 624	14 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field/Method/Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound/Surrogate Compound Recoveries
- Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times measured from the time of sample collection to the time of sample preparation or analysis were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank samples prepared and analyzed concurrently with the project samples. A trip blank sample was not included with this analysis.

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method specific criteria.

Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control (LCS) and matrix spike/matrix spike duplicate (MS/MSD) sample analyses performed concurrently with the project samples. For MS/MSD, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. Results indicate that the relative percent difference between the MS/MSD and LCS were within statistical advisory limit. No corrective action is recommended.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Water Use Survey - Fourth Quarter 2002 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. - Dayton, Ohio
Job Number: 02.20399

Analytical results for three (3) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable.

This report pertains to the samples collected on 07 October 2002.

10591 ENG-IN
10591 ENG-IN2
10591 ENG-OUT

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organic Compounds	EPA 524.2	14 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field/Method/Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound/Surrogate Compound Recoveries
- Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times measured from the time of sample collection to the time of sample preparation or analysis were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in the associated method blank sample prepared and analyzed concurrently with the project samples with the following exception:

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Method Blank	Dichloromethane	0.5 µg/L	10591 ENG-IN 10591 ENG-IN2 10591 ENG-OUT	2.5 µg/L

No trip blank sample was included with this analysis.

Continuing Calibration Procedures

Continuing instrument calibration percent recoveries for the target analytes fell within method specific criteria.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method specific criteria.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Water Use Survey - Fourth Quarter 2002 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. - Dayton, Ohio
Job Number: 02.21375

Analytical results for five (5) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable.

This report pertains to the samples collected on 18 October 2002.

10440 SOFT IN 1
10440 RO IN 2
10440 CRAWL
10440 OUT
Trip Blank

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organic Compounds	EPA 524.2	14 days

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field/Method/Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound/Surrogate Compound Recoveries
- Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times measured from the time of sample collection to the time of sample preparation or analysis were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank and trip blank samples prepared and analyzed concurrently with the project samples with the following exception.

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Method Blank	Dichloromethane	0.9 ppm	10440 SOFT IN 1 10440 RO IN 2 10440 CRAWL 10440 OUT Trip Blank	4.5 ppm

Continuing Calibration Procedures

Continuing instrument calibration percent recoveries for the target analytes fell within method specific criteria.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method specific criteria.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Water Use Survey 79022-062 Sampling Event – November 2002 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 02.23473

Analytical results for two (2) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable.

This report pertains to the following samples collected on 15 November 2002.

Lot No.: 02.23473
77 Ken Out
Trip Blank

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics	EPA 524.2	14 day analysis

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field/Method/Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound/Surrogate Compound Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times measured from the time of sample collection to the time of sample preparation or analysis were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank and trip blank samples prepared and analyzed concurrently with the project samples.

Instrument Calibration Procedures

Instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method specific criteria.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia DNAPL/ Sewer Investigation 79022-084 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 02.24379

Analytical results for three (3) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA 540/R-99/008), and method protocol criteria where applicable.

This report pertains to the following samples collected on 02 December 2002.

Lot No.: 02.24379
DNAPL Frac Tank
Sewer
N-19

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics	EPA 624	14 day analysis

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field/Method/Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound/Surrogate Compound Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times measured from the time of sample collection to the time of sample preparation or analysis were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank samples prepared and analyzed concurrently with the project samples. No trip blank sample was included with this SDG.

Instrument Calibration Procedures

Instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method specific criteria.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project; no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Attachment D
Groundwater Migration Control System
Monthly Discharge Reports

GROUNDWATER MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY NPDES DISCHARGE VOLUME - OCTOBER 2002

Date	Beginning Flow Meter Reading (gallons)	Ending Flow Meter Reading (gallons)	Total Daily Flow (gallons)
10/1/2002	43618496	43674377	55881
10/2/2002	43674377	43729945	55568
10/3/2002	43729945	43785312	55367
10/4/2002	43785312	43840208	54896
10/5/2002	43840208	43896087	55879
10/6/2002	43896087	43952187	56100
10/7/2002	43952187	44007873	55686
10/8/2002	44007873	44061617	53744
10/9/2002	44061617	44115761	54144
10/10/2002	44115761	44170892	55131
10/11/2002	44170892	44225305	54413
10/12/2002	44225305	44277565	52260
10/13/2002	44277565	44331471	53906
10/14/2002	44331471	44387385	55914
10/15/2002	44387385	44445084	57699
10/16/2002	44445084	44503743	58659
10/17/2002	44503743	44563971	60228
10/18/2002	44563971	44625165	61194
10/19/2002	44625165	44683780	58615
10/20/2002	44683780	44742046	58266
10/21/2002	44742046	44799507	57461
10/22/2002	44799507	44856292	56785
10/23/2002	44856292	44912622	56330
10/24/2002	44912622	44968041	55419
10/25/2002	44968041	45023165	55124
10/26/2002	45023165	45085419	62254
10/27/2002	45085419	45145371	59952
10/28/2002	45145371	45206965	61594
10/29/2002	45206965	45267064	60099
10/30/2002	45267064	45326875	59811
10/31/2002	45326875	45388226	61351
		Total Monthly Flow	1769730
		Average Daily Flow	57088

GROUNDWATER MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY NPDES DISCHARGE VOLUME - NOVEMBER 2002

Date	Beginning Flow Meter Reading (gallons)	Ending Flow Meter Reading (gallons)	Total Daily Flow (gallons)
11/1/2002	45388226	45448599	60373
11/2/2002	45448599	45511055	62456
11/3/2002	45511055	45575141	64086
11/4/2002	45575141	45639103	63962
11/5/2002	45639103	45703790	64687
11/6/2002	45703790	45768777	64987
11/7/2002	45768777	45836455	67678
11/8/2002	45836455	45902591	66136
11/9/2002	45902591	45970843	68252
11/10/2002	45970843	46037222	66379
11/11/2002	46037222	46106373	69151
11/12/2002	46106373	46175554	69181
11/13/2002	46175554	46244911	69357
11/14/2002	46244911	46314578	69667
11/15/2002	46314578	46384074	69496
11/16/2002	46384074	46452678	68604
11/17/2002	46452678	46517920	65242
11/18/2002	46517920	46584151	66231
11/19/2002	46584151	46650459	66308
11/20/2002	46650459	46714723	64264
11/21/2002	46714723	46778925	64202
11/22/2002	46778925	46843209	64284
11/23/2002	46843209	46907437	64228
11/24/2002	46907437	46972040	64603
11/25/2002	46972040	47038525	66485
11/26/2002	47038525	47103454	64929
11/27/2002	47103454	47167858	64404
11/28/2002	47167858	47236134	68276
11/29/2002	47236134	47304603	68469
11/30/2002	47304603	47374329	69726

Total Monthly Flow	1986103
Average Daily Flow	66203

GROUNDWATER MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY NPDES DISCHARGE VOLUME - DECEMBER 2002

Date	Beginning Flow Meter Reading (gallons)	Ending Flow Meter Reading (gallons)	Total Daily Flow (gallons)
12/1/2002	47374329	47443831	69502
12/2/2002	47443831	47516190	72359
12/3/2002	47516190	47586888	70698
12/4/2002	47586888	47658477	71589
12/5/2002	47658477	47727377	68900
12/6/2002	47727377	47795926	68549
12/7/2002	47795926	47864083	68157
12/8/2002	47864083	47932449	68366
12/9/2002	47932449	48000479	68030
12/10/2002	48000479	48067992	67513
12/11/2002	48067992	48134284	66292
12/12/2002	48134284	48199857	65573
12/13/2002	48199857	48266939	67082
12/14/2002	48266939	48330754	63815
12/15/2002	48330754	48396582	65828
12/16/2002	48396582	48460365	63783
12/17/2002	48460365	48522852	62487
12/18/2002	48522852	48585516	62664
12/19/2002	48585516	48648638	63122
12/20/2002	48648638	48716091	67453
12/21/2002	48716091	48784275	68184
12/22/2002	48784275	48853160	68885
12/23/2002	48853160	48900520	47360
12/24/2002	48900520	48971557	71037
12/25/2002	48971557	49043861	72304
12/26/2002	49043861	49116192	72331
12/27/2002	49116192	49188343	72151
12/28/2002	49188343	49261081	72738
12/29/2002	49261081	49285696	24615
12/30/2002	49285696	49331307	45611
12/31/2002	49331307	49404621	73314
		Total Monthly Flow	2030292
		Average Daily Flow	65493

Attachment E
Groundwater Migration Control System
Activity Log

Vandalia Treatment System 79022-054
Activity Log

Date	Time on site	Time left site	H&A personnel	Activities while on-site
10-1-02	10:00	10:45	T.V.	Weekly Treatment Check / CFM 1000+
10-7-02	9:15	10:45	T.V	Weekly Treatment Check / CFM 1000+
10-17-02	16:23	17:30	TV	Weekly Treatment Check / CFM 1000+
10/23/02	10:30	12:05	DJBe	Clean-up, CFM @ 1000+
10/23/02	4:30	16:55	TV	Weekly Treatment check / CFM 1000+
10/25/02	11:40	14:00	DJBe/TV	Adjust Recovery Well Pump, CFM @ 1000+, Increased Pump to 95% Capacity, Received Drewsperse Del
11/01/02	11:45	12:30	TV	Weekly Treatment Check / CFM 1000+
11-07-02	15:00	15:35	TV	Weekly Treatment Check / CFM 1000+ -/- Plug leaking pipe
11/08/02	10:45	11:50	DJBe	Collect Monthly Samples - CFM @ 1000+
11/13/02	11:50	12:10	DJBe	Change Drewsperse, CFM @ 1000+
11-14-02	14:25	15:00	TV	Weekly Treatment Check CFM @
11/21/02	12:45	12:55	DJBe	Pick-up Sample Cans CFM @ 1000+
11-21-02	16:00	17:00	TV	Weekly Treatment Check CFM @ 950
11/27/02	13:45	14:00	DJBe	Treatment Inspection, CFM @ 1000+
12/02/02	16:05	16:25	DJBe	Check Drewsperse, CFM @ 1000+
12/05/02	14:00	14:30	DJBe	Weekly Inspection, CFM @ 1000+
12/06/02	13:45	14:05	DJBe	Check Drewsperse, CFM @ 1000+
12/09/02	13:50	15:05	DJBe	Collect Samples
12-09-02	14:15	15:20	T.V.	Weekly Inspection CFM 1000+
12/12/02	12:00	12:50	DJBe	Check Drewsperse, CFM @ 1000+
12/17/02	13:45	14:45	T.V.	Weekly Inspection & Change Drewsperse CFM 1000+
12/19/02	12:00	13:20	DJBe/TMV	Water Level Check, Check Drewsperse, CFM @ 1000+, Increase RW to 92%
12/20/02	15:30	15:45	DJBe	Water Level Check
12/23/02	12:00	17:00	TMV/DJBe	Weekly Inspection, System Down (Power Off), Set-up Heaters to Avoid Freezing

Vandalia Treatment System 79022-054
Activity Log

Date	Time on site	Time left site	H&A personnel	Activities while on-site
12-29-02	08:20	9:00	TMU	Check Alarm system shut down
1-2-02	11:45	15:00	TMU	Re develop MW 301

EPC 6 overflow

Attachment F
Groundwater Migration Control System
Shutdown Reports

DATE: 10/25/02

TIME: 12:20

BY: DJBe

SYSTEM NAME: Recovery Well SYSTEM COMPONENT: RW Pump

REASON FOR REPORT:

System Shutdown

REASON FOR SHUTDOWN: Recovery well Pump Controller Shut Pump Down. This occurred After RW Pump Capacity was increased to 95%

ACTION TAKEN:

Turned RW Pump Capacity down to 90%

SHUTDOWN DATE & TIME: 10/25/02 12:20

START-UP DATE & TIME: 10/25/02 12:40

COMMENTS/SUGGESTIONS:

REQUIRED REPORT NOTIFICATION PER SECTION 4.0

IMMEDIATE ☐ NON-CRITICAL ☐ ROUTINE ☐

INDIVIDUAL NOTIFIED

ACTION/RESPONSE

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
FIGURE 1 - SITE VISIT REPORT FORM

DATE: 12/23/02

TIME: 15:55

BY: DJBC

SYSTEM NAME: Power Supply **SYSTEM COMPONENT:** Power Off

REASON FOR REPORT:

System off due to Power Supply to Building being shut off

REASON FOR SHUTDOWN:

Work on Power in Interiors. Work crew cut off Power in Interiors to install New Equipment.

ACTION TAKEN:

Bought Heaters and rented Generator to heat Building until Power was restored

SHUTDOWN DATE & TIME: 12/23/02 07:00

START-UP DATE & TIME: 12/23/02 16:20

COMMENTS/SUGGESTIONS:

REQUIRED REPORT NOTIFICATION PER SECTION 4.0

IMMEDIATE ☐ **NON-CRITICAL** ☐ **ROUTINE** ☐

INDIVIDUAL NOTIFIED _____

ACTION/RESPONSE _____

DATE: 12-29-02

TIME: 08:40

BY: TMV

SYSTEM NAME: Power Interuption SYSTEM COMPONENT: PLC

REASON FOR REPORT: System shut down due to power interuption to PLC

REASON FOR SHUTDOWN: Power Interuption

ACTION TAKEN: Restart System check system components to make sure system is running properly

SHUTDOWN DATE & TIME: 12-29-02- 8:30

START-UP DATE & TIME: 12-29-02- 8:51

COMMENTS/SUGGESTIONS:

REQUIRED REPORT NOTIFICATION PER SECTION 4.0

IMMEDIATE ☐ NON-CRITICAL ☐ ROUTINE ☐

INDIVIDUAL NOTIFIED

ACTION/RESPONSE

Attachment G
Groundwater Migration Control System
Inspection Checklist

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 10-1-02
INSPECTION BY: T. Vanage

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X						
CHECK CARBON FILTER PRESSURES	X						
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	10:24	59.53	970.39	910.86
MW-414D	10:28	60.70	971.78	911.08
MW-413D	10:35	59.06	969.99	910.93
MW-416D	10:41	54.92	965.84	910.94

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 10-1-02
INSPECTION BY: T. Vange

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A		

Notes:

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 10-7-02
INSPECTION BY: T. Vanage

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			Will check next week
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	--	

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 10-7-02
INSPECTION BY: T. Vanage

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				Y	N	
CHECK CARBON FILTER PRESSURES	X				Y	N	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	10:04	60.69	970.39	909.70
MW-414D	10:14	61.89	971.78	909.89
MW-413D	10:24	60.04	969.99	909.81
MW-416D	10:23	55.99	965.84	909.85

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 10-17-02
INSPECTION BY: T. Vanoe

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM					Y	N	
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK VWATER LEVEL VS. PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	–	
CHECK CARBON FILTER PRESSURES	X				N/A	–	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	17:36	52.03	970.39	918.36
MW-414D	17:31	53.29	971.78	918.49
MW-413D	17:18	51.56	969.99	918.43
MW-416D	17:24	47.34	965.84	918.50

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 10-17-02
INSPECTION BY: T. Vanage

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 10-23-02
INSPECTION BY: T. Vanage

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS Migration Control looks very clean
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	–	
SOLID	X		N/A	–	

Notes:

+ no capture

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 10-23-02
INSPECTION BY: T. Vanage

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS Water levels were taken earlier in the day
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				Y	N	
CHECK CARBON FILTER PRESSURES	X				N/A	–	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	9:46	58.82	970.39	911.57
MW-414D	9:58	60.13	971.78	911.65
MW-413D	11:00	58.94	969.99	911.05
MW-416D	9:46	54.30	965.84	911.54

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11/01/02
INSPECTION BY: T. Vanase

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X				
SOLID	X				

Notes: Small leak in pipe from recovery well to holding tank will repair.

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11-01-02
INSPECTION BY: T. Vanuge

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	Y	repair pipe with water weld
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	12:05	60.30	970.39	910.09
MW-414D	12:11	61.54	971.78	910.24
MW-413D	12:16	59.75	969.99	910.24
MW-416D	12:22	55.56	965.84	910.28

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11-7-02
INSPECTION BY: T. Vanage

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	1551	49.79	970.39	920.60
MW-414D	1557	50.98	971.78	920.80
MW-413D	1[illegible]:06	49.30	969.99	920.69
MW-416D	16:17	45.05	965.84	920.79

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11-7-02
INSPECTION BY: T. Vanage

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11-14-02
INSPECTION BY: T. Vanage

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM					Y	N	
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	14:33	42.26	970.39	928.13
MW-414D	14:38	43.45	971.78	928.33
MW-413D	14:45	41.71	969.99	928.28
MW-416D	14:53	37.39	965.84	928.45

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11-14-02
INSPECTION BY: T. Vanage

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X				
SOLID	X				

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: ~~T.V.~~ 11-21-02
INSPECTION BY: T.V.

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	16:25	55.10	970.39	915.29
MW-414D	16:32	56.15	971.78	915.63
MW-413D	16:40	54.45	969.99	915.54
MW-416D	16:49	50.28	965.84	915.56

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11-21-02
INSPECTION BY: T.V.

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11/27/02
INSPECTION BY: DJBC

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	Y	N	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK VWATER LEVEL VS. PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				N	—	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X	N	—	
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X		N	—	
TRANSFER PUMPS - PERFORM P.M. SERVICE			X		N	—	
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X	N	—	
CHECK & CALIBRATE INSTRUMENTATION				X	N	—	
MANUALLY OPERATE & CHECK VALVES				X	N	—	
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X	N	—	

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	10:55	55.41	970.39	914.98
MW-414D	14:45	57.41	971.78	914.37
MW-413D	12:56	55.43	969.99	914.56
MW-416D	10:38	50.90	965.84	914.94

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 11/22/02
INSPECTION BY: DJBC

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 12/05/02
INSPECTION BY: DJBx

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM						N	
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	Y	N	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				N	—	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X	N	—	
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				Y	N	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X		N	—	
TRANSFER PUMPS - PERFORM P M. SERVICE			X		N	—	
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X	N	—	
CHECK & CALIBRATE INSTRUMENTATION				X	N	—	
MANUALLY OPERATE & CHECK VALVES				X	N	—	
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X	N	—	

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	11:08	50.19	970.39	920.20
MW-414D	11:35	50.98	971.78	920.80
MW-413D	11:40	49.56	969.99	920.43
MW-416D	11:26	45.53	965.84	920.31

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 12/05/02
INSPECTION BY: DJBc

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y		
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 12/09/02
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK VWATER LEVEL VS PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	Dave Bean is currently sampling
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	16:08	54.25	970.39	916.14
MW-414D	15:25	55.17	971.78	916.61
MW-413D	15:33	53.11	969.99	916.54
MW-416D	16:13	49.60	965.84	916.24

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 12/09/02
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 12-17-02
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X						
AMP TRANSFER PUMP MOTORS			X		Y	N	
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	1456	61.90	970.39	908.49
MW-414D	1422	62.78	971.78	909.00
MW-413D	1433	61.29	969.99	908.70
MW-416D	1452	57.36	965.84	908.48

* Has been raining all day

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 12-17-02
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X				
SOLID	X				

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 12/23/02
INSPECTION BY: DJBc

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	Y	N	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X			N	—	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				N/A	—	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X	N	—	
CHECK BAG FILTER PRESSURES	X				N/A	N/A	
CHECK CARBON FILTER PRESSURES	X				N/A	N/A	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X		N	—	
TRANSFER PUMPS - PERFORM P.M. SERVICE			X		N	—	
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X	N	—	
CHECK & CALIBRATE INSTRUMENTATION				X	N	—	
MANUALLY OPERATE & CHECK VALVES				X	N	—	
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X	N	—	

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 12/23/02
INSPECTION BY: DOBC

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

Attachment H
DNAPL Recovery System Inspection and Operation Reports

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/01/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	Drum DNAPL-02/009 GENERATED

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/01/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-3	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	35055		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	0.00		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/02/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	Drum DNAPL - 02/009 Moved to Haz. Dock

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/02/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBC

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-3	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	35211		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	1/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/03/02
INSPECTION BY: DJBC

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/03/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-5	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	35513		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	5/16"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/04/02
INSPECTION BY: TMV

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/4/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: TMV

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-5	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36874		
MeOH/FRESH WATER FLOW METER (GALLONS)	86015		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	5/16"		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/7/02
INSPECTION BY: TMV

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/7/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: TMV

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-5	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	35919		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	—		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/08/02
INSPECTION BY: TMV

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/8/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: TMV

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-5	Recovery Well: R-6	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36039	36080	
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15	860.15	
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	—	—	

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/9/02
INSPECTION BY: TMV

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/9/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: TMV

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-6	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36155		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	1 1/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/10/02

INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/10/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: TMV

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-6	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36305		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	2.75		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/14/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/14/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-6	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36590		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	2 3/4		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/15/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/15/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DSBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-6	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36598		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	2 3/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/16/02
INSPECTION BY: DJBC

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/16/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-15	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36605		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	2 3/4		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/17/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/17/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DSBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-15	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36652		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3 1/2"		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/18/02
INSPECTION BY: DJBC

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/18/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-15	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36878		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3 3/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/21/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/21/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-15	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	36964		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/23/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/23/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	—	—	
MANUALLY OPERATE & CHECK VALVES		X	—	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-15	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37085		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/24/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/24/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBC

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	—	—	
MANUALLY OPERATE & CHECK VALVES		X	—	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-15	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37352		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	4"		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/28/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/28/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBC

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37360		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	4 1/2"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/29/02
INSPECTION BY: DJBC

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/29/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37369		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	4 3/4		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 10/30/02
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 10/30/02

DNAPL SYSTEM INSPECTION

INSPECTION BY: DJBC

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N	—	
MANUALLY OPERATE & CHECK VALVES		X	N	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37398		
MeOH/FRESH WATER FLOW METER (GALLONS)	860.15		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	5.9"		

* Inspection will be performed at a minimum of once per week when system is available for operation

Attachment I
Historical Sampling Results
MW-301D, MW-413D, MW-416D, MW-418D, MW-420D

Delphi Corporation Vandalia Facility MW-301D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
10/7/2002	Trichloroethene	301D-100702-1450DL	2300 ug/L		SW 8260	0.1 ug/L
7/19/2002	Trichloroethene		1900 ug/L		SW 8260	0.5 ug/L
4/16/2002	Trichloroethene	301D-041602-NDL	350 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	301D-012802-N	5 ug/L	U	SW 8260B	5 ug/L
1/28/2002	Trichloroethene	Bailer Dup Low Flow 301D-012802-B	5 ug/L	U	SW 8260B	5 ug/L
11/15/2001	Trichloroethene	301D-111501-N	5 ug/L		SW 8260B	5 ug/L
10/22/2001	Trichloroethene	301D-102201-N	6.9 ug/L		SW 8260B	5 ug/L
7/9/2001	Trichloroethene		2940 ug/L		SW 8260B	250 ug/L
4/24/2001	Trichloroethene		1520 ug/L		SW 8260A	100 ug/L
4/24/2001	Trichloroethene	Duplicate	1620 ug/L		SW 8260A	100 ug/L
1/18/2001	Trichloroethene		5460 ug/L		SW 8260A	250 ug/L
11/1/2000	Trichloroethene		2910 ug/L		SW 8260A	100 ug/L
7/11/2000	Trichloroethene		8240 ug/L		SW 8260A	500 ug/L
6/13/2000	Trichloroethene	Low Flow	4060 ug/L		SW 8260A	500 ug/L
6/12/2000	Trichloroethene		4930 ug/L		SW 8260A	100 ug/L
4/27/2000	Trichloroethene		2880 ug/L		SW 8260A	500 ug/L
4/5/2000	Trichloroethene		3080 ug/L		SW 8260A	50 ug/L
2/11/2000	Trichloroethene		3550 ug/L		8260	50 ug/L
2/11/1998	Trichloroethene		130 ug/L	V	8260	5 ug/L
11/23/1997	Trichloroethene		4340 ug/L		8260	250 ug/L
11/4/1997	Trichloroethene	Dilution	4050 ug/L	D	8260	250 ug/L
7/23/1997	Trichloroethene		5730 ug/L		8260	500 ug/L
6/17/1997	Trichloroethene	Dilution	4700 ug/L	D	8260	500 ug/L
5/23/1997	Trichloroethene		5600 ug/L		8260	130 ug/L
2/21/1997	Trichloroethene		4200 ug/L		8260	130 ug/L
2/11/1997	Trichloroethene		4500 ug/L		8260	50 ug/L
5/20/1996	Trichloroethene	Duplicate	2620 ug/L		624	ug/L
5/20/1996	Trichloroethene		3080 ug/L		624	ug/L
4/29/1996	Trichloroethene	Duplicate	4550 ug/L		624	5 ug/L
4/29/1996	Trichloroethene		3450 ug/L		624	5 ug/L

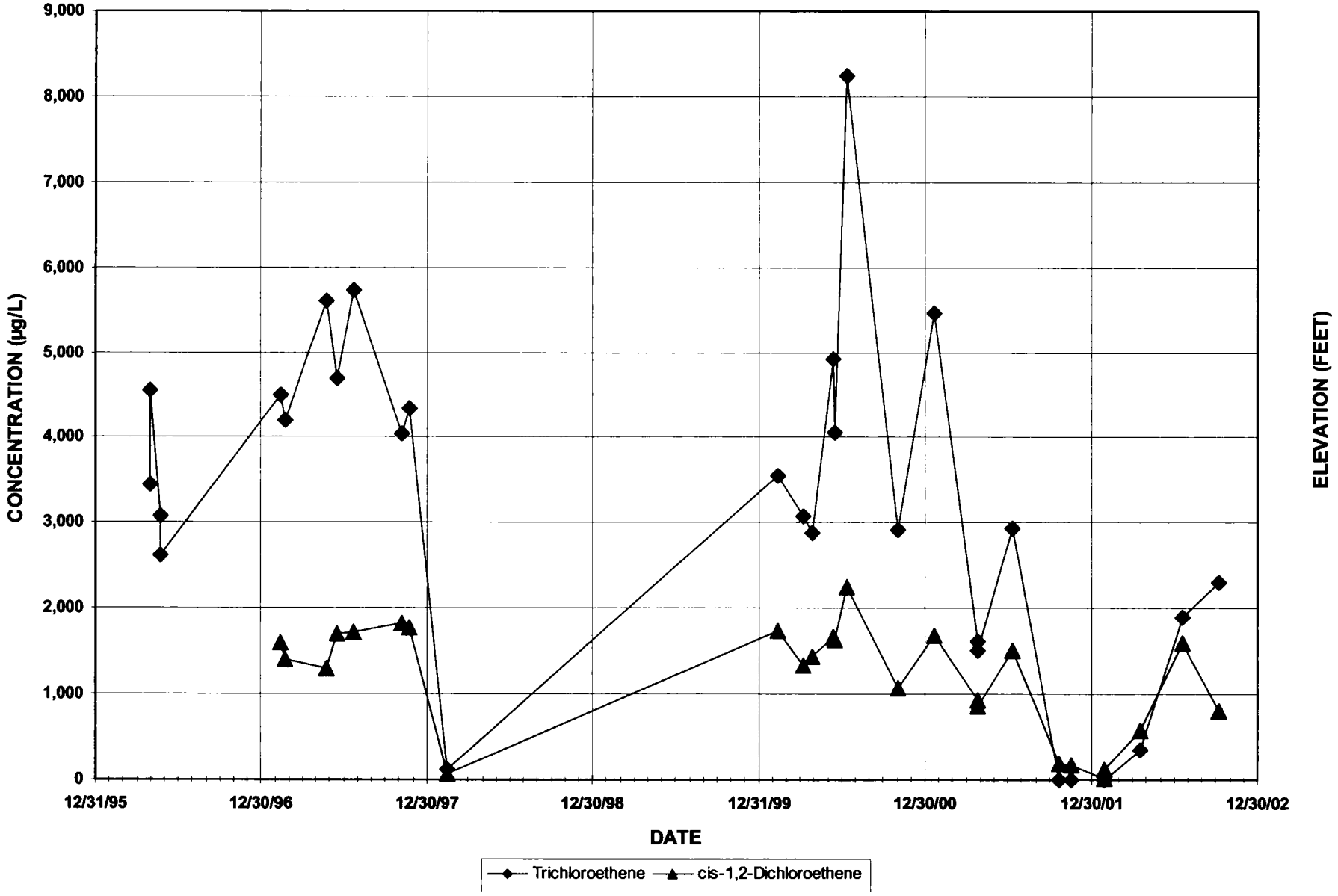
Flag Definitions :

B -- The compound was also detected in the blank associated with the sample.
D -- The result was quantified from a dilution of the original sample.
J -- The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-301D

Monitoring Zone: Belfast

Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-413D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
10/4/2002	Trichloroethene	413D-100402-0945DL	140 ug/L		SW 8260	0.1 ug/L
7/18/2002	Trichloroethene		150 ug/L		SW 8260	0.5 ug/L
4/25/2002	Trichloroethene	413D-042502-NDL	22 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	413D-012802-N	107 ug/L		SW 8260B	5 ug/L
10/22/2001	Trichloroethene	413D 102201-N	18.3 ug/L		SW 8260B	5 ug/L
7/9/2001	Trichloroethene		460 ug/L		SW 8260B	250 ug/L
4/24/2001	Trichloroethene		139 ug/L		SW 8260A	1 ug/L
1/18/2001	Trichloroethene		204 ug/L		SW 8260A	25 ug/L
11/1/2000	Trichloroethene		121 ug/L		SW 8260A	5 ug/L
7/11/2000	Trichloroethene		321 ug/L		SW 8260A	250 ug/L
6/13/2000	Trichloroethene		509 ug/L		SW 8260A	50 ug/L
6/13/2000	Trichloroethene	Low Flow	613 ug/L		SW 8260A	50 ug/L
4/27/2000	Trichloroethene		1790 ug/L		SW 8260A	250 ug/L
4/13/2000	Trichloroethene		3680 ug/L		SW 8260A	100 ug/L
4/4/2000	Trichloroethene		1210 ug/L		SW 8260A	50 ug/L
2/11/2000	Trichloroethene		51.2 ug/L		8260	1 ug/L
2/13/1998	Trichloroethene	Duplicate	350 ug/L		8260	5 ug/L
2/11/1998	Trichloroethene		300 ug/L		8260	5 ug/L
11/22/1997	Trichloroethene	Duplicate	143 ug/L		8260	12.5 ug/L
11/22/1997	Trichloroethene		125 ug/L		8260	10 ug/L
11/11/1997	Trichloroethene		83.8 ug/L		8260	5 ug/L

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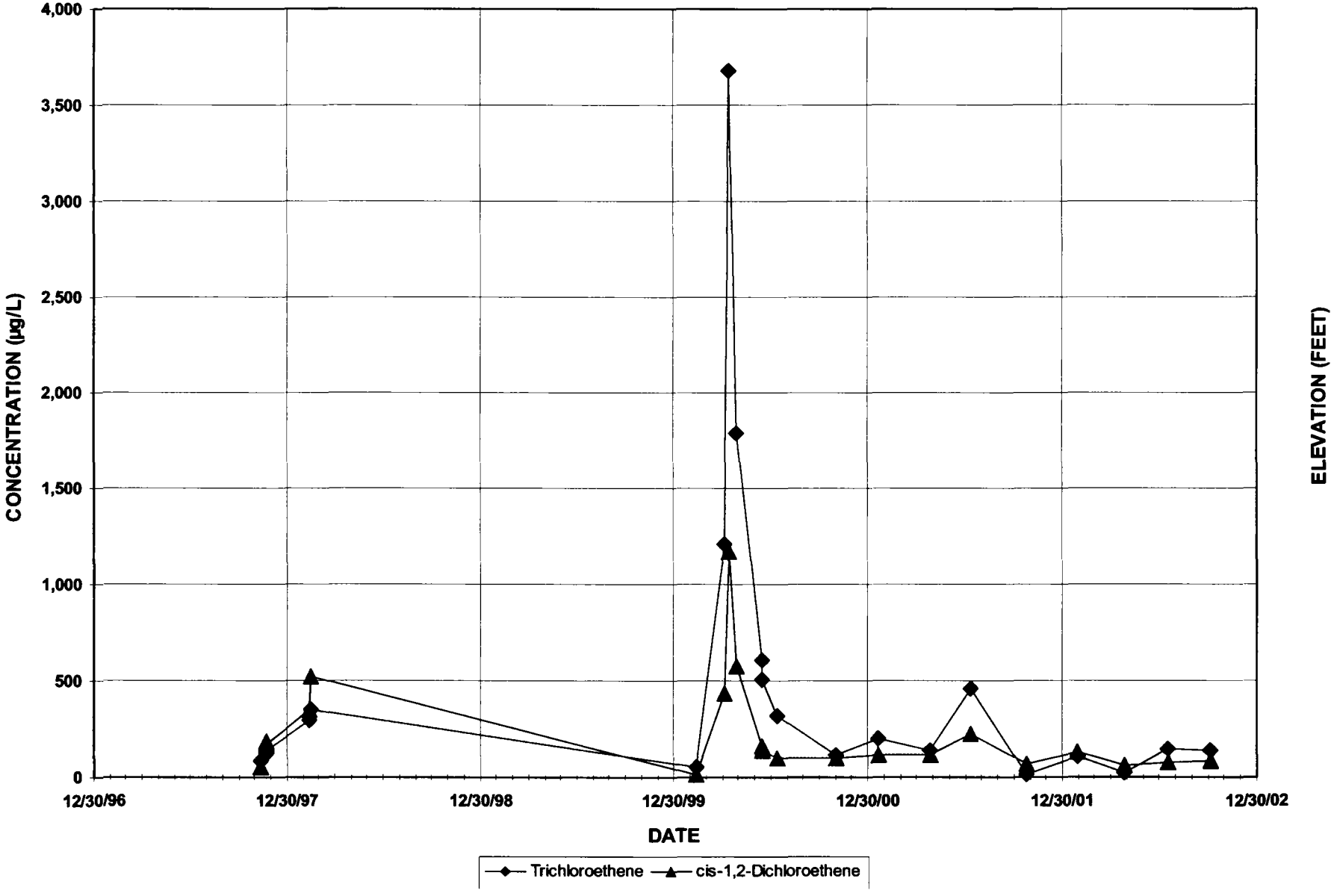
U – The compound was analyzed for but not detected.
V – The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-413D

Monitoring Zone: Belfast

Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-416D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
10/1/2002	Trichloroethene	416D-100102-1820DL	3.4 ug/L	J	SW 8260	0.1 ug/L
7/19/2002	Trichloroethene		2.6 ug/L	J	SW 8260	0.5 ug/L
4/18/2002	Trichloroethene	416D-041802-NDL	3 ug/l	J	SW8260	0.1 ug/l
1/28/2002	Trichloroethene	416D-012802-N	5 ug/L	U	SW 8260B	5 ug/L
10/24/2001	Trichloroethene	416D-102401-N	29.2 ug/L		SW 8260B	5 ug/L
7/12/2001	Trichloroethene	Duplicate	5.5 ug/L		SW 8260B	5 ug/L
7/12/2001	Trichloroethene		5 ug/L	U	SW 8260B	5 ug/L
4/24/2001	Trichloroethene		6.3 ug/L		SW 8260A	1 ug/L
1/18/2001	Trichloroethene		5 ug/L	U	SW 8260A	5 ug/L
10/31/2000	Trichloroethene		5.4 ug/L		SW 8260A	5 ug/L
7/11/2000	Trichloroethene		5.1 ug/L		SW 8260A	5 ug/L
6/12/2000	Trichloroethene		6.1 ug/L		SW 8260A	5 ug/L
4/26/2000	Trichloroethene		5.6 ug/L		SW 8260A	5 ug/L
4/5/2000	Trichloroethene		6 ug/L		SW 8260A	1 ug/L
2/8/2000	Trichloroethene	Duplicate	6.5 ug/L		8260	1 ug/L
2/8/2000	Trichloroethene		6.1 ug/L		8260	1 ug/L

Flag Definitions :

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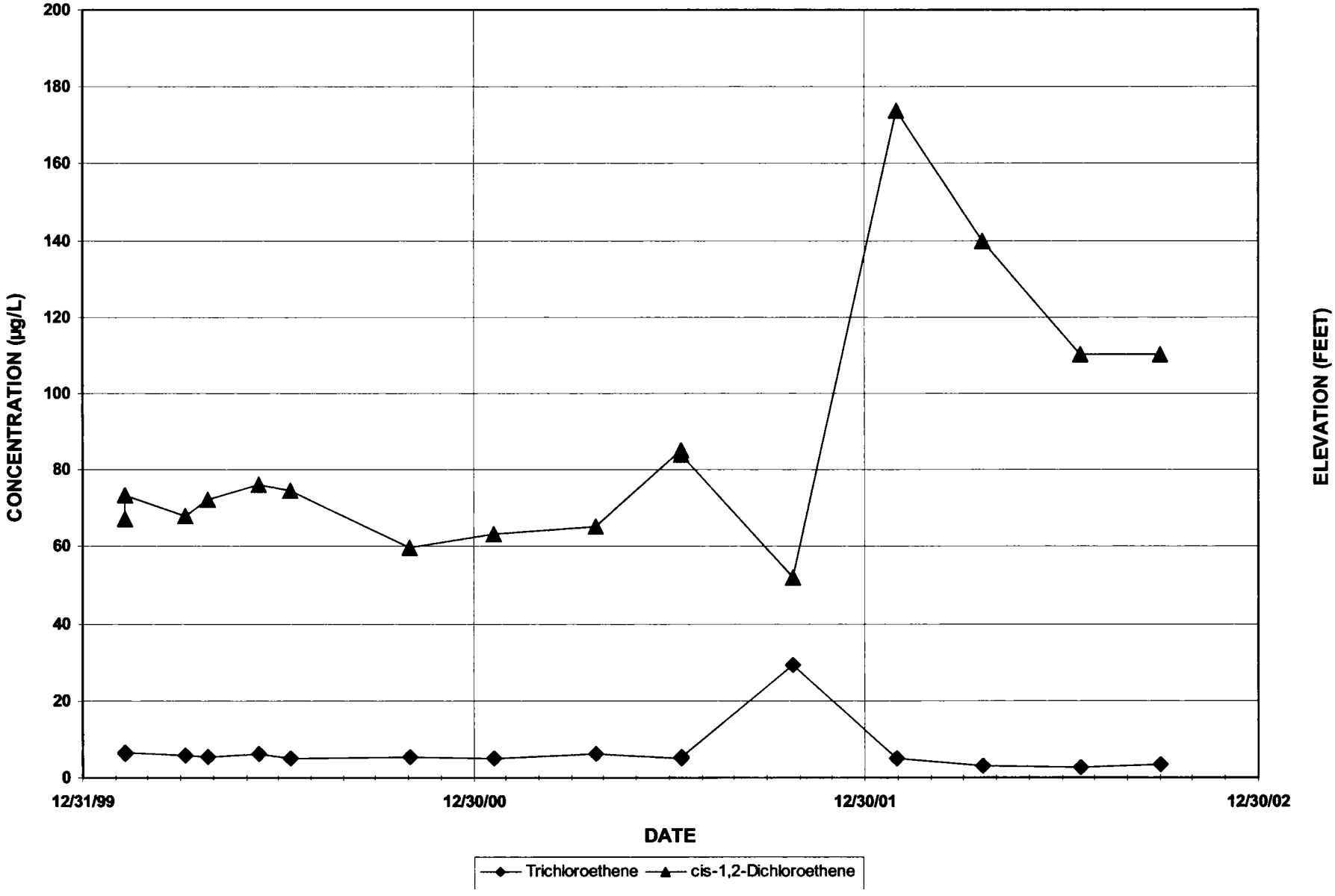
Delphi Corporation Vandalia Facility MW-416D

Monitoring Zone: Belfast

Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-418D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
10/3/2002	*Trichloroethene*	*418D-100302-1525DL*	*44 ug/L*		*SW 8260*	*0.1 ug/L*
7/19/2002	Trichloroethene		140 ug/L		SW 8260	0.5 ug/L
4/30/2002	Trichloroethene	418D-043002-NDL	94 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	418D-012802-N	212 ug/L		SW 8260B	50 ug/L
10/24/2001	Trichloroethene	418D-102401-BD	284 ug/L		SW 8260B	100 ug/L
10/24/2001	Trichloroethene	0001-102401-BD	290 ug/L		SW 8260B	50 ug/L
7/11/2001	Trichloroethene		173 ug/L		EPA 524.2	20 ug/L
7/11/2001	Trichloroethene		151 ug/L		SW 8260B	5 ug/L
4/24/2001	Trichloroethene		341 ug/L		SW 8260A	10 ug/L
1/18/2001	Trichloroethene		1320 ug/L		SW 8260A	250 ug/L
10/31/2000	Trichloroethene		1990 ug/L		SW 8260A	250 ug/L
7/11/2000	Trichloroethene		5950 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Low Flow Duplicate	4040 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Low Flow	4550 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Duplicate	6000 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene		5700 ug/L		SW 8260A	500 ug/L
4/27/2000	Trichloroethene		2800 ug/L		SW 8260A	500 ug/L
4/5/2000	Trichloroethene		3290 ug/L		SW 8260A	50 ug/L
2/8/2000	Trichloroethene		3390 ug/L		8260	50 ug/L

Flag Definitions :

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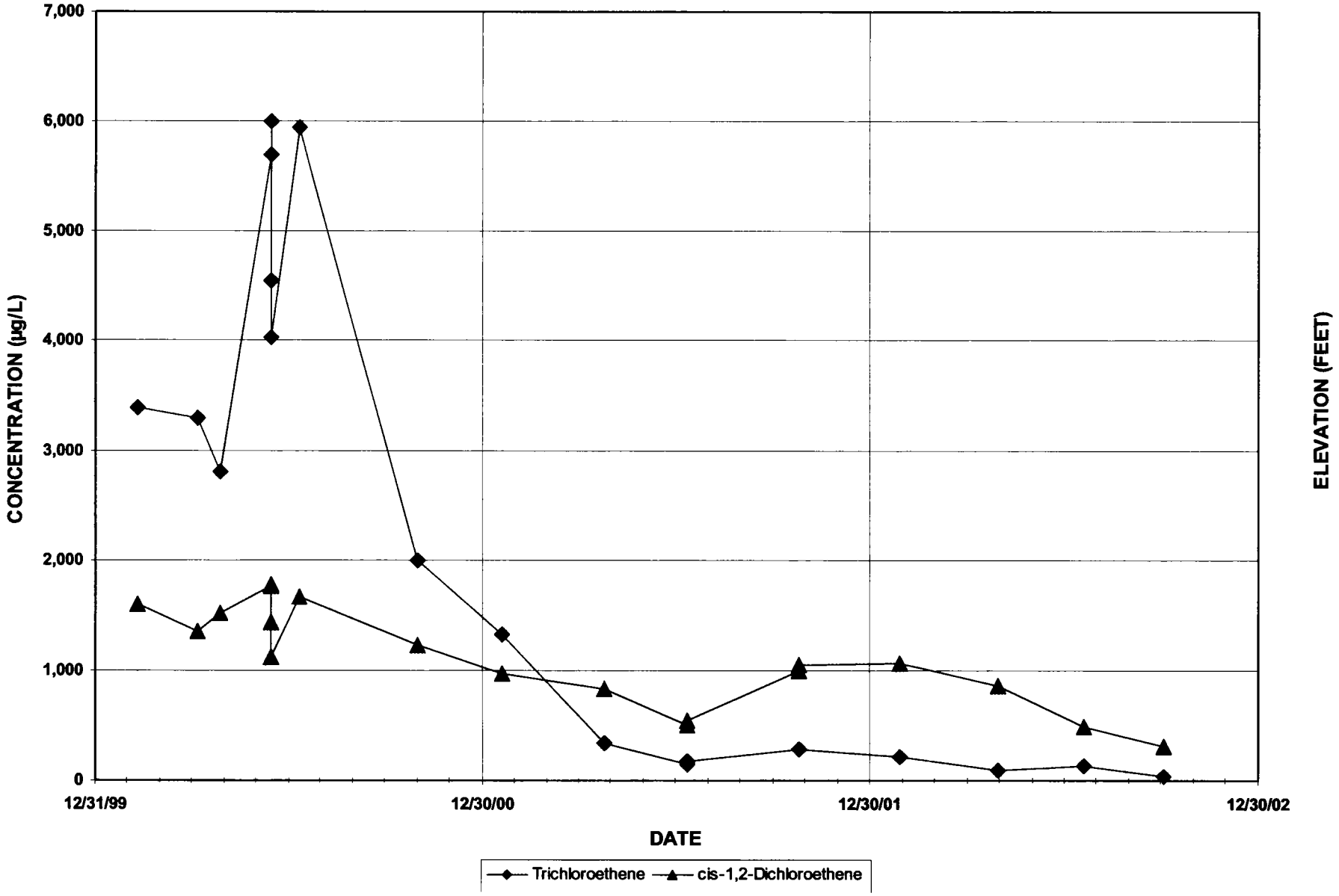
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-418D

Monitoring Zone: Belfast

Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-420D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
10/3/2002	Trichloroethene	420D-100302-1029DL	70 ug/L		SW 8260	0.1 ug/L
7/18/2002	Trichloroethene		65 ug/L		SW 8260	0.5 ug/L
4/17/2002	Trichloroethene	420D-041702-DDL	57 ug/l		SW8260	0.1 ug/l
4/17/2002	Trichloroethene	420D-041702-NDL	52 ug/l		SW8260	0.1 ug/l
1/31/2002	Trichloroethene	420D-013102-N	64.5 ug/L		SW 8260B	50 ug/L
10/24/2001	Trichloroethene	420D-102401-N	275 ug/L		SW 8260B	50 ug/L
7/11/2001	Trichloroethene		229 ug/L		EPA 524.2	20 ug/L
7/11/2001	Trichloroethene		182 ug/L		SW 8260B	5 ug/L
4/25/2001	Trichloroethene		207 ug/L		SW 8260A	10 ug/L
1/19/2001	Trichloroethene		560 ug/L		SW 8260A	25 ug/L
10/30/2000	Trichloroethene		752 ug/L		SW 8260A	20 ug/L
7/12/2000	Trichloroethene		2290 ug/L		SW 8260A	250 ug/L
6/14/2000	Trichloroethene	Low Flow	2500 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene		2690 ug/L		SW 8260A	500 ug/L
4/26/2000	Trichloroethene		3870 ug/L		SW 8260A	250 ug/L
4/6/2000	Trichloroethene	Duplicate	4570 ug/L		SW 8260A	100 ug/L
4/6/2000	Trichloroethene		4830 ug/L		SW 8260A	100 ug/L
2/7/2000	Trichloroethene		5400 ug/L		8260	50 ug/L

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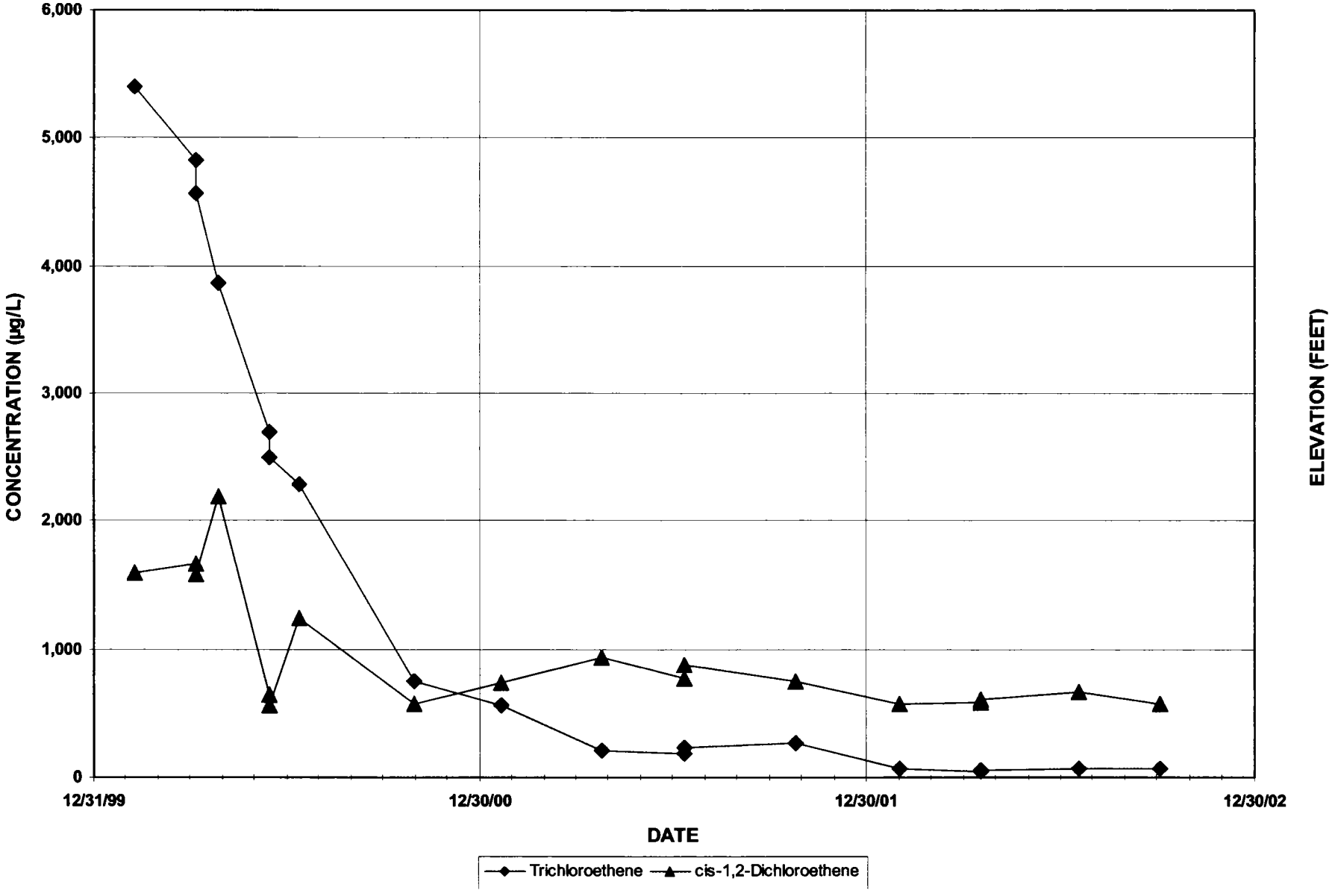
Delphi Corporation Vandalia Facility MW-420D

Monitoring Zone: Belfast

Screened Interval: Belfast

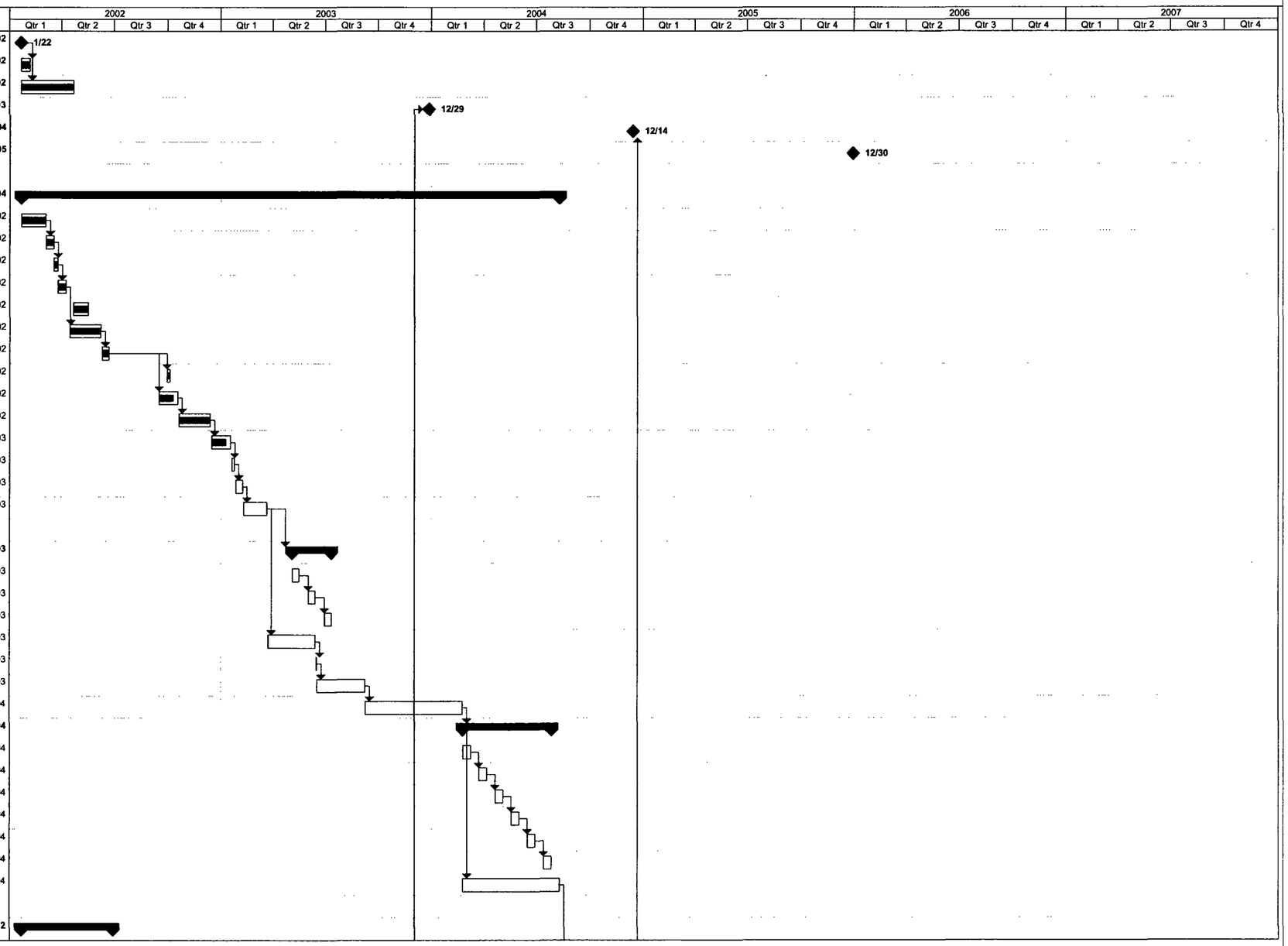


Attachment J
Project Schedule

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Sun 1/12/03

ID	Task Name	% Complete	Duration	Start	Finish
1	**Streamlined Order Executed**	100%	0 days	Tue 1/22/02	Tue 1/22/02
2	**Project Manager Designation**	100%	11 days	Tue 1/22/02	Tue 2/5/02
3	**Interim Measure & Implementation Report**	100%	65 days	Tue 1/22/02	Mon 4/22/02
4	**EI Report - Human Exposures: AOC Deadline 12/31/03**	0%	1 day	Mon 12/29/03	Mon 12/29/03
5	**EI Report - GW Stabilization: AOC Deadline 12/31/04**	0%	1 day	Tue 12/14/04	Tue 12/14/04
6	**Final Corrective Measures Proposal**	0%	1 day	Fri 12/30/05	Fri 12/30/05
7					
8	**Offsite Groundwater Investigation**	29%	665 days	Tue 1/22/02	Mon 8/9/04
9	Complete Current Phase of BTZ Wells	100%	6 wks	Tue 1/22/02	Mon 3/4/02
10	Evaluate/Summarize Data	100%	2 wks	Tue 3/5/02	Mon 3/18/02
11	Conf Call w/ USEPA to ID Next Locations (if required)	100%	1 wk	Tue 3/19/02	Mon 3/25/02
12	PR Coordination	100%	2 wks	Tue 3/26/02	Mon 4/8/02
13	"Sugar Rock" Outcrop Survey	100%	4 wks	Mon 4/22/02	Fri 5/17/02
14	Phase II Offsite Well Installation	100%	8 wks	Mon 4/15/02	Fri 6/7/02
15	Evaluate/Summarize Phase II Data	100%	2 wks	Mon 6/10/02	Fri 6/21/02
16	Conf Call w/ USEPA to ID Next Locations	100%	1 wk	Mon 9/30/02	Fri 10/4/02
17	PR Coordination	75%	5 wks	Mon 9/16/02	Fri 10/18/02
18	Phase III Offsite Well Installation	100%	8 wks	Mon 10/21/02	Fri 12/13/02
19	Evaluate/Summarize Data	75%	5 wks	Mon 12/16/02	Fri 1/17/03
20	Conf Call w/ USEPA to ID Next Locations (if required)	0%	1 wk	Mon 1/20/03	Fri 1/24/03
21	PR Coordination	0%	2 wks	Mon 1/27/03	Fri 2/7/03
22	Phase IV Offsite/Overburden Well Installation	0%	6 wks	Mon 2/10/03	Fri 3/21/03
23					
24	**Initial EI GW Perimeter Monitoring (3 Mos)**	0%	50 days	Mon 5/5/03	Fri 7/11/03
25	Initial EI GW Perimeter Monitoring (3 Mos) - 1	0%	2 wks	Mon 5/5/03	Fri 5/16/03
26	Initial EI GW Perimeter Monitoring (3 Mos) - 2	0%	2 wks	Mon 6/2/03	Fri 6/13/03
27	Initial EI GW Perimeter Monitoring (3 Mos) - 3	0%	2 wks	Mon 6/30/03	Fri 7/11/03
28	Preliminary GW EI Evaluation/Summary	0%	60 days	Mon 3/24/03	Fri 6/13/03
29	Additional IM Required?	0%	1 day	Mon 6/16/03	Mon 6/16/03
30	IM Design (if required)	0%	60 days	Tue 6/17/03	Mon 9/8/03
31	IM Construction (if required)	0%	120 days	Tue 9/9/03	Mon 2/23/04
32	**Final EI Perimeter Monitoring**	0%	110 days	Tue 2/24/04	Mon 7/26/04
33	Final EI GW Perimeter Monitoring (6 Mos) - 1	0%	2 wks	Tue 2/24/04	Mon 3/8/04
34	Initial EI GW Perimeter Monitoring (6 Mos) - 2	0%	2 wks	Tue 3/23/04	Mon 4/5/04
35	Initial EI GW Perimeter Monitoring (6 Mos) - 3	0%	2 wks	Tue 4/20/04	Mon 5/3/04
36	Initial EI GW Perimeter Monitoring (6 Mos) - 4	0%	2 wks	Tue 5/18/04	Mon 5/31/04
37	Initial EI GW Perimeter Monitoring (6 Mos) - 5	0%	2 wks	Tue 6/15/04	Mon 6/28/04
38	Initial EI GW Perimeter Monitoring (6 Mos) - 6	0%	2 wks	Tue 7/13/04	Mon 7/26/04
39	Begin Preparation of Draft GW EI Report	0%	120 days	Tue 2/24/04	Mon 8/9/04
40					
41	**Onsite Investigation Work Plan**	100%	114 days	Tue 1/22/02	Fri 6/28/02



Project: Delphi Vandalia, OH

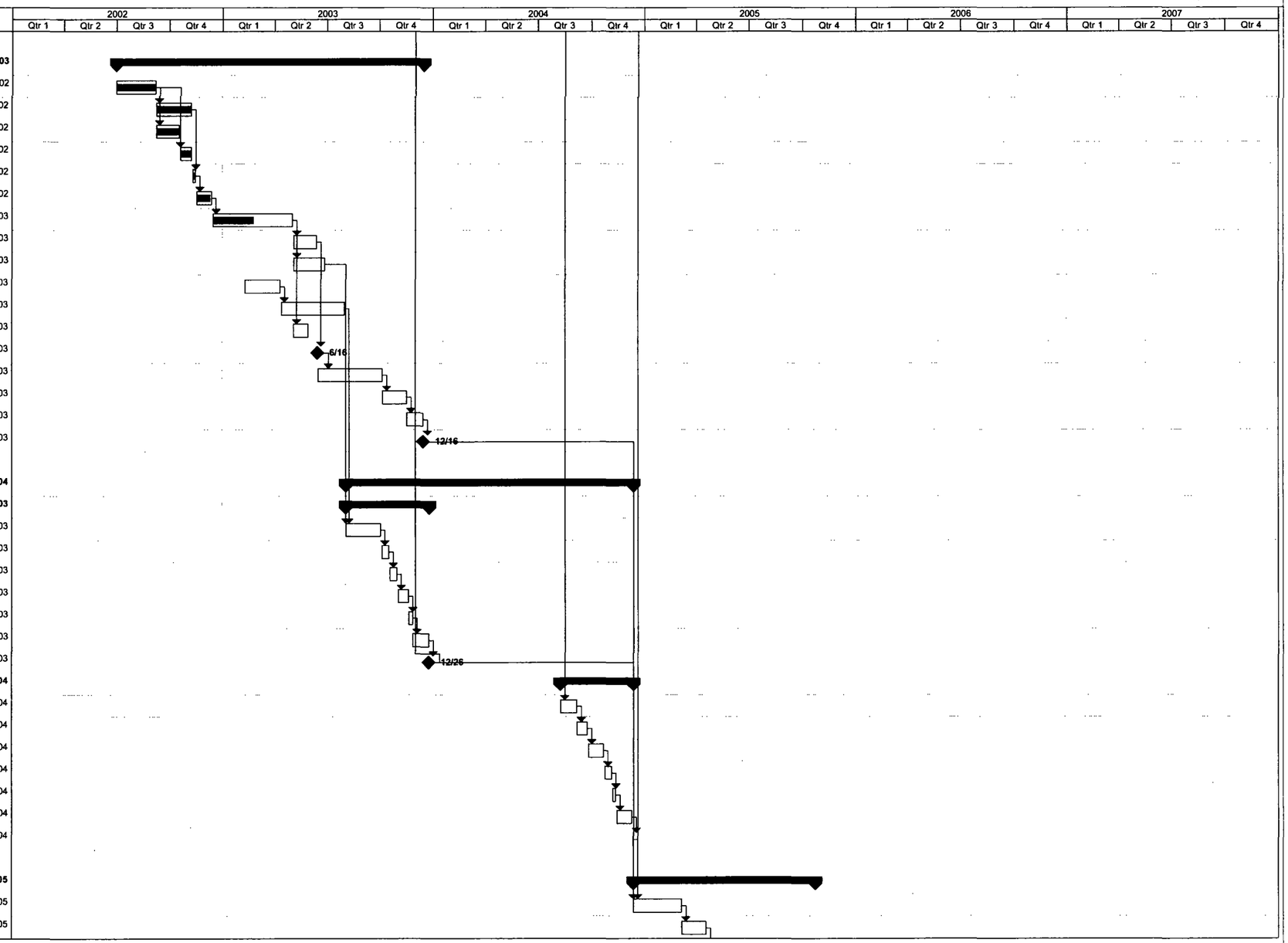
Task | Split | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Split | Rolled Up Milestone | Rolled Up Progress | External Tasks | Project Summary

Notes and Abbreviations:
1. Schedule may be revised as necessary to accomodate unexpected field conditions or inclement weather.

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Sun 1/12/03

ID	Task Name	% Complete	Duration	Start	Finish
51					
52	**Onsite Work Plan Implementation**	**35%**	**382 days**	**Mon 7/1/02**	**Tue 12/16/03**
53	Field Event I	100%	50 days	Mon 7/1/02	Fri 9/6/02
54	Data Eval to Develop Field Event II	100%	45 days	Mon 9/9/02	Fri 11/8/02
55	Data Validation	100%	30 days	Mon 9/9/02	Fri 10/18/02
56	Data Summary	100%	15 days	Mon 10/21/02	Fri 11/8/02
57	Meeting with Delphi and USEPA (Chicago)	100%	1 wk	Mon 11/11/02	Fri 11/15/02
58	Field Event II SOW Finalized	85%	20 days	Mon 11/18/02	Fri 12/13/02
59	Field Event II	50%	100 days	Mon 12/16/02	Fri 5/2/03
60	Data Eval to Develop Field Event III	0%	30 days	Mon 5/5/03	Fri 6/13/03
61	Data Validation	0%	40 days	Mon 5/5/03	Fri 6/27/03
62	IM Design (if necessary)	0%	45 days	Mon 2/10/03	Fri 4/11/03
63	IM Implementation (if necessary)	0%	80 days	Mon 4/14/03	Fri 8/1/03
64	Data Report	0%	20 days	Mon 5/5/03	Fri 5/30/03
65	Conf. Call with Delphi and USEPA	0%	1 day	Mon 6/16/03	Mon 6/16/03
66	Field Event III (if necessary)	0%	80 days	Tue 6/17/03	Mon 10/6/03
67	Data Validation	0%	30 days	Tue 10/7/03	Mon 11/17/03
68	Data Report	0%	20 days	Tue 11/18/03	Mon 12/15/03
69	Conf. Call with Delphi and USEPA	0%	1 day	Tue 12/16/03	Tue 12/16/03
70					
71	**Environmental Indicators Reports**	**0%**	**356 days**	**Mon 8/4/03**	**Mon 12/13/04**
72	**Human Health EI**	**0%**	**105 days**	**Mon 8/4/03**	**Fri 12/26/03**
73	Prepare First Draft Human Health EI Report for Delphi	0%	45 days	Mon 8/4/03	Fri 10/3/03
74	Delphi Review First Draft Human Health EI Report	0%	10 days	Mon 10/6/03	Fri 10/17/03
75	Prepare Final Draft Human Health EI Report and Submit to L	0%	10 days	Mon 10/20/03	Fri 10/31/03
76	USEPA Review Final Draft Human Health EI Report	0%	14 days	Mon 11/3/03	Thu 11/20/03
77	USEPA Meeting- Final Draft Human Health EI Report	0%	5 days	Fri 11/21/03	Thu 11/27/03
78	Prepare Final Human Health EI Report	0%	20 days	Fri 11/28/03	Thu 12/25/03
79	Submit Final Human Health EI Report EPA	0%	1 day	Fri 12/26/03	Fri 12/26/03
80	**Groundwater Stabilization EI**	**0%**	**90 days**	**Tue 8/10/04**	**Mon 12/13/04**
81	Finalize First Draft Groundwater Stabilization EI Report for D	0%	20 days	Tue 8/10/04	Mon 9/6/04
82	Delphi Review First Draft Groundwater Stabilization EI Repor	0%	14 days	Tue 9/7/04	Fri 9/24/04
83	Prepare Final Draft Groundwater Stabilization EI Report and	0%	20 days	Mon 9/27/04	Fri 10/22/04
84	USEPA Review Final Draft Groundwater Stabilization EI Rep	0%	10 days	Mon 10/25/04	Fri 11/5/04
85	Meeting with USEPA - Final Draft Groundwater Stabilization I	0%	5 days	Mon 11/8/04	Fri 11/12/04
86	Prepare Final Groundwater Stabilization EI Report	0%	20 days	Mon 11/15/04	Fri 12/10/04
87	Submit Final Groundwater Stabilization EI Report EPA	0%	1 day	Mon 12/13/04	Mon 12/13/04
88					
89	**Investigation Report**	**0%**	**225 days**	**Tue 12/14/04**	**Mon 10/24/05**
90	Prepare First Draft Report to Delphi	0%	60 days	Tue 12/14/04	Mon 3/7/05
91	Delphi Review First Draft Report	0%	30 days	Tue 3/8/05	Mon 4/18/05



Project: Delphi Vandalia, OH

Task | Progress | Summary | Rolled Up Split | Rolled Up Progress | Project Summary

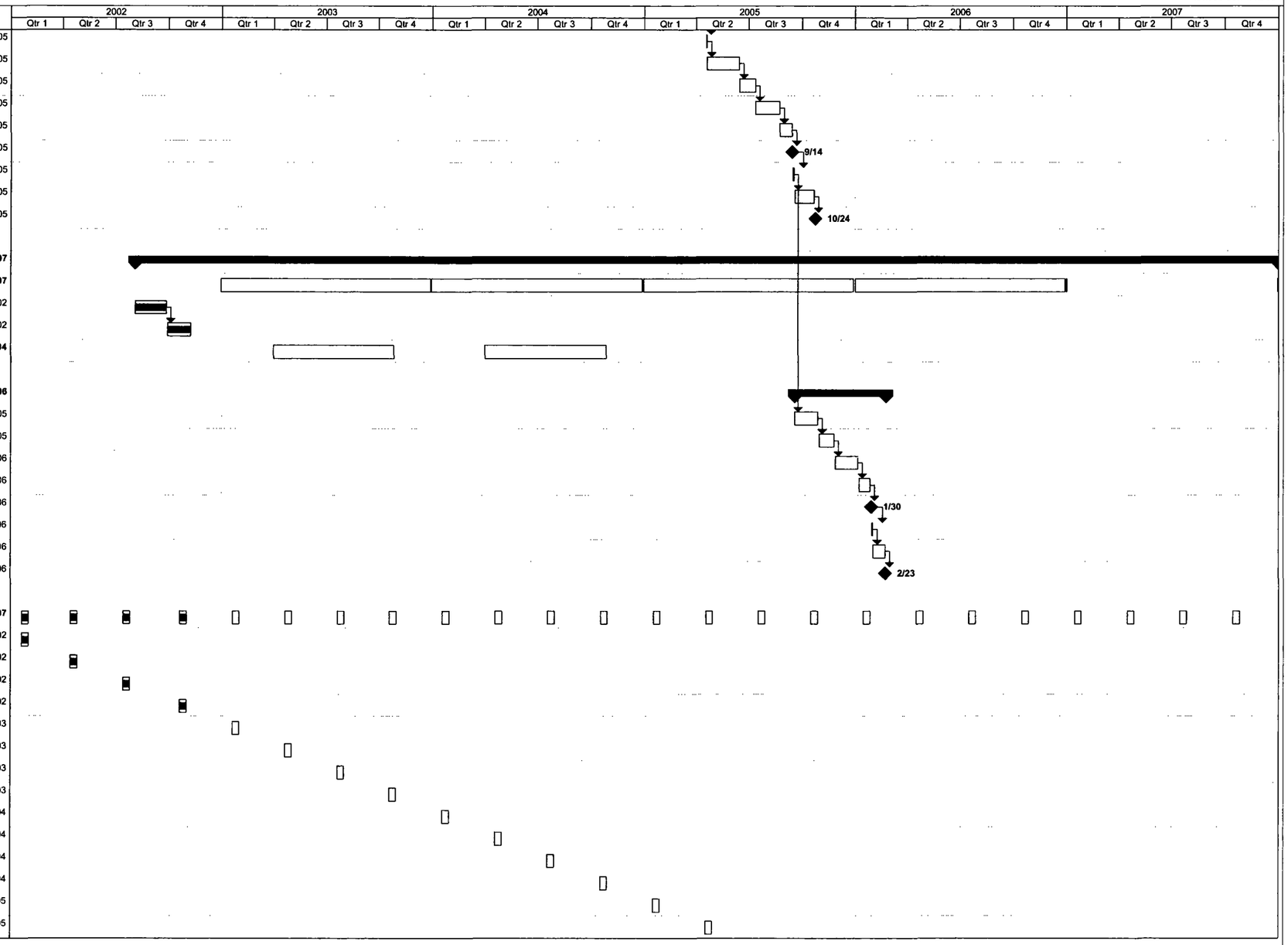
Split | Milestone | Rolled Up Task | Rolled Up Milestone | External Tasks

Notes and Abbreviations:
1. Schedule may be revised as necessary to accomodate unexpected field conditions or inclement weather.

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Sun 1/12/03

ID	Task Name	% Complete	Duration	Start	Finish
92	Meeting on First Draft Report	0%	1 day	Tue 4/19/05	Tue 4/19/05
93	Second Draft Report to Delphi	0%	40 days	Wed 4/20/05	Tue 6/14/05
94	Delphi Review Second Draft Report	0%	20 days	Wed 6/15/05	Tue 7/12/05
95	Final Draft Report	0%	30 days	Wed 7/13/05	Tue 8/23/05
96	Delphi Review Final Draft Report	0%	15 days	Wed 8/24/05	Tue 9/13/05
97	Submit Final Draft Report to EPA for Review	0%	1 day	Wed 9/14/05	Wed 9/14/05
98	Meeting with USEPA - Final Report	0%	2 days	Thu 9/15/05	Fri 9/16/05
99	Prepare Final Report	0%	25 days	Mon 9/19/05	Fri 10/21/05
100	Submit Final Report to USEPA	0%	1 day	Mon 10/24/05	Mon 10/24/05
101					
102	**Interim Measures**	**5%**	**1411 days**	**Mon 8/5/02**	**Mon 12/31/07**
103	**GW Migration Control O&M**	**0%**	**1305 days**	**Tue 12/31/02**	**Mon 12/31/07**
110	**DNAPL Recovery Design Build**	100%	8 wks	Mon 8/5/02	Fri 9/27/02
111	**DNAPL Recovery O&M**	100%	6 wks	Mon 9/30/02	Fri 11/8/02
112	**DNAPL Recovery O&M**	**0%**	**412 days**	**Tue 4/1/03**	**Wed 10/27/04**
115					
116	**Corrective Measure Proposal**	**0%**	**114 days**	**Mon 9/19/05**	**Thu 2/23/06**
117	Prepare First Draft CM Proposal to Delphi	0%	30 days	Mon 9/19/05	Fri 10/28/05
118	Delphi Review First Draft CM Proposal	0%	20 days	Mon 10/31/05	Fri 11/25/05
119	Prepare Final Draft CM Proposal	0%	30 days	Mon 11/28/05	Fri 1/6/06
120	Delphi Review Final Draft CM Proposal	0%	15 days	Mon 1/9/06	Fri 1/27/06
121	Submit Final Draft CM Proposal to EPA for Review	0%	1 day	Mon 1/30/06	Mon 1/30/06
122	Meeting with USEPA - Final CM Proposal	0%	2 days	Tue 1/31/06	Wed 2/1/06
123	Prepare Final CM Proposal	0%	15 days	Thu 2/2/06	Wed 2/22/06
124	Submit Final CM Proposal	0%	1 day	Thu 2/23/06	Thu 2/23/06
125					
126	**Quarterly GW Sampling**	**17%**	**1505 days**	**Mon 1/21/02**	**Fri 10/26/07**
127	Quarterly GW Sampling 1	100%	2 wks	Mon 1/21/02	Fri 2/1/02
128	Quarterly GW Sampling 2	100%	2 wks	Mon 4/15/02	Fri 4/26/02
129	Quarterly GW Sampling 3	100%	2 wks	Mon 7/15/02	Fri 7/26/02
130	Quarterly GW Sampling 4	100%	2 wks	Mon 10/21/02	Fri 11/1/02
131	Quarterly GW Sampling 5	0%	2 wks	Mon 1/20/03	Fri 1/31/03
132	Quarterly GW Sampling 6	0%	2 wks	Mon 4/21/03	Fri 5/2/03
133	Quarterly GW Sampling 7	0%	2 wks	Mon 7/21/03	Fri 8/1/03
134	Quarterly GW Sampling 8	0%	2 wks	Mon 10/20/03	Fri 10/31/03
135	Quarterly GW Sampling 9	0%	2 wks	Mon 1/19/04	Fri 1/30/04
136	Quarterly GW Sampling 10	0%	2 wks	Mon 4/19/04	Fri 4/30/04
137	Quarterly GW Sampling 11	0%	2 wks	Mon 7/19/04	Fri 7/30/04
138	Quarterly GW Sampling 12	0%	2 wks	Mon 10/18/04	Fri 10/29/04
139	Quarterly GW Sampling 13	0%	2 wks	Mon 1/17/05	Fri 1/28/05
140	Quarterly GW Sampling 14	0%	2 wks	Mon 4/18/05	Fri 4/29/05



Project: Delphi Vandalia, OH

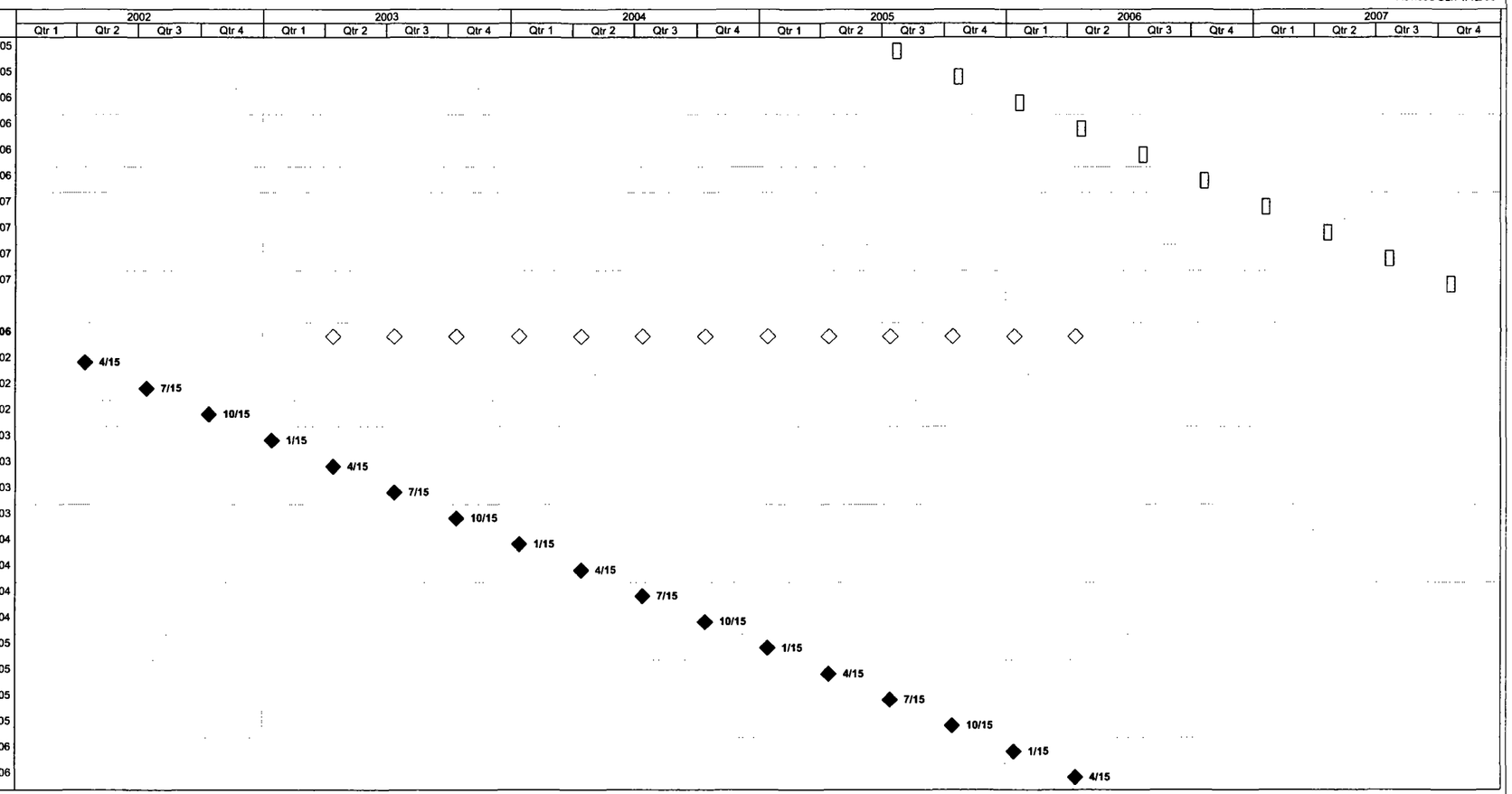
Task | Split | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Split | Rolled Up Milestone | Rolled Up Progress | External Tasks | Project Summary

Notes and Abbreviations:
1. Schedule may be revised as necessary to accomodate unexpected field conditions or inclement weather.

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Sun 1/12/03

ID	Task Name	% Complete	Duration	Start	Finish
141	Quarterly GW Sampling 15	0%	2 wks	Mon 7/18/05	Fri 7/29/05
142	Quarterly GW Sampling 16	0%	2 wks	Mon 10/17/05	Fri 10/28/05
143	Quarterly GW Sampling 17	0%	2 wks	Mon 1/16/06	Fri 1/27/06
144	Quarterly GW Sampling 18	0%	2 wks	Mon 4/17/06	Fri 4/28/06
145	Quarterly GW Sampling 19	0%	2 wks	Mon 7/17/06	Fri 7/28/06
146	Quarterly GW Sampling 20	0%	2 wks	Mon 10/16/06	Fri 10/27/06
147	Quarterly GW Sampling 21	0%	2 wks	Mon 1/15/07	Fri 1/26/07
148	Quarterly GW Sampling 22	0%	2 wks	Mon 4/16/07	Fri 4/27/07
149	Quarterly GW Sampling 23	0%	2 wks	Mon 7/16/07	Fri 7/27/07
150	Quarterly GW Sampling 24	0%	2 wks	Mon 10/15/07	Fri 10/26/07
151					
152	**Progress Reports**	**0%**	**1045 days**	**Mon 4/15/02**	**Sat 4/15/06**
153	Progress Report 2	100%	0 days	Mon 4/15/02	Mon 4/15/02
154	Progress Report 3	100%	0 days	Mon 7/15/02	Mon 7/15/02
155	Progress Reports 4	100%	0 days	Tue 10/15/02	Tue 10/15/02
156	Progress Reports 5	0%	0 days	Wed 1/15/03	Wed 1/15/03
157	Progress Reports 6	0%	0 days	Tue 4/15/03	Tue 4/15/03
158	Progress Reports 7	0%	0 days	Tue 7/15/03	Tue 7/15/03
159	Progress Reports 8	0%	0 days	Wed 10/15/03	Wed 10/15/03
160	Progress Reports 9	0%	0 days	Thu 1/15/04	Thu 1/15/04
161	Progress Reports 10	0%	0 days	Thu 4/15/04	Thu 4/15/04
162	Progress Reports 11	0%	0 days	Thu 7/15/04	Thu 7/15/04
163	Progress Reports 12	0%	0 days	Fri 10/15/04	Fri 10/15/04
164	Progress Reports 13	0%	0 days	Sat 1/15/05	Sat 1/15/05
165	Progress Reports 14	0%	0 days	Fri 4/15/05	Fri 4/15/05
166	Progress Reports 15	0%	0 days	Fri 7/15/05	Fri 7/15/05
167	Progress Reports 16	0%	0 days	Sat 10/15/05	Sat 10/15/05
168	Progress Reports 17	0%	0 days	Sun 1/15/06	Sun 1/15/06
169	Progress Reports 18	0%	0 days	Sat 4/15/06	Sat 4/15/06



Project: Delphi Vandalia, OH

Task | Split | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Split | Rolled Up Milestone | Rolled Up Progress | External Tasks | Project Summary

Notes and Abbreviations:
1. Schedule may be revised as necessary to accomodate unexpected field conditions or inclement weather.

DELPHI - 035

DELPHI

April 15, 2003

United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard, DE-9J
Chicago, IL 60604-3590

Attention: Mr. Kenneth Bardo

Subject: Progress Report, First Quarter 2003
Delphi Corporation
Energy & Chassis Systems and Safety & Interior Systems Facility
Vandalia, Ohio
US EPA ID #OHD 052 151 701
US EPA ID #OHD 000 048 454

Dear Mr. Bardo:

This submittal constitutes the progress report for work undertaken during the first quarter 2003, related to the above-referenced Facility. This work is being conducted in accordance with RCRA 3008(h) Administrative Order on Consent, Docket No. R8H-5-02-001, January 22, 2002.

Work Performed This Quarter (January 1, 2003 – March 31, 2003)

- Continued Field Event II of the RCRA Facility Investigation. This second phase of investigation began in December 2002 and will continue into May 2003. Work conducted from January 1, 2003 to March 31, 2003 included the following:
  - Installed 2 one-inch piezometers.
  - Installed 37 overburden wells.
  - Completed 32 direct-push soil borings.
  - Collected 79 soil samples from 36 piezometer, well, and boring locations.
  - Sampled and analyzed 84 overburden wells.
- Sampled and analyzed 49 monitoring wells: 40 "Sugar Rock", 3 intermediate, and 6 top of bedrock. (Figure 1, Tables 1-2).
- Sampled and analyzed monthly groundwater migration control system monitoring points, consisting of extracted groundwater prior to treatment and treated groundwater effluent for NPDES compliance (Table 3).
- Collected four rounds of "Sugar Rock" and intermediate bedrock water levels, one round of top of bedrock water levels, and one round of "First Sand", "Second Sand", and "Water Table" overburden water levels (Figures 2-5, Attachment A).
- Sampled and analyzed 7 surface water samples from selected locations along the unnamed tributary of North Creek (Figure 6, Table 4).

- Validated lab data for first quarter groundwater and surface water samples. Data Usability Reports for the data presented in this report are included in Attachment B.
- Continued operation of the groundwater migration control system. First quarter 2003 monthly discharge reports, system activity logs, and site inspection checklists are included in Attachments C-E, respectively.
- Connected the resident at 10916 Cassel Road and the outside spigot at 11460 Cassel Road to the municipal water supply. Completed well closures at 10868, 10916, and 11460 Cassel Road (Figure 7, Attachment F).
- Stored the DNAPL recovery system for the winter.
- Removed accumulated debris and re-developed monitoring well MW-301D.
- Participated in a USEPA-led remedial system evaluation (RSE) of the site remediation program.
- Completed preliminary designs for overburden groundwater migration control from manhole N-19 and bedrock groundwater migration control system upgrades. Began NPDES permit modification process.

Data Collected

- Field screening was conducted and groundwater samples were analyzed from 49 monitoring wells. The analytical results from groundwater sampling during the first quarter 2003 are included in Table 2. Updated historical sampling results for monitoring wells MW-301D, MW-413D, MW-416D, MW-418D, and MW-420D are included in Attachment G and the first quarter TCE levels in the "Sugar Rock" are illustrated in Figure 8.
- Analytical results of monthly migration control system samples are presented in Table 3.
- Analytical results of surface water samples collected in the unnamed tributary of North Creek are included in Table 4.
- Data collected as part of the Field Event II (including analytical results and boring logs) will be included in a later submittal.

Performance Evaluation and Problems Encountered

- The groundwater migration control system was operational for 100% of the quarter.
    - A small leak was detected in the influent piping, at the flange connecting the influent piping to the influent flow meter, during an inspection on March 17, 2003. The leak was sealed on March 18, 2003 with JB Water Weld, then covered with duct tape. The amount of water lost through this leak was negligible and was contained in the building's secondary

containment system. No system downtime resulted from the leak or leak repairs.

- In spite of the exceptional system uptime and the rehabilitation of MW-301D, water level data indicate diminished hydraulic capture at monitoring wells MW-417D and MW-418D (Figures 3-5). (It should be noted that groundwater quality data indicate that the plume continues to be stabilized by the migration control system.) The apparent diminished capture at MW-417D and MW-418D may be a factor of the amount of time elapsed between water level measurements. During the second quarter 2003, water level measurements of wells MW-301D, MW-413D, MW-414D, MW-416D, MW-417D, MW-418D, and CSX-18D will be collected consecutively.
- Previously reported total daily flows were over-estimated because of inaccurate effluent flow meter readings. Therefore, beginning in January 2003, the daily discharge was calculated based on an average of influent flow data (Attachment C).

- Continued negotiations with Oberer Development for access to a parcel that they purchased from CSX. Access to monitoring wells on this property is permitted by Oberer during negotiations.
- Ongoing negotiations with CSX Real Property for continued access to monitoring wells. Access to monitoring wells has been allowed by CSX during negotiations.

Project Schedule

- An updated project schedule showing the percent completion of individual tasks is included in Attachment H.

Feel free to contact me at (937) 455-0941 if you have any questions or require additional information.

Sincerely,

W. John Ridd

W. John Ridd
Project Manager
Delphi Corporation

Enclosures:

Tables

1 Groundwater Sampling/Water Level Measurements
2 First Quarter 2003 Analytical Results, Bedrock and Top of Bedrock Monitoring Wells
3 First Quarter 2003 Performance Monitoring Analytical Data, Groundwater Migration Control System
4 First Quarter 2003 Analytical Results, Surface Water Samples

Figures

1 Sampled Bedrock Monitoring Wells, First Quarter 2003
2 Potentiometric Surface Contours – January 6, 2003, Top of Rock Zone
3 Deep Bedrock Potentiometric Surface Contours – January 15, 2003
4 Deep Bedrock Potentiometric Surface Contours – February 12, 2003
5 Deep Bedrock Potentiometric Surface Contours – March 14, 2003
6 Surface Water Sampling Locations
7 Cassel Road Water Service Connections and Well Closures
8 First Quarter 2003 TCE in Sugar Rock

Attachments

A Water Level Measurements
B Data Usability Summary Reports
C Groundwater Migration Control System Monthly Discharge Reports
D Groundwater Migration Control System Activity Log
E Groundwater Migration Control System Inspection Checklist
F Cassel Road Water Service Connections and Well Closures
G Historical Sampling Results, MW-301D, MW-413D, MW-416D, MW-418D, MW-420D
H Project Schedule

TABLE 1
Groundwater Sampling / Water Level Measurements
Delphi Corporation - Vandalia, Ohio

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MW-101D	S/L	L	L	L	L	L	S/L	L	L	L	L	L
MW-101S	L			L			S/L			L		
MW-204D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-204S	L			L			S/L			L		
MW-301D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-301S	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-401D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-401S	L			L			S/L			L		
MW-402D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-402S	L			L			S/L			L		
MW-403D	S/L	L	L	L	L	L	S/L	L	L	L	L	L
MW-403S	L			L			S/L			L		
MW-404D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-404S	L			L			S/L			L		
MW-405D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-405S	L			L			S/L			L		
MW-407D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-407S	L			L			S/L			L		
MW-408D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-409D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-410D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-411D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-412D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-413D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-414D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-415S	L			L			S/L			L		
MW-416D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-417D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-418D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-419D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-419M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-420D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-420M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-421D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-422D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-422S	S/L			S/L			S/L			S/L		
MW-423S	S/L			S/L			S/L			S/L		
MW-424D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-424S	S/L			S/L			S/L			S/L		
MW-425S	S/L			S/L			S/L			S/L		
MW-426S	L			L			S/L			L		
MW-427S	L			L			S/L			L		
MW-428S	L			L			S/L			L		
MW-429S	L			L			S/L			L		
MW-430S	L			L			S/L			L		
MW-431S	L			L			S/L			L		
MW-432D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-432M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-433D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-434D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-435D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-436D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-437D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-438D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-439D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-440D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-441D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-442D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-443D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-444D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-445S	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-446S	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-447D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-448D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-449D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-450D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-451D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-452S	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-453D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
CSX-18D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
CSX-22	L	L	L	L	L	L	S/L	L	L	L	L	L

S/L- sample well, water level L- water level

TABLE 2
First Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	101D-010703-1321 1/7/2003 MW-101D	301D-011403-N 1/14/2003 MW-301D	401D-010803-1640 1/8/2003 MW-401D	403D-010803-1020 1/8/2003 MW-403D	407D-011603-N 1/16/2003 MW-407D	408D-011603-N 1/16/2003 MW-408D	408D-011603-D 1/16/2003 MW-408D
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	< 1	< 20	< 1	< 1	< 17	< 20	< 1
1,1-Dichloroethane	< 1	**13 J**	< 1	< 1	< 17	< 20	**1.9**
1,1-Dichloroethene	< 1	< 20	< 1	< 1	< 17	< 20	**1.6**
1,2,4-Trichlorobenzene	< 1 UJ	< 20	< 1	< 1	< 17	< 20	< 1
1,2-Dibromo-3-Chloropropane	< 2	< 40	< 2	< 2	< 33	< 40	< 2
2-Butanone	**14 J**	< 200	< 10	< 10	< 170 UJ	< 200 UJ	< 10 UJ
2-Hexanone	< 10 UJ	< 200	< 10	< 10	< 170 UJ	< 200 UJ	< 10 UJ
Acetone	< 10 UJ	< 200 UJ	< 10	< 10	< 170 UJ	< 200 UJ	< 10 UJ
Bromomethane	< 1 UJ	< 40	< 2	< 2	< 33	< 40	< 2
Chloroethane	< 1	< 40	< 2	< 2	< 33	< 40	< 2
Chloroform	< 1	< 20	< 1	< 1	< 17	< 20	< 1
cis-1,2-Dichloroethene	< 0.5	**360**	**0.48 J**	**0.23 J**	**330**	**430**	**420 J**
cis-1,3-Dichloropropene	< 1	< 20	< 1	< 1	< 17	< 20	< 1
Dichlorodifluoromethane	< 1	< 40	< 2	< 2	< 33	< 40	< 2
Methyl tert-butyl ether	< 5	< 100	< 5	< 5	< 83	< 100	< 5
Methylene Chloride	< 1	< 20	0.33 U	< 1	< 17	< 20	0.37 U
Tetrachloroethene	< 1	< 20	< 1	< 1	< 17	< 20	< 1
trans-1,2-Dichloroethene	< 0.5	< 10	< 0.5	< 0.5	< 8.3	< 10	**2.6**
trans-1,3-Dichloropropene	< 1	< 20 UJ	< 1	< 1	< 17	< 20	< 1
Trichloroethene	< 1	**680**	< 1	**0.37 J**	**350**	**520**	**460 J**
Trichlorofluoromethane	< 1 UJ	< 40	< 2	< 2	< 33	< 40	< 2
Vinyl chloride	< 1	**6.0 J**	< 2	< 2	< 33	< 40	< 2

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
First Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	409D-011603-N 1/16/2003 MW-409D	410D-011603-N 1/16/2003 MW-410D	411D-011703-N 1/17/2003 MW-411D	412D-011703-N 1/17/2003 MW-412D	413D-011303-N 1/13/2003 MW-413D	414D-010803-1715 1/8/2003 MW-414D	416D-011303-N 1/13/2003 MW-416D
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	< 12	< 33	< 42 UJ	< 42 UJ	< 2.5	< 1	< 5
1,1-Dichloroethane	< 12	< 33	< 42	< 42	**1.1 J**	< 1	< 5
1,1-Dichloroethene	< 12	< 33	< 42	< 42	< 2.5	< 1	< 5
1,2,4-Trichlorobenzene	< 12	< 33	< 42	< 42	< 2.5	< 1	< 5
1,2-Dibromo-3-Chloropropane	< 25	< 67	< 83 UJ	< 83 UJ	< 5	< 2	< 10
2-Butanone	< 120 UJ	< 330 UJ	< 420	< 420	< 25	< 10	< 50
2-Hexanone	< 120 UJ	< 330 UJ	< 420 UJ	< 420 UJ	< 25	< 10	< 50
Acetone	< 120 UJ	< 330 UJ	< 420 UJ	< 420 UJ	< 25	< 10	< 50
Bromomethane	< 25	< 67	< 83	< 83	< 5	< 2	< 10
Chloroethane	< 25	< 67	< 83	< 83	< 5	< 2	< 10
Chloroform	< 12	< 33	< 42	< 42	< 2.5	< 1	< 5
cis-1,2-Dichloroethene	**300**	**350**	**490**	**500**	**74**	**2.2**	**110**
cis-1,3-Dichloropropene	< 12	< 33	< 42 UJ	< 42 UJ	< 2.5	< 1	< 5
Dichlorodifluoromethane	< 25	< 67	< 83 UJ	< 83 UJ	< 5 UJ	< 2	< 10 UJ
Methyl tert-butyl ether	< 62	< 170	< 210 UJ	< 210 UJ	< 12	< 5	< 25
Methylene Chloride	< 12	< 33	< 42	< 42	< 2.5	< 1	< 5
Tetrachloroethene	< 12	< 33	< 42	< 42	< 2.5	< 1	< 5
trans-1,2-Dichloroethene	< 6.2	< 17	**13 J**	**6.3 J**	< 1.2	< 0.5	< 2.5
trans-1,3-Dichloropropene	< 12	< 33	< 42 UJ	< 42 UJ	< 2.5	< 1	< 5
Trichloroethene	**61**	**730**	**1200**	**1400**	**76**	**0.78 J**	< 5
Trichlorofluoromethane	< 25	< 67	< 83	< 83	< 5	< 2	< 10
Vinyl chloride	< 25	< 67	< 83	< 83	< 5	< 2	**4.0 J**

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
First Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	417D-011003-N 1/10/2003 MW-417D	418D-011403-N 1/14/2003 MW-418D	419D-011403-N 1/14/2003 MW-419D	419M-011703-N 1/17/2003 MW-419M	420D-011603-N 1/16/2003 MW-420D	420M-011403-N 1/14/2003 MW-420M	421D-012203-1025 1/22/2003 MW-421D
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	< 1.7	< 20	< 6.7	< 1 UJ	< 33	< 20	< 1.3 UJ
1,1-Dichloroethane	< 1.7	< 20	< 6.7	< 1	< 33	< 20	< 1.3
1,1-Dichloroethene	< 1.7	< 20	< 6.7	< 1	< 33	< 20	< 1.3
1,2,4-Trichlorobenzene	< 1.7	< 20	< 6.7	< 1	< 33	< 20	< 1.3
1,2-Dibromo-3-Chloropropane	< 3.3	< 40	< 13	< 2 UJ	< 67	< 40	< 2.7 UJ
2-Butanone	< 17	< 200	< 67	< 10	< 330 UJ	< 200	< 13
2-Hexanone	< 17	< 200	< 67	< 10 UJ	< 330 UJ	< 200	< 13 UJ
Acetone	< 17	< 200 UJ	< 67 UJ	< 10 UJ	< 330 UJ	< 200 UJ	< 13 UJ
Bromomethane	< 3.3	< 40	< 13	< 2	< 67	< 40	< 2.7 UJ
Chloroethane	< 3.3	< 40	< 13	< 2	< 67	< 40	< 2.7 UJ
Chloroform	< 1.7	< 20	< 6.7	< 1	< 33	< 20	< 1.3
cis-1,2-Dichloroethene	**54**	**540**	**200**	**0.41 J**	**840**	**720**	**43**
cis-1,3-Dichloropropene	< 1.7	< 20	< 6.7	< 1 UJ	< 33	< 20	< 1.3 UJ
Dichlorodifluoromethane	< 3.3	< 40	< 13	< 2 UJ	< 67	< 40	< 2.7
Methyl tert-butyl ether	< 8.4	< 100	< 33	< 5 UJ	< 170	< 100	< 6.6 UJ
Methylene Chloride	< 1.7	< 20	< 6.7	< 1	10 U	< 20	< 1.3
Tetrachloroethene	< 1.7	< 20	< 6.7	< 1	< 33	< 20	< 1.3
trans-1,2-Dichloroethene	< 0.84	< 10	**1.1 J**	< 0.5	< 17	**6.0 J**	< 0.66
trans-1,3-Dichloropropene	< 1.7	< 20 UJ	< 6.7 UJ	< 1 UJ	< 33	< 20 UJ	< 1.3 UJ
Trichloroethene	0.30 U	**19 J**	**53**	< 1	< 33	**810**	0.30 U
Trichlorofluoromethane	< 3.3	< 40	< 13	< 2	< 67	< 40	< 2.7 UJ
Vinyl chloride	**0.51 J**	**16 J**	**49**	< 2	< 67	**130**	**3.6**

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

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TABLE 2
First Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	422D-010803-1450 1/8/2003 MW-422D	422D-010803-D 1/8/2003 MW-422D	422S-012203-1625 1/22/2003 MW-422S	423S-012103-1355 1/21/2003 MW-423S	424D-011703-N 1/17/2003 MW-424D	424S-012003-1615 1/20/2003 MW-424S	425S-012003-1405 1/20/2003 MW-425S
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	< 1	< 1	< 10000 UJ	< 1	< 1000 UJ	< 2500	< 6.7
1,1-Dichloroethane	< 1	< 1	**2400 J**	< 1	**410 J**	**800 J**	**17**
1,1-Dichloroethene	< 1	< 1	< 10000	< 1	< 1000	< 2500	< 6.7
1,2,4-Trichlorobenzene	< 1	< 1	**3400 J**	< 1	< 1000	< 2500	< 6.7
1,2-Dibromo-3-Chloropropane	< 2	< 2	< 20000 UJ	< 2 UJ	< 2000 UJ	< 5000 UJ	< 13 UJ
2-Butanone	< 10	< 10	< 100000	< 10	< 10000	< 25000	< 67
2-Hexanone	< 10	< 10	< 100000 UJ	< 10 UJ	< 10000 UJ	< 25000	< 67
Acetone	< 10	< 10	< 100000 UJ	< 10 UJ	< 10000 UJ	< 25000 UJ	< 67 UJ
Bromomethane	< 2	< 2	< 20000 UJ	< 2	< 2000	< 5000 UJ	< 13 UJ
Chloroethane	< 2	< 2	< 20000 UJ	< 2	< 2000	< 5000	< 13
Chloroform	< 1	< 1	< 10000	< 1	< 1000	< 2500	< 6.7
cis-1,2-Dichloroethene	**0.31 J**	**0.39 J**	**31000**	< 0.5	**6000**	**14000**	**87**
cis-1,3-Dichloropropene	< 1	< 1	< 10000 UJ	< 1 UJ	< 1000 UJ	< 2500 UJ	< 6.7 UJ
Dichlorodifluoromethane	< 2	< 2	< 20000	< 2	< 2000 UJ	< 5000	< 13
Methyl tert-butyl ether	< 5	< 5	< 50000 UJ	< 5 UJ	< 5000 UJ	< 12000 UJ	< 33 UJ
Methylene Chloride	< 1	< 1	< 10000	< 1	**340 J**	< 2500	< 6.7
Tetrachloroethene	< 1	< 1	< 10000	< 1	< 1000	< 2500	< 6.7
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 5000	< 0.5	< 500	< 1200	< 3.3
trans-1,3-Dichloropropene	< 1	< 1	< 10000 UJ	< 1 UJ	< 1000 UJ	< 2500 UJ	< 6.7 UJ
Trichloroethene	**0.27 J**	**0.18 J**	**240000**	**0.19 J**	**31000**	**82000**	**200**
Trichlorofluoromethane	< 2	< 2	< 20000 UJ	< 2	< 2000	< 5000	< 13
Vinyl chloride	**0.90 J**	**0.88 J**	< 20000	< 2	< 2000	< 5000	**1.9 J**

Notes and Abbreviations:

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2. Analysis method SW8260.
3. See Figure 1 for sample locations.

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UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
First Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	432D-011403-N 1/14/2003 MW-432D	432M-011603-N 1/16/2003 MW-432M	433D-011403-N 1/14/2003 MW-433D	434D-011403-N 1/14/2003 MW-434D	435D-012203-1410 1/22/2003 MW-435D	0763-012203-0003 1/22/2003 MW-435D	436D-011003-N 1/10/2003 MW-436D
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	< 1	< 1	< 14	< 20	< 17 UJ	< 17 UJ	< 3.3
1,1-Dichloroethane	< 1	< 1	< 14	< 20	< 17	< 17	< 3.3
1,1-Dichloroethene	< 1	< 1	< 14	< 20	< 17	< 17	< 3.3
1,2,4-Trichlorobenzene	< 1	< 1	< 14	< 20	< 17	< 17	< 3.3
1,2-Dibromo-3-Chloropropane	< 2	< 2	< 29	< 40	< 33 UJ	< 33 UJ	< 6.7
2-Butanone	< 10	< 10 UJ	< 140	< 200	< 170	< 170	< 33
2-Hexanone	< 10	< 10 UJ	< 140	< 200	< 170 UJ	< 170 UJ	< 33
Acetone	< 10 UJ	< 10 UJ	< 140 UJ	< 200 UJ	< 170 UJ	< 170 UJ	< 33
Bromomethane	< 2	< 2	< 29	< 40	< 33 UJ	< 33 UJ	< 6.7
Chloroethane	< 2	< 2	< 29	< 40	< 33 UJ	< 33 UJ	< 6.7
Chloroform	< 1	< 1	< 14	< 20	< 17	< 17	< 3.3
cis-1,2-Dichloroethene	**29**	< 0.5	**380**	**520**	**500**	**500**	**13**
cis-1,3-Dichloropropene	< 1	< 1	< 14	< 20	< 17 UJ	< 17 UJ	< 3.3
Dichlorodifluoromethane	< 2	< 2	< 29	< 40	< 33	< 33	< 6.7
Methyl tert-butyl ether	< 5	< 5	< 71	< 100	< 83 UJ	< 83 UJ	< 17
Methylene Chloride	< 1	< 1	< 14	< 20	< 17	< 17	< 3.3
Tetrachloroethene	< 1	< 1	< 14	< 20	< 17	< 17	< 3.3
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 7.1	**3.1 J**	**2.9 J**	< 8.3	< 1.7
trans-1,3-Dichloropropene	< 1 UJ	< 1	< 14 UJ	< 20 UJ	< 17 UJ	< 17 UJ	< 3.3
Trichloroethene	**21**	< 1	**130**	**140**	**280**	**290**	**66**
Trichlorofluoromethane	< 2	< 2	< 29	< 40	< 33 UJ	< 33 UJ	< 6.7
Vinyl chloride	**0.87 J**	< 2	< 29	< 40	< 33	**2.5 J**	< 6.7

Notes and Abbreviations:

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TABLE 2
First Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	437D-011303-N 1/13/2003 MW-437D	438D-010903-N 1/9/2003 MW-438D	439D-010803-1225 1/8/2003 MW-439D	440D-010903-N 1/9/2003 MW-440D	441D-010903-N 1/9/2003 MW-441D	442D-010903-N 1/9/2003 MW-442D	443D-010803-1110 1/8/2003 MW-443D
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	< 3.3	< 1	< 1	< 1.4	< 1	< 1	< 1
1,1-Dichloroethane	< 3.3	< 1	< 1	< 1.4	< 1	< 1	< 1
1,1-Dichloroethene	< 3.3	< 1	< 1	< 1.4	< 1	< 1	< 1
1,2,4-Trichlorobenzene	< 3.3	< 1	< 1	< 1.4	< 1	< 1	< 1
1,2-Dibromo-3-Chloropropane	< 6.7	< 2	< 2	< 2.9	< 2	< 2	< 2
2-Butanone	< 33	< 10	< 10	< 14	< 10	< 10	< 10
2-Hexanone	< 33	< 10	< 10	< 14	< 10	< 10	< 10
Acetone	< 33	< 10	< 10	< 14	< 10	< 10	< 10
Bromomethane	< 6.7	< 2	< 2	< 2.9	< 2	< 2	< 2
Chloroethane	< 6.7	< 2	< 2	< 2.9	< 2	< 2	< 2
Chloroform	< 3.3	< 1	0.25 U	< 1.4	< 1	< 1	< 1
cis-1,2-Dichloroethene	**26**	**4.6**	< 0.5	**45**	**20**	< 0.5	< 0.5
cis-1,3-Dichloropropene	< 3.3	< 1	< 1	< 1.4	< 1	< 1	< 1
Dichlorodifluoromethane	< 6.7 UJ	< 2	< 2	< 2.9	< 2	< 2	< 2
Methyl tert-butyl ether	< 17	< 5	< 5	< 7.2	< 5	< 5	< 5
Methylene Chloride	< 3.3	< 1	< 1	< 1.4	< 1	< 1	< 1
Tetrachloroethene	< 3.3	< 1	< 1	< 1.4	< 1	< 1	< 1
trans-1,2-Dichloroethene	< 1.7	< 0.5	< 0.5	< 0.72	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	< 3.3	< 1	< 1	< 1.4	< 1	< 1	< 1
Trichloroethene	**100**	**17**	**0.44 J**	**15**	**35**	< 1	< 1
Trichlorofluoromethane	< 6.7	< 2	< 2	< 2.9	< 2	< 2	< 2
Vinyl chloride	< 6.7	< 2	< 2	< 2.9	< 2	< 2	< 2

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

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TABLE 2
First Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	444D-011303-N 1/13/2003 MW-444D	445S-012103-1120 1/21/2003 MW-445S	446S-012103-0950 1/21/2003 MW-446S	447D-010903-N 1/9/2003 MW-447D	447D-010903-D 1/9/2003 MW-447D	448D-010903-N 1/9/2003 MW-448D	449D-011003-N 1/10/2003 MW-449D
Volatile Organic Compounds (µg/l)							
1,1,1-Trichloroethane	< 3.3	< 1	< 1	< 1	< 1	< 1	< 1.7
1,1-Dichloroethane	< 3.3	< 1	< 1	< 1	< 1	< 1	< 1.7
1,1-Dichloroethene	< 3.3	< 1	< 1	< 1	< 1	< 1	< 1.7
1,2,4-Trichlorobenzene	< 3.3	< 1	< 1	< 1	< 1	< 1	< 1.7
1,2-Dibromo-3-Chloropropane	< 6.7	< 2 UJ	< 2 UJ	< 2	< 2	< 2	< 3.3
2-Butanone	< 33	< 10	< 10	< 10	< 10	< 10	< 17
2-Hexanone	< 33	< 10 UJ	< 10 UJ	< 10	< 10	< 10	< 17
Acetone	< 33	< 10 UJ	< 10 UJ	< 10	< 10	< 10	< 17
Bromomethane	< 6.7	< 2	< 2	< 2	< 2	< 2	< 3.3
Chloroethane	< 6.7	< 2	< 2	< 2	< 2	< 2	< 3.3
Chloroform	< 3.3	< 1	< 1	< 1	< 1	< 1	< 1.7
cis-1,2-Dichloroethene	**78**	< 0.5	< 0.5	**6.2**	**6.2**	**9.9**	**17**
cis-1,3-Dichloropropene	< 3.3	< 1 UJ	< 1 UJ	< 1	< 1	< 1	< 1.7
Dichlorodifluoromethane	< 6.7 UJ	< 2	< 2	< 2	< 2	< 2	< 3.3
Methyl tert-butyl ether	< 17	< 5 UJ	< 5 UJ	< 5	< 5	< 5	< 8.4
Methylene Chloride	< 3.3	< 1	< 1	**0.46 J**	< 1	< 1	< 1.7
Tetrachloroethene	< 3.3	< 1	< 1	< 1	< 1	< 1	< 1.7
trans-1,2-Dichloroethene	< 1.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.84
trans-1,3-Dichloropropene	< 3.3	< 1 UJ	< 1 UJ	< 1	< 1	< 1	< 1.7
Trichloroethene	**5.6**	**0.81 J**	**0.80 J**	< 1	< 1	**1.9**	**45**
Trichlorofluoromethane	< 6.7	< 2	< 2	< 2	< 2	< 2	< 3.3
Vinyl chloride	< 6.7	< 2	< 2	< 2	< 2	< 2	< 3.3

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

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TABLE 2
First Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	450D-010803-1440 1/8/2003 MW-450D	451D-010903-N 1/9/2003 MW-451D	453D-011003-N 1/10/2003 MW-453D	CSX18D-012103-1555 1/21/2003 CSX-18D
Volatile Organic Compounds (µg/l)				
1,1,1-Trichloroethane	< 1	< 1	< 2	< 1
1,1-Dichloroethane	< 1	< 1	< 2	< 1
1,1-Dichloroethene	< 1	< 1	< 2	< 1
1,2,4-Trichlorobenzene	< 1	< 1	< 2	< 1
1,2-Dibromo-3-Chloropropane	< 2	< 2	< 4	< 2 UJ
2-Butanone	< 10	< 10	< 20	< 10
2-Hexanone	< 10	< 10	< 20	< 10 UJ
Acetone	< 10	< 10	< 20	< 10 UJ
Bromomethane	< 2	< 2	< 4	< 2
Chloroethane	< 2	< 2	< 4	< 2
Chloroform	< 1	< 1	< 2	< 1
cis-1,2-Dichloroethene	< 0.5	**9.2**	**52**	**6.3**
cis-1,3-Dichloropropene	< 1	< 1	< 2	< 1 UJ
Dichlorodifluoromethane	< 2	< 2	< 4	< 2
Methyl tert-butyl ether	< 5	< 5	< 10	< 5 UJ
Methylene Chloride	< 1	< 1	< 2	< 1
Tetrachloroethene	< 1	**1.1**	< 2	< 1
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 1	< 0.5
trans-1,3-Dichloropropene	< 1	< 1	< 2	< 1 UJ
Trichloroethene	< 1	**28**	**52**	**0.78 J**
Trichlorofluoromethane	< 2	< 2	< 4	< 2
Vinyl chloride	< 2	**0.79 J**	< 4	< 2

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

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TABLE 3
First Quarter 2003 Performance Monitoring Analytical Data
Groundwater Migration Control System
Delphi Corporation - Vandalia, Ohio

Compound	RW-01/14 01/14/03 Recovery Well	Eff-01/14 01/14/03 Effluent	RW-02/03 02/03/03 Recovery Well	Eff-02/03 02/03/03 Effluent	RW-03/13 03/13/03 Recovery Well	Eff-03/13 03/13/03 Effluent
VOLATILE ORGANICS - µg/L **METHOD: EPA 624**						
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	**25.3**	< 1	**20.5**	< 1	**19.1**	< 1
1,1-Dichloroethene	**5.2**	< 1	**4.4**	< 1	**3.5**	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	**744**	< 1	**744**	< 1	**512**	< 1
trans-1,2-Dichloroethene	**7.1**	< 1	**5.7**	< 1	**4.9**	< 1
Trichloroethene	**1,740**	< 1	**1,760**	< 1	**1,450**	< 1
Vinyl chloride	**5.8**	< 2	**3.9**	< 2	**4.4**	< 2
TOTAL ORGANIC CARBON - µg/L **METHOD: SM 5310C**	**1,600**	**3,600**	**1,200**	**3,700**	**1,200**	**3,400**
TOTAL DISSOLVED SOLIDS - µg/L **METHOD: EPA 160.1**	**484,000**	**537,000**	**594,000**	**493,000**	**507,000**	**530,000**
pH (Lab) - S.U. (standard units) **METHOD: EPA 150.1**	**7.42**	**8.42**	**7.17**	**8.25**	**7.17**	**8.35**

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J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 4
First Quarter 2003 Analytical Results
Surface Water Samples
Delphi Corporation - Vandalia, Ohio

	SW1-012303-1415 1/23/2003 SW-1	SW2-012303-1430 1/23/2003 SW-2	SW3-012303-1520 1/23/2003 SW-3	0755-012303-0001 1/23/2003 SW-3	SW4-012303-1455 1/23/2003 SW-4	SW5-012303-1140 1/23/2003 SW-5	SW6-012303-1115 1/23/2003 SW-6	SW7-012303-1050 1/23/2003 SW-7
Volatile Organic Compounds (µg/l)								
1,1,1-Trichloroethane	**4.5 J**	**8.7 J**	< 5	< 5	**25 J**	< 5	< 5	< 5
1,4-Dichlorobenzene	< 10	**2.3 J**	< 5	< 5	< 50	< 5	< 5	< 5
cis-1,2-Dichloroethene	**24**	**39**	< 2.5	< 2.5	**110**	**1.6 J**	< 2.5	< 2.5
Toluene	< 10	< 25	< 5	< 5	< 50	**0.53 J**	< 5	< 5
Trichloroethene	**360**	**650**	< 5	< 5	**1900**	**13**	**4.5 J**	**2.1 J**
Trichlorofluoromethane	**1.7 J**	**3.9 J**	< 10	< 10	**13 J**	< 10	< 10	< 10

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW624.
3. See Figure 6 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

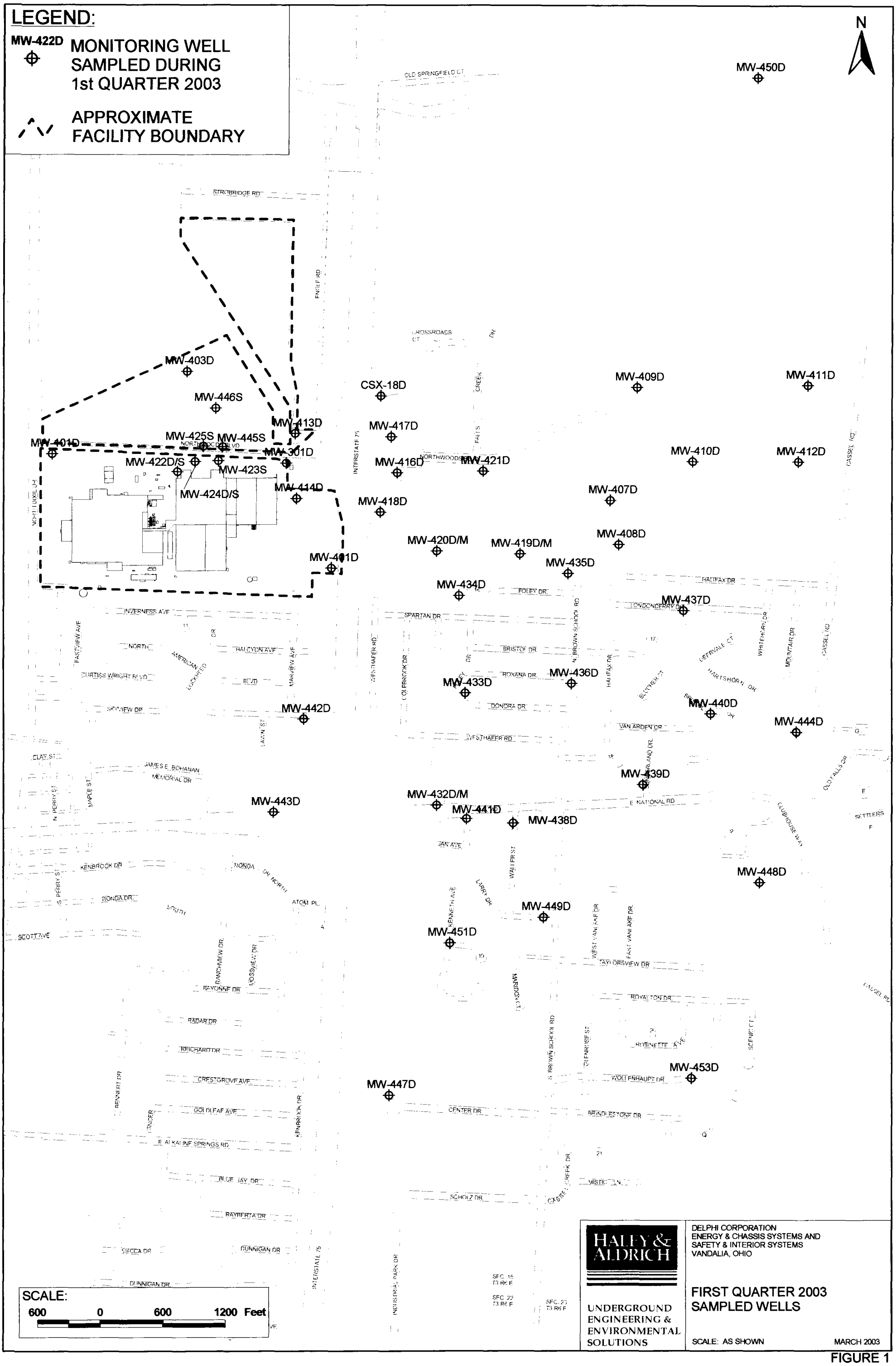
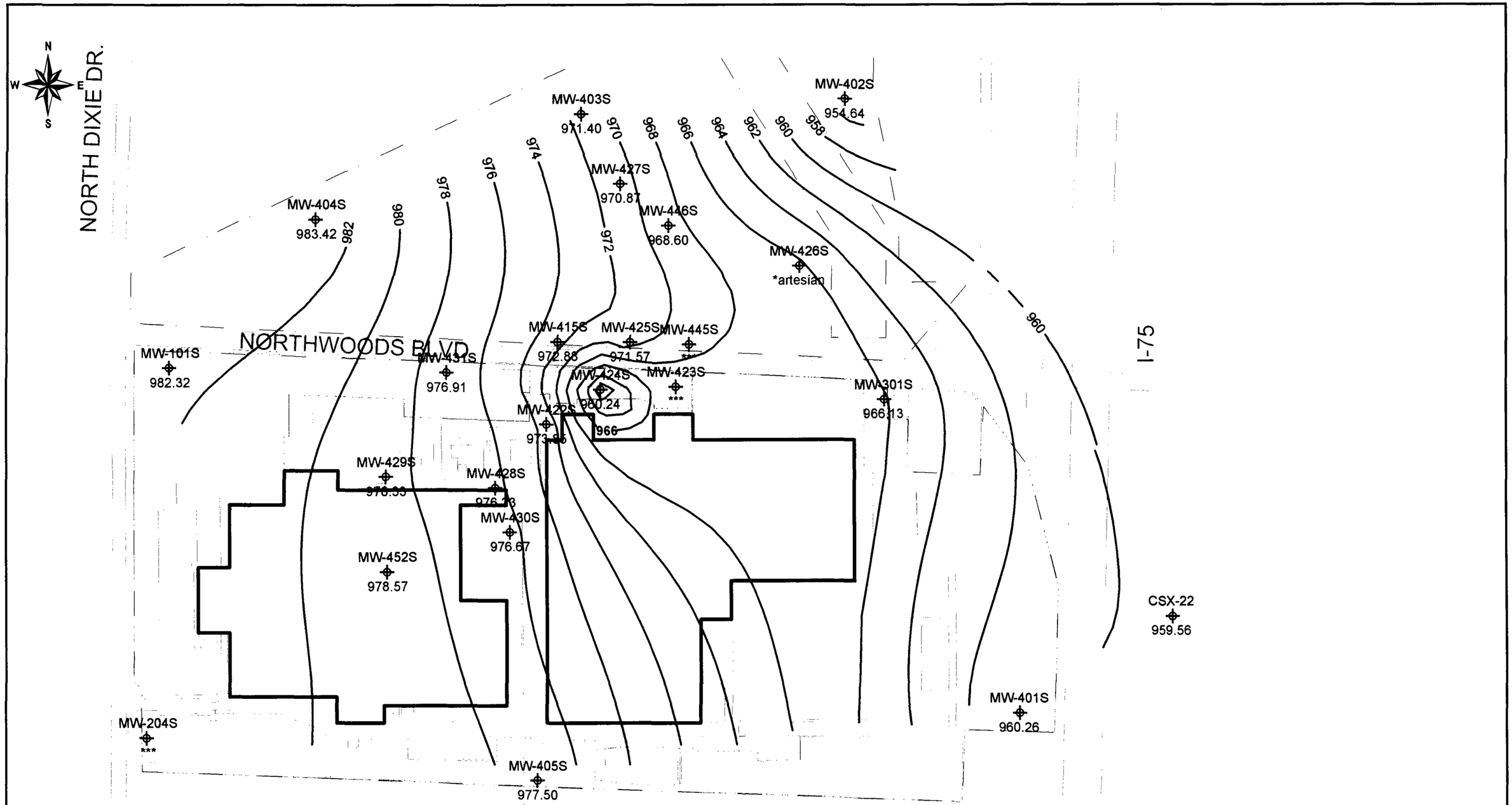

LEGEND:
MW-422D MONITORING WELL SAMPLED DURING 1st QUARTER 2003
APPROXIMATE FACILITY BOUNDARY
N
MW-450D
MW-403D
MW-446S
MW-413D
CSX-18D
MW-409D
MW-411D
MW-401D
MW-425S
MW-445S
MW-301D
MW-422D/S
MW-423S
MW-424D/S
MW-414D
MW-417D
MW-416D
MW-421D
MW-410D
MW-412D
MW-407D
MW-418D
MW-408D
MW-420D/M
MW-419D/M
MW-401D
MW-435D
MW-434D
MW-437D
MW-433D
MW-436D
MW-440D
MW-442D
MW-444D
MW-439D
MW-432D/M
MW-441D
MW-438D
MW-443D
MW-448D
MW-449D
MW-451D
MW-453D
MW-447D
SCALE:
600 0 600 1200 Feet
HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS
DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO
FIRST QUARTER 2003 SAMPLED WELLS
SCALE: AS SHOWN
MARCH 2003

FIGURE 1



LEGEND:

- PROPERTY LINE
- FACILITY OUTLINE
- MW-401S — MONITORING WELL
- 935.0 — WATER ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR

NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR *POTENTIOMETRIC LEVELS.*
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

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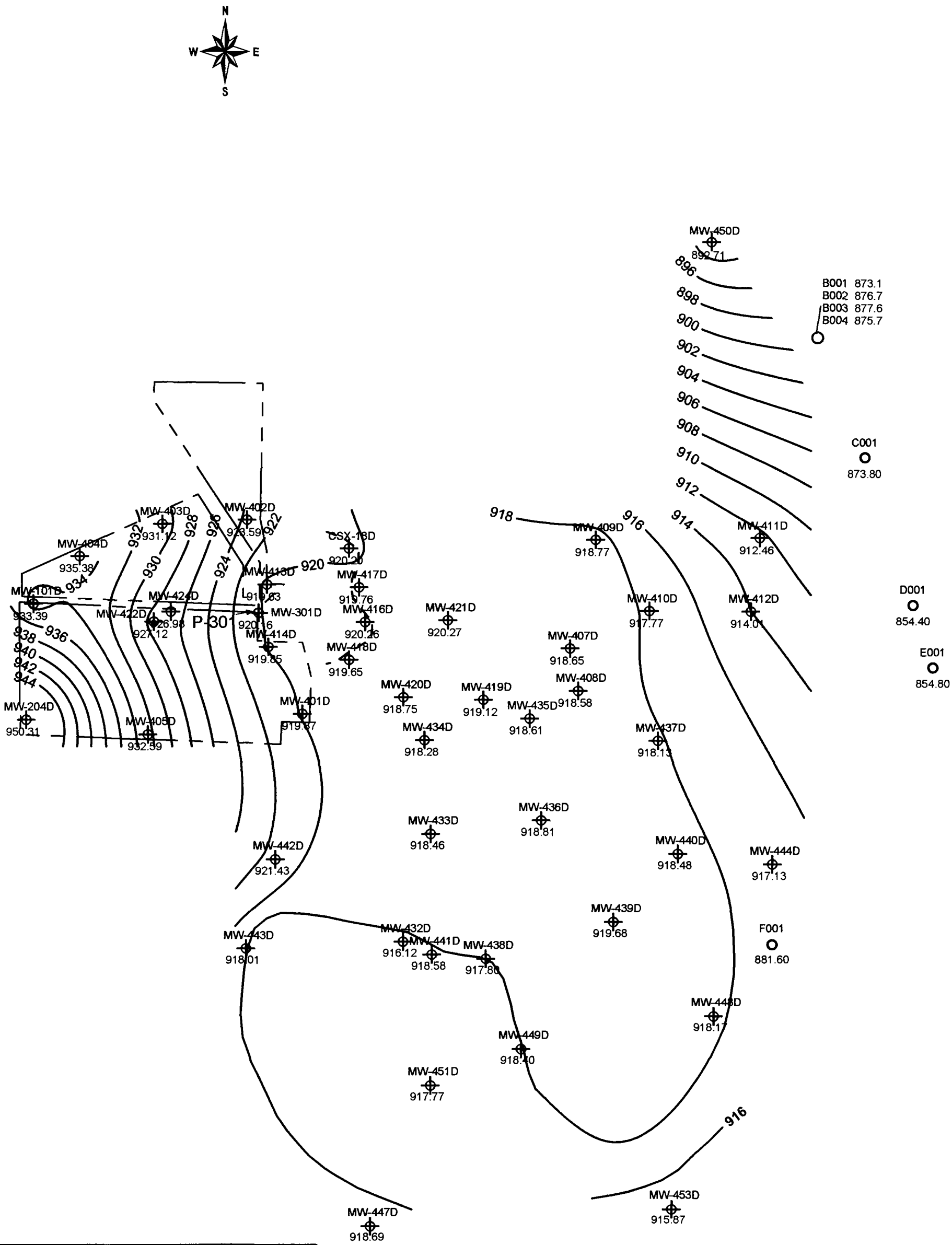
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

POTENTIOMETRIC SURFACE CONTOURS - 06 JANUARY 2003 TOP OF ROCK ZONE

SCALE: 1 IN. = 300 FT.

JANUARY 2003

FIGURE 2



NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

LEGEND:

- FACILITY BOUNDARY
- MW-401D / 935.0 — MONITORING WELL WATER ELEVATION
- SPRING LOCATION
- POTENTIOMETRIC SURFACE CONTOUR
- EASTERN LIMITS OF APPARENT CAPTURE ZONE

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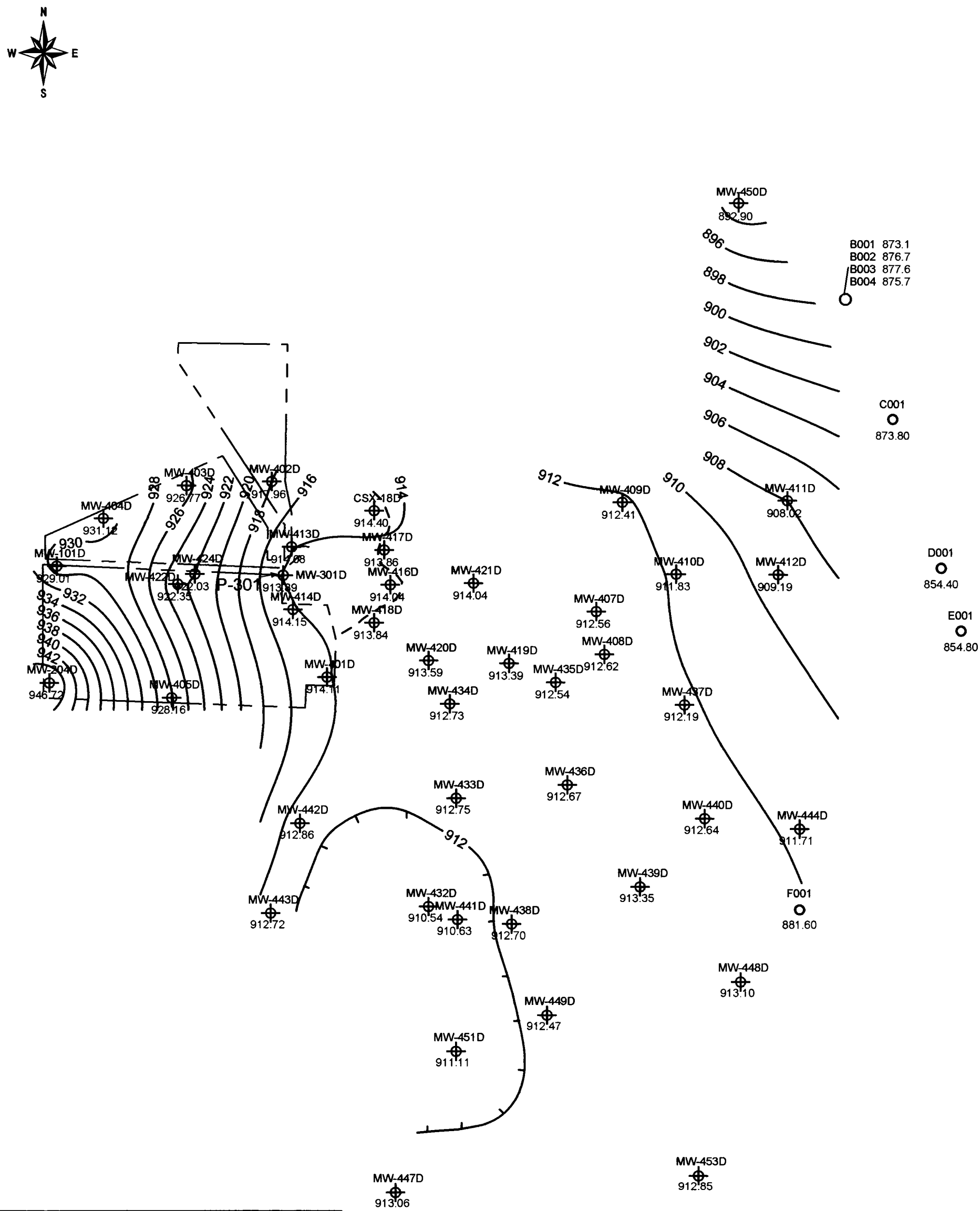
VANDALIA, OHIO

DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 15 JANUARY 2003

SCALE: 1 IN. = 1000 FT.

JANUARY 2003

FIGURE 3



NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

LEGEND:

- FACILITY BOUNDARY
- MW-401D / 935.0 — MONITORING WELL WATER ELEVATION
- SPRING LOCATION
- POTENTIOMETRIC SURFACE CONTOUR
- EASTERN LIMITS OF APPARENT CAPTURE ZONE

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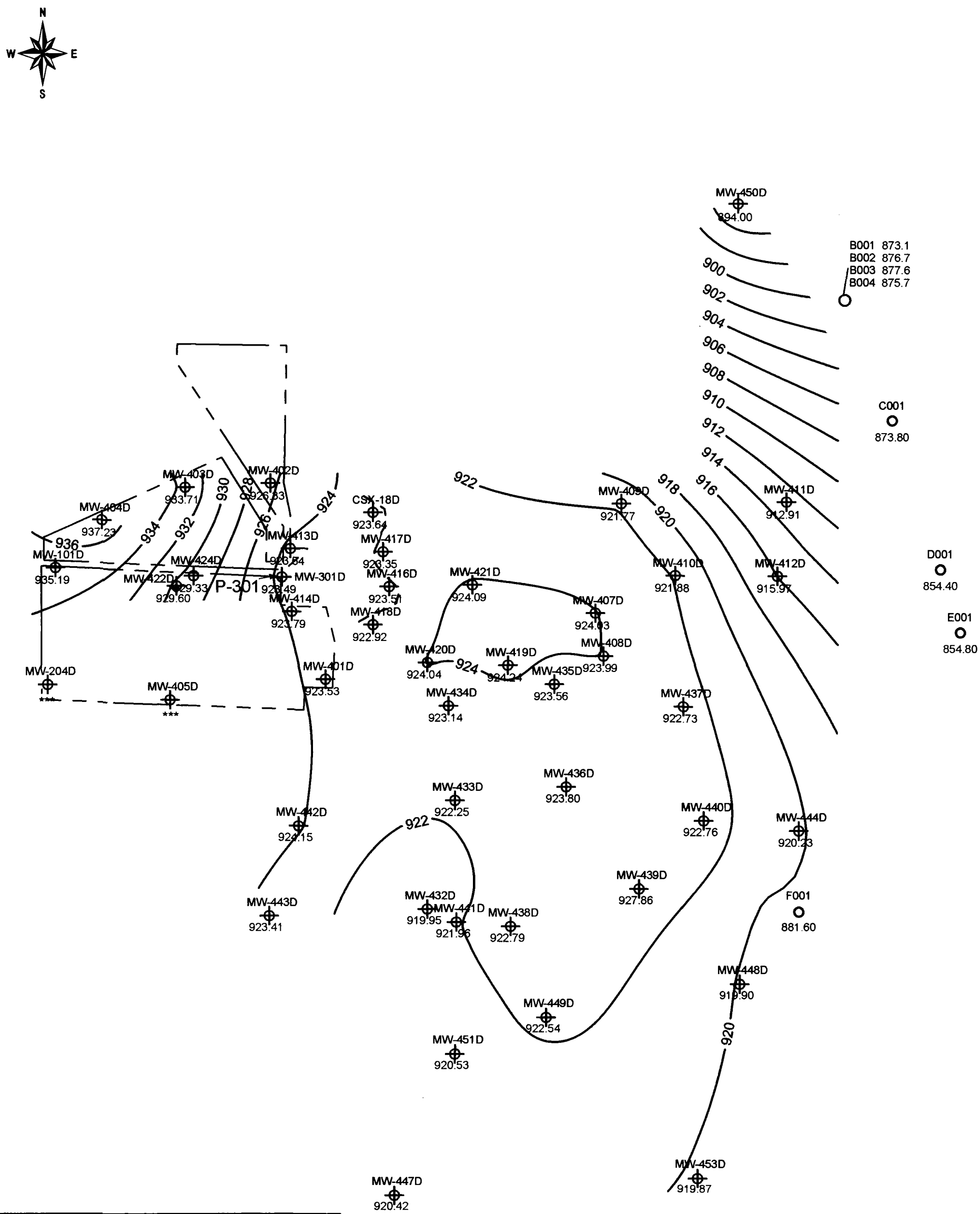
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 12 FEBRUARY 2003

SCALE: 1 IN. = 1000 FT.

FEBRUARY 2003

FIGURE 4



NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

LEGEND:

- FACILITY BOUNDARY
- MW-401D / 935.0 — MONITORING WELL WATER ELEVATION
- SPRING LOCATION
- POTENTIOMETRIC SURFACE CONTOUR
- EASTERN LIMITS OF APPARENT CAPTURE ZONE

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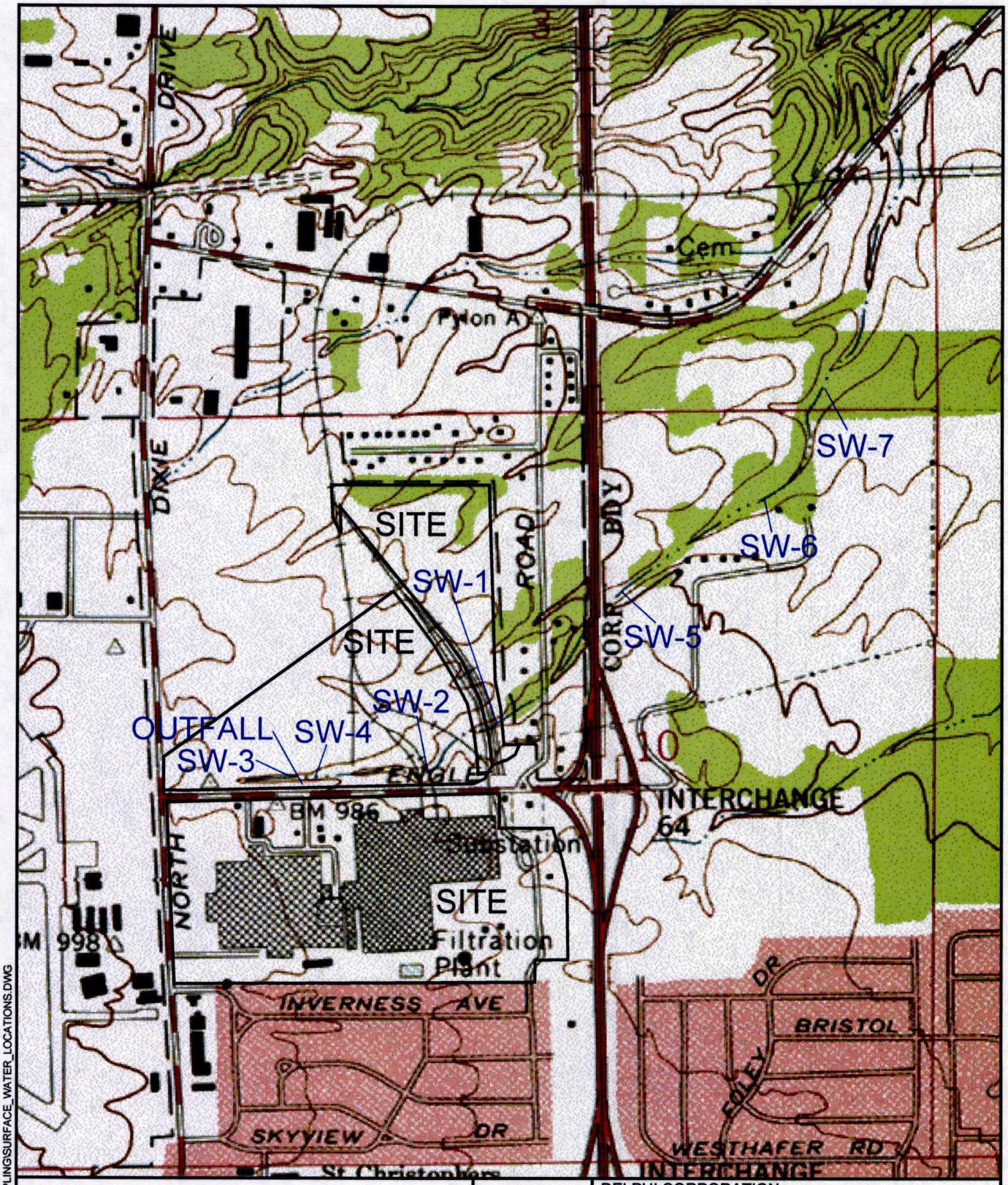
VANDALIA, OHIO

DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 14 MARCH 2003

SCALE: 1 IN. = 1000 FT.

MARCH 2003

FIGURE 5



N

USGS QUADRANGLE:
TIPP CITY, OHIO

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO

SURFACE WATER SAMPLING
LOCATIONS

SCALE: 1 INCH = 1,000 FEET

APRIL 2003

79022\22-050\SURFACE WATER SAMPLING\SURFACE_WATER_LOCATIONS.DWG

FIGURE 6

LEGEND

- RESIDENT REPORTED NO WELL PRESENT
- ABANDONED WELL
- WELL ABANDONED SINCE INITIAL SURVEY
- NON-OPERATING WELL PRESENT
- WELL PRESENT
- MUNICIPAL WATER SERVICE CONNECTION SINCE INITIAL SURVEY
- SAMPLED

0 300 600 900 1200
GRAPHIC SCALE IN FEET

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UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO

CASSEL ROAD WATER SERVICE CONNECTIONS AND WELL CLOSURES

SCALE: AS SHOWN

APRIL 2003

79022\GIS\ACAD\CASSELSUMMARY_040103.DWG

FIGURE 7

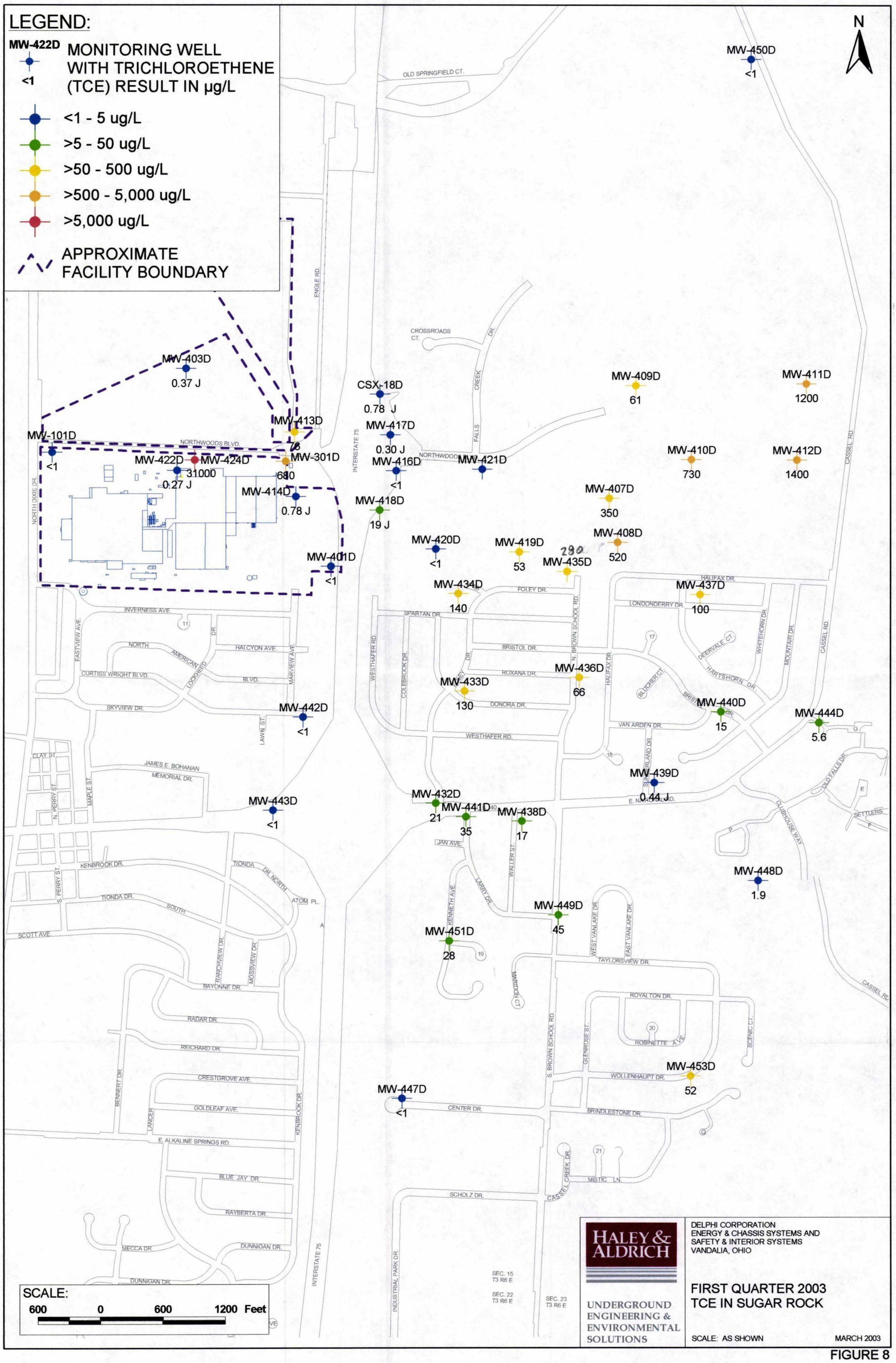
LEGEND:
MW-422D
<1
MONITORING WELL WITH TRICHLOROETHENE (TCE) RESULT IN µg/L
<1 - 5 ug/L
>5 - 50 ug/L
>50 - 500 ug/L
>500 - 5,000 ug/L
>5,000 ug/L
APPROXIMATE FACILITY BOUNDARY
N
MW-450D <1
MW-403D 0.37 J
CSX-18D 0.78 J
MW-409D 61
MW-411D 1200
MW-413D 76
MW-101D <1
MW-417D 0.30 J
MW-422D 31000
MW-424D 0.27 J
MW-301D 680
MW-416D <1
MW-421D
MW-410D 730
MW-412D 1400
MW-414D 0.78 J
MW-418D 19 J
MW-407D 350
MW-408D 520
MW-420D <1
MW-419D 53
MW-435D 280
MW-401D <1
MW-434D 140
MW-437D 100
MW-436D 66
MW-433D 130
MW-440D 15
MW-442D <1
MW-444D 5.6
MW-439D 0.44 J
MW-432D 21
MW-441D 35
MW-438D 17
MW-443D <1
MW-448D 1.9
MW-449D 45
MW-451D 28
MW-453D 52
MW-447D <1
OLD SPRINGFIELD CT.
ENGLE RD.
CROSSROADS CT.
CREEK DR.
NORTHWOODS BLVD.
INTERSTATE 75
FALLS
NORTH DIXIE DR.
INVERNESS AVE.
EASTVIEW AVE.
NORTH AMERICAN BLVD.
HALCYON AVE.
CURTISS WRIGHT BLVD.
LOCKHEED DR.
MARVIEW AVE.
SKYVIEW DR.
LAWN ST.
CLAY ST.
JAMES E. BOHANAN MEMORIAL DR.
MAPLE ST.
N. PERRY ST.
S. PERRY ST.
KENBROOK DR.
TIONDA DR. NORTH
TIONDA DR. SOUTH
ATOM PL.
SCOTT AVE.
RANCHVIEW DR.
MOSSVIEW DR.
BAYONNE DR.
RADAR DR.
REICHARD DR.
CRESTGROVE AVE.
GOLDLEAF AVE.
BENNERT DR.
LANCER
E. ALKALINE SPRINGS RD.
BLUE JAY DR.
RAYBERTA DR.
MECCA DR.
DUNNIGAN DR.
WESTHAFER RD.
COLEBROOK DR.
SPARTAN DR.
FOLEY DR.
BRISTOL DR.
ROXANA DR.
DONORA DR.
N. BROWN SCHOOL RD.
HALIFAX DR.
LONDONDERRY DR.
HALIFAX DR.
DEERVALE CT.
WHITEHORN DR.
HARTSHORN DR.
MOUNTAIR DR.
CASSEL RD.
BLUCHER CT.
VAN ARDEN DR.
SUNDERLAND DR.
OLD FALLS DR.
CLUBHOUSE WAY
SETTLERS
E. NORTHWOOD BLVD.
KENNETH AVE.
LARRY DR.
JAN AVE.
WALLER ST.
WEST VANLAKE DR.
EAST VANLAKE DR.
TAYLORSVIEW DR.
MARDON CT.
ROYALTON DR.
ROBINETTE AVE.
GLENROSE ST.
SCENIC CT.
S. BROWN SCHOOL RD.
WOLLENHAUPT DR.
CENTER DR.
BRINDLESTONE DR.
CASSEL CREEK DR.
MISTIC LN.
SCHOLZ DR.
INDUSTRIAL PARK DR.
SEC. 15 T3 R6 E
SEC. 22 T3 R6 E
SEC. 23 T3 R6 E
SCALE:
600 0 600 1200 Feet
HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS
DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO
FIRST QUARTER 2003
TCE IN SUGAR ROCK
SCALE: AS SHOWN
MARCH 2003

FIGURE 8

Attachment A
Water Level Measurements

MONTHLY GROUNDWATER ELEVATION DATA
TOP OF ROCK AND BEDROCK MONITORING WELLS, JANUARY 2003
DELPHI CORPORATION - VANDALIA, OHIO FACILITY

Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S	01/06/03	11:30	5.72	988.52	988.04	982.32	
MW-101D	01/06/03	11:40	47.19	988.43	988.24	941.05	
MW-204S				994.87	993.94	NA	Not accessible.
MW-204D	01/06/03		38.56	994.64	994.26	955.70	
MW-301S	01/06/03	18:08	4.9	971.08	971.03	966.13	
MW-301D	01/06/03	11:05	37.59	970.95	970.39	932.80	
MW-401S	01/06/03	13:15	14.47	975.17	974.73	960.26	
MW-401D				974.79	974.57	NA	Not accessible.
MW-402S	01/06/03	13:40	11.98	967.05	966.62	954.64	
MW-402D	01/06/03	13:45	30.37	966.42	966.36	935.99	
MW-403S	01/06/03	12:45	5.21	976.96	976.61	971.40	
MW-403D	01/06/03	12:44	37.98	977.82	977.36	939.38	
MW-404S	01/06/03	12:26	6.08	989.70	989.50	983.42	
MW-404D	01/06/03	12:21	45.99	989.27	988.83	942.84	
MW-405S	01/06/03	13:00	4.97	983.04	982.47	977.50	
MW-405D				983.12	982.45	NA	Not accessible.
MW-407S	01/06/03	14:38	1.91	952.99	952.99	951.08	
MW-407D	01/06/03	14:36	21.46	953.24	956.24	934.78	
MW-408D	01/06/03	14:30	22.19	955.00	957.07	934.88	
MW-409D	01/06/03	15:22	12.94	942.50	942.49	929.55	
MW-410D	01/06/03	14:45	17.14	945.20	947.63	930.49	
MW-411D				940.50	943.43	NA	Not accessible.
MW-412D				947.00	949.64	NA	Not accessible.
MW-413D	01/06/03	14:10	35.95	970.24	969.99	934.04	
MW-414D	01/06/03	14:20	37.8	972.00	971.78	933.98	
MW-415S	01/06/03	14:30	4.97	977.80	977.85	972.88	
MW-416D	01/06/03	11:12	32.57	966.00	965.84	933.27	
MW-417D	01/06/03	14:40	30.75	965.10	964.96	934.21	
MW-418D	01/06/03	15:05	30.85	965.40	965.07	934.22	
MW-419M	01/06/03	15:53	32.76	965.00	967.50	934.74	
MW-419D	01/06/03	15:52	31.99	964.70	967.40	935.41	
MW-420M	01/06/03	15:45	30.45	962.50	964.85	934.40	
MW-420D	01/06/03	15:47	29.96	962.50	965.26	935.30	
MW-421D	01/06/03	14:51	23.80	958.80	958.50	934.70	
MW-422S	01/06/03	15:42	7.45	981.70	981.30	973.85	
MW-422D	01/06/03	15:45	43.54	981.50	980.97	937.43	
MW-423S				979.30	978.96	NA	Not accessible.
MW-424S	01/06/03	15:32	19.82	980.20	980.06	960.24	
MW-424D	01/06/03	15:27	42.47	980.04	979.74	937.27	
MW-425S	01/06/03	16:50	4.52	976.50	976.09	971.57	
MW-426S	01/06/03	17:26	artesian	966.50	966.24	NA	
MW-427S	01/06/03	17:18	7.47	976.10	978.34	970.87	
MW-428S	01/06/03	16:00	9.10	985.75	985.43	976.33	
MW-429S	01/06/03	16:17	6.75	985.45	985.08	978.33	
MW-430S	01/06/03	16:25	8.20	985.19	984.87	976.67	
MW-431S	01/06/03	16:35	5.55	982.76	982.46	976.91	
MW-432M	01/06/03	15:11	22.94	975.20	974.90	951.96	
MW-432D	01/06/03	15:05	39.35	974.80	974.5	935.15	
MW-433D	01/06/03	15:00	34.95	970.84	970.43	935.48	
MW-434D	01/06/03	14:00	29.85	965.54	965.33	935.48	
MW-435D	01/06/03	14:22	20.63	956.22	955.91	935.28	
MW-436D	01/06/03	13:55	27.86	962.67	962.37	934.51	
MW-437D	01/06/03	13:49	15.66	948.66	948.38	932.72	
MW-438D	01/06/03	12:38	36.89	972.95	972.59	935.70	
MW-439D	01/06/03	14:09	19.77	955.98	955.58	935.81	
MW-440D	01/06/03	13:42	5.10	937.10	936.70	931.60	
MW-441D	01/06/03	12:33	38.64	974.97	974.38	935.74	
MW-442D	01/06/03	11:59	40.25	976.08	975.68	935.43	
MW-443D				980.29	979.72	NA	Not accessible.
MW-444D	01/06/03	12:52	8.16	934.78	934.18	926.02	
MW-445S				976.51	976.07	NA	Not accessible.
MW-446S	01/06/03	17:12	7.13	973.47	975.73	968.60	
MW-447D	01/06/03	12:10	39.70	966.07	965.84	926.14	
MW-448D	01/06/03	12:45	10.10	935.58	935.38	925.28	
MW-449D	01/06/03	12:20	37.21	970.79	970.44	933.23	
MW-450D	01/06/03	12:59	17.18	910.72	910.51	893.33	
MW-451D	01/06/03	12:27	32.11	967.69	967.32	935.21	
MW-452S	01/06/03	14:32	10.56	989.38	989.13	978.57	
MW-453D	01/06/03		artesian	923.59	923.25	NA	
CSX-18D	01/06/03	15:32	30.32	961.95	964.96	934.64	
CSX-22	01/06/03	15:25	7.79	965.20	967.35	959.56	

MONTHLY GROUNDWATER ELEVATION DATA TOP OF ROCK AND BEDROCK MONITORING WELLS, JANUARY 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY							
Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101D	01/15/03	14:39	54.85	988.43	988.24	933.39	
MW-204S				994.87	993.94	NA	
MW-204D	01/15/03	14:50	43.95	994.64	994.26	950.31	
MW-301S				971.08	971.03	NA	
MW-301D	01/15/03	9:16	50.23	970.95	970.39	920.16	50.62' @ 14:00
MW-401S				975.17	974.73	NA	
MW-401D	01/15/03	10:32	54.70	974.79	974.57	919.87	
MW-402S				967.05	966.62	NA	
MW-402D	01/15/03	11:21	42.77	966.42	966.36	923.59	
MW-403S				976.96	976.61	NA	
MW-403D	01/15/03	11:08	46.24	977.82	977.36	931.12	
MW-404S				989.70	989.50	NA	
MW-404D	01/15/03	14:30	53.45	989.27	988.83	935.38	
MW-405S				983.04	982.47	NA	
MW-405D	01/15/03	15:25	49.86	983.12	982.45	932.59	
MW-407S				952.99	952.99	NA	
MW-407D	01/15/03	12:20	37.59	953.24	956.24	918.65	
MW-408D	01/15/03	12:05	38.49	955.00	957.07	918.58	
MW-409D	01/15/03	12:25	23.72	942.50	942.49	918.77	
MW-410D	01/15/03	12:35	29.86	945.20	947.63	917.77	
MW-411D	01/15/03	13:15	30.97	940.50	943.43	912.46	
MW-412D	01/15/03	13:00	35.63	947.00	949.64	914.01	
MW-413D	01/15/03	11:41	50.36	970.24	969.99	919.63	
MW-414D	01/15/03	15:51	51.93	972.00	971.78	919.85	
MW-415S				977.80	977.85	NA	
MW-416D	01/15/03	9:24	45.57	966.00	965.84	920.27	
MW-417D	01/15/03	15:42	45.20	965.10	964.96	919.76	
MW-418D	01/15/03	10:51	45.42	965.40	965.07	919.65	
MW-419M	01/15/03	11:15	47.05	965.00	967.50	920.45	
MW-419D	01/15/03	11:10	48.28	964.70	967.40	919.12	
MW-420M	01/15/03	10:50	43.97	962.50	964.85	920.88	
MW-420D	01/15/03	10:45	46.51	962.50	965.26	918.75	
MW-421D	01/15/03	10:30	38.22	958.80	958.50	920.28	
MW-422S				981.70	981.30	NA	
MW-422D	01/15/03	14:25	53.85	981.50	980.97	927.12	
MW-423S				979.30	978.96	NA	
MW-424S				980.20	980.06	NA	
MW-424D	01/15/03	13:47	52.76	980.04	979.74	926.98	
MW-425S				976.50	976.09	NA	
MW-426S				966.50	966.24	NA	
MW-427S				976.10	978.34	NA	
MW-428S				985.75	985.43	NA	
MW-429S				985.45	985.08	NA	
MW-430S				985.19	984.87	NA	
MW-431S				982.76	982.46	NA	
MW-432M	01/15/03	10:58	23.26	975.20	974.90	951.64	
MW-432D	01/15/03	10:57	58.38	974.80	974.5	916.12	
MW-433D	01/15/03	11:35	51.97	970.84	970.43	918.46	
MW-434D	01/15/03	11:35	47.05	965.54	965.33	918.28	
MW-435D	01/15/03	11:45	37.30	956.22	955.91	918.61	
MW-436D	01/15/03	11:40	43.56	962.67	962.37	918.81	
MW-437D	01/15/03	11:50	30.25	948.66	948.38	918.13	
MW-438D	01/15/03	10:31	54.79	972.95	972.59	917.80	
MW-439D	01/15/03	12:05	35.90	955.98	955.58	919.68	
MW-440D	01/15/03	12:10	18.22	937.10	936.70	918.48	
MW-441D	01/15/03	10:37	55.80	974.97	974.38	918.58	
MW-442D	01/15/03	11:10	54.25	976.08	975.68	921.43	
MW-443D	01/15/03	11:20	61.71	980.29	979.72	918.01	
MW-444D	01/15/03	11:55	17.05	934.78	934.18	917.13	
MW-445S				976.51	976.07	NA	
MW-446S				973.47	975.73	NA	
MW-447D	01/15/03	10:20	47.15	966.07	965.84	918.69	
MW-448D	01/15/03	12:20	17.21	935.58	935.38	918.17	
MW-449D	01/15/03	10:25	52.04	970.79	970.44	918.40	
MW-450D	01/15/03	13:35	17.80	910.72	910.51	892.71	
MW-451D	01/15/03	10:01	51.45	967.69	967.32	915.87	
MW-452S				989.38	989.13	NA	
MW-453D	01/15/03	10:17	5.48	923.59	923.25	917.77	
CSX-18D	01/15/03	15:00	44.76	961.95	964.96	920.20	
CSX-22				965.20	967.35	NA	

MONTHLY GROUNDWATER ELEVATION DATA TOP OF ROCK AND BEDROCK MONITORING WELLS, FEBRUARY 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY							
Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S				988.52	988.04	NA	
MW-101D	02/12/03	13:18	59.23	988.43	988.24	929.01	
MW-204S				994.87	993.94	NA	
MW-204D	02/12/03	13:47	47.54	994.64	994.26	946.72	
MW-301S	02/12/03	16:41	5.48	971.08	971.03	965.55	
MW-301D	02/12/03	10:35	56.50	970.95	970.39	913.89	56.94' @ 16:00
MW-401S				975.17	974.73	NA	
MW-401D	02/12/03	14:38	60.46	974.79	974.57	914.11	
MW-402S				967.05	966.62	NA	
MW-402D	02/12/03	15:37	48.40	966.42	966.36	917.96	
MW-403S				976.96	976.61	NA	
MW-403D	02/12/03	12:34	50.59	977.82	977.36	926.77	
MW-404S				989.70	989.50	NA	
MW-404D	02/12/03	13:32	57.71	989.27	988.83	931.12	
MW-405S				983.04	982.47	NA	
MW-405D	02/12/03	14:00	54.29	983.12	982.45	928.16	
MW-407S				952.99	952.99	NA	
MW-407D	02/12/03	11:32	43.68	953.24	956.24	912.56	
MW-408D	02/12/03	11:40	44.45	955.00	957.07	912.62	
MW-409D	02/12/03	11:17	30.08	942.50	942.49	912.41	
MW-410D	02/12/03	11:50	35.80	945.20	947.63	911.83	
MW-411D	02/12/03	14:20	35.41	940.50	943.43	908.02	
MW-412D	02/12/03	14:10	40.45	947.00	949.64	909.19	
MW-413D	02/12/03	10:33	55.91	970.24	969.99	914.08	
MW-414D	02/12/03	10:39	57.63	972.00	971.78	914.15	57.85' @ 10:43
MW-415S				977.80	977.85	NA	
MW-416D	02/12/03	10:30	51.80	966.00	965.84	914.04	
MW-417D	02/12/03	14:50	51.10	965.10	964.96	913.86	
MW-418D	02/12/03	14:40	51.23	965.40	965.07	913.84	
MW-419M	02/12/03	12:36	53.22	965.00	967.50	914.28	
MW-419D	02/12/03	12:33	54.01	964.70	967.40	913.39	
MW-420M	02/12/03	12:16	50.49	962.50	964.85	914.36	
MW-420D	02/12/03	12:24	51.67	962.50	965.26	913.59	
MW-421D	02/12/03	11:07	44.45	958.80	958.50	914.05	
MW-422S				981.70	981.30	NA	
MW-422D	02/12/03	13:06	58.62	981.50	980.97	922.35	
MW-423S				979.30	978.96	NA	
MW-424S				980.20	980.06	NA	
MW-424D	02/12/03	12:56	57.71	980.04	979.74	922.03	
MW-425S				976.50	976.09	NA	
MW-426S				966.50	966.24	NA	
MW-427S				976.10	978.34	NA	
MW-428S				985.75	985.43	NA	
MW-429S				985.45	985.08	NA	
MW-430S				985.19	984.87	NA	
MW-431S				982.76	982.46	NA	
MW-432M	02/12/03	11:21	24.74	975.20	974.90	950.16	
MW-432D	02/12/03	11:20	63.96	974.80	974.5	910.54	
MW-433D	02/12/03	11:24	57.68	970.84	970.43	912.75	
MW-434D	02/12/03	13:35	52.60	965.54	965.33	912.73	
MW-435D	02/12/03	15:40	43.37	956.22	955.91	912.54	
MW-436D	02/12/03	11:45	49.70	962.67	962.37	912.67	
MW-437D	02/12/03	12:05	36.19	948.66	948.38	912.19	
MW-438D	02/12/03	15:20	59.89	972.95	972.59	912.70	
MW-439D	02/12/03	12:50	42.23	955.98	955.58	913.35	
MW-440D	02/12/03	12:40	24.06	937.10	936.70	912.64	
MW-441D	02/12/03	13:28	63.75	974.97	974.38	910.63	
MW-442D	02/12/03	14:45	62.82	976.08	975.68	912.86	
MW-443D	02/12/03	15:45	67.00	980.29	979.72	912.72	
MW-444D	02/12/03	12:25	22.47	934.78	934.18	911.71	
MW-445S				976.51	976.07	NA	
MW-446S	02/12/03	12:23	7.23	973.47	975.73	968.50	
MW-447D	02/12/03	13:55	52.78	966.07	965.84	913.06	
MW-448D	02/12/03	15:10	22.28	935.58	935.38	913.10	
MW-449D	02/12/03	13:41	57.97	970.79	970.44	912.47	
MW-450D	02/12/03	14:00	17.61	910.72	910.51	892.90	
MW-451D	02/12/03	11:16	56.21	967.69	967.32	911.11	
MW-452S	02/12/03	14:20	11.51	989.38	989.13	977.62	
MW-453D	02/12/03	11:25	10.40	923.59	923.25	912.85	
CSX-18D	02/12/03	12:10	50.56	961.95	964.96	914.40	
CSX-22	02/12/03	16:30	8.95	965.20	967.35	958.40	

MONTHLY GROUNDWATER ELEVATION DATA TOP OF ROCK AND BEDROCK MONITORING WELLS, MARCH 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY							
Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S				988.52	988.04	NA	
MW-101D	03/14/03	14:13	53.05	988.43	988.24	935.19	
MW-204S				994.87	993.94	NA	
MW-204D				994.64	994.26	NA	Not Accessible
MW-301S	03/14/03	14:37	4.70	971.08	971.03	966.33	
MW-301D	03/14/03	8:43	46.90	970.95	970.39	923.49	47.57' @ 14:39
MW-401S				975.17	974.73	NA	
MW-401D	03/14/03	13:08	51.04	974.79	974.57	923.53	
MW-402S				967.05	966.62	NA	
MW-402D	03/14/03	12:20	40.03	966.42	966.36	926.33	
MW-403S				976.96	976.61	NA	
MW-403D	03/14/03	12:31	43.65	977.82	977.36	933.71	
MW-404S				989.70	989.50	NA	
MW-404D	03/14/03	12:39	51.60	989.27	988.83	937.23	
MW-405S				983.04	982.47	NA	
MW-405D				983.12	982.45	NA	Not Accessible
MW-407S				952.99	952.99	NA	
MW-407D	03/14/03	10:50	32.21	953.24	956.24	924.03	
MW-408D	03/14/03	10:55	33.08	955.00	957.07	923.99	
MW-409D	03/14/03	10:34	20.72	942.50	942.49	921.77	
MW-410D	03/14/03	10:42	25.75	945.20	947.63	921.88	
MW-411D	03/14/03	11:44	30.52	940.50	943.43	912.91	
MW-412D	03/14/03	11:37	33.67	947.00	949.64	915.97	
MW-413D	03/14/03	8:37	46.45	970.24	969.99	923.54	
MW-414D	03/14/03	8:38	47.99	972.00	971.78	923.79	
MW-415S				977.80	977.85	NA	
MW-416D	03/14/03	8:20	42.33	966.00	965.84	923.51	
MW-417D	03/14/03	11:25	41.61	965.10	964.96	923.35	
MW-418D	03/14/03	12:07	42.15	965.40	965.07	922.92	
MW-419M	03/14/03	10:20	43.38	965.00	967.50	924.12	
MW-419D	03/14/03	10:15	43.16	964.70	967.40	924.24	
MW-420M	03/14/03	10:05	40.83	962.50	964.85	924.02	
MW-420D	03/14/03	10:11	41.22	962.50	965.26	924.04	
MW-421D	03/14/03	10:25	34.41	958.80	958.50	924.09	
MW-422S				981.70	981.30	NA	
MW-422D	03/14/03	14:00	51.37	981.50	980.97	929.60	
MW-423S				979.30	978.96	NA	
MW-424S				980.20	980.06	NA	
MW-424D	03/14/03	14:10	50.41	980.04	979.74	929.33	
MW-425S				976.50	976.09	NA	
MW-426S				966.50	966.24	NA	
MW-427S				976.10	978.34	NA	
MW-428S				985.75	985.43	NA	
MW-429S				985.45	985.08	NA	
MW-430S				985.19	984.87	NA	
MW-431S				982.76	982.46	NA	
MW-432M	03/14/03	12:04	21.86	975.20	974.90	953.04	
MW-432D	03/14/03	12:05	54.55	974.80	974.5	919.95	
MW-433D	03/14/03	12:12	48.18	970.84	970.43	922.25	
MW-434D	03/14/03	12:35	42.19	965.54	965.33	923.14	
MW-435D	03/14/03	12:29	32.35	956.22	955.91	923.56	
MW-436D	03/14/03	12:18	38.57	962.67	962.37	923.80	
MW-437D	03/14/03	12:46	25.65	948.66	948.38	922.73	
MW-438D	03/14/03	11:35	49.80	972.95	972.59	922.79	
MW-439D	03/14/03	12:57	27.92	955.98	955.58	927.66	
MW-440D	03/14/03	12:50	13.94	937.10	936.70	922.76	
MW-441D	03/14/03	11:20	52.42	974.97	974.38	921.96	
MW-442D	03/14/03	10:20	51.53	976.08	975.68	924.15	
MW-443D	03/14/03	10:28	56.31	980.29	979.72	923.41	
MW-444D	03/14/03	11:58	13.95	934.78	934.18	920.23	
MW-445S	03/14/03	14:40	5.12	976.51	976.07	970.95	
MW-446S	03/14/03	14:20	6.49	973.47	975.73	969.24	
MW-447D	03/14/03	10:53	45.42	966.07	965.84	920.42	
MW-448D	03/14/03	11:48	15.48	935.58	935.38	919.90	
MW-449D	03/14/03	11:00	47.90	970.79	970.44	922.54	
MW-450D	03/14/03	11:55	16.51	910.72	910.51	894.00	
MW-451D	03/14/03	11:07	46.79	967.69	967.32	920.53	
MW-452S	03/14/03	15:05	10.61	989.38	989.13	978.52	
MW-453D	03/14/03	10:45	3.38	923.59	923.25	919.87	
CSX-18D	03/14/03	11:10	41.32	961.95	964.96	923.64	
CSX-22	03/14/03	11:18	7.21	965.20	967.35	960.14	

OVERBURDEN GROUNDWATER ELEVATION DATA "WATER TABLE" MONITORING WELLS - MARCH 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY						
Monitoring Well ID	Date	Time	Depth to Water (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
HA-5	03/28/03	13:35	5.72	982.94	977.22	
MW-512	03/28/03	13:17	1.89	979.14	977.25	
MW-602	03/28/03	10:50	5.72	981.94	976.22	
MW-603	03/28/03	13:07	5.45	984.42	978.97	
MW-604	03/28/03	13:22	3.70	981.77	978.07	
MW-605	03/28/03	9:59	3.23	978.62	975.39	
MW-606	03/28/03	10:54	4.37	982.87	978.50	
MW-607	03/28/03	10:05	2.65	979.87	977.22	
MW-712	03/28/03	11:14	5.35	982.31	976.96	
MW-718	03/28/03	10:30	4.00	980.27	976.27	
MW-723	03/28/03	13:45	3.85	984.75	980.90	
MW-724	03/28/03	14:46	7.74	979.15	971.41	
MW-726	03/28/03	14:44	2.34	978.7	976.36	
MW-728	03/28/03	14:40	2.62	978.07	975.45	
MW-729	03/28/03	14:41	3.55	977.2	973.65	
MW-734	03/28/03	15:05	7.00	979.14	972.14	
MW-738	03/28/03	12:13	3.13	987.75	984.62	
MW-739	03/28/03	11:32	7.79	989.05	981.26	
MW-744	03/28/03	11:28	6.06	987.55	981.49	
MW-749	03/28/03	11:11	3.31	981.94	978.63	
MW-750	03/28/03	12:28	2.68			
MW-753	03/28/03	14:27	1.81	985.37	983.56	
MW-754	03/28/03	14:30	3.35	986.08	982.73	
MW-757	03/28/03	11:40	10.84	988.95	978.11	
MW-760	03/28/03	13:50	2.32	984.49	982.17	
MW-764	03/28/03	13:54	3.78			
MW-765	03/28/03	11:50	11.21	988.96	977.75	
MW-766	03/28/03	11:25	6.69	987.15	980.46	
MW-767	03/28/03	14:11	7.46	988.92	981.46	
MW-768	03/28/03	11:17	6.02	985.64	979.62	
MW-771	03/28/03	12:07	3.29	992.54	989.25	
MW-772	03/28/03	14:07	8.96	988.9	979.94	
MW-774	03/28/03	12:01	2.30			
MW-775	03/28/03	12:33	2.71	976.91	974.20	
MW-776	03/28/03	12:37	1.20	974.01	972.81	
MW-780	03/28/03	13:47	4.52	985.13	980.61	
MW-781	03/28/03	13:57	4.37	982.06	977.69	
MW-782	03/28/03	10:50	3.91	980.19	976.28	
MW-784	03/28/03	11:05	2.69	980.09	977.40	
MW-787	03/28/03	13:33	5.52	982.12	976.60	
PZ-01	03/28/03			978.64		Not Accessible.
PZ-02	03/28/03			978.12		Not Accessible.
PZ-03	03/28/03			981.55		Not Accessible.
PZ-04	03/28/03	13:42	3.08	981.32	978.24	
PZ-05	03/28/03			979.59		Not Accessible.
PZ-06	03/28/03	11:04	3.47	981.83	978.36	
PZ-07	03/28/03	10:42	4.15	982.66	978.51	

OVERBURDEN GROUNDWATER ELEVATION DATA - CONTINUED "WATER TABLE" MONITORING WELLS - MARCH 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY						
Monitoring Well ID	Date	Time	Depth to Water (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
PZ-08	03/28/03	14:03	5.41	983.11	977.70	
PZ-09	03/28/03	10:46	3.82	982.63	978.81	
PZ-10	03/28/03	10:59	6.18	983.52	977.34	
PZ-11	03/28/03	12:55	3.37	983.46	980.09	
PZ-12	03/28/03			983.33		Not Accessible.
PZ-13	03/28/03	12:42	1.76	984.01	982.25	
PZ-14	03/28/03	13:03	3.81	984.34	980.53	
PZ-15	03/28/03			985.71		Not Accessible.
PZ-16	03/28/03	12:22	4.42	985.39	980.97	
PZ-17	03/28/03	12:28	2.62	983.78	981.16	
PZ-18	03/28/03	12:25	4.05	985.48	981.43	
PZ-19	03/28/03	11:17	6.04	983.88	977.84	
PZ-20	03/28/03	11:19	4.14	982.53	978.39	
PZ-21	03/28/03	14:47	9.62	989.15	979.53	
PZ-22	03/28/03	14:20	8.71	989.03	980.32	
PZ-23	03/28/03	14:58	8.71	989.04	980.33	
PZ-24	03/28/03	14:31	6.12	988.99	982.87	
PZ-25	03/28/03	14:35	6.98	988.92	981.94	
PZ-26	03/28/03			989.05		Not Accessible.
PZ-28	03/28/03	14:40	4.46	989.02	984.56	
PZ-29	03/28/03	15:15	3.81			
PZ-30	03/28/03	16:00	4.51	985.25	980.74	
PZ-31	03/28/03	14:52	7.14	988.98	981.84	
VBW-113	03/28/03	14:22	4.53	985.867	981.34	
VEW-105	03/28/03	11:20	4.64	988.08	983.44	

OVERBURDEN GROUNDWATER ELEVATION DATA "FIRST SAND" MONITORING WELLS - MARCH 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY						
Monitoring Well ID	Date	Time	Depth to Water (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
IF-2	03/18/03	11:57	2.48	978.64	976.16	
IF-3	03/18/03	12:00	1.67	978.61	976.94	
MW-130	03/18/03	11:34	2.42	986.021	983.601	
MW-131	03/18/03	11:37	4.12	985.723	981.603	
MW-132	03/18/03	12:18	3.07	984.069	980.999	
MW-133	03/18/03	12:10	4.92	983.128	978.208	
MW-134	03/18/03	12:21	1.65	979.781	978.131	
MW-135	03/18/03	13:44	3.78	984.86	981.08	
MW-136	03/18/03			985.667		Not Accessible.
MW-137	03/18/03	13:36	6.07	982.72	976.65	
MW-138	03/18/03	13:32	3.25	982.33	979.08	
MW-503	03/18/03	11:02	8.50	994.49	985.99	
MW-506	03/18/03	14:30	8.78	989.48	980.7	
MW-507	03/18/03	13:01	8.06	989.52	981.46	
MW-601	03/18/03	12:58	2.73	979.47	976.74	
MW-703	03/18/03			989.17		Not Accessible.
MW-706	03/18/03	11:40	6.10	987.67	981.57	
MW-707	03/18/03	12:58	9.07	989.06	979.99	
MW-709	03/18/03	12:55	8.48	989.1	980.62	
MW-710	03/18/03	13:46	3.97	985.15	981.18	
MW-711	03/18/03	12:18	9.74	989.16	979.42	
MW-715	03/18/03	14:31	5.20	982.3	977.1	
MW-720	03/18/03	13:24	6.84	979.29	972.45	
MW-721	03/18/03	13:18	6.55	984.81	978.26	
MW-722	03/18/03			988.41		Not Accessible.
MW-725	03/18/03	13:30	5.16	978.46	973.3	
MW-727	03/18/03	13:28	4.68	977.84	973.16	
MW-730	03/18/03	11:10	2.53	981.95	979.42	
MW-731	03/18/03	12:05	4.05	977.19	973.14	
MW-732	03/18/03	12:54	1.97	978.89	976.92	
MW-733	03/18/03	13:39	5.88	978.98	973.1	
MW-747	03/18/03	11:11	6.86	988.83	981.97	
MW-748	03/18/03	12:13	3.28	981.98	978.7	
MW-758	03/18/03	11:15	1.61	981.83	980.22	
MW-759	03/18/03	11:02	1.70	976.87	975.17	
MW-770	03/18/03	11:05	8.28	992.62	984.34	
MW-773	03/18/03	10:57	4.15			
MW-777	03/18/03	11:56	5.42	985.65	980.23	
MW-786	03/18/03	13:01	4.95	979.35	974.4	
VAW-115	03/18/03			987.167		Not Accessible.
VBW-111	03/18/03	12:06	4.23	984.256	980.026	
VBW-112	03/18/03	12:02	5.38	985.437	980.057	
VCW-110	03/18/03		4.81	985.838	981.028	
VEW-106	03/18/03	11:24	3.41	987.785	984.375	
VPW-101	03/18/03	11:28	3.27	986.806	983.536	
VPW-102	03/18/03	10:35	2.69	966.746	964.056	
VPW-103	03/18/03	11:49	4.94	982.054	977.114	

OVERBURDEN GROUNDWATER ELEVATION DATA "SECOND SAND" MONITORING WELLS - MARCH 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY						
Monitoring Well ID	Date	Time	Depth to Water (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
HA-1	03/28/03	10:47	5.92	982.24	976.32	
HA-2	03/28/03	10:48	5.55	982.7	977.15	
HA-3	03/28/03	10:43	6.34	982.51	976.17	
HA-4	03/28/03	10:50	3.41	981.15	977.74	
MW-501	03/28/03	14:25	5.06	988.73	983.67	
MW-502	03/28/03	15:44	5.35	990.2	984.85	
MW-504	03/28/03	13:07	3.84	985.5	981.66	
MW-505	03/28/03	14:14	7.09	989.28	982.19	
MW-508	03/28/03	12:39	10.49	989.63	979.14	
MW-509	03/28/03	13:27	6.71	985.37	978.66	
MW-510	03/28/03			982.1		Not Accessible.
MW-511	03/28/03	15:20	5.08	980.06	974.98	
MW-513	03/28/03	16:04	10.02	974.84	964.82	
MW-514	03/28/03			968.31		Artesian
MW-515	03/28/03	15:51	4.01	970.44	966.43	
MW-516	03/28/03	13:56	3.02	978.87	975.85	
MW-700	03/28/03	12:16	7.32	988.77	981.45	
MW-701	03/28/03	12:20	7.40	988.92	981.52	
MW-702	03/28/03	12:46	9.50	989.24	979.74	
MW-705	03/28/03	12:27	10.63	989.17	978.54	
MW-708	03/28/03	13:33	7.20	985.24	978.04	
MW-714	03/28/03			982.29		Not Accessible.
MW-717	03/28/03	15:12	5.45	979.82	974.37	
MW-719	03/28/03	15:02	5.69	979.01	973.32	
MW-735	03/28/03	13:30	6.41	985.47	979.06	
MW-736	03/28/03	14:05	3.63	979.45	975.82	
MW-737	03/28/03	15:05	5.76			
MW-740	03/28/03			973.82		Artesian
MW-741	03/28/03	14:12	5.31	976.19	970.88	
MW-742	03/28/03	13:48	5.34	980.17	974.83	
MW-743	03/28/03	15:59	4.44	976.89	972.45	
MW-745	03/28/03	15:28	5.48	982.49	977.01	
MW-746	03/28/03	14:42	8.39	987.64	979.25	
MW-778	03/28/03	13:38	5.01			
MW-779	03/28/03	13:53	5.30	979.4	974.10	
VEW-114	03/28/03	15:41	1.81	989.814	988.00	
VDW-108	03/28/03	13:23	7.76	983.76	976.00	

Attachment B
Data Usability Summary Reports

Data Useability Summary Report
Vandalia Groundwater Migration Control – First Quarter 2003 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 03.00804

Analytical results for two water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA PB99-993506) and method protocol criteria where applicable.

This report pertains to the samples collected on 14 January 2003.
RW-01/14
Eff-01/14

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
pH (Lab-OH)	EPA 150.1	14 days
Solids, Total Dissolved	EPA 160.1	7 days
Total Organic Carbon (TOC)	SM 5310 C	28 days
Volatile Organic Compounds	EPA 624	14 days

The following items and criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field, Method, and Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound and Surrogate Compound Recoveries
- Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times are measured from the time of sample collection to the time of sample preparation or analysis. Holding times were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank samples prepared and analyzed concurrently with the project samples. A trip blank sample was not included with this analysis.

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method-specific criteria.

Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries

Analytical precision and accuracy were evaluated based on the laboratory control (LCS) and matrix spike/matrix spike duplicate (MS/MSD) sample analyses performed concurrently with the project samples. For MS/MSD, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. Results indicate that the relative percent difference between the MS/MSD and LCS was within statistical advisory limit. No corrective action is recommended.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds in one or both of the following circumstances: when target compounds were detected below the reporting limit but above the method detection limit and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Groundwater Migration Control – First Quarter 2003 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 03.02150

Analytical results for two water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA PB99-993506) and method protocol criteria where applicable.

This report pertains to the samples collected on 03 February 2003.
RW-02/03
Eff-02/03

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
pH (Lab-OH)	EPA 150.1	14 days
Solids, Total Dissolved	EPA 160.1	7 days
Total Organic Carbon (TOC)	SM 5310 C	28 days
Volatile Organic Compounds	EPA 624	14 days

The following items and criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field, Method, and Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound and Surrogate Compound Recoveries
- Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times are measured from the time of sample collection to the time of sample preparation or analysis. Holding times were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank samples prepared and analyzed concurrently with the project samples. A trip blank sample was not included with this analysis.

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method-specific criteria.

Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries

Analytical precision and accuracy were evaluated based on the laboratory control (LCS) and matrix spike/matrix spike duplicate (MS/MSD) sample analyses performed concurrently with the project samples. For MS/MSD, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. Results indicate that the relative percent difference between the MS/MSD and LCS was within statistical advisory limit. No corrective action is recommended.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds in one or both of the following circumstances: when target compounds were detected below the reporting limit but above the method detection limit and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Groundwater Migration Control – First Quarter 2003 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 03.05086

Analytical results for two water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA PB99-993506) and method protocol criteria where applicable.

This report pertains to the samples collected on 13 March 2003.
RW-03/13
Eff-03/13

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
pH (Lab-OH)	EPA 150.1	14 days
Solids, Total Dissolved	EPA 160.1	7 days
Total Organic Carbon (TOC)	SM 5310 C	28 days
Volatile Organic Compounds	EPA 624	14 days

The following items and criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field, Method, and Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound and Surrogate Compound Recoveries
- Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times are measured from the time of sample collection to the time of sample preparation or analysis. Holding times were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank samples prepared and analyzed concurrently with the project samples. A trip blank sample was not included with this analysis.

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method-specific criteria.

Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries

Analytical precision and accuracy were evaluated based on the laboratory control (LCS) and matrix spike/matrix spike duplicate (MS/MSD) sample analyses performed concurrently with the project samples. For MS/MSD, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. Results indicate that the relative percent difference between the MS/MSD and LCS was within statistical advisory limit. No corrective action is recommended.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds in one or both of the following circumstances: when target compounds were detected below the reporting limit but above the method detection limit and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Usability Report (DUR)
Vandalia 1st Quarter – January 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3A10145

Analytical results for twelve (12) water samples and six (6) quality control samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A3A100145	Lot No.: A3A100151	Lot No.: A3A100154	Lot No.: A3A110109	Lot No.: A3A110112
442D-010903-N	451D-010903-N	447D-010903-N	0001-011003-TB	436D-011003-N
438D-010903-N		447D-010903-D	449D-011003-N	417D-011003-N
441D-010903-N		0713-010903-0001	453D-011003-N	0713-011003-0001
440D-010903-N		448D-010903-N	0001-011003-EB	
0763-010903-0001				
0763-010903-0002				

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Field Replicate Percent Difference
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD).

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D).

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Trip Blank 0763-010903-0002	Acetone 2-Butanone	1.4 µg/L 0.66 µg/L	442D-010903-N 438D-010903-N 441D-010903-N 440D-010903-N 0763-010903-0001 451D-010903-N 447D-010903-N 447D-010903-D 0713-010903-0001 448D-010903-N	14 µg/L 6.6 µg/L
Trip Blank 0001-011003-TB	Methylene chloride	0.66 µg/L	449D-011003-N 453D-011003-N 0001-011003-EB 436D-011003-N 417D-011003-N 0713-011003-0001	6.6 µg/L
Equipment Blank 0001-011003-EB	Chloroform Methylene chloride	11 µg/L 6.8 µg/L	449D-011003-N 453D-011003-N	55 µg/L 68 µg/L
Equipment Blank 0713-011003-0001	Chloroform Cis-1,2-dichloroethene Trichloroethene	0.31 µg/L 0.23 µg/L 0.46 µg/L	436D-011003-N 417D-011003-N	1.55 µg/L 1.15 µg/L 2.3 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target

analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples. No corrective action is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 1st Quarter – January 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3A08204

Analytical results for fourteen (14) water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A3A080204	Lot No.: A3A090246	Lot No.: A3A090250
101D-010703-1321	0763-010803-0001	403D-010803-1020
0763-010703-0001	0763-010803-0002	439D-010803-1225
0763-010703-0002	443D-010803-1110	450D-010803-1440
	422D-010803-1450	401D-010803-1640
	422D-010803-D	0713-010803-0002
	414D-010803-1715	

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Field Replicate Percent Difference
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD).

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	01/09 09:40	Acetone 30.6 Bromomethane, 31.8 2-Butanone, -38.5 2-Hexanone, -36.9 1,2,4-Trichlorobenzene, -36.8 Trichlorofluoromethane, 29.2	101D-010703-1321 0763-010703-0001 0763-010703-0002	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.
12	01/13 16:36	Bromoform, 34.1	0763-010803-0001 0763-010803-0002	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Equipment Blank 0763-010703-0001	Acetone 2-Butanone Chloroform	4.2 µg/L 0.73 µg/L 0.51 µg/L	101D-010703-1321	42 µg/L 7.3 µg/L 2.55 µg/L
Trip Blank 0763-010703-0002	Acetone 2-Butanone	2.8 µg/L 0.99 µg/L	101D-010703-1321 0763-010703-0001	28 µg/L 9.9 µg/L
Trip Blank 0763-010803-0001	Methylene chloride	0.69 µg/L	0763-010803-0002 443D-010803-1110 422D-010803-1450 422D-010803-D 414D-010803-1715 403D-010803-1020 439D-010803-1225 450D-010803-1440 401D-010803-1640 0713-010803-0002	6.9 µg/L
Equipment Blank 0763-010803-0002	Acetone 2-Butanone	4.1 µg/L	443D-010803-1110 422D-010803-1450	41 µg/L

	Chloroform	1.6 µg/L 0.50 µg/L	422D-010803-D 414D-010803-1715	16 µg/L 2.5 µg/L
Equipment Blank 0713-010803-0002	Chloroform	0.55 µg/L	403D-010803-1020 439D-010803-1225 450D-010803-1440 401D-010803-1640	2.75 µg/L
Method Blank, I-7 01/09, 11:09	Acetone	1.3 µg/L	101D-010703-1321 0763-010703-0001 0763-010703-0002	13 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples. No corrective action is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and

associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 1st Quarter – January 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3A14199

Analytical results for thirteen (13) water samples and eight (8) quality control samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A3A140199	Lot No.: A3A140204	Lot No.: A3A150202	Lot No.: A3A150207	Lot No.: A3A180106
413D-011303-N	0001-011303-TB	434D-011403-N	432D-011403-N	420D-011603-N
444D-011303-N	0001-011303-EB	433D-011403-N	419D-011403-N	432M-011603-N
416D-011303-N	437D-011303-N	418D-011403-N	301D-011403-N	0001-011603-EB
0713-011303-0001		420M-011403-N	0001-011403-TB	0001-011603-TB
		0713-011403-0001	0001-011403-EB	

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- GC/MS Instrument Performance Check
- Initial Calibration Procedures
- Continuing Calibration Procedures
- Blank Sample Analysis
- System Monitoring Compound Recoveries
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Internal Standard Recoveries
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD), with the following exceptions:

Inst.	Date/ Time	Target Analyte, %RSD	Associated Samples	Corrective Action
7	01/15 11:57	Acetone, 50.154	0001-011303-TB 434D-011403-N 433D-011403-N 418D-011403-N 420M-011403-N 0713-011403-0001 432D-011403-N 419D-011403-N 301D-011403-N 0001-011403-TB 0001-011403-EB	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exceptions:

Inst.	Date/ Time	Target Analyte, %D	Associated Samples	Corrective Action
7	01/16 11:04	Acetone, -46.1 trans-1,3-dichloropropene, -26.4	434D-011403-N 433D-011403-N 418D-011403-N 420M-011403-N 0713-011403-0001 432D-011403-N 419D-011403-N 301D-011403-N	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.
7	01/20 08:54	Dichlorodifluoromethane, -38.2 Methyl tert-butyl ether, -35.8 trans-1,3-Dichloropropene, -37.8 2-Hexanone, -29.5 1,2-Dibromo-3-chloropropane, 34.4	0001-011303-TB 0001-011403-TB 0001-011403-EB	
10	01/16 09:12	Dichlorodifluoromethane, -25.1	413D-011303-N 444D-011303-N 416D-011303-N 0713-011303-0001 0001-011303-EB 437D-011303-N	
10	01/20 10:26	Acetone, 31.6 2-Butanone, -26.4 2-Hexanone, 27.8	420D-011603-N 432M-011603-N 0001-011603-EB 0001-011603-TB	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Equipment Blank 0713-011303-0001	Chloroform Methylene chloride	10 µg/L 7.3 µg/L	413D-011303-N 444D-011303-N 416D-011303-N	50 µg/L 73 µg/L
Trip Blank 0001-011303-TB	Acetone 2-Butanone Methylene chloride	1.3 µg/L 0.69 µg/L 0.74 µg/L	413D-011303-N 444D-011303-N 416D-011303-N 0713-011303-0001 0001-011303-EB 437D-011303-N	13 µg/L 6.9 µg/L 7.4 µg/L
Equipment Blank 0001-011303-EB	Chloroform Methylene chloride	11 µg/L 7.0 µg/L	437D-011303-N	55 µg/L 70 µg/L
Equipment Blank 0713-011403-0001	Bromodichloromethane Chloroform	0.18 µg/L 0.38 µg/L	434D-011403-N 433D-011403-N 418D-011403-N 420M-011403-N	0.9 µg/L 1.9 µg/L
Equipment Blank 0001-011403-EB	Chloroform Trichloroethene	0.33 µg/L 0.59 µg/L	432D-011403-N 419D-011403-N 301D-011403-N	1.65 µg/L 2.95 µg/L
Equipment Blank 0001-011603-EB	Chloroform Methylene chloride	9.8 µg/L 6.5 µg/L	420D-011603-N 432M-011603-N	49 µg/L 65 µg/L
Trip Blank 0001-011603-TB	Methylene chloride	0.41 µg/L	420D-011603-N 432M-011603-N 0001-011603-EB	4.1 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 1st Quarter – January 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3A18107

Analytical results for twelve (12) water samples and six (6) quality control samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA PB99-993506), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A3A180107	Lot No.: A3A180170	Lot No.: A3A180172	Lot No.: A3A210183
409D-011603-N	411D-011703-N	419M-011703-N	425S-012003-1405
407D-011603-N	412D-011703-N	419M-011703-D	424S-012003-1615
408D-011603-N	0713-011703-0001	424D-011703-N	0763-012003-0001
408D-011603-D		0001-011703-EB	0763-012003-0002
410D-011603-N		0001-011703-TB	
0713-011603-0001			

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Field Replicate Percent Difference
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exceptions:

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standard for the following target compound exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date/ Time	Target Analyte, %RSD	Associated Samples	Corrective Action
7	01/15 11:57	Acetone, 50.154	411D-011703-N 412D-011703-N 0713-011703-0001 419M-011703-N 419M-011703-D 424D-011703-N 0001-011703-EB 0001-011703-TB 425S-012003-1405 424S-012003-1615 0763-012003-0001 0763-012003-0002	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exceptions:

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compounds exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	01/20 08:54	1,2-Dibromo-3-chloropropane, 34.4 Dichlorodifluoromethane, -38.2 2-Hexanone, -29.5 Methyl tert-butyl ether, -35.8 Trans 1,3-dichloropropene, -37.8	0001-011703-TB	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.
7	01/21 09:24	1,2-Dibromo-3-chloropropane, 32.0 Dichlorodifluoromethane, -35.0 cis-1,3-Dichloropropene, -33.9 Trans 1,3-dichloropropene, -47.6 2-Hexanone, -27.7 Methyl tert-butyl ether, -47.0 1,1,1-Trichloroethane, -28.1	411D-011703-N 412D-011703-N 0713-011703-0001 419M-011703-N 419M-011703-D 424D-011703-N 0001-011703-EB	
7	01/23 08:50	Bromomethane, 26.6 1,2-Dibromo-3-chloropropane, 29.4 cis-1,3-Dichloropropene, -28.5 Trans 1,3-dichloropropene, -43.9 Methyl tert-butyl ether, -43.4	425S-012003-1405 424S-012003-1615 0763-012003-0001 0763-012003-0002	

10	01/20 10:26	Acetone, 31.6 2-Butanone, -26.4 2-Hexanone, 27.8	409D-011603-N 407D-011603-N 408D-011603-N 408D-011603-D 410D-011603-N	
10	01/21 09:43	Acetone, 29.3 Dichlorodifluoromethane, -39.5	0713-011603-0001	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exceptions:

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Equipment Blank 0713-011603-0001	Chloroform Methylene chloride	9.9 µg/L 7.1 µg/L	409D-011603-N 407D-011603-N 408D-011603-N 408D-011603-D 410D-011603-N	49.5 µg/L 71 µg/L
Trip Blank 0001-011603-TB (SDG 3A14199)	Methylene chloride	0.41 µg/L	409D-011603-N 407D-011603-N 408D-011603-N 408D-011603-D 410D-011603-N 0713-011603-0001	4.1 µg/L
Equipment Blank 0713-011703-0001	Bromodichloromethane Chloroform Trichloroethene	0.26 µg/L 0.65 µg/L 0.19 µg/L	411D-011703-N 412D-011703-N	1.3 µg/L 3.25 µg/L 0.95 µg/L
Equipment Blank 0001-011703-EB	Methylene chloride	0.69 µg/L	419M-011703-N 419M-011703-D 424D-011703-N	6.9 µg/L
Trip Blank 0001-011703-TB	Methylene chloride	2.2 µg/L	419M-011703-N 419M-011703-D 424D-011703-N 0001-011703-EB	22 µg/L
Trip Blank 0763-012003-0001	Methylene chloride	0.78 µg/L	425S-012003-1405 424S-012003-1615 0763-012003-0002	7.8 µg/L
Method Blank, I-7 01/23, 09:34	1,2,4-Trichlorobenzene	0.29 µg/L	425S-012003-1405 424S-012003-1615 0763-012003-0001 0763-012003-0002	1.45 µg/L
Method Blank, I-10 01/21, 11:54	Methylene chloride	0.37 µg/L	0713-011603-0001	3.7 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples. No corrective action is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 1st Quarter – January 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3A22166

Analytical results for sixteen (16) water samples and six (6) quality control samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) **National Functional Guidelines for Organic Data Review** (EPA 540/R-99/008), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A3A220166	Lot No.: A3A230167	Lot No.: A3A240245
0763-012103-0001	421D-012203-1025	SW7-012303-1050
446S-012103-0950	0763-012203-0001	SW6-012303-1115
445S-012103-1120	0763-012203-0002	SW5-012303-1140
423S-012103-1355	435D-012203-1410	SW1-012303-1415
CSX18D-012103-1555	0763-012203-0003	SW2-012303-1430
0763-012103-0002	422S-012203-1625	SW4-012303-1455
		SW3-012303-1520
		0755-012303-0001
		0755-012303-0002
		0755-012303-0003

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 Days
Purgeable Organic Compounds	CFR136A 624	14 Days

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Field Replicate Percent Difference
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B & EPA 624), the initial calibration standard for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date/ Time	Target Analyte, %RSD	Associated Samples	Corrective Action
7	1/15 12:16	Acetone, 50.154	0763-012103-0001 446S-012103-0950 445S-012103-1120 423S-012103-1355 CSX18D-012103-1555 0763-012103-0002 421D-012203-1025 0763-012203-0001 0763-012203-0002 435D-012203-1410 0763-012203-0003 422S-012203-1625	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated undetected.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B and EPA 624), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	1/24 09:13	2-Hexanone, 27.7 trans-1,3-Dichloropropene, 46.9 cis-1,3-Dichloropropene, 31.0 1,2-Dibromo-3-chloropropane, 25.7 MTBE, 52.2	0763-012103-0001 446S-012103-0950 445S-012103-1120 423S-012103-1355 CSX18D-012103-1555 0763-012103-0002	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated undetected.

7	1/27 17:54	Bromomethane, 38.2 Chloroethane, 29.1 Trichlorofluoromethane, 46.9 MTBE, 52.9 1,1,1-Trichloroethane, -25.4 cis-1,3-Dichloropropene, -32.1 trans-1,3-Dichloropropene, -49.7 2-Hexanone, -26.4 1,2-Dibromo-3-chloropropane, 29.3	421D-012203-1025 435D-012203-1410 0763-012203-0003 422S-012203-1625 0763-012203-0002	
7	1/28 20:31	Bromoform, 30.1 Bromomethane, 37.1 Chloroethane, 26.9 Acetone, 27.9 Dibromochloromethane, 25.5 trans-1,3-Dichloropropene, 44.5 cis-1,3-Dichloropropene, 27.2 Dichlorodifluoromethane, 30.5 Trichlorofluoromethane, 35.1 MTBE, 52.8	0763-012203-0001	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, and cyclohexane), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Trip Blank 0763-012103-0001	Methylene chloride	2.1 µg/L	446S-012103-0950 445S-012103-1120 423S-012103-1355 CSX18D-012103-1555 0763-012103-0002	21.0 µg/L
Trip Blank 0763-012203-0001	Methylene chloride	2.2 µg/L	421D-012203-1025 0763-012203-0002 435D-012203-1410 0763-012203-0003 422S-012203-1625	22.0 µg/L
Equipment Blank 0763-012103-0002	Methylene chloride	0.52 µg/L	446S-012103-0950 445S-012103-1120 423S-012103-1355 CSX18D-012103-1555	5.2 µg/L
Equipment Blank 0763-012203-0002	Bromodichloromethane Chloroform cis-1,2-Dichloroethene Trichloroethene	0.23 µg/L 0.72 µg/L 0.26 µg/L 0.98 µg/L	421D-012203-1025 0763-012203-0001 435D-012203-1410 0763-012203-0003 422S-012203-1625	1.15 µg/L 3.6 µg/L 1.3 µg/L 4.9 µg/L

Equipment Blank 0755-012303-0002	Methylene chloride	1.8 µg/L	SW7-012303-1050 SW6-012303-1115 SW5-012303-1140 SW1-012303-1415 SW2-012303-1430 SW4-012303-1455 SW3-012303-1520 0755-012303-0001	18.0 µg/L
Method Blank, I-7 01/27, 19:15	1,2,4-Trichlorobenzene	0.26 µg/L	421D-012203-1025 435D-012203-1410 0763-012203-0003 422S-012203-1625	1.3 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Methods 8260B and 624 to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples. No corrective action is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

G:\79022\22-086 Data Validation\DURs\1Q_2003\DUR-3A22166 GW.doc

Attachment C
Groundwater Migration Control System
Monthly Discharge Reports

MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY DISCHARGE REPORT
JANUARY 2003

DATE	AVERAGE INFLOW (GPM)	DAILY DISCHARGE (GPD)
1/1/2003	44.1	63504
1/2/2003	43.9	63216
1/3/2003	44.1	63504
1/4/2003	44.4	63936
1/5/2003	44.2	63648
1/6/2003	44.3	63792
1/7/2003	45.1	64944
1/8/2003	44.9	64656
1/9/2003	44.5	64080
1/10/2003	44.7	64368
1/11/2003	43.3	62352
1/12/2003	43.1	62064
1/13/2003	42.3	60912
1/14/2003	41.2	59328
1/15/2003	41.0	59040
1/16/2003	41.1	59184
1/17/2003	40.4	58176
1/18/2003	40.8	58752
1/19/2003	41.0	59040
1/20/2003	41.1	59184
1/21/2003	41.0	59040
1/22/2003	40.1	57744
1/23/2003	39.6	57024
1/24/2003	40.1	57744
1/25/2003	39.4	56736
1/26/2003	39.4	56736
1/27/2003	39.3	56592
1/28/2003	39.8	57312
1/29/2003	39.8	57312
1/30/2003	39.3	56592
1/31/2003	39.2	56448
	TOTAL DISCHARGE	1866960
	AVERAGE DAILY DISCHARGE	60225

MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY DISCHARGE REPORT
FEBRUARY 2003

DATE	AVERAGE INFLOW (GPM)	DAILY DISCHARGE (GPD)
2/1/2003	39.9	57456
2/2/2003	40.2	57888
2/3/2003	39.9	57456
2/4/2003	39.7	57168
2/5/2003	39.6	57024
2/6/2003	39.9	57456
2/7/2003	39.6	57024
2/8/2003	39.8	57312
2/9/2003	40.1	57744
2/10/2003	40.1	57744
2/11/2003	39.9	57456
2/12/2003	39.6	57024
2/13/2003	39.4	56736
2/14/2003	39.0	56160
2/15/2003	39.2	56448
2/16/2003	39.9	57456
2/17/2003	39.5	56880
2/18/2003	39.1	56304
2/19/2003	38.8	55872
2/20/2003	38.8	55872
2/21/2003	38.8	55872
2/22/2003	39.1	56304
2/23/2003	39.6	57024
2/24/2003	39.8	57312
2/25/2003	39.7	57168
2/26/2003	39.9	57456
2/27/2003	39.9	57456
2/28/2003	39.9	57456
	TOTAL DISCHARGE	1596528
	AVERAGE DAILY DISCHARGE	57019

MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY DISCHARGE REPORT
MARCH 2003

DATE	AVERAGE INFLOW (GPM)	DAILY DISCHARGE (GPD)
3/1/2003	40.0	57533
3/2/2003	40.4	58243
3/3/2003	40.6	58447
3/4/2003	40.7	58585
3/5/2003	40.9	58884
3/6/2003	41.1	59254
3/7/2003	41.4	59607
3/8/2003	41.4	59683
3/9/2003	41.8	60146
3/10/2003	42.0	60417
3/11/2003	41.8	60184
3/12/2003	41.6	59901
3/13/2003	41.5	59795
3/14/2003	41.2	59323
3/15/2003	40.7	58601
3/16/2003	40.6	58525
3/17/2003	40.2	57931
3/18/2003	39.9	57499
3/19/2003	39.7	57200
3/20/2003	39.3	56588
3/21/2003	38.9	55977
3/22/2003	39.6	57052
3/23/2003	40.5	58335
3/24/2003	40.5	58354
3/25/2003	39.6	57013
3/26/2003	38.5	55463
3/27/2003	38.2	55015
3/28/2003	37.9	54517
3/29/2003	38.4	55242
3/30/2003	39.1	56301
3/31/2003	39.1	56301
	TOTAL DISCHARGE	1795909
	AVERAGE DAILY DISCHARGE	57933

Attachment D
Groundwater Migration Control System
Activity Log

Vandalia Treatment System 79022-054
Activity Log

Date	Time on site	Time left site	H&A personnel	Activities while on-site
1-2-03	11:45	12:45	TMV	Weekly Inspection
1-10-03	12:15	13:40	TMV	Weekly Inspection CFS 1000+
01/14/03	13:00	14:00	DJBe	Monthly Sampling, Check Drewsperse, CFM @ 1000+
1-15-03	16:00	16:30	TMV	Weekly Inspection CFS 1000+
1-23-03	11:30		TMV	Weekly Inspection CFS 1000+ added 15 gal of Drewsperse
1-31-03	10:00	11:00	TMV	Weekly Inspection CFS 1000+
02/03/03	12:10	13:55	DJBe/TMV	Monthly Sampling, CFM 1000+
02/07/03	11:45	13:30	TMV	Weekly Inspection CFM 1000+
02/10/03	13:30	15:15	TMV	Recieve Delering of Drewsperse
02/12/03	15:45	17:00	TMV	Weekly Inspection CFM 1000
02/19/03	09:30	11:50	DJBe	Photograph PLC, Check Wiring in R.W. Vault CFM 1000+
02/21/03	11:30	12:45	TMV	Weekly Inspection CFM 1000+
02/28/03	12:00	13:05	DJBe	Weekly Inspection, Check Drewsperse, CFM @ 1000+
03/05/03	11:45	14:00	DJBe	Clean-up, CFM @ 1000+
03/06/03	13:30	13:45	DJBe	EPA visit, CFM @ 1000+
03/13/03	11:00	11:30	DJBe	Check Drewsperse, CFM @ 1000+
03/18/03	11:40	15:25	DJBe	Meet STL for Cooler Pick-up, CFM @ 1000+, Check Drewsperse, Repair Leak
03/21/03	13:00		TMV	Weekly Inspection CFM @ 1000+
03/28/03	16:00	16:45	TMV	Weekly Inspection CFM @ 1000+

Attachment E
Groundwater Migration Control System
Inspection Checklist

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-2-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		NA	—	
SOLID	X		NA	—	

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-2-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			
							MW 301 need to be Re-
							developed — No water levels

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D			970.39	
MW-414D			971.78	
MW-413D			969.99	
MW-416D			965.84	

DELPHI AUTOMOTIVE SYSTEMS MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-10-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	- Lock to outside gate sticks
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	* MW 301D was Redeveloped on 1-3-03
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI AUTOMOTIVE SYSTEMS - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-10-03
INSPECTION BY: TMU

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	Y	N	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X			Y	N	☆ MW301D Redeveloped on 1-3-03
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

Well ID	Time	Water Level TOR	TOR Elevation	Water Elevation TOR
MW-301D	13:20	39.57	970.39	930.82
MW-414D	13:26	40.78	971.78	931.00
MW-413D	13:30	39.12	969.99	930.87
MW-416D	13:35		965.84	931.02

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-15-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-15-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	Done on 1-15-03
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	9:16	50.62	970.39	919.77
MW-414D	15:51	51.93	971.78	919.85
MW-413D	11:41	50.36	969.99	919.63
MW-416D	9:24	45.57	965.84	920.27

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-23-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-23-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	Y	N	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	-	
CHECK CARBON FILTER PRESSURES	X				N/A	-	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			
							All Systems are Fine

Notes.

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	12.29	54.81	970.39	915.58
MW-414D	12.35	56.06	971.78	915.72
MW-413D	12'25	54.38	969.99	915.61
MW-416D	12'32	50.24	965.84	915.63

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-31-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	–	
SOLID	X		N/A	–	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 1-31-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes.

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	10:40	55.79	970.39	914.60
MW-414D	10:43	56.97	971.78	914.81
MW-413D	10:46	55.35	969.99	914.64
MW-416D	10:35	51.20	965.84	914.64

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 2-7-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 2-7-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	12:20	56.28	970.39	914.11
MW-414D	12:23	57.57	971.78	914.21
MW-413D	12:26	55.87	969.99	914.12
MW-416D	12:14	51.71	965.84	914.13

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 2-12-03
INSPECTION BY: TMU

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	?	lock to force sticks.
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X				
SOLID	X				

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 2-12-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	–	
CHECK CARBON FILTER PRESSURES	X				N/A	–	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	10:35	56.50	970.39	913.89
MW-414D	10:43	57.85	971.78	913.93
MW-413D	10:33	55.91	969.99	914.08
MW-416D	10:30	51.80	965.84	914.04

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 2-21-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 2-21-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK VWATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	NO	ACCESS	970.39	
MW-414D			971.78	
MW-413D	SNOW	!!!	969.99	
MW-416D			985.84	

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 02/28/03
INSPECTION BY: DJBe

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 02/28/03
INSPECTION BY: DJBc

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	Y	N	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				N	—	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X	N	—	
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X		N	—	
TRANSFER PUMPS - PERFORM P.M. SERVICE			X		N	—	
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X	N	—	
CHECK & CALIBRATE INSTRUMENTATION				X	N	—	
MANUALLY OPERATE & CHECK VALVES				X	N	—	
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X	N	—	

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	12:44	54.81	970.39	915.58
MW-414D	12:05	56.04	971.78	915.74
MW-413D	12:40	54.39	969.99	915.60
MW-416D	12:25	50.22	965.84	915.62

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 03/07/03
INSPECTION BY: DJBe

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 03/07/03
INSPECTION BY: DTBC

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	Y	N	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X	N	—	
CHECK BAG FILTER PRESSURES	X				Y	N	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X		N	—	
TRANSFER PUMPS - PERFORM P.M. SERVICE			X		N	—	
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X	N	—	
CHECK & CALIBRATE INSTRUMENTATION				X	N	—	
MANUALLY OPERATE & CHECK VALVES				X	N	—	
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X	N	—	

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	15:13	46.74	970.39	923.65
MW-414D	15:17	47.85	971.78	923.93
MW-413D	15:14	46.16	969.99	923.83
MW-416D	15:20	42.13	965.84	923.71

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 3/14/03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	Every thing is Well
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X				
SOLID	X				

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 3/14/03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	8:43	46.90	970.39	923.49
MW-414D	8:38	47.99	971.78	923.79
MW-413D	8:37	46.45	969.99	923.54
MW-416D	8:20	42.33	965.84	923.51

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 3/21/03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		—	—	
SOLID	X		—	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 3/21/03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM					~~Y~~	~~N~~	leaking pipe fixed by DJBe
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			
							Water trickling in MW 301D
							causing high level

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	13:16	54.41	970.39	915.98
MW-414D	13:18	56.00	971.78	915.78
MW-413D	13:06	54.33	969.99	915.66
MW-416D	13:11	50.16	965.84	915.68

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 3-28-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 3-28-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	16:17	58.38	970.39	912.01
MW-414D	16:15	59.57	971.78	912.21
MW-413D	16:13	58.03	969.99	911.96
MW-416D	16:20	53.93	965.84	911.91

Attachment F
Cassel Road Water Service Connections and Well Closures

Water Service Connections and Well Closures
Delphi Corporation – Vandalia, Ohio

Water Service Connections with Well Closures

ADDRESS	WELLS	STATUS
10754 Cassel Road	2	Completed 01/3/02.
10916 Cassel Road	2	Water service connection completed 02/13/03. Well closure completed 03/28/03.
11430 Cassel Road	1	Completed 01/3/02.
11470 Cassel Road	1	Completed 10/8/01.
11600 Cassel Road	3	Scheduled for 2nd quarter 2003.

Well Closures Only

ADDRESS	WELLS	STATUS
10320 Cassel Road	1	Completed 04/17/02.
10680 Cassel Road	1	Completed 07/02/02.
10712 Cassel Road	1	Completed 07/02/02.
10800 Cassel Road	1	Completed 02/5/02.
10868 Cassel Road	1	Completed 03/25/03.
10956 Cassel Road	1	Completed 03/14/02.
11098 Cassel Road	1	Completed 02/5/02.
11180 Cassel Road	1	Previous well closure confirmed.
11228 Cassel Road	1	Previous well closure confirmed.
11256 Cassel Road	1	Completed 04/17/02.
11460 Cassel Road	1	Hook-up of front outside spigot to home's water distribution system completed 02/13/03. Well closure completed 03/25/03.
11536 Cassel Road	1	Completed 03/14/02.

DNR 7810.00

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
1939 Fountain Square Drive
Columbus, Ohio 43224-1385
Voice: (614) 265-6739 Fax: (614) 265-6767

0129578

LOCATION

County MONTGOMERY Township _____ Section/Lot Number _____ (Circle One or Both)

Owner/Builder HENDERSON (Circle One or Both)

Address of Well Location 10916 (Number) CASSELL ROAD (Street Name)

City VANDALIA, OH Zip Code +4 45377

_____ miles _____ (n, e, s, w) of _____ (nearest intersection)

Property Location Description on the _____ (n, e, s, w) side of _____ (road name)

Location of Well in State Plane coordinates, if available N ☐ S ☐ X _____ +/- _____ (ft. or m) Y _____ +/- _____ (ft. or m)

Elevation of Well _____ +/- _____ (ft. or m) Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other _____

ORIGINAL WELL ODNR Well Log Number _____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements MARCH 2003

Depth of Well 187' Static Water Level 46'

Size of Casing 4" Length of casing UNKNOWN

Well Condition FAIR

SEALING PROCEDURE

Method of Placement POURED

			Sealing Material	Volume
Placement: From 2	To 187		BENT CHIPS	12 BAGS
From 0	To 2		SAKRETE	1 BAG
From	To			

Was Casing Removed? Yes or No (circle one)

Condition of Casing FAIR

Perforations: From N/A To _____

From _____ To _____

Date Sealing Performed MARCH 2003

Reason(s) for Sealing NO LONGER USED

CONTRACTOR

Name MOODY'S OF DAYTON, INC. ODH Registration # 636

Address 43459 INFIRMARY RD., PO BOX 509

City/State/Zip MIAMISBURG, OH 45343-0509

Signature Doug Wagner

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224-1385

Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

DNR 7910.00

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
1939 Fountain Square Drive
Columbus, Ohio 43224-1385
Voice: (614) 265-6739 Fax: (614) 265-6767

0129579

LOCATION

County MONTGOMERY Township _____ Section/Lot Number _____ (Circle One or Both)

Owner/Builder HENDERSON (Circle One or Both)

Address of Well Location 10916 (Number) CASSELL ROAD (Street Name)

City VANDALIA, OH Zip Code +4 45377

_____ miles _____ (n, e, s, w) of _____ (nearest intersection)

Property Location Description on the _____ (n, e, s, w) side of _____ (road name)

Location of Well in State Plane coordinates, if available N ☐ S ☐ X _____ ft. or m +/- _____ Y _____ ft. or m +/- _____

Elevation of Well _____ ft. or m +/- _____ Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other _____

ORIGINAL WELL ODNR Well Log Number _____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements MARCH 2003

Depth of Well 123' Static Water Level 46'

Size of Casing 8" Length of casing UNKNOWN

Well Condition FAIR

SEALING PROCEDURE

Method of Placement POURED

			Sealing Material	Volume
Placement: From 2	To 123		BENT. CHIPS	112 BAGS
From 0	To 2		SAKRETE	1 BAG
From	To			

Was Casing Removed? Yes or No (circle one)

Condition of Casing FAIR

Perforations: From N/A To _____

From _____ To _____

Date Sealing Performed MARCH 2003

Reason(s) for Sealing NO LONGER USED

CONTRACTOR

Name MOODY'S OF DAYTON, INC. ODH Registration # 636

Address 4359 INFIRMARY RD. PO BOX 509

City/State/Zip MIAMISBURG, OH 45343-0509

Signature Doug Wagner

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.

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ONR 7810.00

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
1939 Fountain Square Drive
Columbus, Ohio 43224-1385
Voice: (614) 265-6739 Fax: (614) 265-6767

0129580

LOCATION

County MONTGOMERY Township _____ Section/Lot Number _____ (Circle One or Both)

Owner/Builder TROUGH (Circle One or Both)

Address of Well Location 11460 (Number) CASSELL ROAD (Street Name)

City VANDALIA, OH Zip Code +4 45377

Property Location Description: _____ miles _____ (n, e, s, w) of _____ (nearest intersection) on the _____ (n, e, s, w) side of _____ (road name)

Location of Well in State Plane coordinates, if available N ☐ S ☐ X _____ +/- _____ ft. or m Y _____ +/- _____ ft. or m

Elevation of Well _____ +/- _____ ft. or m Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other _____

ORIGINAL WELL ODNR Well Log Number _____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements MARCH 2003

Depth of Well 96' Static Water Level 48'
Size of Casing 4" Length of casing UNKNOWN
Well Condition FAIR

SEALING PROCEDURE
Method of Placement POURED

			Sealing Material	Volume
Placement:	From 2	To 96	BENT. CHIPS	12 BAGS
	From 0	To 2	SAKRETE	1 BAG
	From	To		

Was Casing Removed? Yes or No (circle one)

Condition of Casing FAIR
Perforations: From N/A To _____
From _____ To _____

Date Sealing Performed MARCH 2003
Reason(s) for Sealing NO LONGER USED

CONTRACTOR
Name MOODY'S OF DAYTON, INC. ODH Registration # 636
Address 4359 INFIRMARY ROAD, PO BOX 509
City/State/Zip MIAMISBURG, OH 45343-0509

Signature Doug Wagner
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.
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ONR 7810.00

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
1939 Fountain Square Drive
Columbus, Ohio 43224-1385
Voice: (614) 265-6739 Fax: (614) 265-6767

0129581

LOCATION

County MONTGOMERY Township _____ Section/Lot Number (Circle One or Both) _____

Owner/Builder (Circle One or Both) MALONEY

Address of Well Location 10868 (Number) CASSELL ROAD (Street Name)

City VANDALIA, OH Zip Code +4 45377

Property Location Description: _____ miles (n, e, s, w) of _____ (nearest intersection)

on the _____ (n, e, s, w) side of _____ (road name)

Location of Well in State Plane coordinates, if available: N ☐ S ☐ X _____ +/- _____ (ft. or m) Y _____ +/- _____ (ft. or m)

Elevation of Well _____ +/- _____ (ft. or m) Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other _____

ORIGINAL WELL ODNR Well Log Number _____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements MARCH 2003

Depth of Well 123' Static Water Level 48'

Size of Casing 10" Length of casing UNKNOWN

Well Condition FAIR

SEALING PROCEDURE

Method of Placement POURED

Placement:	From	To	Sealing Material	Volume
	2	123	BENT. CHIPS	110 BAGS
	0	2	SAKRETE	1 BAG

Was Casing Removed? Yes or No (circle one)

Condition of Casing FAIR

Perforations: From N/A To _____

From _____ To _____

Date Sealing Performed MARCH 2003

Reason(s) for Sealing NO LONGER USED

CONTRACTOR

Name MOODY'S OF DAYTON, INC. ODH Registration # 636

Address 4359 INFIRMARY RD., PO BOX 509

City/State/Zip MIAMISBURG, OH 45343-0509

Signature Doug Wagner

I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.

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Attachment G
Historical Sampling Results
MW-301D, MW-413D, MW-416D, MW-418D, MW-420D

Delphi Corporation Vandalia Facility MW-301D

Monitoring Zone: Belfast Screened Interval: Belfast

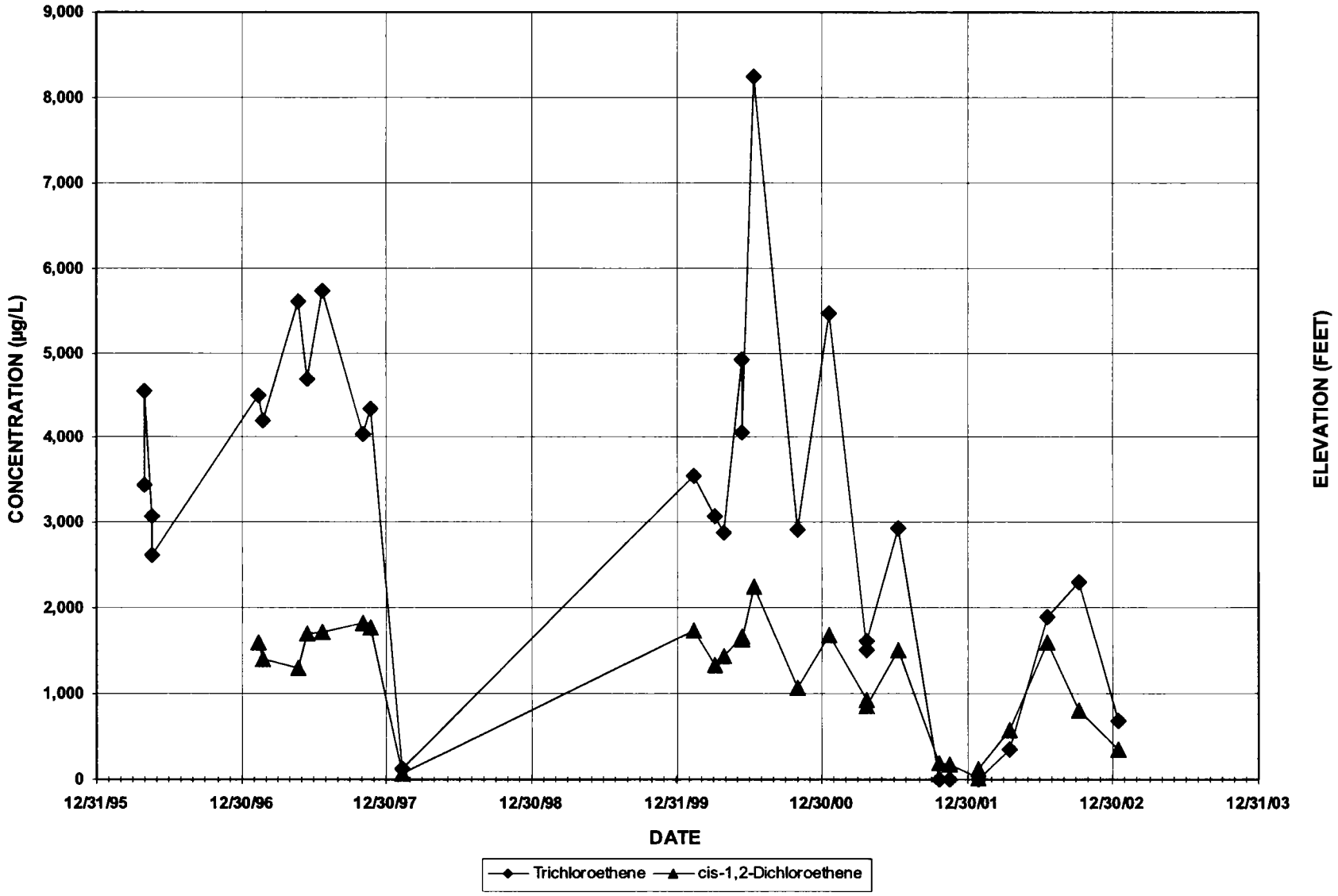
Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
1/14/2003	Trichloroethene	301D-011403-N	680 ug/L		SW8260	0.1 ug/L
10/7/2002	Trichloroethene	301D-100702-1450DL	2300 ug/L		SW8260	0.1 ug/L
7/19/2002	Trichloroethene	301D-071902-N	1900 ug/L		SW8260	0.5 ug/L
4/16/2002	Trichloroethene	301D-041602-NDL	350 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	301D-012802-N	5 ug/L	U	SW 8260B	5 ug/L
1/28/2002	Trichloroethene	Bailer Dup Low Flow 301D-012802-B	5 ug/L	U	SW 8260B	5 ug/L
11/15/2001	Trichloroethene	301D-111501-N	5 ug/L		SW 8260B	5 ug/L
10/22/2001	Trichloroethene	301D-102201-N	6.9 ug/L		SW 8260B	5 ug/L
7/9/2001	Trichloroethene		2940 ug/L		SW 8260B	250 ug/L
4/24/2001	Trichloroethene	Duplicate	1620 ug/L		SW 8260A	100 ug/L
4/24/2001	Trichloroethene		1520 ug/L		SW 8260A	100 ug/L
1/18/2001	Trichloroethene		5460 ug/L		SW 8260A	250 ug/L
11/1/2000	Trichloroethene		2910 ug/L		SW 8260A	100 ug/L
7/11/2000	Trichloroethene		8240 ug/L		SW 8260A	500 ug/L
6/13/2000	Trichloroethene	Low Flow	4060 ug/L		SW 8260A	500 ug/L
6/12/2000	Trichloroethene		4930 ug/L		SW 8260A	100 ug/L
4/27/2000	Trichloroethene		2880 ug/L		SW 8260A	500 ug/L
4/5/2000	Trichloroethene		3080 ug/L		SW 8260A	50 ug/L
2/11/2000	Trichloroethene		3550 ug/L		8260	50 ug/L
2/11/1998	Trichloroethene		130 ug/L	V	8260	5 ug/L
11/23/1997	Trichloroethene		4340 ug/L		8260	250 ug/L
11/4/1997	Trichloroethene	Dilution	4050 ug/L	D	8260	250 ug/L
7/23/1997	Trichloroethene		5730 ug/L		8260	500 ug/L
6/17/1997	Trichloroethene	Dilution	4700 ug/L	D	8260	500 ug/L
5/23/1997	Trichloroethene		5600 ug/L		8260	130 ug/L
2/21/1997	Trichloroethene		4200 ug/L		8260	130 ug/L
2/11/1997	Trichloroethene		4500 ug/L		8260	50 ug/L
5/20/1996	Trichloroethene	Duplicate	2620 ug/L		624	ug/L
5/20/1996	Trichloroethene		3080 ug/L		624	ug/L
4/29/1996	Trichloroethene	Duplicate	4550 ug/L		624	5 ug/L
4/29/1996	Trichloroethene		3450 ug/L		624	5 ug/L

Flag Definitions :

B -- The compound was also detected in the blank associated with the sample.
D -- The result was quantified from a dilution of the original sample.
J -- The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-301D

Monitoring Zone: Belfast Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-413D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
1/13/2003	Trichloroethene	413D-011303-N	76 ug/L		SW8260	0.1 ug/L
10/4/2002	Trichloroethene	413D-100402-0945DL	140 ug/L		SW8260	0.1 ug/L
7/18/2002	Trichloroethene	413D-071802-N	150 ug/L		SW8260	0.5 ug/L
4/25/2002	Trichloroethene	413D-042502-NDL	22 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	413D-012802-N	107 ug/L		SW 8260B	5 ug/L
10/22/2001	Trichloroethene	413D 102201-N	18.3 ug/L		SW 8260B	5 ug/L
7/9/2001	Trichloroethene		460 ug/L		SW 8260B	250 ug/L
4/24/2001	Trichloroethene		139 ug/L		SW 8260A	1 ug/L
1/18/2001	Trichloroethene		204 ug/L		SW 8260A	25 ug/L
11/1/2000	Trichloroethene		121 ug/L		SW 8260A	5 ug/L
7/11/2000	Trichloroethene		321 ug/L		SW 8260A	250 ug/L
6/13/2000	Trichloroethene		509 ug/L		SW 8260A	50 ug/L
6/13/2000	Trichloroethene	Low Flow	613 ug/L		SW 8260A	50 ug/L
4/27/2000	Trichloroethene		1790 ug/L		SW 8260A	250 ug/L
4/13/2000	Trichloroethene		3680 ug/L		SW 8260A	100 ug/L
4/4/2000	Trichloroethene		1210 ug/L		SW 8260A	50 ug/L
2/11/2000	Trichloroethene		51.2 ug/L		8260	1 ug/L
2/13/1998	Trichloroethene	Duplicate	350 ug/L		8260	5 ug/L
2/11/1998	Trichloroethene		300 ug/L		8260	5 ug/L
11/22/1997	Trichloroethene	Duplicate	143 ug/L		8260	12.5 ug/L
11/22/1997	Trichloroethene		125 ug/L		8260	10 ug/L
11/11/1997	Trichloroethene		83.8 ug/L		8260	5 ug/L

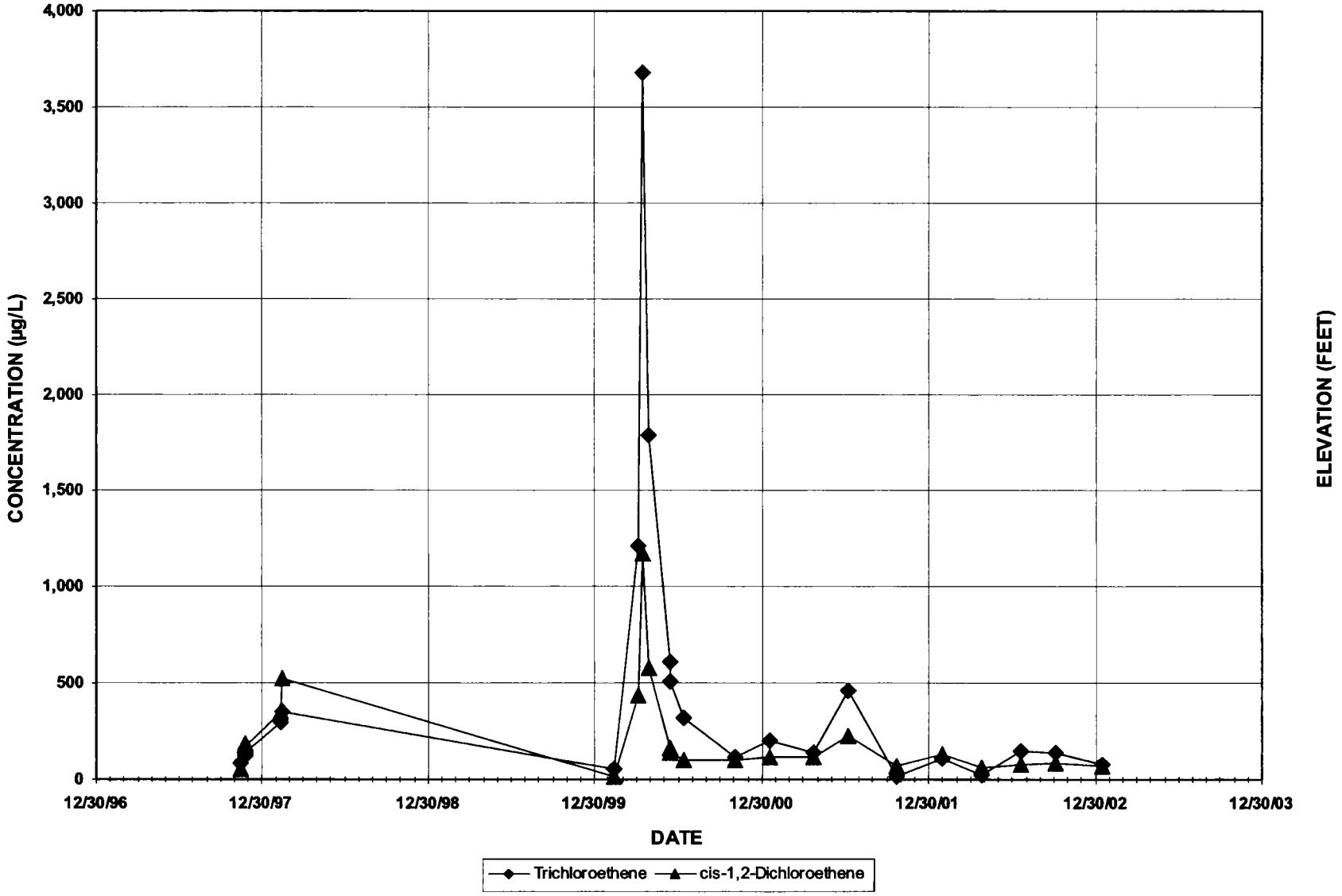
Flag Definitions :

B – The compound was also detected in the blank associated with the sample.
D -- The result was quantified from a dilution of the original sample.
J – The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-413D

Monitoring Zone: Belfast

Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-416D

Monitoring Zone: Belfast Screened Interval: Belfast

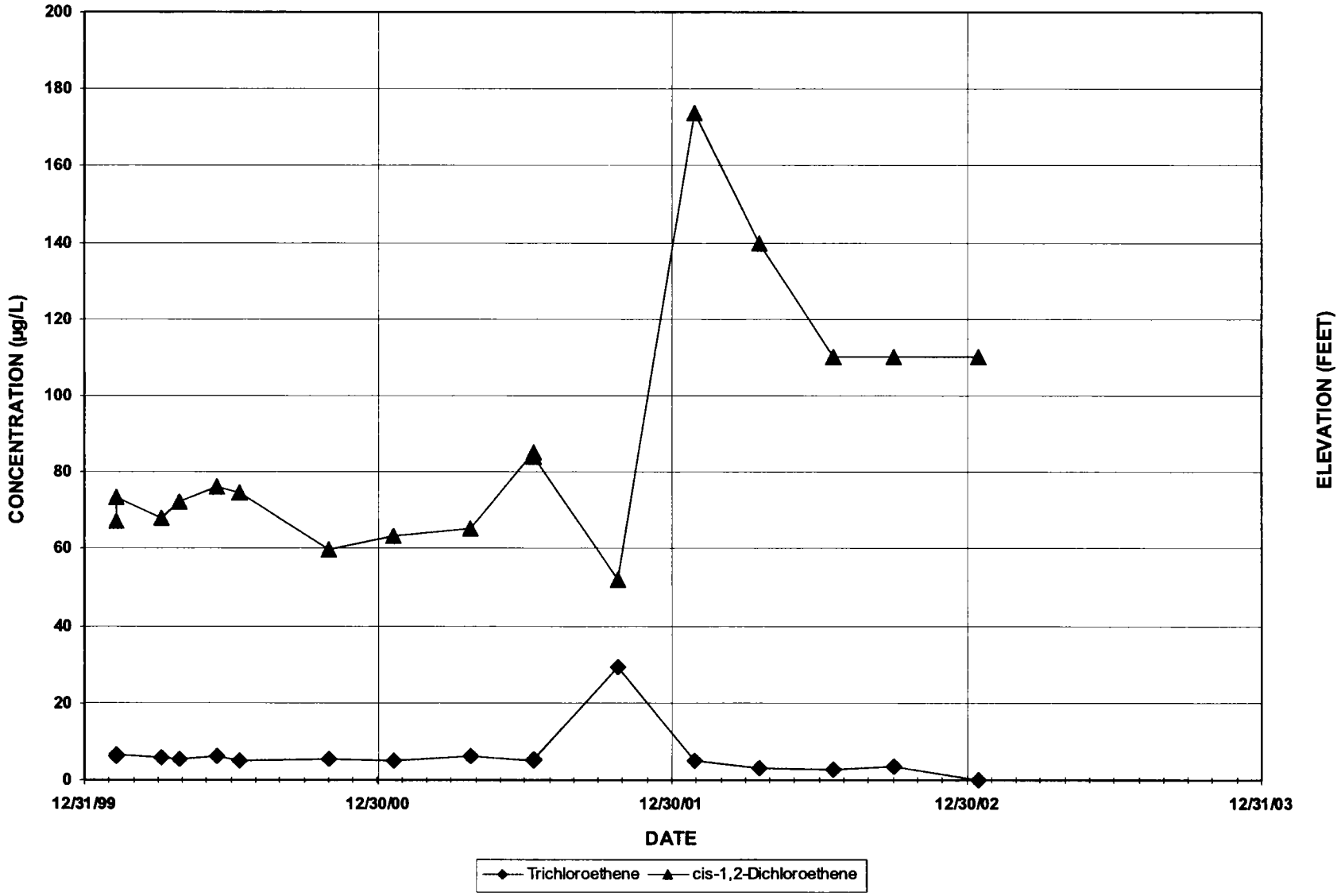
Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
1/13/2003	Trichloroethene	416D-011303-N	0.1 ug/L	U	SW8260	0.1 ug/L
10/1/2002	Trichloroethene	416D-100102-1820DL	3.4 ug/L	J	SW8260	0.1 ug/L
7/19/2002	Trichloroethene	416D-071902-N	2.6 ug/L	J	SW8260	0.5 ug/L
4/18/2002	Trichloroethene	416D-041802-NDL	3 ug/l	J	SW8260	0.1 ug/l
1/28/2002	Trichloroethene	416D-012802-N	5 ug/L	U	SW 8260B	5 ug/L
10/24/2001	Trichloroethene	416D-102401-N	29.2 ug/L		SW 8260B	5 ug/L
7/12/2001	Trichloroethene	Duplicate	5.5 ug/L		SW 8260B	5 ug/L
7/12/2001	Trichloroethene		5 ug/L	U	SW 8260B	5 ug/L
4/24/2001	Trichloroethene		6.3 ug/L		SW 8260A	1 ug/L
1/18/2001	Trichloroethene		5 ug/L	U	SW 8260A	5 ug/L
10/31/2000	Trichloroethene		5.4 ug/L		SW 8260A	5 ug/L
7/11/2000	Trichloroethene		5.1 ug/L		SW 8260A	5 ug/L
6/12/2000	Trichloroethene		6.1 ug/L		SW 8260A	5 ug/L
4/26/2000	Trichloroethene		5.6 ug/L		SW 8260A	5 ug/L
4/5/2000	Trichloroethene		6 ug/L		SW 8260A	1 ug/L
2/8/2000	Trichloroethene	Duplicate	6.5 ug/L		8260	1 ug/L
2/8/2000	Trichloroethene		6.1 ug/L		8260	1 ug/L

Flag Definitions :

B -- The compound was also detected in the blank associated with the sample.
D -- The result was quantified from a dilution of the original sample.
J -- The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-416D

Monitoring Zone: Belfast Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-418D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
1/14/2003	Trichloroethene	418D-011403-N	19 ug/L	J	SW8260	0.1 ug/L
10/3/2002	Trichloroethene	418D-100302-1525DL	44 ug/L		SW8260	0.1 ug/L
7/19/2002	Trichloroethene		140 ug/L		SW8260	0.5 ug/L
4/30/2002	Trichloroethene	418D-043002-NDL	94 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	418D-012802-N	212 ug/L		SW 8260B	50 ug/L
10/24/2001	Trichloroethene	418D-102401-BD	284 ug/L		SW 8260B	100 ug/L
10/24/2001	Trichloroethene	0001-102401-BD	290 ug/L		SW 8260B	50 ug/L
7/11/2001	Trichloroethene		173 ug/L		EPA 524.2	20 ug/L
7/11/2001	Trichloroethene		151 ug/L		SW 8260B	5 ug/L
4/24/2001	Trichloroethene		341 ug/L		SW 8260A	10 ug/L
1/18/2001	Trichloroethene		1320 ug/L		SW 8260A	250 ug/L
10/31/2000	Trichloroethene		1990 ug/L		SW 8260A	250 ug/L
7/11/2000	Trichloroethene		5950 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Low Flow Duplicate	4040 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Low Flow	4550 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Duplicate	6000 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene		5700 ug/L		SW 8260A	500 ug/L
4/27/2000	Trichloroethene		2800 ug/L		SW 8260A	500 ug/L
4/5/2000	Trichloroethene		3290 ug/L		SW 8260A	50 ug/L
2/8/2000	Trichloroethene		3390 ug/L		8260	50 ug/L

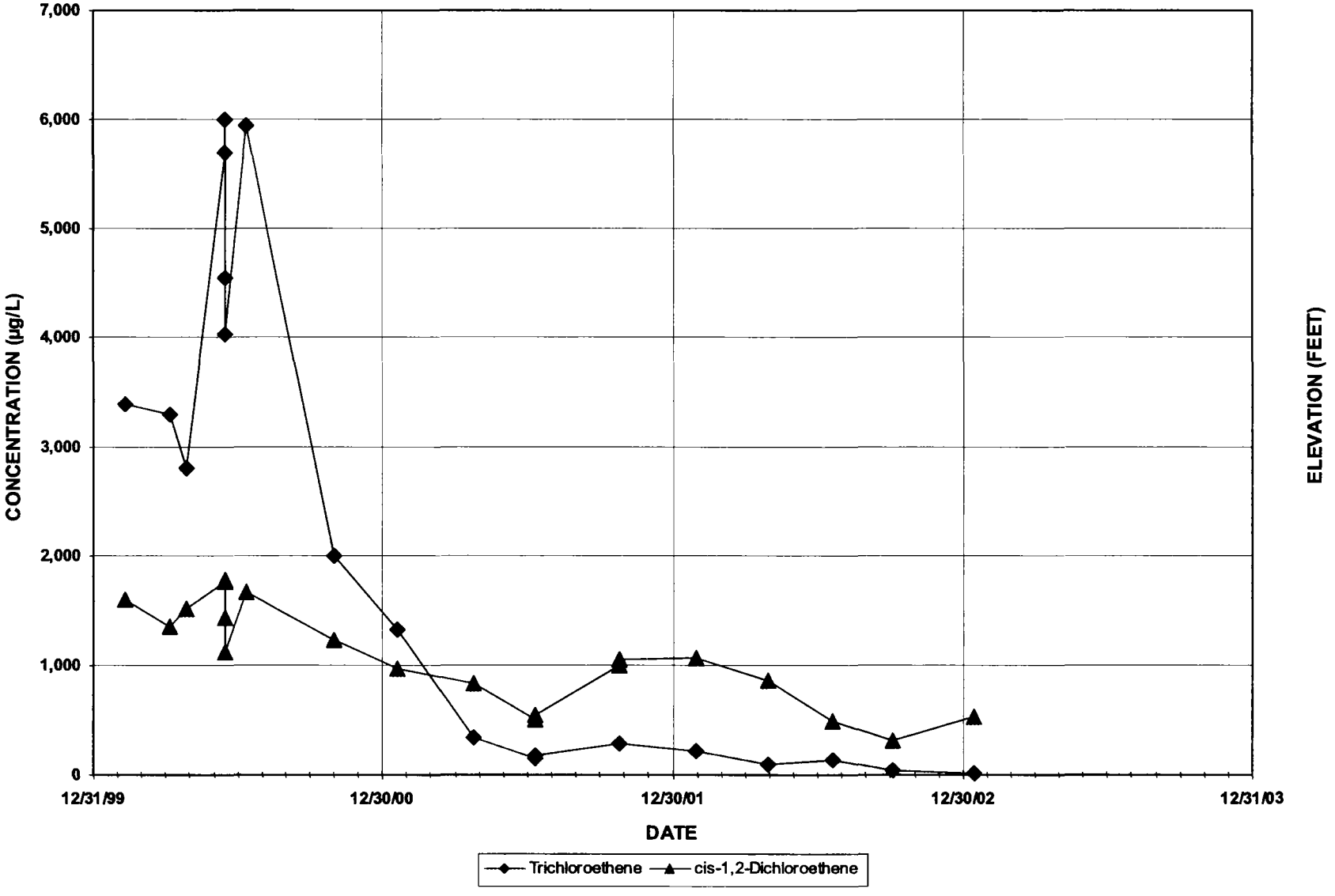
Flag Definitions :

B -- The compound was also detected in the blank associated with the sample.
D -- The result was quantified from a dilution of the original sample.
J -- The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-418D

Monitoring Zone: Belfast

Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-420D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
1/16/2003	Trichloroethene	420D-011603-N	0.1 ug/L	U	SW8260	0.1 ug/L
10/3/2002	Trichloroethene	420D-100302-1029DL	70 ug/L		SW8260	0.1 ug/L
7/18/2002	Trichloroethene	420D-071802-N	65 ug/L		SW8260	0.5 ug/L
4/17/2002	Trichloroethene	420D-041702-DDL	57 ug/l		SW8260	0.1 ug/l
4/17/2002	Trichloroethene	420D-041702-NDL	52 ug/l		SW8260	0.1 ug/l
1/31/2002	Trichloroethene	420D-013102-N	64.5 ug/L		SW 8260B	50 ug/L
10/24/2001	Trichloroethene	420D-102401-N	275 ug/L		SW 8260B	50 ug/L
7/11/2001	Trichloroethene		229 ug/L		EPA 524.2	20 ug/L
7/11/2001	Trichloroethene		182 ug/L		SW 8260B	5 ug/L
4/25/2001	Trichloroethene		207 ug/L		SW 8260A	10 ug/L
1/19/2001	Trichloroethene		560 ug/L		SW 8260A	25 ug/L
10/30/2000	Trichloroethene		752 ug/L		SW 8260A	20 ug/L
7/12/2000	Trichloroethene		2290 ug/L		SW 8260A	250 ug/L
6/14/2000	Trichloroethene		2690 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Low Flow	2500 ug/L		SW 8260A	500 ug/L
4/26/2000	Trichloroethene		3870 ug/L		SW 8260A	250 ug/L
4/6/2000	Trichloroethene	Duplicate	4570 ug/L		SW 8260A	100 ug/L
4/6/2000	Trichloroethene		4830 ug/L		SW 8260A	100 ug/L
2/7/2000	Trichloroethene		5400 ug/L		8260	50 ug/L

Flag Definitions :

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D -- The result was quantified from a dilution of the original sample.
J -- The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
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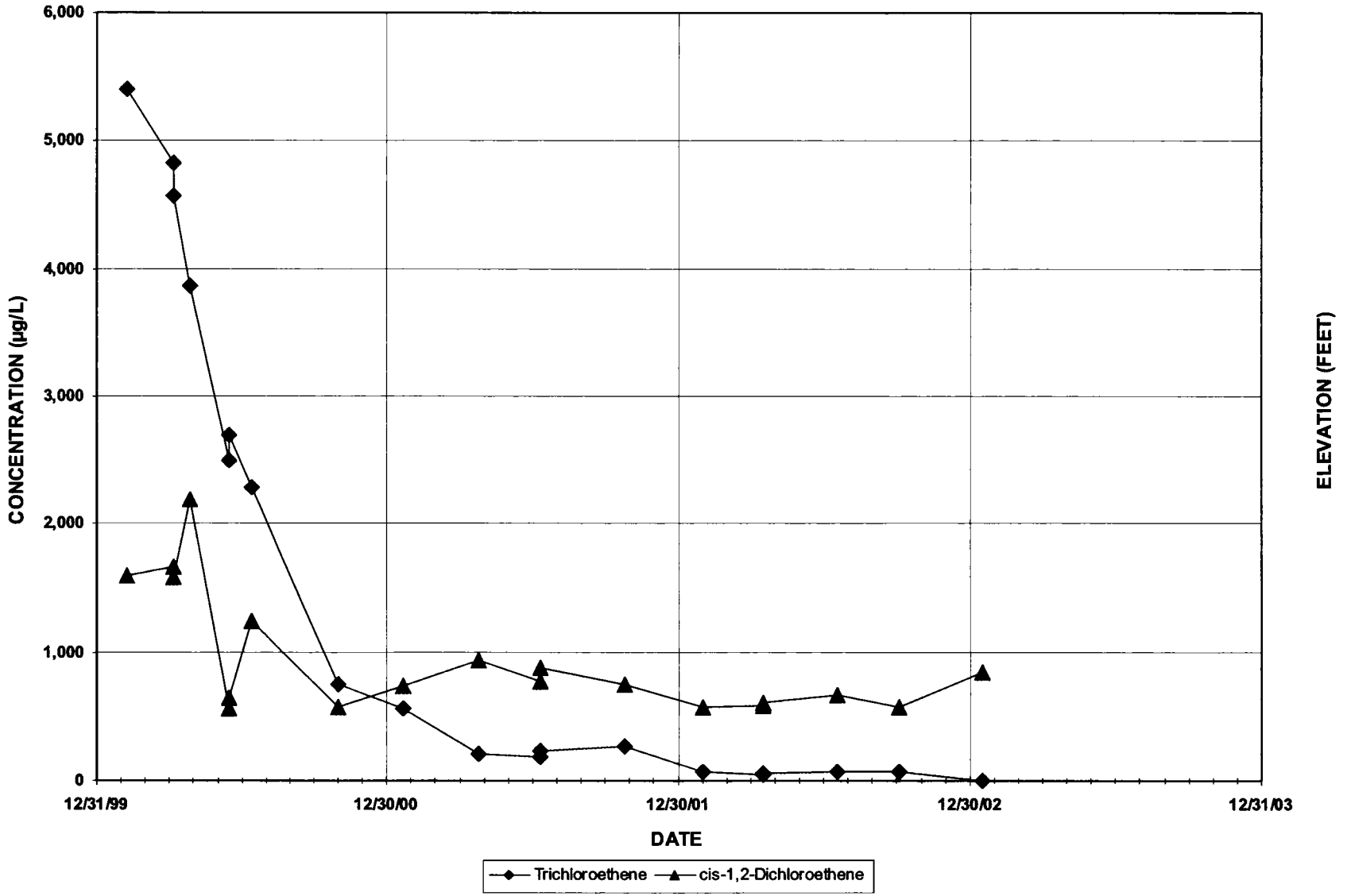
Delphi Corporation Vandalia Facility MW-420D

Monitoring Zone: Belfast Screened Interval: Belfast

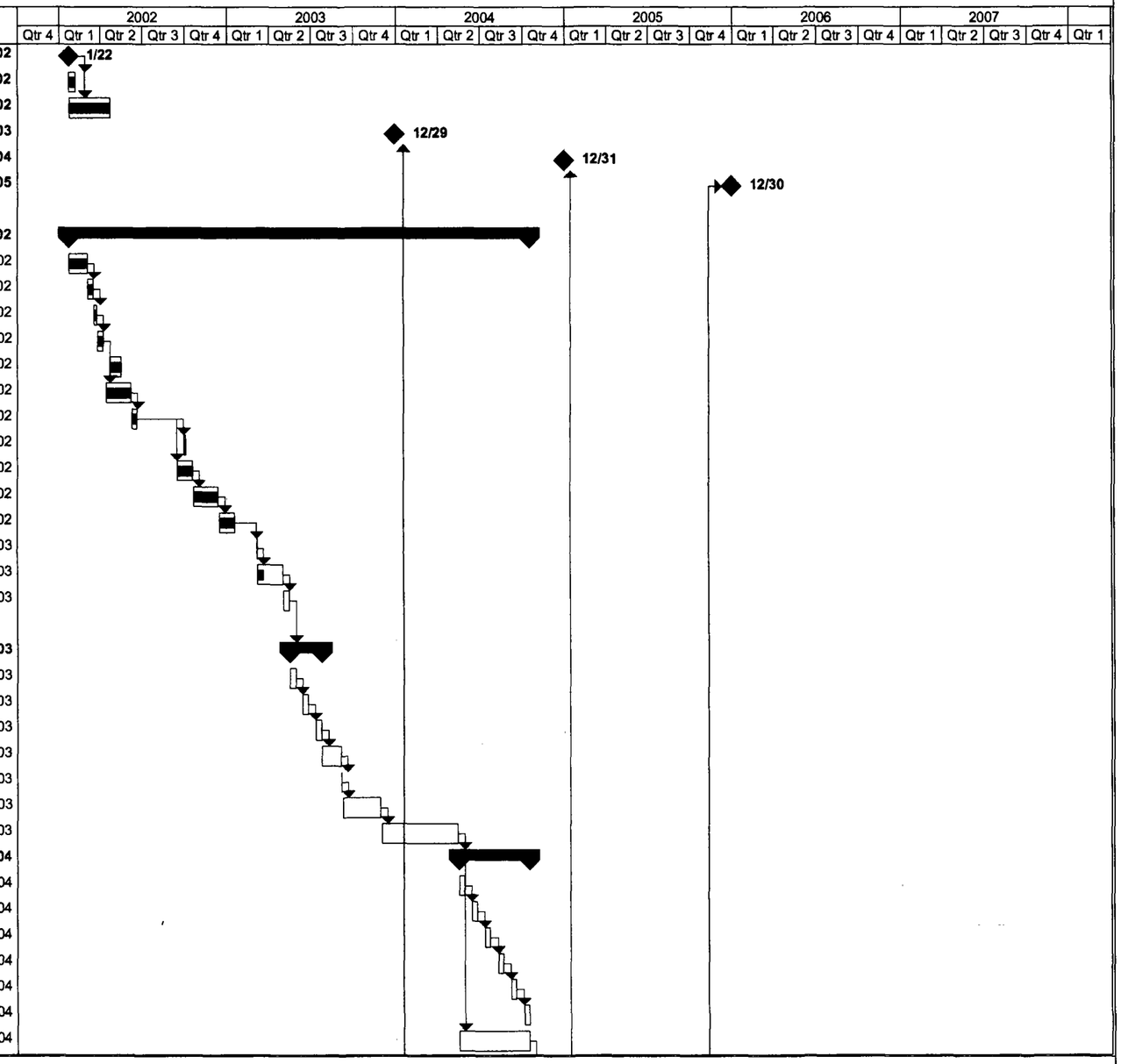


Attachment H
Project Schedule

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Thu 4/10/03

ID	Task Name	Predecessors	% Comple	Duration	Start
1	**Streamlined Order Executed**		100%	**0 days**	**Tue 1/22/02**
2	**Project Manager Designation**	1	100%	**11 days**	**Tue 1/22/02**
3	**Interim Measure & Implementation Report**	1	100%	**65 days**	**Tue 1/22/02**
4	**EI Report - Human Exposures: AOC Deadline 12/31/03**	79	0%	**1 day**	**Mon 12/29/03**
5	**EI Report - GW Stabilization: AOC Deadline 12/31/04**	87	0%	**1 day**	**Fri 12/31/04**
6	**Final Corrective Measures Proposal: AOC Deadline 12/31/05**	123	0%	**1 day**	**Fri 12/30/05**
7					
8	**Offsite Groundwater Investigation**		**34%**	**714 days**	**Tue 1/22/02**
9	Complete Current Phase of BTZ Wells		100%	6 wks	Tue 1/22/02
10	Evaluate/Summarize Data	9	100%	2 wks	Tue 3/5/02
11	Conf Call w/ USEPA to ID Next Locations (if required)	10	100%	1 wk	Tue 3/19/02
12	PR Coordination	11	100%	2 wks	Tue 3/26/02
13	"Sugar Rock" Outcrop Survey		100%	4 wks	Mon 4/22/02
14	Phase II Offsite Well Installation	12	100%	8 wks	Mon 4/15/02
15	Evaluate/Summarize Phase II Data	14	100%	2 wks	Mon 6/10/02
16	Conf Call w/ USEPA to ID Next Locations	15	100%	1 wk	Mon 9/30/02
17	PR Coordination	15	100%	5 wks	Mon 9/16/02
18	Phase III Offsite Well Installation	17	100%	8 wks	Mon 10/21/02
19	Evaluate/Summarize Data	18	100%	5 wks	Mon 12/16/02
20	Meet w/ USEPA to Discuss Findings	19	100%	1 day	Thu 3/6/03
21	Additional Outcrop Mapping/Seep Sampling Coordination	20	25%	8 wks	Fri 3/7/03
22	Extended Seep Sampling	21	0%	2 wks	Fri 5/2/03
23					
24	**Initial EI GW Perimeter Monitoring (3 Mos)**	**22**	**0%**	**50 days**	**Fri 5/16/03**
25	Initial EI GW Perimeter Monitoring		0%	2 wks	Fri 5/16/03
26	Initial EI GW Perimeter Monitoring	25FS+2 wks	0%	2 wks	Fri 6/13/03
27	Initial EI GW Perimeter Monitoring	26FS+2 wks	0%	2 wks	Fri 7/11/03
28	Preliminary GW EI Evaluation/Summary	27	0%	30 days	Fri 7/25/03
29	Additional GW IM Required?	28	0%	1 day	Fri 9/5/03
30	GW IM Design (if required)	29	0%	60 days	Mon 9/8/03
31	GW IM Construction (if required)	30	0%	120 days	Mon 12/1/03
32	**Final EI Perimeter Monitoring (6 mos)**	**31**	**0%**	**110 days**	**Mon 5/17/04**
33	Final EI GW Perimeter Monitoring		0%	2 wks	Mon 5/17/04
34	Final EI GW Perimeter Monitoring	33FS+2 wks	0%	2 wks	Mon 6/14/04
35	Final EI GW Perimeter Monitoring	34FS+2 wks	0%	2 wks	Mon 7/12/04
36	Final EI GW Perimeter Monitoring	35FS+2 wks	0%	2 wks	Mon 8/9/04
37	Final EI GW Perimeter Monitoring	36FS+2 wks	0%	2 wks	Mon 9/6/04
38	Final EI GW Perimeter Monitoring	37FS+2 wks	0%	2 wks	Mon 10/4/04
39	Begin Preparation of Draft GW EI Report	31	0%	110 days	Mon 5/17/04



Project: Delphi Vandalia, OH

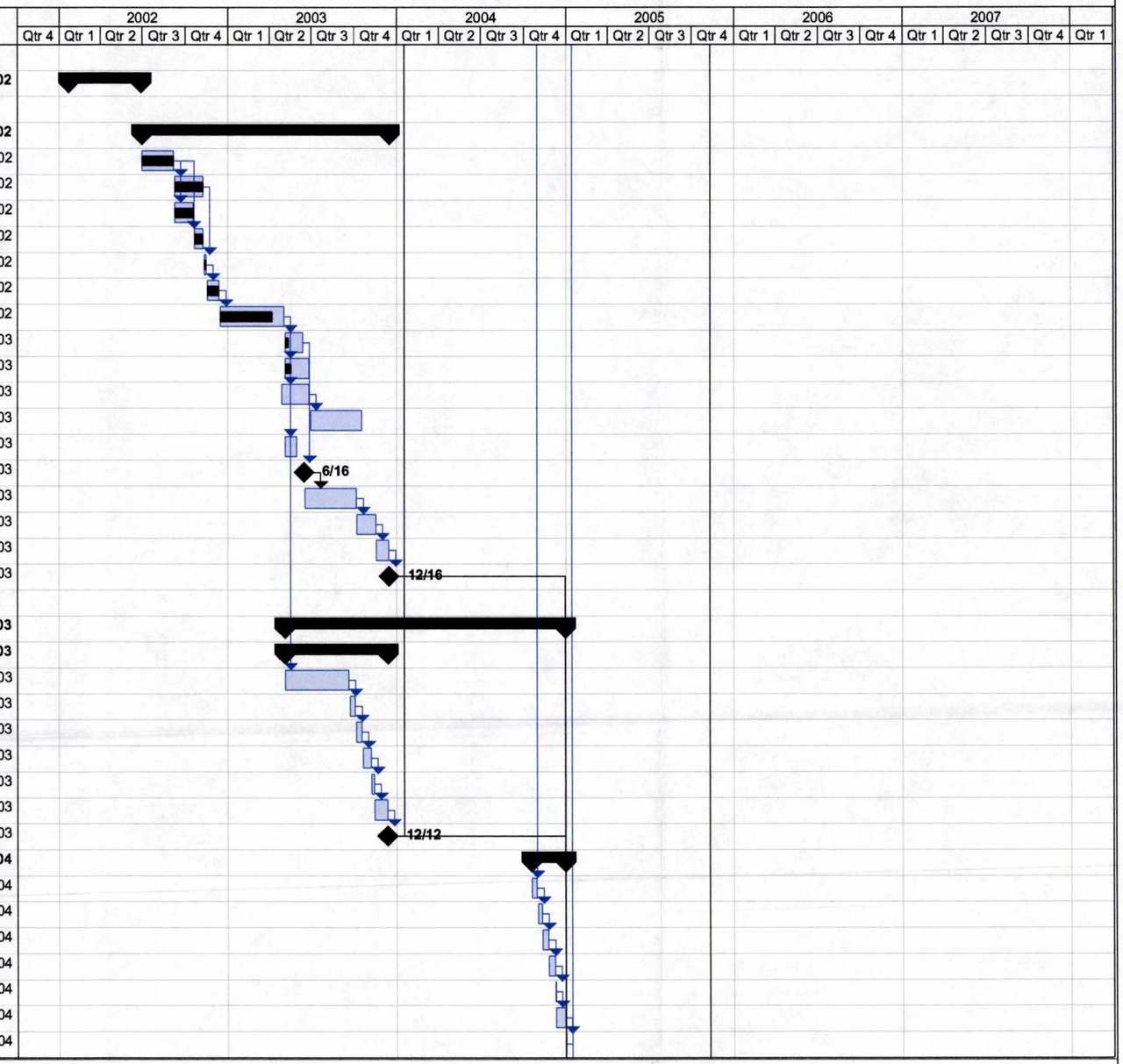
Task		Milestone		Rolled Up Split		External Tasks		Deadline	
Split		Summary		Rolled Up Milestone		Project Summary			
Progress		Rolled Up Task		Rolled Up Progress		External Milestone			

Notes and Abbreviations:
1. Schedule may be revised as necessary to accomodate unexpected field conditions or inclement weather.

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Thu 4/10/03

ID	Task Name	Predecessors	% Comple	Duration	Start
40					
41	**Onsite Investigation Work Plan**		**100%**	**114 days**	**Tue 1/22/02**
51					
52	**Onsite Work Plan Implementation**	**50**	**42%**	**382 days**	**Mon 7/1/02**
53	Field Event I	50	100%	50 days	Mon 7/1/02
54	Data Eval to Develop Field Event II	53	100%	45 days	Mon 9/9/02
55	Data Validation	53	100%	30 days	Mon 9/9/02
56	Data Summary	53	100%	15 days	Mon 10/21/02
57	Meeting with Delphi and USEPA (Chicago)	54	100%	1 wk	Mon 11/11/02
58	Field Event II SOW Finalized	57	95%	20 days	Mon 11/18/02
59	Field Event II	58	80%	100 days	Mon 12/16/02
60	Data Eval to Develop Field Event III	59	20%	30 days	Mon 5/5/03
61	Data Validation	59	25%	40 days	Mon 5/5/03
62	IM Design (if necessary)	59FS-5 days	0%	45 days	Mon 4/28/03
63	IM Implementation (if necessary)	62	0%	80 days	Mon 6/30/03
64	Data Report	59	0%	20 days	Mon 5/5/03
65	Conf. Call with Delphi and USEPA	60	0%	1 day	Mon 6/16/03
66	Field Event III	65	0%	80 days	Tue 6/17/03
67	Data Validation	66	0%	30 days	Tue 10/7/03
68	Data Report	67	0%	20 days	Tue 11/18/03
69	Conf. Call with Delphi and USEPA	68	0%	1 day	Tue 12/16/03
70					
71	**Environmental Indicators Reports**		**0%**	**434 days**	**Mon 5/5/03**
72	**Human Health EI**		**0%**	**160 days**	**Mon 5/5/03**
73	Prepare First Draft Human Health EI Report for Delphi	59	0%	100 days	Mon 5/5/03
74	Delphi Review First Draft Human Health EI Report	73	0%	10 days	Mon 9/22/03
75	Prepare Final Draft Human Health EI Report and Submit to USEPA	74	0%	10 days	Mon 10/6/03
76	USEPA Review Final Draft Human Health EI Report	75	0%	14 days	Mon 10/20/03
77	USEPA Meeting- Final Draft Human Health EI Report	76	0%	5 days	Fri 11/7/03
78	Prepare Final Human Health EI Report	77	0%	20 days	Fri 11/14/03
79	Submit Final Human Health EI Report EPA	78	0%	1 day	Fri 12/12/03
80	**Groundwater Stabilization EI**		**0%**	**54 days**	**Mon 10/18/04**
81	Finalize First Draft Groundwater Stabilization EI Report for Delphi	39	0%	10 days	Mon 10/18/04
82	Delphi Review First Draft Groundwater Stabilization EI Report	81	0%	7 days	Mon 11/1/04
83	Prepare Final Draft Groundwater Stabilization EI Report and Submit to USEPA	82	0%	10 days	Wed 11/10/04
84	USEPA Review Final Draft Groundwater Stabilization EI Report	83	0%	10 days	Wed 11/24/04
85	Meeting with USEPA - Final Draft Groundwater Stabilization EI Report	84	0%	1 day	Wed 12/8/04
86	Prepare Final Groundwater Stabilization EI Report	85	0%	15 days	Thu 12/9/04
87	Submit Final Groundwater Stabilization EI Report EPA	86	0%	1 day	Thu 12/30/04



Project: Delphi Vandalia, OH

Task		Milestone		Rolled Up Split		External Tasks		Deadline	
Split		Summary		Rolled Up Milestone		Project Summary			
Progress		Rolled Up Task		Rolled Up Progress		External Milestone			

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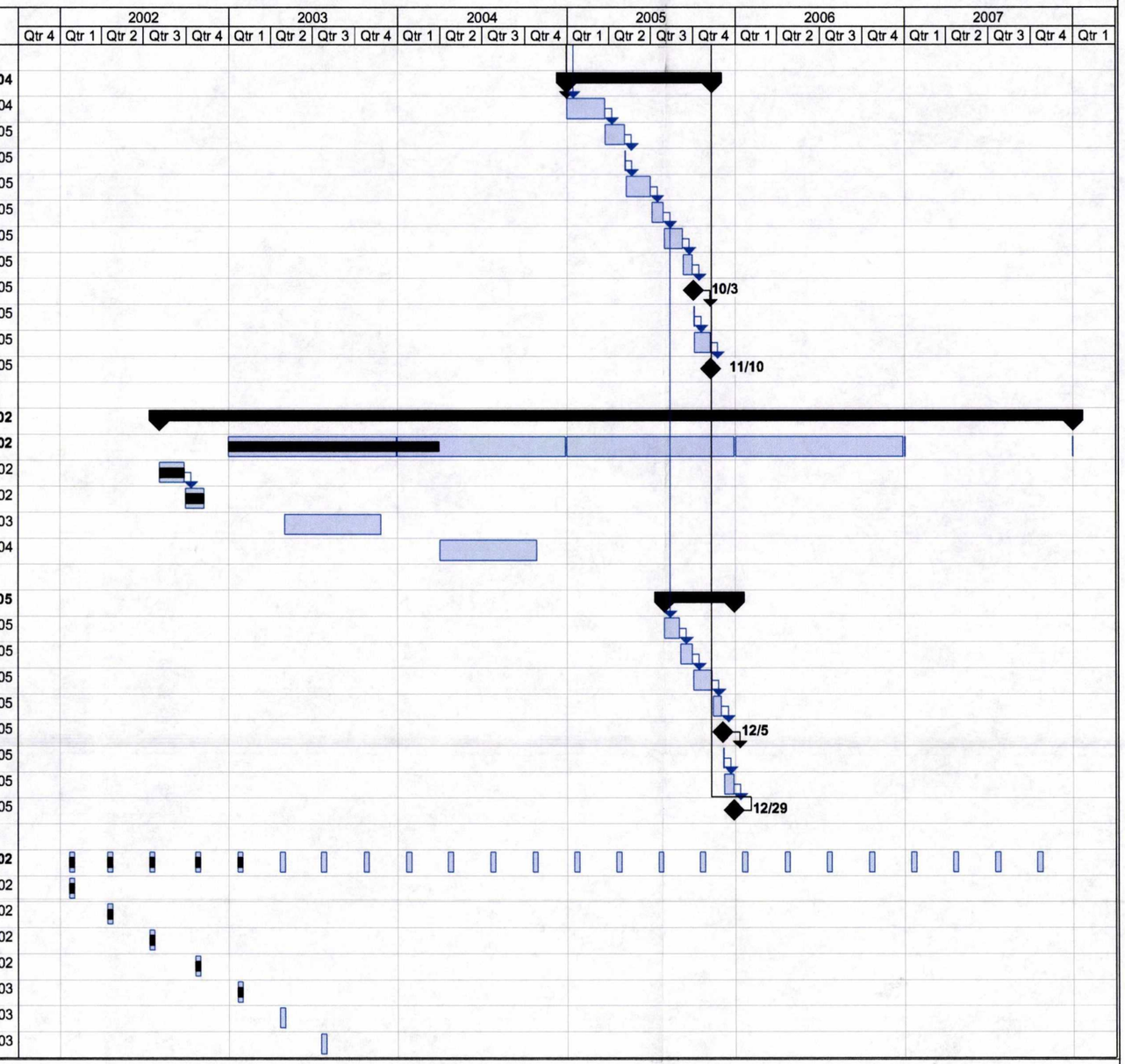
SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Thu 4/10/03

ID	Task Name	Predecessors	% Comple	Duration	Start
88					
89	**Investigation Report**		**0%**	**225 days**	**Fri 12/31/04**
90	Prepare First Draft Report to Delphi	69,79,87	0%	60 days	Fri 12/31/04
91	Delphi Review First Draft Report	90	0%	30 days	Fri 3/25/05
92	Meeting on First Draft Report	91	0%	1 day	Fri 5/6/05
93	Second Draft Report to Delphi	92	0%	40 days	Mon 5/9/05
94	Delphi Review Second Draft Report	93	0%	20 days	Mon 7/4/05
95	Final Draft Report	94	0%	30 days	Mon 8/1/05
96	Delphi Review Final Draft Report	95	0%	15 days	Mon 9/12/05
97	Submit Final Draft Report to EPA for Review	96	0%	1 day	Mon 10/3/05
98	Meeting with USEPA - Final Report	97	0%	2 days	Tue 10/4/05
99	Prepare Final Report	98	0%	25 days	Thu 10/6/05
100	Submit Final Report to USEPA	99	0%	1 day	Thu 11/10/05
101					
102	**Interim Measures**		**28%**	**1411 days**	**Mon 8/5/02**
103	**GW Migration Control O&M**		**31%**	**1305 days**	**Tue 12/31/02**
110	**DNAPL Recovery Design Build**		100%	8 wks	Mon 8/5/02
111	**DNAPL Recovery O&M**	110	100%	6 wks	Mon 9/30/02
112	DNAPL Recovery		0%	30 wks	Thu 5/1/03
113	DNAPL Recovery		0%	30 wks	Thu 4/1/04
114					
115	**Corrective Measure Proposal**		**0%**	**109 days**	**Mon 8/1/05**
116	Prepare First Draft CM Proposal to Delphi	94	0%	25 days	Mon 8/1/05
117	Delphi Review First Draft CM Proposal	116	0%	20 days	Mon 9/5/05
118	Prepare Final Draft CM Proposal	117	0%	30 days	Mon 10/3/05
119	Delphi Review Final Draft CM Proposal	118	0%	15 days	Mon 11/14/05
120	Submit Final Draft CM Proposal to EPA for Review	119	0%	1 day	Mon 12/5/05
121	Meeting with USEPA - Final CM Proposal	120	0%	2 days	Tue 12/6/05
122	Prepare Final CM Proposal	121	0%	15 days	Thu 12/8/05
123	Submit Final CM Proposal	122	0%	1 day	Thu 12/29/05
124					
125	**Quarterly GW Sampling**		**21%**	**1505 days**	**Mon 1/21/02**
126	Quarterly GW Sampling 1		100%	2 wks	Mon 1/21/02
127	Quarterly GW Sampling 2		100%	2 wks	Mon 4/15/02
128	Quarterly GW Sampling 3		100%	2 wks	Mon 7/15/02
129	Quarterly GW Sampling 4		100%	2 wks	Mon 10/21/02
130	Quarterly GW Sampling 5		100%	2 wks	Mon 1/20/03
131	Quarterly GW Sampling 6		0%	2 wks	Mon 4/21/03
132	Quarterly GW Sampling 7		0%	2 wks	Mon 7/21/03



Project: Delphi Vandalia, OH

Task		Milestone		Rolled Up Split		External Tasks		Deadline	
Split		Summary		Rolled Up Milestone		Project Summary			
Progress		Rolled Up Task		Rolled Up Progress		External Milestone			

Notes and Abbreviations:
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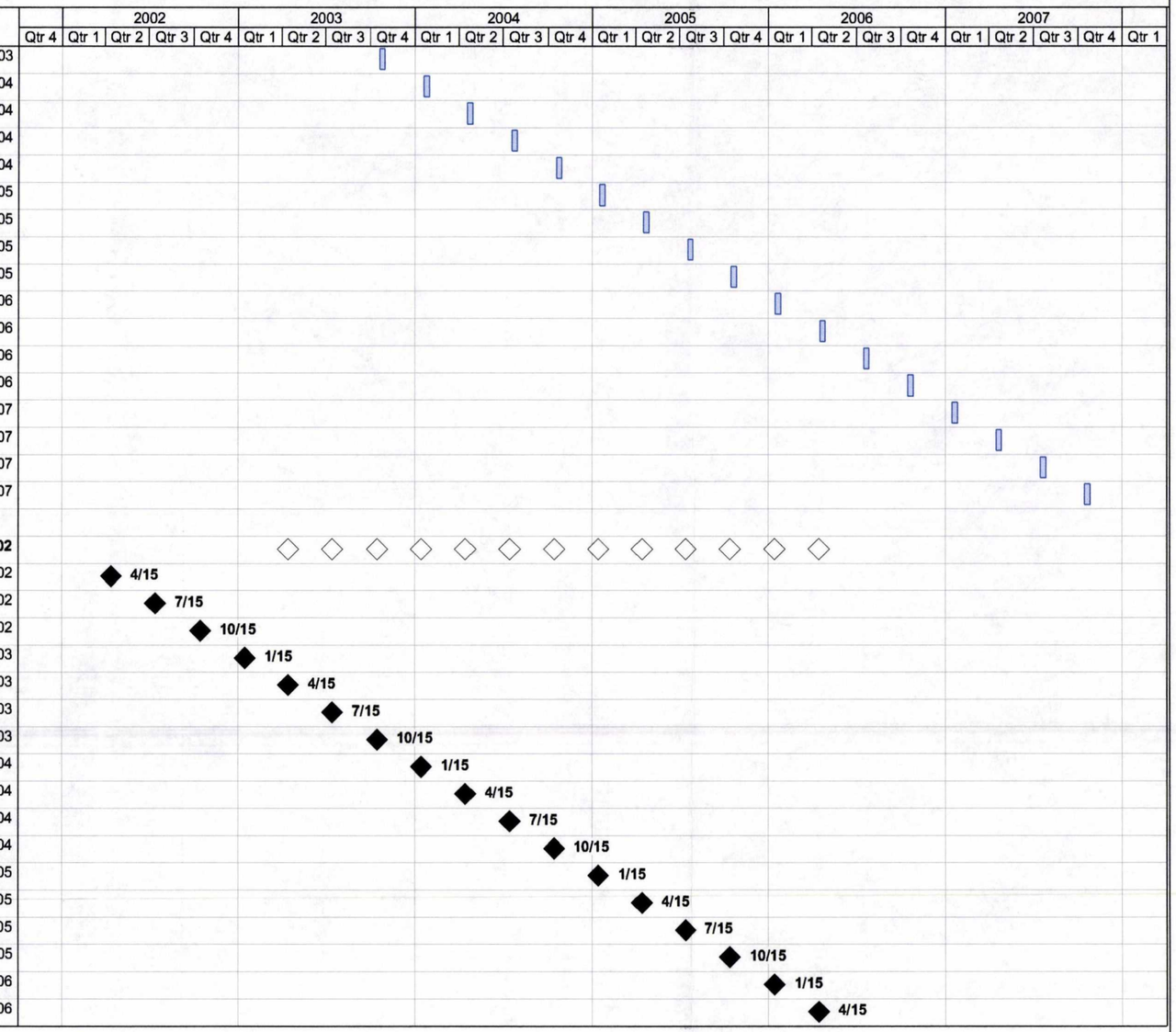
SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Thu 4/10/03

ID	Task Name	Predecessors	% Comple	Duration	Start
133	Quarterly GW Sampling 8		0%	2 wks	Mon 10/20/03
134	Quarterly GW Sampling 9		0%	2 wks	Mon 1/19/04
135	Quarterly GW Sampling 10		0%	2 wks	Mon 4/19/04
136	Quarterly GW Sampling 11		0%	2 wks	Mon 7/19/04
137	Quarterly GW Sampling 12		0%	2 wks	Mon 10/18/04
138	Quarterly GW Sampling 13		0%	2 wks	Mon 1/17/05
139	Quarterly GW Sampling 14		0%	2 wks	Mon 4/18/05
140	Quarterly GW Sampling 15		0%	2 wks	Mon 7/18/05
141	Quarterly GW Sampling 16		0%	2 wks	Mon 10/17/05
142	Quarterly GW Sampling 17		0%	2 wks	Mon 1/16/06
143	Quarterly GW Sampling 18		0%	2 wks	Mon 4/17/06
144	Quarterly GW Sampling 19		0%	2 wks	Mon 7/17/06
145	Quarterly GW Sampling 20		0%	2 wks	Mon 10/16/06
146	Quarterly GW Sampling 21		0%	2 wks	Mon 1/15/07
147	Quarterly GW Sampling 22		0%	2 wks	Mon 4/16/07
148	Quarterly GW Sampling 23		0%	2 wks	Mon 7/16/07
149	Quarterly GW Sampling 24		0%	2 wks	Mon 10/15/07
150					
151	**Progress Reports**	1	**0%**	**1045 days**	**Mon 4/15/02**
152	Progress Report 2		100%	0 days	Mon 4/15/02
153	Progress Report 3		100%	0 days	Mon 7/15/02
154	Progress Reports 4		100%	0 days	Tue 10/15/02
155	Progress Reports 5		0%	0 days	Wed 1/15/03
156	Progress Reports 6		0%	0 days	Tue 4/15/03
157	Progress Reports 7		0%	0 days	Tue 7/15/03
158	Progress Reports 8		0%	0 days	Wed 10/15/03
159	Progress Reports 9		0%	0 days	Thu 1/15/04
160	Progress Reports 10		0%	0 days	Thu 4/15/04
161	Progress Reports 11		0%	0 days	Thu 7/15/04
162	Progress Reports 12		0%	0 days	Fri 10/15/04
163	Progress Reports 13		0%	0 days	Sat 1/15/05
164	Progress Reports 14		0%	0 days	Fri 4/15/05
165	Progress Reports 15		0%	0 days	Fri 7/15/05
166	Progress Reports 16		0%	0 days	Sat 10/15/05
167	Progress Reports 17		0%	0 days	Sun 1/15/06
168	Progress Reports 18		0%	0 days	Sat 4/15/06



Project: Delphi Vandalia, OH

Task		Milestone		Rolled Up Split		External Tasks		Deadline	
Split		Summary		Rolled Up Milestone		Project Summary			
Progress		Rolled Up Task		Rolled Up Progress		External Milestone			

Notes and Abbreviations:
1. Schedule may be revised as necessary to accomodate unexpected field conditions or inclement weather.

DELPHI - 037

DELPHI

July 15, 2003

United States Environmental Protection Agency, Region 5
77 West Jackson Boulevard, DE-9J
Chicago, IL 60604-3590

Attention: Mr. Kenneth Bardo

Subject: Progress Report, Second Quarter 2003
Delphi Corporation
Energy & Chassis Systems and Safety & Interior Systems Facility
Vandalia, Ohio
US EPA ID #OHD 052 151 701
US EPA ID #OHD 000 048 454

Dear Mr. Bardo:

This submittal constitutes the progress report for work undertaken during the second quarter 2003, related to the above-referenced Facility. This work is being conducted in accordance with RCRA 3008(h) Administrative Order on Consent, Docket No. R8H-5-02-001, January 22, 2002.

Work Performed This Quarter (April 1, 2003 – June 30, 2003)

- Continued Field Event II of the RCRA Facility Investigation. This second phase of investigation began in December 2002 and concluded in June 2003. Work conducted from April 1, 2003 to June 30, 2003 included the following:
  - Completed 12 direct-push soil borings.
  - Collected 23 soil samples from 11 boring locations.
  - Sampled and analyzed 31 overburden monitoring wells.
- Sampled and analyzed 47 monitoring wells: 38 "Sugar Rock", 3 intermediate, and 6 top of bedrock. (Figure 1, Tables 1-2).
- Sampled and analyzed monthly groundwater migration control system monitoring points, consisting of extracted groundwater prior to treatment and treated groundwater effluent for NPDES compliance (Table 3).
- Collected three rounds of "Sugar Rock" and intermediate bedrock water levels, one round of top of bedrock water levels, and one round of "First Sand", "Second Sand", and "Water Table" overburden water levels (Figures 2-5, Attachment A).
- Sampled and analyzed 7 surface water samples from selected locations along the unnamed tributary of North Creek (Figure 6, Table 4).
- Completed an outcrop survey in the "G area" (bounded by Cassel Hills Golf Course to the east, Brindlestone Drive to the north, Mistic Lane to the west, and

National Road to the south). Identified seven spring locations; of those, six springs and six associated pools (first accumulation area) were sampled (Figure 7, Table 5).

- Sampled 12 springs and seven associated pools (first accumulation area) from outcrop areas B-F (Figure 7, Table 5).
- Validated lab data for samples collected during the second quarter. Data Usability Reports for the data presented in this report are included in Attachment B.
- Continued operation of the groundwater migration control system. Second quarter 2003 monthly discharge reports, system activity logs, and site inspection checklists are included in Attachments C-E, respectively.
- Abandoned three wells located at 11600 Cassel Road and connected the residence to the municipal water supply (Figure 8, Attachment F).
- Sampled and analyzed seven potable water samples from two residences located at 10591 Engle Road and 10440 Cassel Road. Collected three surface water (discharge from a spring) samples from the residence at 10600 Cassel Road (Figure 9, Table 6).
- Conducted the initial phase of the water use survey with Smith Aerospace on June 13, 2003. No sample was collected. Discussions are ongoing to obtain approval to sample.
- Moved the DNAPL recovery system out of storage on May 6 and prepared the system for operation. The system was started on May 15, 2003. During the quarter, the system operated 25 days in recovery wells R-12 and R-13, treated 1866 gallons of co-recovered groundwater, and recovered 1.2 gallons of DNAPL. DNAPL recovery system inspection checklists and site and safety inspections are included in Attachment G.
- Upgraded and lowered the groundwater migration control system pumping well pump to accommodate lower groundwater levels and enhance the system's pumping capabilities.
- Conducted a pump test in sewer node N-19 from June 9 – 10 for approximately 31 hours. The test was run during a rain event in order to evaluate the amount of flow into the sewer and was conducted as part of the overburden groundwater migration control system planning.
- Submitted a Permit to Install application on May 9, 2003 to the Ohio EPA Division of Surface Water to modify the existing NPDES permit #1IC00045*DD.
- Video logged monitoring well MW-301D and pumping well P-301 to evaluate well condition and construction.
- Conducted a specific capacity test in monitoring well MW-426S to determine the viability of the top of bedrock aquifer for residential potable use.
- Met with the USEPA Project Manager and Risk Assessment Staff in Chicago on June 23. Reviewed RFI Field Event II data, discussed the scope of Field Event III, and discussed Delphi's approach to achieve the Environmental Indicators.

Data Collected

- Field screening was conducted and groundwater samples were analyzed from 47 monitoring wells. The analytical results from groundwater sampling during the second quarter 2003 are included in Table 2. Updated historical sampling results for monitoring wells MW-301D, MW-413D, MW-416D, MW-418D, and MW-420D are included in Attachment H and the second quarter TCE levels in the "Sugar Rock" are illustrated in Figure 10.
- Analytical results of monthly migration control system samples are presented in Table 3.
- Analytical results of surface water samples collected in the unnamed tributary of North Creek are included in Table 4. Surface water locations with TCE results are illustrated in Figure 6.
- Analytical results of spring and pool samples collected in outcrop areas B-G and approximate flow rate data are presented in Table 5. Spring and pool locations, with trichloroethene and cis-1,2-dichloroethene results are illustrated in Figure 7.
- Data collected as part of the Field Event II (including analytical results and boring logs) will be included in a later submittal.

Performance Evaluation and Problems Encountered

- The groundwater migration control system was operational for approximately 94.6% of the quarter. System downtime was due to pumping well transducer malfunctions, pump replacement, high levels in the air stripper sump, and blown fuses.
  - The system shut down on seven separate occasions for a total of 22 hours due to a malfunctioning pumping well transducer. The transducer incorrectly indicated that the water level in the pumping well was below low-low levels. Purchase of a new transducer has been initiated.
  - The pump in the system pumping well was upgraded and lowered to accommodate lower groundwater levels and enhance the system's pumping capabilities. The system was manually shut down four 11 hours on May 19 – 20 to accommodate these activities.
  - The system shut down on three occasions for a total of 15 hours due to high levels in the air stripper sump. These three shutdown events are attributable to fouling in the post-air stripper transfer pump and/or an imbalance of flow from the air stripper transfer pump. The flow to the air stripper was adjusted on two occasions. The post-air stripper transfer pump will be monitored for fouling and the system will be acid washed as necessary.

  - The system shut down for 1.5 hours on May 22 after two fuses were blown. The fuses were replaced and the system was subsequently re-started.
- The DNAPL recovery system was operational for 25 days during the second quarter. During this time, approximately two days were spent regenerating the spent resin. Additionally, the following parts were either installed or replaced: vacuum and pressure gauges, bag filter, O-ring, steel union, and sampling ports.
- Continued negotiations with Oberer Development for access to a parcel that they purchased from CSX. Access to monitoring wells on this property is permitted by Oberer during negotiations.
- Ongoing negotiations with CSX Real Property for continued access to monitoring wells. Access to monitoring wells has been allowed by CSX during negotiations.

Project Schedule

- An updated project schedule showing the percent completion of individual tasks is included in Attachment I.

Feel free to contact me at (937) 455-0941 if you have any questions or require additional information.

Sincerely,

W. John Ridd

W. John Ridd
Project Manager
Delphi Corporation

Enclosures:

Tables

1 Groundwater Sampling/Water Level Measurements
2 Second Quarter 2003 Analytical Results, Bedrock and Top of Bedrock Monitoring Wells
3 Second Quarter 2003 Performance Monitoring Analytical Data, Groundwater Migration Control System
4 Second Quarter 2003 Analytical Results, Surface Water Samples
5 Second Quarter 2003 Analytical Results, Outcrop Survey Springs and Pools
6 Second Quarter 2003 Analytical Results Summary, Residential Locations

Figures

1 Sampled Bedrock Monitoring Wells, Second Quarter 2003
2 Potentiometric Surface Contours – April 1, 2003, Top of Rock Zone
3 Deep Bedrock Potentiometric Surface Contours – April 1, 2003
4 Deep Bedrock Potentiometric Surface Contours – May 28, 2003
5 Deep Bedrock Potentiometric Surface Contours – June 27, 2003
6 Second Quarter 2003 TCE in Surface Water
7 Outcrop Survey, Spring & Pool Sample Locations, TCE & DCE Results
8 Cassel Road Water Service Connections and Well Closures
9 Residential Sample Results
10 Second Quarter 2003 TCE in Sugar Rock

Attachments

A Water Level Measurements
B Data Usability Summary Reports
C Groundwater Migration Control System Monthly Discharge Reports
D Groundwater Migration Control System Activity Log
E Groundwater Migration Control System Inspection Checklists
F Cassel Road Water Service Connections and Well Closures
G DNAPL Recovery System Inspection Checklists & Site and Safety Inspections
H Historical Sampling Results, MW-301D, MW-413D, MW-416D, MW-418D, MW-420D
I Project Schedule

TABLE 1
Groundwater Sampling / Water Level Measurements
Delphi Corporation - Vandalia, Ohio

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MW-101D	S/L	L	L	L	L	L	S/L	L	L	L	L	L
MW-101S	L			L			S/L			L		
MW-204D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-204S	L			L			S/L			L		
MW-301D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-301S	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-401D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-401S	L			L			S/L			L		
MW-402D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-402S	L			L			S/L			L		
MW-403D	S/L	L	L	L	L	L	S/L	L	L	L	L	L
MW-403S	L			L			S/L			L		
MW-404D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-404S	L			L			S/L			L		
MW-405D	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-405S	L			L			S/L			L		
MW-407D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-407S	L			L			S/L			L		
MW-408D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-409D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-410D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-411D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-412D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-413D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-414D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-415S	L			L			S/L			L		
MW-416D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-417D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-418D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-419D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-419M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-420D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-420M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-421D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-422D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-422S	S/L			S/L			S/L			S/L		
MW-423S	S/L			S/L			S/L			S/L		
MW-424D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-424S	S/L			S/L			S/L			S/L		
MW-425S	S/L			S/L			S/L			S/L		
MW-426S	L			L			S/L			L		
MW-427S	L			L			S/L			L		
MW-428S	L			L			S/L			L		
MW-429S	L			L			S/L			L		
MW-430S	L			L			S/L			L		
MW-431S	L			L			S/L			L		
MW-432D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-432M	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-433D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-434D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-435D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-436D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-437D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-438D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-439D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-440D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-441D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-442D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-443D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-444D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-445S	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-446S	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-447D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-448D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-449D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-450D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-451D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
MW-452S	L	L	L	L	L	L	S/L	L	L	L	L	L
MW-453D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
CSX-18D	S/L	L	L	S/L	L	L	S/L	L	L	S/L	L	L
CSX-22	L	L	L	L	L	L	S/L	L	L	L	L	L

S/L- sample well, water level L- water level

TABLE 2
Second Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	301D-040803-1630 4/8/2003 MW-301D	4552-040803-0002 4/8/2003 MW-301D	401D-040203-1220 4/2/2003 MW-401D	407D-040903-1315 4/9/2003 MW-407D	408D-041003-1340 4/10/2003 MW-408D	409D-040903-1105 4/9/2003 MW-409D	410D-040903-1705 4/9/2003 MW-410D
Volatile Organic Compounds (ug/L)							
1,1,1-Trichloroethane	< 100	< 77	< 1	< 10	< 10	< 10	< 17
1,1-Dichloroethane	**41 J**	**29 J**	< 1	< 10	< 10	< 10	< 17
1,1-Dichloroethene	< 100	< 77	< 1	< 10	< 10	< 10	< 17
1,2,4-Trichlorobenzene	< 100 UJ	< 77	< 1 UJ	< 10	< 10	< 10	< 17
1,2-Dibromo-3-Chloropropane	< 200 UJ	< 150	< 2 UJ	< 20	< 20	< 20	< 33
2-Butanone	< 1000 UJ	< 770	< 10	< 100 UJ	< 100 UJ	< 100 UJ	< 170 UJ
2-Hexanone	< 1000 UJ	< 770	< 10	< 100 UJ	< 100 UJ	< 100 UJ	< 170 UJ
4-Methyl-2-pentanone	< 500	< 380	< 5	< 50	< 50	< 50	< 83
Acetone	< 1000 UJ	< 770	< 10	< 100 UJ	< 100 UJ	< 100 UJ	< 170 UJ
Benzene	< 100	< 77	< 1	< 10	< 10	< 10	< 17
Bromoform	< 100 UJ	< 77	< 1	< 10 UJ	< 10	< 10 UJ	< 17 UJ
Bromomethane	**22 J**	< 150	< 2	< 20	< 20	< 20	< 33
Carbon Disulfide	< 100	< 77	< 1 UJ	< 10	< 10	< 10	< 17
Chloroform	< 100	< 77	< 1	< 10	< 10	< 10	< 17
cis-1,2-Dichloroethene	**765 J**	**765 J**	< 0.5	**260**	**160**	**290**	**330**
Dibromochloromethane	< 100	< 77	< 1	< 10 UJ	< 10	< 10 UJ	< 17 UJ
Dichlorodifluoromethane	< 200	< 150	< 2	< 20	< 20	< 20	< 33
Isopropylbenzene	< 100	< 77	< 1	< 10	< 10	< 10	< 17
Methylene Chloride	**55 J**	< 77	< 1	< 10	< 10	< 10	< 17
Tetrachloroethene	< 100	< 77	< 1	< 10	< 10	< 10	< 17
Toluene	< 100	< 77	< 1	**2.7 J**	< 10	< 10	< 17
trans-1,2-Dichloroethene	< 50	< 38	< 0.5	< 5	**1.7 J**	< 5	< 8.3
Trichloroethene	**2400 J**	**2400 J**	< 1	**190**	**290**	**21**	**540**
Vinyl chloride	< 200	< 150	< 2	< 20	< 20	< 20	< 33

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
Second Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	411D-041003-1200 4/10/2003 MW-411D	412D-040903-1700 4/9/2003 MW-412D	413D-040703-1530 4/7/2003 MW-413D	414D-040203-1745 4/2/2003 MW-414D	416D-040203-1315 4/2/2003 MW-416D	417D-040203-1525 4/2/2003 MW-417D	418D-040403-1250 4/4/2003 MW-418D
Volatile Organic Compounds (ug/L)							
1,1,1-Trichloroethane	< 25	< 33	< 3.3	< 1	< 1	< 1.2	< 6
1,1-Dichloroethane	< 25	< 33	**1.1 J**	< 1	< 1	< 1.2	< 6
1,1-Dichloroethene	< 25	< 33	< 3.3	< 1	< 1	< 1.2	< 6
1,2,4-Trichlorobenzene	< 25	< 33	< 3.3 UJ	< 1 UJ	< 1 UJ	< 1.2 UJ	< 6
1,2-Dibromo-3-Chloropropane	< 50	< 67	< 6.7	< 2 UJ	< 2 UJ	< 2.5 UJ	< 12
2-Butanone	< 250 UJ	< 330 UJ	< 33	< 10	6.0 U	< 12	< 60 UJ
2-Hexanone	< 250 UJ	< 330 UJ	< 33	< 10	< 10	< 12	< 60 UJ
4-Methyl-2-pentanone	< 120	< 170	< 17	< 5	< 5	< 6.2	< 30 UJ
Acetone	< 250 UJ	< 330 UJ	< 33 UJ	< 10	< 10	< 12	< 60 UJ
Benzene	< 25	< 33	< 3.3	< 1	< 1	< 1.2	< 6
Bromoform	< 25	< 33	< 3.3 UJ	< 1	< 1	< 1.2	< 6
Bromomethane	< 50	< 67	< 6.7	< 2	< 2	< 2.5	< 12
Carbon Disulfide	< 25	< 33	< 3.3	< 1 UJ	< 1 UJ	< 1.2 UJ	< 6
Chloroform	< 25	< 33	< 3.3	< 1	< 1	< 1.2	< 6
cis-1,2-Dichloroethene	**370**	**390**	**63**	**2.3**	**26**	**37**	**180**
Dibromochloromethane	< 25	< 33	< 3.3	< 1	< 1	< 1.2	< 6
Dichlorodifluoromethane	< 50	< 67	< 6.7 UJ	< 2	< 2	< 2.5	< 12
Isopropylbenzene	< 25	< 33	< 3.3	< 1	< 1	< 1.2	< 6
Methylene Chloride	< 25	< 33	< 3.3	< 1	< 1	< 1.2	5.3 U
Tetrachloroethene	< 25	< 33	< 3.3 UJ	< 1	< 1	< 1.2	< 6
Toluene	< 25	< 33	< 3.3	< 1	< 1	< 1.2	< 6
trans-1,2-Dichloroethene	**9.6 J**	**6.3 J**	< 1.7	< 0.5	< 0.5	**0.21 J**	**1.1 J**
Trichloroethene	**860**	**1100**	**100**	**0.53 J**	**0.88 J**	**0.36 J**	**10**
Vinyl chloride	< 50	< 67	< 6.7	**0.64 J**	**8.6**	**2.3 J**	**5.0 J**

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
Second Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	419D-040803-1100 4/8/2003 MW-419D	419M-040803-1450 4/8/2003 MW-419M	420D-040303-1530 4/3/2003 MW-420D	420M-040703-1640 4/7/2003 MW-420M	421D-040803-1705 4/8/2003 MW-421D	422D-040303-1100 4/3/2003 MW-422D	422S-040903-1920 4/9/2003 MW-422S
Volatile Organic Compounds (ug/L)							
1,1,1-Trichloroethane	< 6	< 1	< 20	< 20	< 1	< 1	**1200 J**
1,1-Dichloroethane	< 6	< 1	< 20	< 20	< 1	< 1	**2000 J**
1,1-Dichloroethene	< 6	< 1	< 20	< 20	< 1	< 1	< 5000
1,2,4-Trichlorobenzene	< 6 UJ	< 1 UJ	< 20	< 20 UJ	< 1 UJ	< 1	< 5000
1,2-Dibromo-3-Chloropropane	< 12 UJ	< 2 UJ	< 40 UJ	< 40	< 2 UJ	< 2	< 10000
2-Butanone	< 60 UJ	< 10 UJ	< 200	< 200	< 10 UJ	< 10	< 50000 UJ
2-Hexanone	< 60 UJ	< 10 UJ	< 200	< 200	< 10 UJ	< 10	< 50000 UJ
4-Methyl-2-pentanone	< 30	< 5	< 100	< 100	< 5	< 5	< 25000
Acetone	< 60 UJ	< 10 UJ	< 200	< 200 UJ	< 10 UJ	< 10	< 50000 UJ
Benzene	< 6	< 1	< 20	< 20	< 1	< 1	< 5000
Bromoform	< 6 UJ	< 1 UJ	< 20 UJ	< 20 UJ	< 1 UJ	< 1	< 5000 UJ
Bromomethane	< 12	< 2	< 40	**4.6 J**	< 2	< 2	< 10000
Carbon Disulfide	< 6	< 1	< 20	< 20	< 1	< 1	< 5000
Chloroform	< 6	< 1	< 20	< 20	< 1	< 1	< 5000
cis-1,2-Dichloroethene	**160**	**0.34 J**	**550**	**640**	**35**	**0.53**	**25000**
Dibromochloromethane	< 6	< 1	< 20	< 20	< 1	< 1	< 5000 UJ
Dichlorodifluoromethane	< 12	< 2	< 40	< 40 UJ	< 2	< 2	< 10000
Isopropylbenzene	< 6	< 1	< 20	< 20	< 1	< 1	< 5000
Methylene Chloride	< 6	< 1	**13 J**	**11 J**	< 1	< 1	< 5000
Tetrachloroethene	< 6	< 1	< 20	< 20 UJ	< 1	< 1	< 5000
Toluene	< 6	< 1	< 20	< 20	< 1	< 1	< 5000
trans-1,2-Dichloroethene	< 3	< 0.5	< 10	**4.9 J**	< 0.5	< 0.5	< 2500
Trichloroethene	**36**	**0.15 J**	**270**	**760**	**0.22 J**	**0.55 J**	**200000**
Vinyl chloride	**17**	< 2	**21 J**	**110**	**3.7**	**1.6 J**	< 10000

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
Second Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	423S-040203-1505 4/2/2003 MW-423S	424D-040903-1250 4/9/2003 MW-424D	424S-040903-1650 4/9/2003 MW-424S	425S-040703-1425 4/7/2003 MW-425S	432D-040403-1045 4/4/2003 MW-432D	432M-040203-1220 4/2/2003 MW-432M	433D-040903-1105 4/9/2003 MW-433D
Volatile Organic Compounds (ug/L)							
1,1,1-Trichloroethane	< 1	< 1000	< 2500	< 5	< 1	< 1	< 12
1,1-Dichloroethane	< 1	**310 J**	**770 J**	**14**	< 1	< 1	< 12
1,1-Dichloroethene	< 1	< 1000	< 2500	**1.4 J**	< 1	< 1	< 12
1,2,4-Trichlorobenzene	< 1 UJ	< 1000	< 2500	< 5 UJ	< 1	< 1 UJ	< 12
1,2-Dibromo-3-Chloropropane	< 2 UJ	< 2000	< 5000	< 10	< 2	< 2 UJ	< 25
2-Butanone	< 10	< 10000 UJ	< 25000 UJ	< 50	< 10 UJ	< 10	< 120 UJ
2-Hexanone	< 10	< 10000 UJ	< 25000 UJ	< 50	< 10 UJ	< 10	< 120 UJ
4-Methyl-2-pentanone	< 5	< 5000	< 12000	< 25	< 5 UJ	< 5	< 62
Acetone	< 10	< 10000 UJ	< 25000 UJ	< 50 UJ	< 10 UJ	< 10	< 120 UJ
Benzene	< 1	< 1000	< 2500	< 5	**0.17 J**	< 1	< 12
Bromoform	< 1	< 1000 UJ	< 2500 UJ	< 5 UJ	< 1	< 1	< 12 UJ
Bromomethane	< 2	< 2000	< 5000	< 10	**0.29 J**	< 2	< 25
Carbon Disulfide	< 1 UJ	< 1000	< 2500	< 5	< 1	< 1 UJ	< 12
Chloroform	< 1	< 1000	< 2500	< 5	< 1	< 1	< 12
cis-1,2-Dichloroethene	< 0.5	**4900**	**14000**	**75**	**37**	< 0.5	**390**
Dibromochloromethane	< 1	< 1000 UJ	< 2500 UJ	< 5	< 1	< 1	< 12 UJ
Dichlorodifluoromethane	< 2	< 2000	< 5000	< 10 UJ	< 2	< 2	< 25
Isopropylbenzene	< 1	< 1000	< 2500	< 5	< 1	< 1	< 12
Methylene Chloride	< 1	< 1000	< 2500	< 5	< 1	< 1	< 12
Tetrachloroethene	< 1	< 1000	< 2500	< 5 UJ	< 1	< 1	< 12
Toluene	< 1	< 1000	< 2500	< 5	< 1	< 1	< 12
trans-1,2-Dichloroethene	< 0.5	< 500	< 1200	< 2.5	**0.17 J**	< 0.5	< 6.2
Trichloroethene	< 1	**23000**	**91000**	**160**	**1.4**	**0.22 J**	**58**
Vinyl chloride	< 2	< 2000	< 5000	**1.3 J**	**0.91 J**	< 2	< 25

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
Second Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	434D-040803-1115 4/8/2003 MW-434D	435D-040903-1345 4/9/2003 MW-435D	436D-040403-1245 4/4/2003 MW-436D	0816-040403-0002 4/4/2003 MW-436D	437D-040703-1800 4/7/2003 MW-437D	438D-040303-1530 4/3/2003 MW-438D	439D-040403-1300 4/4/2003 MW-439D
Volatile Organic Compounds (ug/L)							
1,1,1-Trichloroethane	< 8	< 8.3	< 1	< 1	< 2.5	< 1	< 1
1,1-Dichloroethane	< 8	< 8.3	< 1	< 1	< 2.5	< 1	< 1
1,1-Dichloroethene	< 8	< 8.3	< 1	< 1	< 2.5	< 1	< 1
1,2,4-Trichlorobenzene	< 8 UJ	< 8.3	< 1	< 1	< 2.5 UJ	< 1	< 1
1,2-Dibromo-3-Chloropropane	< 16 UJ	< 17	< 2	< 2	< 5	< 2	< 2
2-Butanone	< 80 UJ	< 83 UJ	< 10 UJ	< 10 UJ	< 25	< 10 UJ	< 10 UJ
2-Hexanone	< 80 UJ	< 83 UJ	< 10 UJ	< 10 UJ	< 25	< 10 UJ	< 10 UJ
4-Methyl-2-pentanone	< 40	< 42	< 5 UJ	< 5 UJ	< 12	< 5 UJ	< 5 UJ
Acetone	< 80 UJ	**310 J**	< 10 UJ	< 10 UJ	< 25 UJ	< 10 UJ	< 10 UJ
Benzene	< 8	< 8.3	< 1	< 1	< 2.5	< 1	< 1
Bromoform	< 8 UJ	< 8.3 UJ	< 1	< 1	< 2.5 UJ	< 1	< 1
Bromomethane	< 16	< 17	< 2	< 2	< 5	< 2	< 2
Carbon Disulfide	< 8	< 8.3	< 1	< 1	< 2.5	< 1	< 1
Chloroform	< 8	< 8.3	**0.22 J**	**0.22 J**	< 2.5	< 1	**0.16 J**
cis-1,2-Dichloroethene	**270**	**230**	**4.1**	**4.2**	**31**	**7.6**	< 0.5
Dibromochloromethane	< 8	< 8.3 UJ	< 1	< 1	< 2.5	< 1	< 1
Dichlorodifluoromethane	< 16	< 17	< 2	< 2	< 5 UJ	< 2	< 2
Isopropylbenzene	< 8	< 8.3	< 1	< 1	< 2.5	< 1	< 1
Methylene Chloride	< 8	< 8.3	< 1	< 1	< 2.5	< 1	< 1
Tetrachloroethene	< 8	< 8.3	< 1	< 1	< 2.5 UJ	< 1	< 1
Toluene	< 8	< 8.3	< 1	< 1	< 2.5	< 1	< 1
trans-1,2-Dichloroethene	< 4	< 4.2	< 0.5	< 0.5	**0.77 J**	**0.15 J**	< 0.5
Trichloroethene	**100**	**83**	**24**	**25**	**88**	**32**	**0.77 J**
Vinyl chloride	< 16	< 17	< 2	< 2	< 5	< 2	< 2

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
Second Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	440D-040303-1615 4/3/2003 MW-440D	441D-040403-1310 4/4/2003 MW-441D	442D-040203-1400 4/2/2003 MW-442D	443D-040203-1845 4/2/2003 MW-443D	444D-040303-1245 4/3/2003 MW-444D	445S-040203-1735 4/2/2003 MW-445S	0816-040203-0002 4/2/2003 MW-445S
Volatile Organic Compounds (ug/L)							
1,1,1-Trichloroethane	< 1.8	< 1	< 1	< 1	< 2	< 1	< 1
1,1-Dichloroethane	< 1.8	**0.17 J**	< 1	< 1	< 2	< 1	< 1
1,1-Dichloroethene	< 1.8	< 1	< 1	< 1	< 2	< 1	< 1
1,2,4-Trichlorobenzene	< 1.8	< 1	< 1 UJ	< 1 UJ	< 2	< 1 UJ	< 1 UJ
1,2-Dibromo-3-Chloropropane	< 3.6	< 2	< 2 UJ	< 2 UJ	< 4	< 2 UJ	< 2 UJ
2-Butanone	< 18 UJ	< 10 UJ	**6.6 J**	< 10	< 20 UJ	< 10	< 10
2-Hexanone	< 18 UJ	< 10 UJ	< 10	< 10	< 20 UJ	< 10	< 10
4-Methyl-2-pentanone	< 9.1 UJ	< 5 UJ	< 5	< 5	< 10 UJ	< 5	< 5
Acetone	< 18 UJ	< 10 UJ	< 10	< 10	< 20 UJ	< 10	< 10
Benzene	< 1.8	< 1	< 1	< 1	< 2	< 1	< 1
Bromoform	< 1.8	< 1	< 1	< 1	< 2	< 1	< 1
Bromomethane	**0.39 J**	< 2	< 2	< 2	< 4	< 2	< 2
Carbon Disulfide	< 1.8	< 1	< 1 UJ	< 1 UJ	< 2	< 1 UJ	< 1 UJ
Chloroform	< 1.8	< 1	< 1	< 1	< 2	< 1	< 1
cis-1,2-Dichloroethene	**45**	**22**	< 0.5	< 0.5	**55**	< 0.5	< 0.5
Dibromochloromethane	< 1.8	< 1	< 1	< 1	< 2	< 1	< 1
Dichlorodifluoromethane	< 3.6	< 2	< 2	< 2	< 4	< 2	< 2
Isopropylbenzene	< 1.8	< 1	**0.13 J**	< 1	< 2	< 1	< 1
Methylene Chloride	1.8 U	< 1	< 1	< 1	1.6 U	< 1	< 1
Tetrachloroethene	< 1.8	< 1	< 1	< 1	< 2	< 1	< 1
Toluene	< 1.8	< 1	**0.28 J**	< 1	< 2	< 1	< 1
trans-1,2-Dichloroethene	**0.33 J**	< 0.5	< 0.5	< 0.5	**0.47 J**	< 0.5	< 0.5
Trichloroethene	**1.5 J**	**25**	**2.1**	**0.60 J**	**2.8**	**0.31 J**	**0.31 J**
Vinyl chloride	**2.4 J**	< 2	< 2	< 2	< 4	< 2	< 2

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
Second Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	446S-040303-1215 4/3/2003 MW-446S	447D-040203-1550 4/2/2003 MW-447D	448D-040303-1205 4/3/2003 MW-448D	449D-040703-1530 4/7/2003 MW-449D	450D-040203-1050 4/2/2003 MW-450D	451D-040303-1745 4/3/2003 MW-451D	453D-041003-1630 4/10/2003 MW-453D
Volatile Organic Compounds (ug/L)							
1,1,1-Trichloroethane	< 1	< 1	< 1	< 2	< 1	< 1	< 1.7
1,1-Dichloroethane	< 1	< 1	< 1	< 2	< 1	**0.17 J**	< 1.7
1,1-Dichloroethene	< 1	< 1	< 1	< 2	< 1	< 1	< 1.7
1,2,4-Trichlorobenzene	< 1	< 1 UJ	< 1	< 2 UJ	< 1 UJ	< 1	< 1.7
1,2-Dibromo-3-Chloropropane	< 2	< 2 UJ	< 2	< 4	< 2 UJ	< 2	< 3.3
2-Butanone	< 10 UJ	6.1 U	< 10	< 20	< 10	< 10 UJ	< 17 UJ
2-Hexanone	< 10 UJ	< 10	< 10	< 20	< 10	< 10 UJ	< 17 UJ
4-Methyl-2-pentanone	< 5 UJ	< 5	< 5	< 10	< 5	< 5 UJ	< 8.4
Acetone	< 10 UJ	< 10	< 10	< 20 UJ	< 10	< 10 UJ	< 17 UJ
Benzene	< 1	< 1	< 1	< 2	< 1	< 1	< 1.7
Bromoform	< 1	< 1	< 1	< 2 UJ	< 1	< 1	< 1.7
Bromomethane	< 2	< 2	< 2	**0.61 J**	< 2	< 2	< 3.3
Carbon Disulfide	< 1	< 1 UJ	< 1	< 2	< 1 UJ	< 1	< 1.7
Chloroform	< 1	< 1	< 1	< 2	< 1	< 1	< 1.7
cis-1,2-Dichloroethene	< 0.5	**2.7**	**4.6**	**17**	< 0.5	**38**	**32**
Dibromochloromethane	< 1	< 1	< 1	< 2	< 1	< 1	< 1.7
Dichlorodifluoromethane	< 2	< 2	< 2	< 4 UJ	< 2	< 2	< 3.3
Isopropylbenzene	< 1	< 1	< 1	< 2	< 1	< 1	< 1.7
Methylene Chloride	< 1	< 1	< 1	< 2	< 1	< 1	< 1.7
Tetrachloroethene	< 1	< 1	< 1	< 2 UJ	< 1	**0.46 J**	< 1.7
Toluene	< 1	< 1	< 1	**0.84 J**	< 1	< 1	**1.0 J**
trans-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 0.5	< 0.84
Trichloroethene	< 1	< 1	**0.95 J**	**54**	**0.21 J**	**28**	**43**
Vinyl chloride	< 2	< 2	< 2	< 4	< 2	**0.16 J**	< 3.3

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 2
Second Quarter 2003 Analytical Results
Bedrock and Top of Bedrock Monitoring Wells
Delphi Corporation - Vandalia, Ohio

	0816-041003-0002 4/10/2003 MW-453D	C18D-040403-1040 4/4/2003 CSX-18D
Volatile Organic Compounds (ug/L)		
1,1,1-Trichloroethane	< 1.7	< 1
1,1-Dichloroethane	< 1.7	< 1
1,1-Dichloroethene	< 1.7	< 1
1,2,4-Trichlorobenzene	< 1.7	< 1
1,2-Dibromo-3-Chloropropane	< 3.3	< 2
2-Butanone	< 17 UJ	< 10 UJ
2-Hexanone	< 17 UJ	< 10 UJ
4-Methyl-2-pentanone	< 8.4	< 5 UJ
Acetone	< 17 UJ	< 10 UJ
Benzene	< 1.7	< 1
Bromoform	< 1.7	< 1
Bromomethane	< 3.3	< 2
Carbon Disulfide	< 1.7	< 1
Chloroform	< 1.7	< 1
cis-1,2-Dichloroethene	**32**	**1.9**
Dibromochloromethane	< 1.7	< 1
Dichlorodifluoromethane	< 3.3	< 2
Isopropylbenzene	< 1.7	< 1
Methylene Chloride	< 1.7	< 1
Tetrachloroethene	< 1.7	< 1
Toluene	**1.2 J**	**0.18 J**
trans-1,2-Dichloroethene	**0.30 J**	< 0.5
Trichloroethene	**43**	**0.27 J**
Vinyl chloride	< 3.3	< 2

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 1 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 3
Second Quarter 2003 Performance Monitoring Analytical Data
Groundwater Migration Control System
Delphi Corporation - Vandalia, Ohio

Compound	RW-04/07 04/07/03 Recovery Well	Eff-04/07 04/07/03 Effluent	RW-05/08 05/08/03 Recovery Well	Eff-05/08 05/08/03 Effluent	RW-060903 06/09/03 Recovery Well	Effluent-060903 06/09/03 Effluent
VOLATILE ORGANICS - µg/L **METHOD: EPA 624**						
1,1,1-Trichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
1,1-Dichloroethane	**25.0**	< 1	**24.2**	< 1	**16.2**	< 1
1,1-Dichloroethene	**5.3**	< 1	**5.9**	< 1	**3.2**	< 1
1,2-Dichloroethane	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	**836**	< 1	**797**	< 1	**518**	< 1
trans-1,2-Dichloroethene	**7.9**	< 1	**6.6**	< 1	**4.6**	< 1
Trichloroethene	**2,670**	< 1	**2,080**	< 1	**1,360**	< 1
Vinyl chloride	**6.2**	< 2	**4.8**	< 2	**3.3**	< 2
TOTAL ORGANIC CARBON - µg/L **METHOD: SM 5310C**	**1,600**	**3,700**	**1,400**	**3,300**	**1,200**	**3,500**
TOTAL DISSOLVED SOLIDS - µg/L **METHOD: EPA 160.1**	**496,000**	**558,000**	**486,000**	**521,000**	**500,000**	**520,000**
pH (Lab) - S.U. (standard units) **METHOD: EPA 150.1**	**6.92**	**8.25**	**7.09**	**8.08**	**7.10**	**8.28**

Notes and Abbreviations:
1. Summary includes compounds detected in one or more samples.
J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 4
Second Quarter 2003 Analytical Results
Surface Water Samples
Delphi Corporation - Vandalia, Ohio

	SW1-042103-1330 4/21/2003 SW-1	SW2-042103-1400 4/21/2003 SW-2	SW3-042103-1450 4/21/2003 SW-3	0816-042103-0002 4/21/2003 SW-3	SW4-042103-1415 4/21/2003 SW-4	SW5-042103-1302 4/21/2003 SW-5	SW6-042103-1237 4/21/2003 SW-6	SW7-042103-1218 4/21/2003 SW-7
Acetone	< 20	< 20	< 20	< 20	4.1 U	< 20	< 20	< 20
cis-1,2-Dichloroethene	**3.9**	**11**	< 2.5	< 2.5	**17**	**0.52 J**	< 2.5	< 2.5
Cyclohexane	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Trichloroethene	**25**	**90**	< 5	< 5	**96**	**2.6 J**	**0.66 J**	< 5
Trichlorofluoromethane	< 10	**1.6 J**	< 10	< 10	**2.0 J**	< 10	< 10	< 10
Vinyl chloride	< 10	< 10	< 10	< 10	**0.50 J**	< 10	< 10	< 10

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW624.
3. See Figure 6 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 5
Second Quarter 2003 Analytical Results
Outcrop Survey - Springs and Pools
Delphi Corporation - Vandalia, Ohio

	B001-060403-1250 6/4/2003 B001 Spring	B002-060403-1300 6/4/2003 B002 Spring	B003-060403-1310 6/4/2003 B003 Spring	B004-060403-1320 6/4/2003 B004 Spring	B005-060403-1330 6/4/2003 B005 Spring	B006-060403-1340 6/4/2003 B006 Spring	B01B-060403-1700 6/4/2003 B Area Pool
Volatile Organic Compounds (ug/L)							
1,2,4-Trichlorobenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1
2-Butanone	< 10	< 10	< 10	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
2-Hexanone	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acetone	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Bromoform	< 1 UJ	< 1 UJ	< 1 UJ	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	**0.54**	**0.65**	< 0.5
Methyl tert-butyl ether	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	< 1 UJ	< 1 UJ	< 1 UJ	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1	**1.4**	**1.6**	< 1
Trichlorofluoromethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Flow Rate (Estimated)	< 1 gal/min	2 gal/min	< 1 gal/min	< 1 gal/min	8 gal/min	4 gal/min	

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 7 for sample locations.
4. Flow rate estimated based on bucket fill. Flow rates in springs identified during second quarter 2002 were measured in May 2002; all others were measured in June 2003.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 5
Second Quarter 2003 Analytical Results
Outcrop Survey - Springs and Pools
Delphi Corporation - Vandalia, Ohio

	C001-060403-1400 6/4/2003 C001 Spring	C01B-060403-1650 6/4/2003 C001 Pool	D001-060403-1430 6/4/2003 D001 Spring	D01B-060403-1630 6/4/2003 D001 Pool	E001-060403-1500 6/4/2003 E001 Spring	0469-060403-0001 6/4/2003 E001 Spring (Dup)	E01B-060403-1600 6/4/2003 E001 Pool
Volatile Organic Compounds (ug/L)							
1,2,4-Trichlorobenzene	< 1.5	< 1	< 8	< 1	< 8	< 8	< 2.5
2-Butanone	< 15	< 10 UJ	< 80	< 10	< 80	< 80	< 25
2-Hexanone	< 15	< 10	< 80	< 10	< 80	< 80	< 25
Acetone	< 15 UJ	< 10 UJ	< 80 UJ	< 10 UJ	< 80 UJ	9.1 U	< 25 UJ
Bromoform	< 1.5 UJ	< 1	< 8 UJ	< 1 UJ	< 8 UJ	< 8 UJ	< 2.5 UJ
cis-1,2-Dichloroethene	**25**	**7.6**	**96**	**7.3**	**85**	**82**	**32**
Methyl tert-butyl ether	< 7.7	< 5	< 40	< 5	< 40	< 40	12 U
Methylene Chloride	< 1.5 UJ	< 1	< 8 UJ	< 1 UJ	< 8 UJ	< 8 UJ	< 2.5 UJ
Trichloroethene	**59**	**13**	**320**	**13**	**290**	**270**	**72**
Trichlorofluoromethane	< 1.5	< 1	< 8	< 1	< 8	< 8	< 2.5
Flow Rate (Estimated)	9 gal/min		5 gal/min		20 gal/min		

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 7 for sample locations.
4. Flow rate estimated based on bucket fill. Flow rates in springs identified during second quarter 2002 were measured in May 2002; all others were measured in June 2003.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 5
Second Quarter 2003 Analytical Results
Outcrop Survey - Springs and Pools
Delphi Corporation - Vandalia, Ohio

	E002-060403-1530 6/4/2003 E002 Spring	E02B-060403-1550 6/4/2003 E002 Pool	E004-060403-1600 6/4/2003 E004 Spring	E04B-060403-1615 6/4/2003 E004 Pool	F001-060403-1800 6/4/2003 F001 Spring	F01B-060403-1800 6/4/2003 F001 Pool	G01A-052803-1412 5/28/2003 G001 Spring
Volatile Organic Compounds (ug/L)							
1,2,4-Trichlorobenzene	< 1.8	< 1	< 1	< 1	< 1	< 1	< 1 UJ
2-Butanone	< 18	< 10	< 10	< 10	< 10	< 10	< 10 UJ
2-Hexanone	< 18	< 10	< 10	< 10	< 10	< 10	< 10 UJ
Acetone	< 18 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Bromoform	< 1.8 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1
cis-1,2-Dichloroethene	**27**	**2.0**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether	< 9.1	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride	< 1.8 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	**2.9**
Trichloroethene	**60**	**3.7**	**1.7**	**0.50 J**	< 1	< 1	< 1
Trichlorofluoromethane	< 1.8	< 1	< 1	< 1	< 1	< 1	< 1 UJ
Flow Rate (Estimated)	< 1 gal/min		< 1 gal/min		< 1 gal/min		< 1 gal/min

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 7 for sample locations.
4. Flow rate estimated based on bucket fill. Flow rates in springs identified during second quarter 2002 were measured in May 2002; all others were measured in June 2003.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 5
Second Quarter 2003 Analytical Results
Outcrop Survey - Springs and Pools
Delphi Corporation - Vandalia, Ohio

	G01B-052803-1440 5/28/2003 G001 Pool	G02A-052803-1500 5/28/2003 G002 Spring	G03A-052803-1511 5/28/2003 G003 Spring	G03B-052803-1518 5/28/2003 G003 Pool	G04A-052803-1540 5/28/2003 G004 Spring	G04B-052803-1551 5/28/2003 G004 Pool	G05A-052903-1015 5/29/2003 G005 Spring
Volatile Organic Compounds (ug/L)							
1,2,4-Trichlorobenzene	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ
2-Butanone	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
2-Hexanone	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Acetone	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Bromoform	< 1	< 1	< 1	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	< 0.5	< 0.5	**0.56**	**0.43 J**	**2.8**	< 0.5	**3.1**
Methyl tert-butyl ether	< 5	< 5	< 5	< 5	< 5	< 5	**0.36 J**
Methylene Chloride	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Trichloroethene	< 1	< 1	< 1	< 1	< 1	< 1	**5.0**
Trichlorofluoromethane	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ
Flow Rate (Estimated)		< 1 gal/min	< 1 gal/min		< 1 gal/min		4 gal/min

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 7 for sample locations.
4. Flow rate estimated based on bucket fill. Flow rates in springs identified during second quarter 2002 were measured in May 2002; all others were measured in June 2003.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 5
Second Quarter 2003 Analytical Results
Outcrop Survey - Springs and Pools
Delphi Corporation - Vandalia, Ohio

	G05B-052903-1022 5/29/2003 G005 Pool	G06A-052903-1045 5/29/2003 G006 Spring	G06B-052903-1052 5/29/2003 G006 Pool	G07A-052903-1105 5/29/2003 G007 Pool
Volatile Organic Compounds (ug/L)				
1,2,4-Trichlorobenzene	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ
2-Butanone	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
2-Hexanone	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Acetone	< 10 UJ	< 10 UJ	< 10 UJ	< 10 UJ
Bromoform	< 1	< 1	< 1	< 1
cis-1,2-Dichloroethene	**1.2**	**0.87**	< 0.5	< 0.5
Methyl tert-butyl ether	< 5	< 5	< 5	< 5
Methylene Chloride	< 1	< 1	< 1	< 1
Trichloroethene	**2.0**	**1.6**	< 1	< 1
Trichlorofluoromethane	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ
Flow Rate (Estimated)		< 1 gal/min		

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis method SW8260.
3. See Figure 7 for sample locations.
4. Flow rate estimated based on bucket fill. Flow rates in springs identified during second quarter 2002 were measured in May 2002; all others were measured in June 2003.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

TABLE 6
Second Quarter 2003 Analytical Results Summary
Residential Locations
Delphi Corporation- Vandalia, Ohio

Compound	10440 SOFT IN 1 04/29/03 10440 Cassel Rd.	10440 RO IN 2 04/29/03 10440 Cassel Rd.	10440 CRAWL 04/29/03 10440 Cassel Rd.	10440 OUT 04/29/03 10440 Cassel Rd.	10591 ENG-IN 04/29/03 10591 Engle Rd.	10591 ENG-IN2 04/29/03 10591 Engle Rd.	10591 ENG-OUT 04/29/03 10591 Engle Rd.	600LWR-051403-1450 05/14/03 10600 Cassel Rd.	600MID-051403-1510 05/14/03 10600 Cassel Rd.	600UPR-051403-1525 05/14/03 10600 Cassel Rd.
Volatile Organic Compounds (ug/L)										
Acetone	NA	NA	NA	NA	NA	NA	NA	6.2 U	8.2 U	7.3 U
cis-1,2-Dichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	**13.0**	**1.7**	**14.4**	< 2.5	< 2.5	< 2.5
Methylene Chloride	NA	NA	NA	NA	NA	NA	NA	1.8 U	2.0 U	3.1 U
Tetrachloroethene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	< 5.0	< 5.0
Toluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5.0	0.35 U	0.5 U
Trichloroethene	< 0.5	< 0.5	< 0.5	< 0.5	**1.6**	< 0.5	**1.8**	< 5.0	< 5.0	< 5.0

Notes and Abbreviations:

1. Summary includes compounds detected in one or more samples.
2. Analysis methods EPA 624 (surface water) and EPA 524.2 (potable water).
3. See Figure 9 for sample locations.

J: The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U: The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
UJ: The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
NA: The sample was not analyzed for this compound.

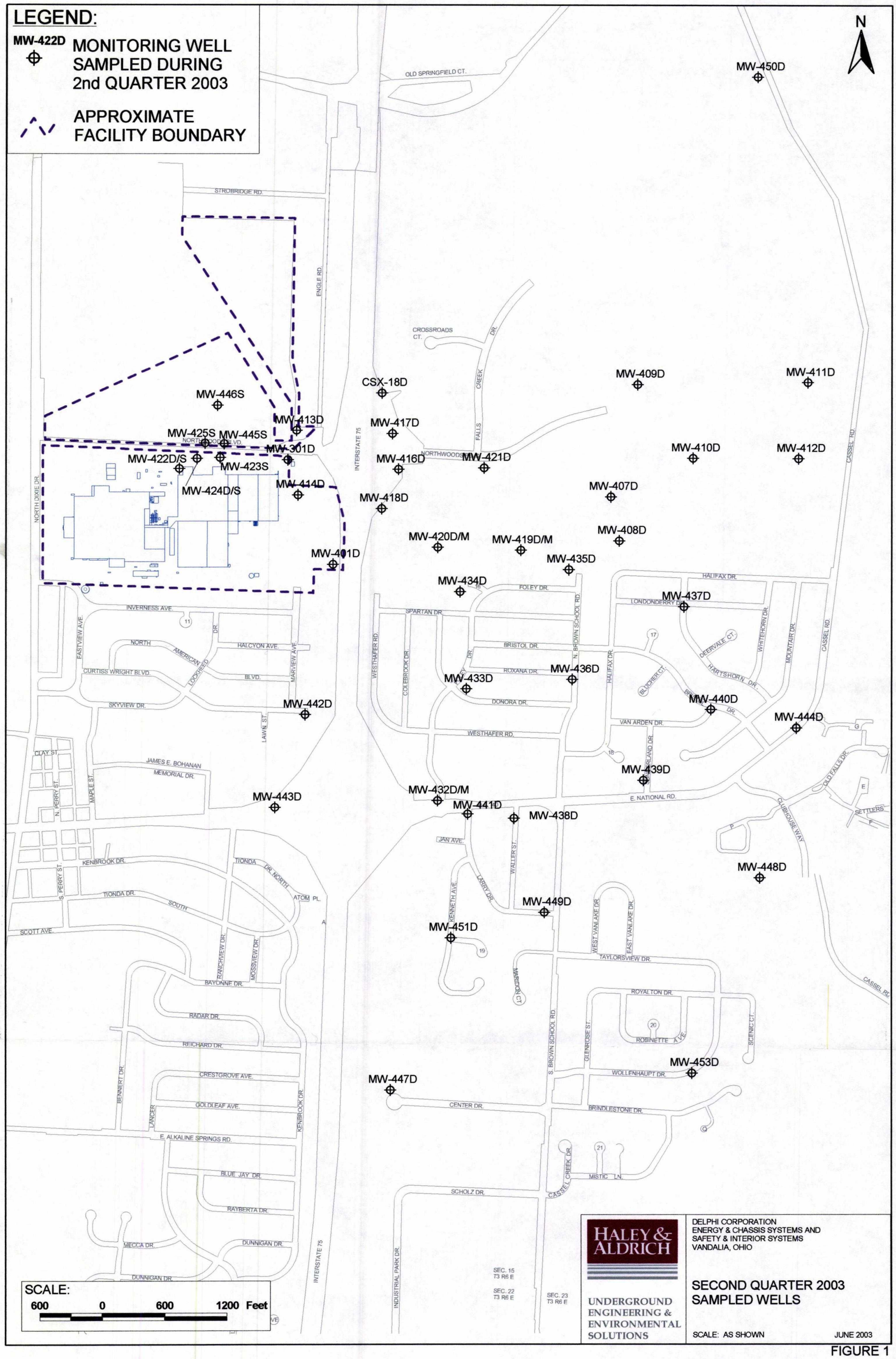
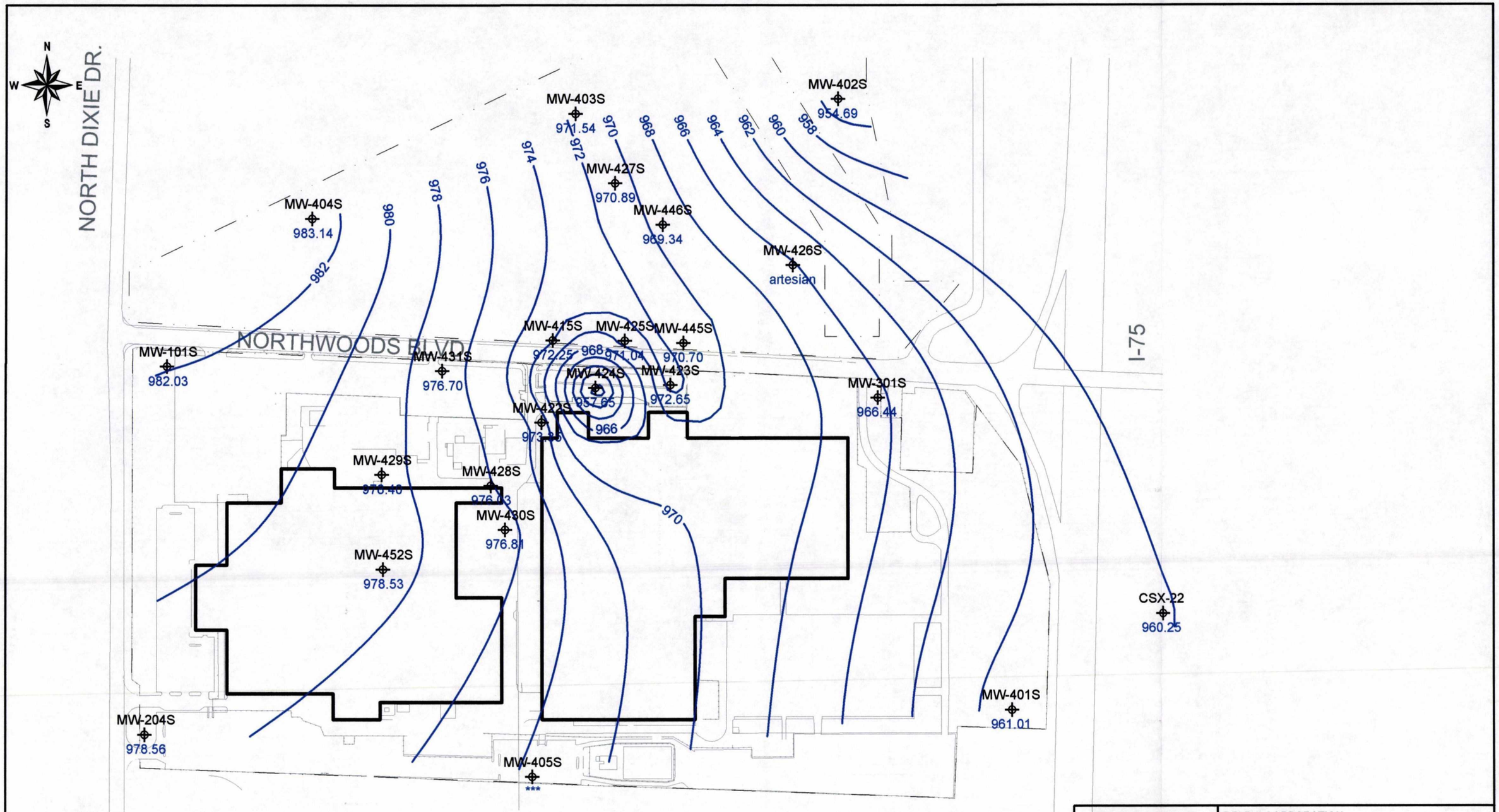

LEGEND:
MW-422D MONITORING WELL SAMPLED DURING 2nd QUARTER 2003
APPROXIMATE FACILITY BOUNDARY
N
MW-450D
MW-446S
MW-413D
MW-425S
MW-445S
MW-301D
MW-422D/S
MW-423S
MW-424D/S
MW-414D
MW-401D
CSX-18D
MW-417D
MW-416D
MW-421D
MW-418D
MW-409D
MW-411D
MW-410D
MW-412D
MW-407D
MW-408D
MW-420D/M
MW-419D/M
MW-435D
MW-434D
MW-437D
MW-436D
MW-433D
MW-440D
MW-444D
MW-442D
MW-439D
MW-443D
MW-432D/M
MW-441D
MW-438D
MW-448D
MW-449D
MW-451D
MW-453D
MW-447D
OLD SPRINGFIELD CT.
STROBRIDGE RD.
ENGLE RD.
CROSSROADS CT.
CREEK DR.
FALLS
NORTHWOODS BLVD.
INTERSTATE 75
NORTH DIXIE DR.
INVERNESS AVE.
EASTVIEW AVE.
NORTH AMERICAN LOCKHEED BLVD.
HALCYON AVE.
MARVIEW AVE.
CURTISS WRIGHT BLVD.
SKYVIEW DR.
LAWN ST.
CLAY ST.
JAMES E. BOHANAN MEMORIAL DR.
N. PERRY ST.
MAPLE ST.
KENBROOK DR.
TIONDA DR. NORTH
TIONDA DR. SOUTH
ATOM PL.
S. PERRY ST.
SCOTT AVE.
RANCHVIEW DR.
MOSSVIEW DR.
BAYONNE DR.
RADAR DR.
REICHARD DR.
CRESTGROVE AVE.
GOLDLEAF AVE.
BENNERT DR.
LANCER
E. ALKALINE SPRINGS RD.
BLUE JAY DR.
RAYBERTA DR.
MECCA DR.
DUNNIGAN DR.
FOLEY DR.
SPARTAN DR.
BRISTOL DR.
ROXANA DR.
DONORA DR.
WESTHAFER RD.
COLEBROOK DR.
N. BROWN SCHOOL RD.
HALIFAX DR.
LONDONDERRY DR.
DEERVALE CT.
WHITEHORN DR.
MOUNTAIR DR.
CASSEL RD.
HARTSHORN DR.
BLUCHER CT.
VAN ARDEN DR.
E. NATIONAL RD.
OLD FALLS DR.
CLUBHOUSE WAY
SETTLERS
JAN AVE.
WALLER ST.
LARRY DR.
KENNETH AVE.
WEST VANLAKE DR.
EAST VANLAKE DR.
TAYLORSVIEW DR.
MARDON CT.
ROYALTON DR.
ROBINETTE AVE.
GLENROSE ST.
SCENIC CT.
S. BROWN SCHOOL RD.
WOLLENHAUPT DR.
CENTER DR.
BRINDLESTONE DR.
CASSEL CREEK DR.
MISTIC LN.
SCHOLZ DR.
INDUSTRIAL PARK DR.
SEC. 15 T3 R6 E
SEC. 22 T3 R6 E
SEC. 23 T3 R6 E
SCALE:
600 0 600 1200 Feet
HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS
DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO
SECOND QUARTER 2003 SAMPLED WELLS
SCALE: AS SHOWN
JUNE 2003

FIGURE 1



LEGEND:

- PROPERTY LINE
- FACILITY OUTLINE
- MW-401S — MONITORING WELL
- 935.0 — WATER ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR

NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.

*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

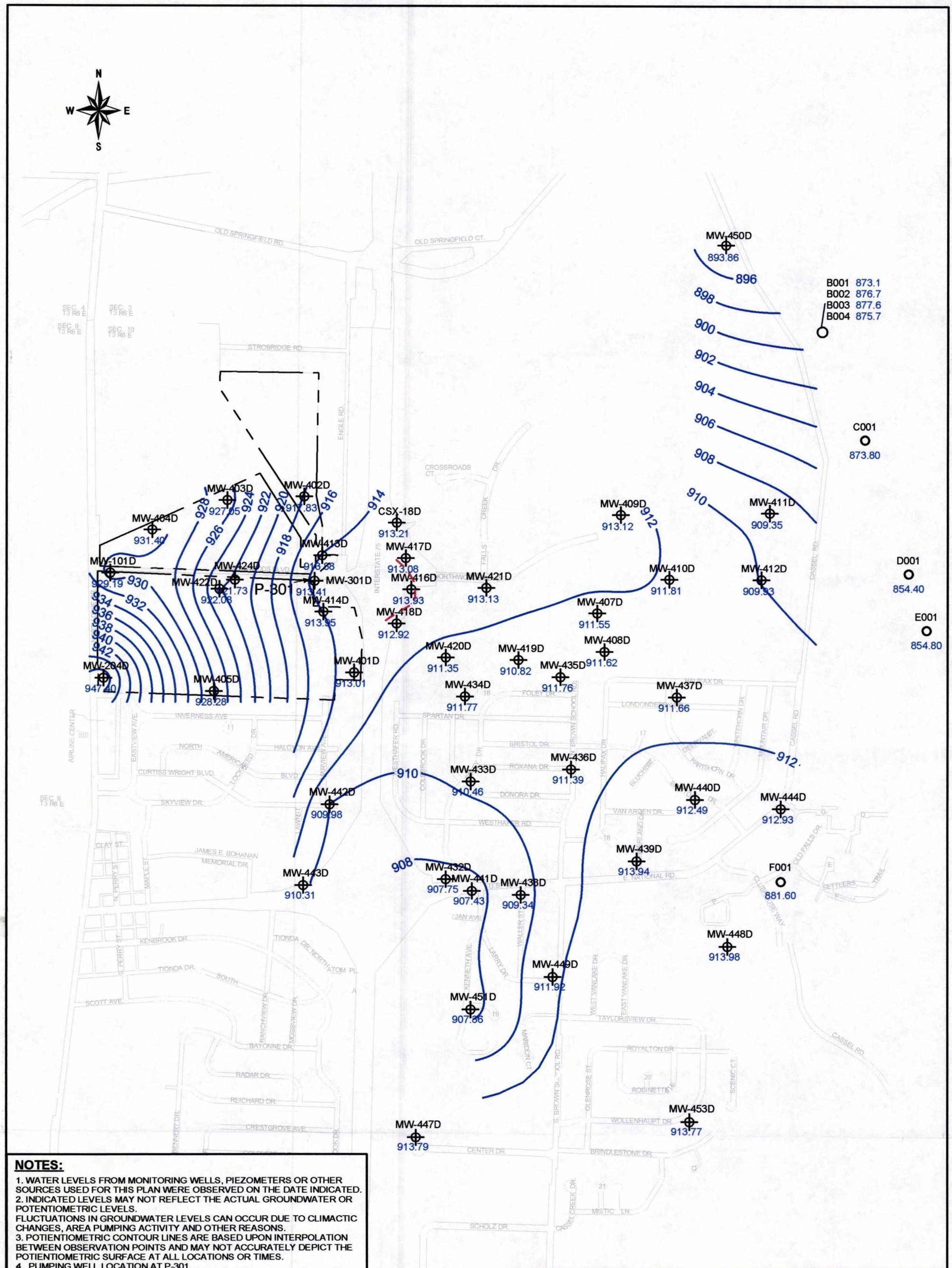
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and
SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

POTENTIOMETRIC SURFACE CONTOURS - 01 APRIL 2003
TOP OF ROCK ZONE

SCALE: 1 IN. = 300 FT.

APRIL 2003

FIGURE 2



NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.

*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

LEGEND:

- FACILITY BOUNDARY
- MW-401D / 935.0 — MONITORING WELL / WATER ELEVATION
- SPRING LOCATION
- POTENTIOMETRIC SURFACE CONTOUR
- EASTERN LIMITS OF APPARENT CAPTURE ZONE

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 01 APRIL 2003

SCALE: 1 IN. = 1000 FT.

APRIL 2003

FIGURE 3

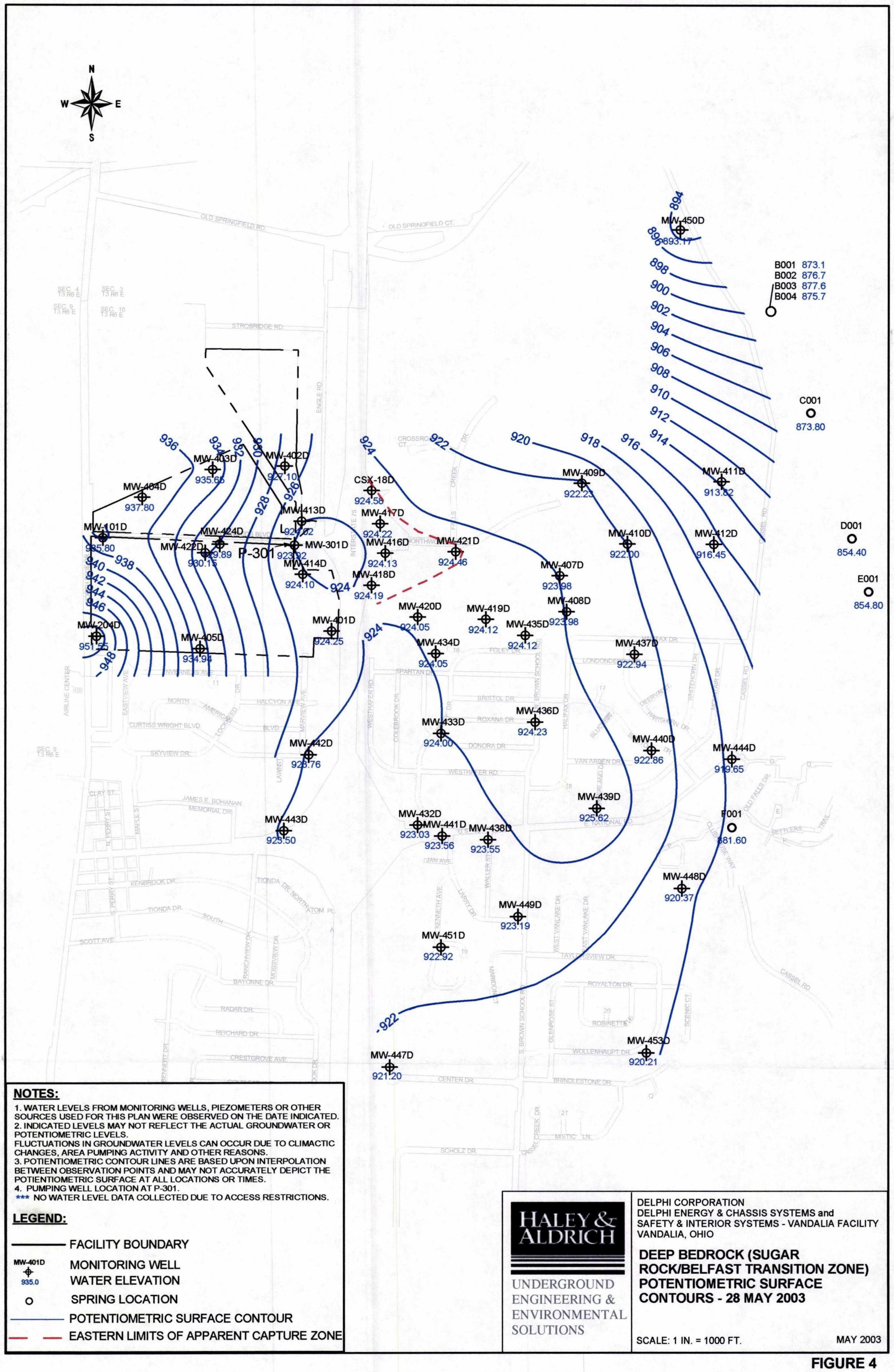
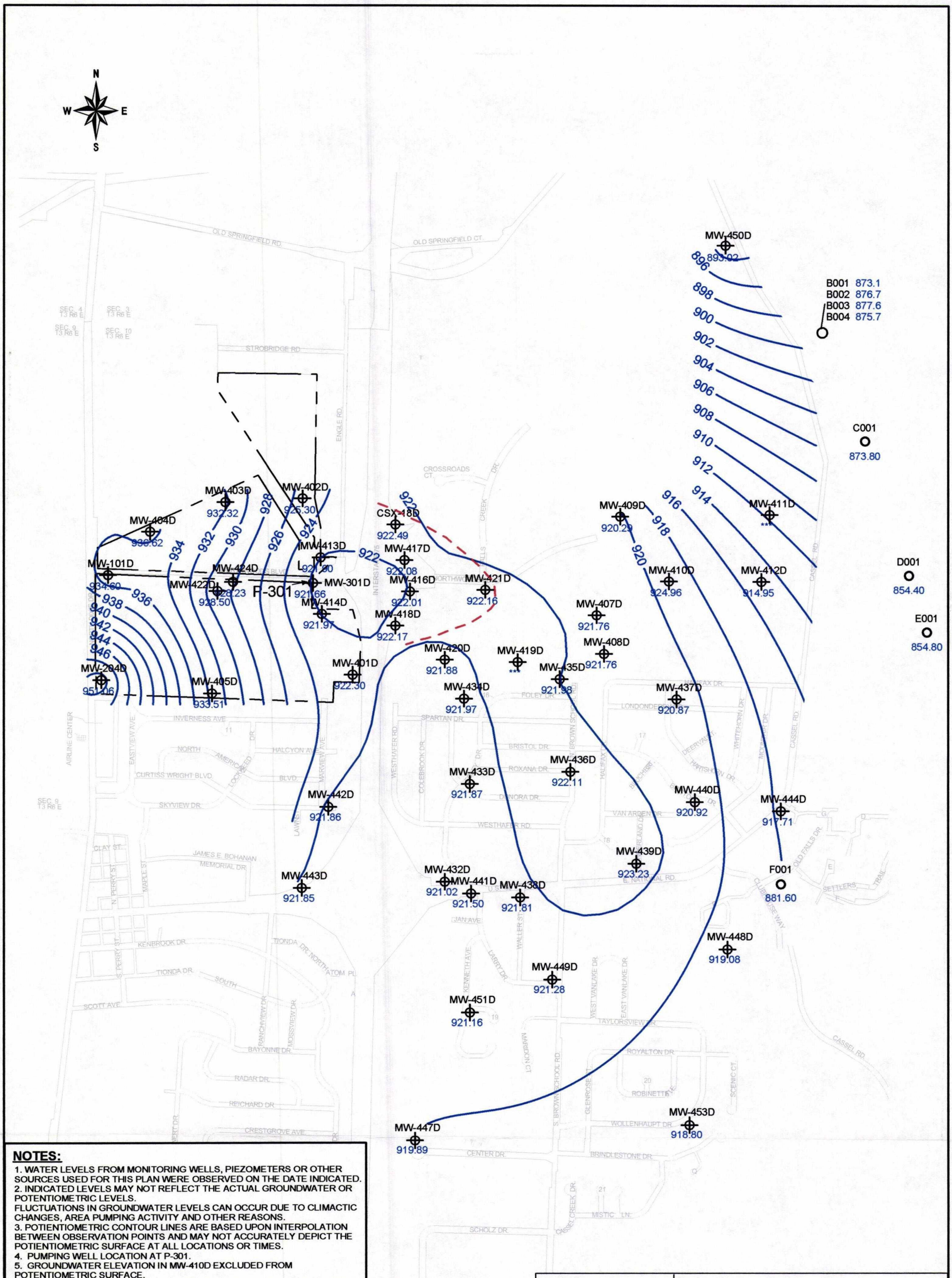

N
W
E
S
OLD SPRINGFIELD RD.
OLD SPRINGFIELD CT.
STROBRIDGE RD.
ENGLE RD.
MW-450D
894
896
893.17
898
900
902
904
906
908
910
912
914
916
918
920
922
924
926
928
930
932
934
936
938
940
942
944
946
948
B001 873.1
B002 876.7
B003 877.6
B004 875.7
C001
873.80
D001
854.40
E001
854.80
F001
881.60
MW-403D
935.65
MW-402D
927.10
MW-404D
937.80
CSX-18D
924.58
MW-409D
922.23
MW-411D
913.82
MW-413D
924.02
MW-417D
924.22
MW-101D
935.80
MW-424D
MW-422D
929.89
930.15
P-301
MW-301D
923.92
MW-416D
924.13
MW-421D
924.46
MW-410D
922.00
MW-412D
916.45
MW-414D
924.10
MW-418D
924.19
MW-407D
923.98
MW-408D
923.98
MW-204D
951.55
MW-405D
934.94
MW-401D
924.25
MW-420D
924.05
MW-419D
924.12
MW-435D
924.12
MW-434D
924.05
MW-437D
922.94
MW-436D
924.23
MW-433D
924.00
MW-442D
928.76
MW-440D
922.86
MW-444D
919.65
MW-439D
925.62
MW-443D
923.50
MW-432D
923.03
MW-441D
923.56
MW-438D
923.55
MW-448D
920.37
MW-449D
923.19
MW-451D
922.92
MW-453D
920.21
MW-447D
921.20
922
CASSEL RD.
CASSEL CREEK DR.
MISTIC LN.
SCHOLZ DR.
CENTER DR.
BRINDLESTONE DR.
WOLLENHAUPT DR.
ROYALTON DR.
ROBINETTE
SCENIC CT.
GLENROSE ST.
S. BROWN SCHOOL RD.
WALLER ST.
WEST VANLAKE DR.
EAST VANLAKE DR.
TAYLORSVIEW DR.
LARRY DR.
KENNETH AVE.
WARDON CT.
ATOM PL.
TIONDA DR. NORTH
TIONDA DR. SOUTH
KENBROOK DR.
SCOTT AVE.
BAYONNE DR.
RADAR DR.
REICHARD DR.
CRESTGROVE AVE.
BENNETT DR.
RANCHVIEW DR.
MOSSVIEW DR.
N. PERRY ST.
S. PERRY ST.
MAPLE ST.
CLAY ST.
JAMES E. BOHANAN MEMORIAL DR.
SKYVIEW DR.
CURTISS WRIGHT BLVD.
NORTH AMERICAN BLVD.
LOCKHEED DR.
EASTVIEW AVE.
MARVIEW AVE.
HALCYON AVE.
INVERNESS AVE.
LAWNST.
AIRLINE CENTER
SEC. 4 T3 R6 E
SEC. 3 T3 R6 E
SEC. 9 T3 R6 E
SEC. 10 T3 R6 E
SEC. 9 T3 R6 E
WESTHAFER RD.
COLEBROOK DR.
SPARTAN DR.
FOLEY DR.
BRISTOL DR.
ROXANA DR.
DONORA DR.
VAN ARDEN DR.
HALIFAX DR.
LONDONDERRY DR.
DEERVALLEY
PARTRIDGE DR.
WHITEHORN DR.
MOCKINGBIRD DR.
CASSEL RD.
OLD FALLS DR.
SETTLERS TRAIL
CLUBHOUSE WAY
E. NATIONAL RD.
U.S. 40
INTERSTATE 75
CROSSROADS CT.
NORTHWOOD FALLS
CREEK DR.
NOTES:
1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.
LEGEND:
FACILITY BOUNDARY
MW-401D
935.0
MONITORING WELL
WATER ELEVATION
SPRING LOCATION
POTENTIOMETRIC SURFACE CONTOUR
EASTERN LIMITS OF APPARENT CAPTURE ZONE
HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO
DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 28 MAY 2003
SCALE: 1 IN. = 1000 FT.
MAY 2003

FIGURE 4



NOTES:

1. WATER LEVELS FROM MONITORING WELLS, PIEZOMETERS OR OTHER SOURCES USED FOR THIS PLAN WERE OBSERVED ON THE DATE INDICATED.
2. INDICATED LEVELS MAY NOT REFLECT THE ACTUAL GROUNDWATER OR POTENTIOMETRIC LEVELS.
FLUCTUATIONS IN GROUNDWATER LEVELS CAN OCCUR DUE TO CLIMACTIC CHANGES, AREA PUMPING ACTIVITY AND OTHER REASONS.
3. POTIENTIOMETRIC CONTOUR LINES ARE BASED UPON INTERPOLATION BETWEEN OBSERVATION POINTS AND MAY NOT ACCURATELY DEPICT THE POTIENTIOMETRIC SURFACE AT ALL LOCATIONS OR TIMES.
4. PUMPING WELL LOCATION AT P-301.
5. GROUNDWATER ELEVATION IN MW-410D EXCLUDED FROM POTENTIOMETRIC SURFACE.

*** NO WATER LEVEL DATA COLLECTED DUE TO ACCESS RESTRICTIONS.

LEGEND:

- FACILITY BOUNDARY
- MW-401D / 935.0 — MONITORING WELL WATER ELEVATION
- SPRING LOCATION
- POTENTIOMETRIC SURFACE CONTOUR
- EASTERN LIMITS OF APPARENT CAPTURE ZONE

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

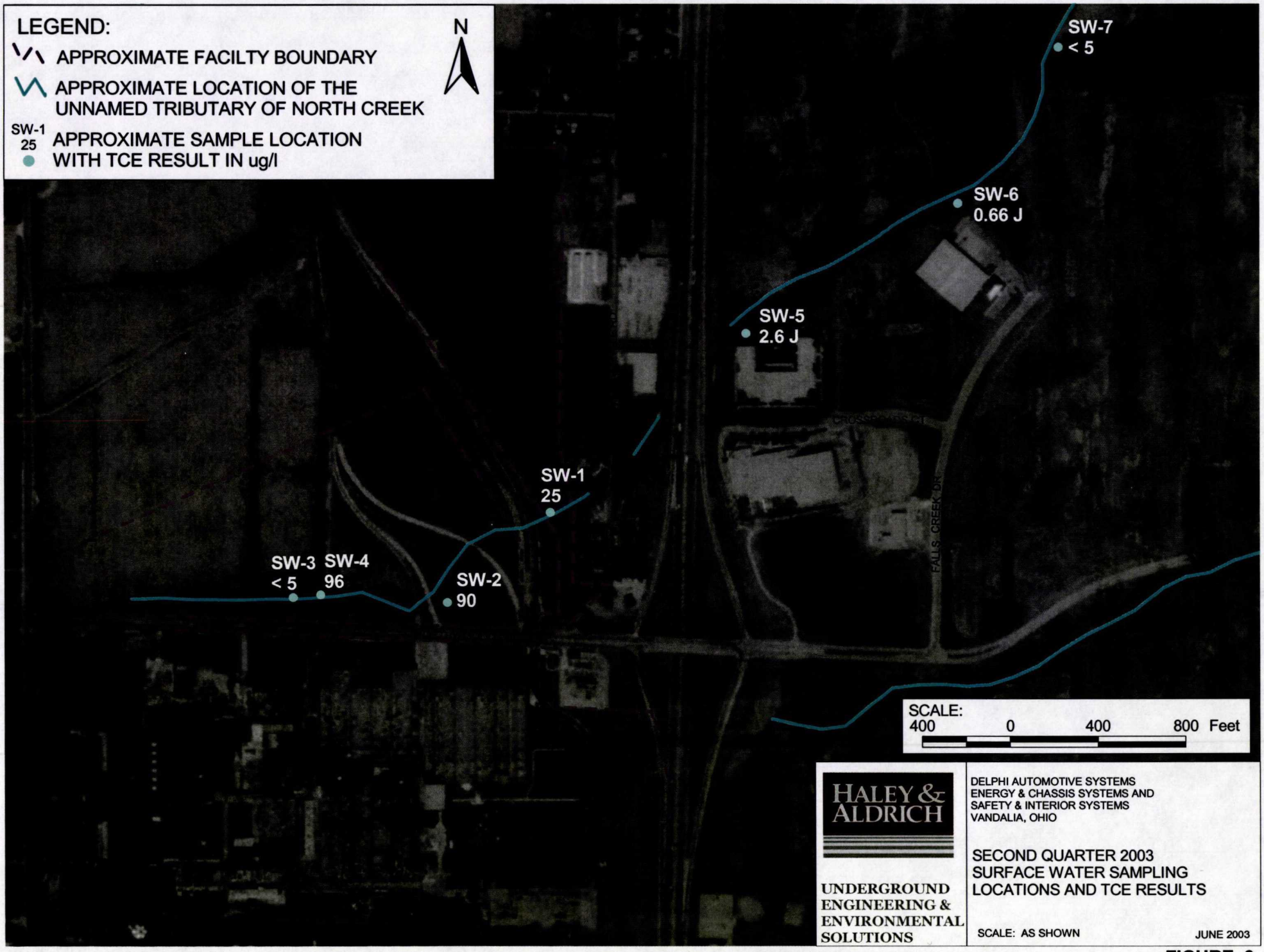
DELPHI CORPORATION
DELPHI ENERGY & CHASSIS SYSTEMS and SAFETY & INTERIOR SYSTEMS - VANDALIA FACILITY
VANDALIA, OHIO

DEEP BEDROCK (SUGAR ROCK/BELFAST TRANSITION ZONE) POTENTIOMETRIC SURFACE CONTOURS - 27 JUNE 2003

SCALE: 1 IN. = 1000 FT.

JUNE 2003

FIGURE 5



HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

DELPHI AUTOMOTIVE SYSTEMS
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO

SECOND QUARTER 2003
SURFACE WATER SAMPLING
LOCATIONS AND TCE RESULTS

SCALE: AS SHOWN

JUNE 2003

FIGURE 6

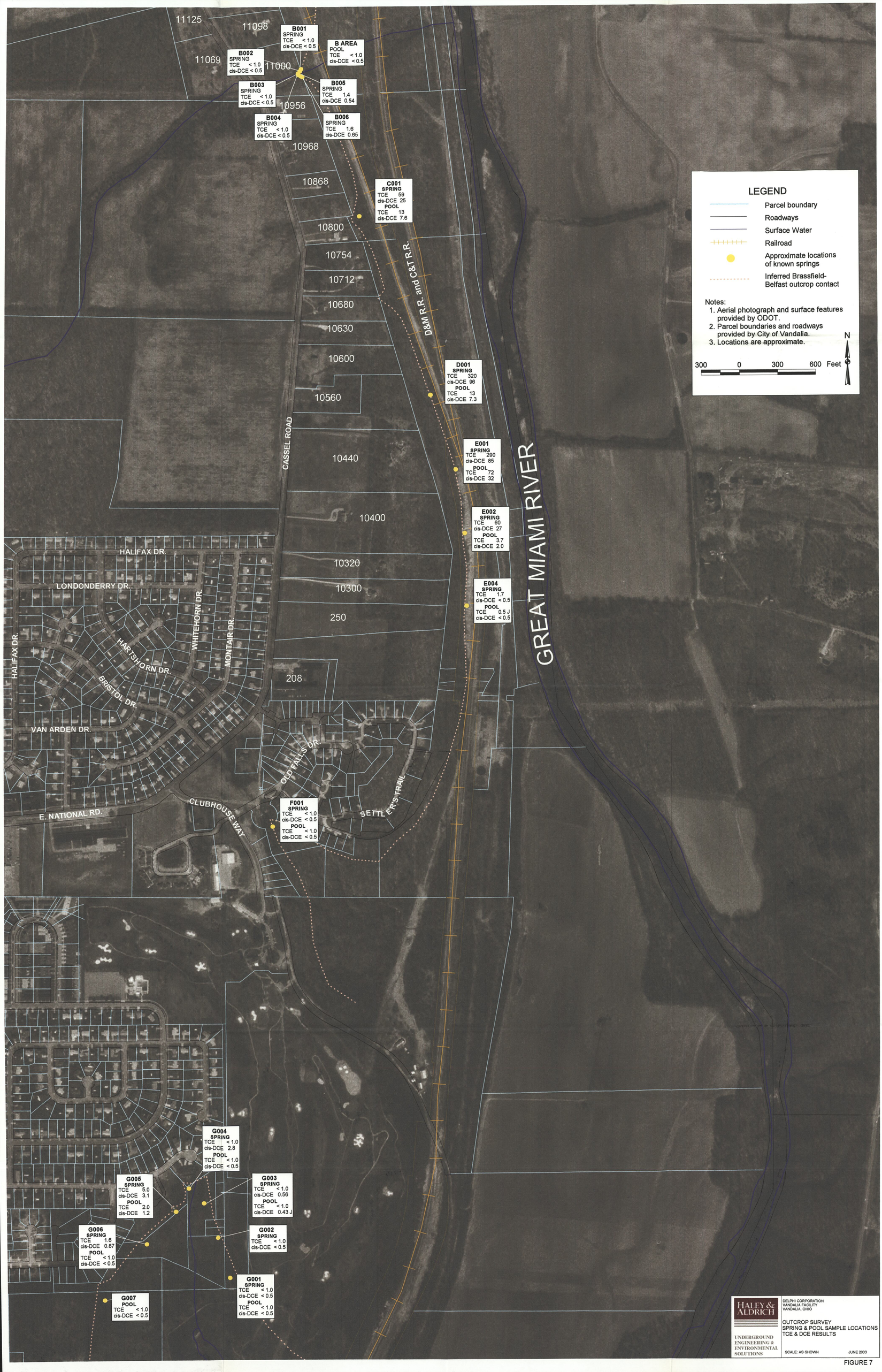

11125
11098
11069
11000
10956
10968
10868
10800
10754
10712
10680
10630
10600
10560
10440
10400
10320
10300
250
208
B001 SPRING TCE < 1.0 cis-DCE < 0.5
B002 SPRING TCE < 1.0 cis-DCE < 0.5
B AREA POOL TCE < 1.0 cis-DCE < 0.5
B003 SPRING TCE < 1.0 cis-DCE < 0.5
B005 SPRING TCE 1.4 cis-DCE 0.54
B004 SPRING TCE < 1.0 cis-DCE < 0.5
B006 SPRING TCE 1.6 cis-DCE 0.65
C001 SPRING TCE 59 cis-DCE 25 POOL TCE 13 cis-DCE 7.6
D001 SPRING TCE 320 cis-DCE 96 POOL TCE 13 cis-DCE 7.3
E001 SPRING TCE 290 cis-DCE 85 POOL TCE 72 cis-DCE 32
E002 SPRING TCE 60 cis-DCE 27 POOL TCE 3.7 cis-DCE 2.0
E004 SPRING TCE 1.7 cis-DCE < 0.5 POOL TCE 0.5 J cis-DCE < 0.5
F001 SPRING TCE < 1.0 cis-DCE < 0.5 POOL TCE < 1.0 cis-DCE < 0.5
G004 SPRING TCE < 1.0 cis-DCE 2.8 POOL TCE < 1.0 cis-DCE < 0.5
G005 SPRING TCE 5.0 cis-DCE 3.1 POOL TCE 2.0 cis-DCE 1.2
G003 SPRING TCE < 1.0 cis-DCE 0.56 POOL TCE < 1.0 cis-DCE 0.43 J
G006 SPRING TCE 1.6 cis-DCE 0.87 POOL TCE < 1.0 cis-DCE < 0.5
G002 SPRING TCE < 1.0 cis-DCE < 0.5
G001 SPRING TCE < 1.0 cis-DCE < 0.5 POOL TCE < 1.0 cis-DCE < 0.5
G007 POOL TCE < 1.0 cis-DCE < 0.5
CASSEL ROAD
D&M R.R. and C&T R.R.
GREAT MIAMI RIVER
HALIFAX DR.
LONDONDERRY DR.
WHITEHORN DR.
MONTAIR DR.
HARTSHORN DR.
BRISTOL DR.
VAN ARDEN DR.
OLD FALLS DR.
SETTLER'S TRAIL
CLUBHOUSE WAY
E. NATIONAL RD.
LEGEND
Parcel boundary
Roadways
Surface Water
Railroad
Approximate locations of known springs
Inferred Brassfield-Belfast outcrop contact
Notes:
1. Aerial photograph and surface features provided by ODOT.
2. Parcel boundaries and roadways provided by City of Vandalia.
3. Locations are approximate.
300 0 300 600 Feet
N
HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS
DELPHI CORPORATION
VANDALIA FACILITY
VANDALIA, OHIO
OUTCROP SURVEY
SPRING & POOL SAMPLE LOCATIONS
TCE & DCE RESULTS
SCALE: AS SHOWN
JUNE 2003

FIGURE 7

N
FROST RD.
OLD SPRINGFIELD RD.
CASSEL RD.
D & M R.R. AND C & T R.R.
HALIFAX DR.
DUNDERRY DR.
DEERVALET
WHITEHORN DR.
JUNTAIR DR.
EMPTY LOT
LEGEND
RESIDENT REPORTED NO WELL PRESENT
ABANDONED WELL
WELL ABANDONED SINCE INITIAL SURVEY
NON-OPERATING WELL PRESENT
WELL PRESENT
MUNICIPAL WATER SERVICE CONNECTION SINCE INITIAL SURVEY
SAMPLED
0 300 600 900 1200
GRAPHIC SCALE IN FEET
HALLEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS
DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO
CASSEL ROAD WATER SERVICE CONNECTIONS AND WELL CLOSURES
SCALE: AS SHOWN
JUNE 2003

FIGURE 8

HALEY & ALDRICH

UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND
SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO

RESIDENTIAL SAMPLE RESULTS

SCALE: 1 INCH = 500 FEET

JUNE 2003

FIGURE 9

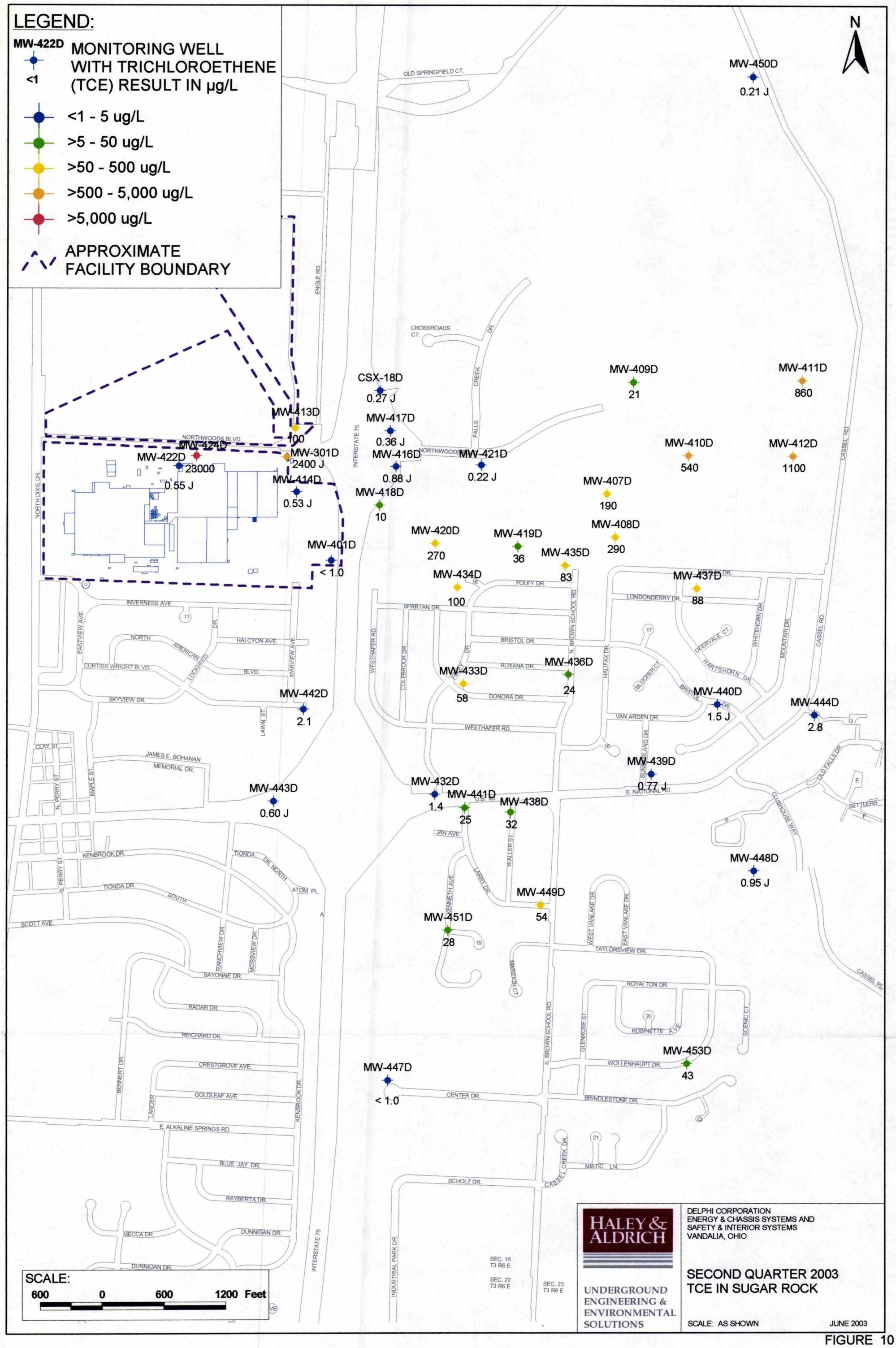

LEGEND:
MW-422D
<1
MONITORING WELL WITH TRICHLOROETHENE (TCE) RESULT IN µg/L
<1 - 5 ug/L
>5 - 50 ug/L
>50 - 500 ug/L
>500 - 5,000 ug/L
>5,000 ug/L
APPROXIMATE FACILITY BOUNDARY
N
MW-450D
0.21 J
MW-409D
21
MW-411D
860
CSX-18D
0.27 J
MW-413D
100
MW-417D
0.36 J
MW-424D
23000
MW-422D
0.55 J
MW-301D
2400 J
MW-416D
0.88 J
MW-421D
0.22 J
MW-410D
540
MW-412D
1100
MW-414D
0.53 J
MW-418D
10
MW-407D
190
MW-408D
290
MW-420D
270
MW-419D
36
MW-435D
83
MW-401D
< 1.0
MW-434D
100
MW-437D
88
MW-433D
58
MW-436D
24
MW-442D
2.1
MW-440D
1.5 J
MW-444D
2.8
MW-439D
0.77 J
MW-443D
0.60 J
MW-432D
1.4
MW-441D
25
MW-438D
32
MW-448D
0.95 J
MW-449D
54
MW-451D
28
MW-453D
43
MW-447D
< 1.0
OLD SPRINGFIELD CT.
ENGLE RD.
CROSSROADS CT.
CREEK DR.
NORTHWOODS BLVD.
INTERSTATE 75
NORTHWOODS FALLS
NORTH DIXIE DR.
CASSEL RD.
INVERNESS AVE.
EASTVIEW AVE.
NORTH AMERICAN LOCKHEED BLVD.
HALCYON AVE.
MARVIEW AVE.
CURTISS WRIGHT BLVD.
SKYVIEW DR.
LAWN ST.
CLAY ST.
JAMES E. BOHANAN MEMORIAL DR.
N. PERRY ST.
MAPLE ST.
KENBROOK DR.
S. PERRY ST.
TIONDA DR. NORTH
TIONDA DR. SOUTH
ATOM PL.
SCOTT AVE.
RANCHVIEW DR.
MOSSVIEW DR.
BAYONNE DR.
RADAR DR.
REICHARD DR.
BENNERT DR.
CRESTGROVE AVE.
GOLDLEAF AVE.
LANCER
E. ALKALINE SPRINGS RD.
BLUE JAY DR.
RAYBERTA DR.
MECCA DR.
DUNNIGAN DR.
FOLEY DR.
SPARTAN DR.
WESTHAFER RD.
COLEBROOK DR.
N. BROWN SCHOOL RD.
BRISTOL DR.
ROXANA DR.
DONORA DR.
HALIFAX DR.
LONDONDERRY DR.
DEERVALE CT.
WHITEHORN DR.
HARTSHORN DR.
MOUNTAIR DR.
BLUCHER CT.
VAN ARDEN DR.
SUNNYLAND DR.
E. NATIONAL RD.
OLD FALLS DR.
CLUBHOUSE WAY
SETTLERS
JAN AVE.
WALLER ST.
LARRY DR.
KENNETH AVE.
WEST VANLAKE DR.
EAST VANLAKE DR.
TAYLORSVIEW DR.
MARIDON CT.
S. BROWN SCHOOL RD.
ROYALTON DR.
GLENROSE ST.
ROBINETTE AVE.
SCENIC CT.
WOLLENHAUPT DR.
CENTER DR.
BRINDLESTONE DR.
CASSEL CREEK DR.
MISTIC LN.
SCHOLZ DR.
INDUSTRIAL PARK DR.
SEC. 15 T3 R6 E
SEC. 22 T3 R6 E
SEC. 23 T3 R6 E
SCALE:
600 0 600 1200 Feet
HALEY & ALDRICH
UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS
DELPHI CORPORATION
ENERGY & CHASSIS SYSTEMS AND SAFETY & INTERIOR SYSTEMS
VANDALIA, OHIO
SECOND QUARTER 2003
TCE IN SUGAR ROCK
SCALE: AS SHOWN
JUNE 2003

FIGURE 10

Attachment A
Water Level Measurements

MONTHLY GROUNDWATER ELEVATION DATA TOP OF ROCK AND BEDROCK MONITORING WELLS, APRIL 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY							
Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S	04/01/03	14:19	6.01	988.52	988.04	982.03	
MW-101D	04/01/03	14:15	59.05	988.43	988.24	929.19	
MW-204S	04/01/03	14:29	15.38	994.87	993.94	978.56	
MW-204D	04/01/03	14:23	46.86	994.64	994.26	947.40	
MW-301S	04/01/03	15:14	4.59	971.08	971.03	966.44	
MW-301D	04/01/03	11:13	56.98	970.95	970.39	913.41	
MW-401S	04/01/03	15:05	13.72	975.17	974.73	961.01	
MW-401D	04/01/03	15:09	61.56	974.79	974.57	913.01	
MW-402S	04/01/03	11:52	11.93	967.05	966.62	954.69	
MW-402D	04/01/03	11:56	48.53	966.42	966.36	917.83	
MW-403S	04/01/03	12:28	5.07	976.96	976.61	971.54	
MW-403D	04/01/03	12:25	50.31	977.82	977.36	927.05	
MW-404S	04/01/03	14:05	6.36	989.70	989.50	983.14	
MW-404D	04/01/03	14:09	57.43	989.27	988.83	931.40	
MW-405S	04/01/03			983.04	982.47	NA	Not Accessible.
MW-405D	04/01/03	14:46	54.17	983.12	982.45	928.28	
MW-407S	04/01/03	14:17	1.47	952.99	952.99	951.52	
MW-407D	04/01/03	14:14	44.69	953.24	956.24	911.55	
MW-408D	04/01/03	14:24	45.45	955.00	957.07	911.62	
MW-409D	04/01/03	14:05	29.37	942.50	942.49	913.12	
MW-410D	04/01/03	14:36	35.82	945.20	947.63	911.81	
MW-411D	04/01/03	14:57	34.08	940.50	943.43	909.35	
MW-412D	04/01/03	14:50	39.71	947.00	949.64	909.93	
MW-413D	04/01/03	10:42	56.11	970.24	969.99	913.88	
MW-414D	04/01/03	10:14	57.83	972.00	971.78	913.95	
MW-415S	04/01/03	13:33	5.60	977.80	977.85	972.25	
MW-416D	04/01/03	11:00	51.91	966.00	965.84	913.93	
MW-417D	04/01/03	15:38	51.88	965.10	964.96	913.08	
MW-418D	04/01/03		52.15	965.40	965.07	912.92	
MW-419M	04/01/03	13:55	53.85	965.00	967.50	913.65	
MW-419D	04/01/03	13:52	56.58	964.70	967.40	910.82	
MW-420M	04/01/03	13:45	50.26	962.50	964.85	914.59	
MW-420D	04/01/03	13:42	53.91	962.50	965.26	911.35	
MW-421D	04/01/03	15:30	45.37	958.80	958.50	913.13	
MW-422S	04/01/03	13:52	7.95	981.70	981.30	973.35	
MW-422D	04/01/03	13:54	58.89	981.50	980.97	922.08	
MW-423S	04/01/03	13:49	6.31	979.30	978.96	972.65	
MW-424S	04/01/03	13:43	22.41	980.20	980.06	957.65	
MW-424D	04/01/03	13:45	58.01	980.04	979.74	921.73	
MW-425S	04/01/03	13:24	5.05	976.50	976.09	971.04	
MW-426S	04/01/03			966.50	966.24	NA	Artesian.
MW-427S	04/01/03	12:15	7.45	976.10	978.34	970.89	
MW-428S	04/01/03	16:38	9.40	985.75	985.43	976.03	
MW-429S	04/01/03	16:43	6.68	985.45	985.08	978.40	
MW-430S	04/01/03	14:00	8.06	985.19	984.87	976.81	
MW-431S	04/01/03	16:29	5.76	982.76	982.46	976.70	
MW-432M	04/01/03	15:57	22.43	975.20	974.90	952.47	
MW-432D	04/01/03	15:58	66.75	974.80	974.5	907.75	
MW-433D	04/01/03	15:52	59.97	970.84	970.43	910.46	
MW-434D	04/01/03	15:45	53.56	965.54	965.33	911.77	
MW-435D	04/01/03	15:37	44.15	956.22	955.91	911.76	
MW-436D	04/01/03	15:20	50.98	962.67	962.37	911.39	
MW-437D	04/01/03	15:29	36.72	948.66	948.38	911.66	
MW-438D	04/01/03	13:38	63.25	972.95	972.59	909.34	
MW-439D	04/01/03	15:15	41.64	955.98	955.58	913.94	
MW-440D	04/01/03	15:07	24.21	937.10	936.70	912.49	
MW-441D	04/01/03	13:16	66.95	974.97	974.38	907.43	
MW-442D	04/01/03	12:03	65.70	976.08	975.68	909.98	
MW-443D	04/01/03	12:14	69.41	980.29	979.72	910.31	
MW-444D	04/01/03	15:05	21.25	934.78	934.18	912.93	
MW-445S	04/01/03	16:34	5.37	976.51	976.07	970.70	
MW-446S	04/01/03	12:20	6.39	973.47	975.73	969.34	
MW-447D	04/01/03	14:48	52.05	966.07	965.84	913.79	
MW-448D	04/01/03	14:55	21.40	935.58	935.38	913.98	
MW-449D	04/01/03	13:54	58.52	970.79	970.44	911.92	
MW-450D	04/01/03	15:48	16.65	910.72	910.51	893.86	
MW-451D	04/01/03	13:59	59.96	967.69	967.32	907.36	
MW-452S	04/01/03	16:40	10.60	989.38	989.13	978.53	
MW-453D	04/01/03	13:50	9.48	923.59	923.25	913.77	
CSX-18D	04/01/03	15:18	51.75	961.95	964.96	913.21	
CSX-22	04/01/03	13:33	7.10	965.20	967.35	960.25	

MONTHLY GROUNDWATER ELEVATION DATA TOP OF ROCK AND BEDROCK MONITORING WELLS, MAY 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY							
Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S				988.52	988.04	NA	
MW-101D	05/28/03	15:33	52.44	988.43	988.24	935.80	
MW-204S				994.87	993.94	NA	
MW-204D	05/28/03	15:26	42.71	994.64	994.26	951.55	
MW-301S	05/28/03	17:02	4.66	971.08	971.03	966.37	
MW-301D	05/28/03	13:37	46.47	970.95	970.39	923.92	923.74' at 17:55
MW-401S				975.17	974.73	NA	
MW-401D	05/28/03	17:07	50.32	974.79	974.57	924.25	
MW-402S				967.05	966.62	NA	
MW-402D	05/28/03	16:56	39.26	966.42	966.36	927.10	
MW-403S				976.96	976.61	NA	
MW-403D	05/28/03	16:49	41.71	977.82	977.36	935.65	
MW-404S				989.70	989.50	NA	
MW-404D	05/28/03	15:40	51.03	989.27	988.83	937.80	
MW-405S				983.04	982.47	NA	
MW-405D	05/28/03	15:13	47.51	983.12	982.45	934.94	
MW-407S				952.99	952.99	NA	
MW-407D	05/28/03	15:00	32.26	953.24	956.24	923.98	
MW-408D	05/28/03	15:05	33.09	955.00	957.07	923.98	
MW-409D	05/28/03	14:41	20.26	942.50	942.49	922.23	
MW-410D	05/28/03	14:52	25.63	945.20	947.63	922.00	
MW-411D	05/28/03	15:40	29.61	940.50	943.43	913.82	
MW-412D	05/28/03	15:48	33.19	947.00	949.64	916.45	
MW-413D	05/28/03	13:32	45.97	970.24	969.99	924.02	
MW-414D	05/28/03	13:21	47.68	972.00	971.78	924.10	
MW-415S				977.80	977.85	NA	
MW-416D	05/28/03	13:28	41.70	966.00	965.84	924.14	
MW-417D	05/28/03	14:14	40.74	965.10	964.96	924.22	
MW-418D	05/28/03	14:22	40.88	965.40	965.07	924.19	
MW-419M	05/28/03	14:59	42.88	965.00	967.50	924.62	
MW-419D	05/28/03	15:01	43.28	964.70	967.40	924.12	
MW-420M	05/28/03	14:54	39.84	962.50	964.85	925.01	
MW-420D	05/28/03	14:55	41.21	962.50	965.26	924.05	
MW-421D	05/28/03	14:47	34.04	958.80	958.50	924.46	
MW-422S				981.70	981.30	NA	
MW-422D	05/28/03	15:59	50.82	981.50	980.97	930.15	
MW-423S				979.30	978.96	NA	
MW-424S				980.20	980.06	NA	
MW-424D	05/28/03	15:51	49.85	980.04	979.74	929.89	
MW-425S				976.50	976.09	NA	
MW-426S				966.50	966.24	NA	
MW-427S				976.10	978.34	NA	
MW-428S				985.75	985.43	NA	
MW-429S				985.45	985.08	NA	
MW-430S				985.19	984.87	NA	
MW-431S				982.76	982.46	NA	
MW-432M	05/28/03	16:52	22.63	975.20	974.90	952.27	
MW-432D	05/28/03	16:51	51.47	974.80	974.5	923.03	
MW-433D	05/28/03	16:43	46.43	970.84	970.43	924.00	
MW-434D	05/28/03	16:38	41.28	965.54	965.33	924.05	
MW-435D	05/28/03	16:33	31.79	956.22	955.91	924.12	
MW-436D	05/28/03	16:47	38.14	962.67	962.37	924.23	
MW-437D	05/28/03	16:25	25.44	948.66	948.38	922.94	
MW-438D	05/28/03	17:22	49.04	972.95	972.59	923.55	
MW-439D	05/28/03	16:15	29.96	955.98	955.58	925.62	
MW-440D	05/28/03	16:19	13.84	937.10	936.70	922.86	
MW-441D	05/28/03	16:59	50.82	974.97	974.38	923.56	
MW-442D	05/28/03	17:41	51.92	976.08	975.68	923.76	
MW-443D	05/28/03	17:32	56.22	980.29	979.72	923.50	
MW-444D	05/28/03	16:03	14.53	934.78	934.18	919.65	
MW-445S	05/28/03	16:32	6.09	976.51	976.07	969.98	
MW-446S	05/28/03	16:37	6.71	973.47	975.73	969.02	
MW-447D	05/28/03	17:18	44.64	966.07	965.84	921.20	
MW-448D	05/28/03	16:10	15.01	935.58	935.38	920.37	
MW-449D	05/28/03	17:11	47.25	970.79	970.44	923.19	
MW-450D	05/28/03	15:32	17.34	910.72	910.51	893.17	
MW-451D	05/28/03	17:07	44.40	967.69	967.32	922.92	
MW-452S	05/28/03	16:06	10.84	989.38	989.13	978.29	
MW-453D	05/28/03	17:28	3.04	923.59	923.25	920.21	
CSX-18D	05/28/03	17:07	40.38	961.95	964.96	924.58	
CSX-22	05/28/03	14:30	7.43	965.20	967.35	959.92	

MONTHLY GROUNDWATER ELEVATION DATA TOP OF ROCK AND BEDROCK MONITORING WELLS, JUNE 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY							
Monitoring Well I.D.	Date	Time	Water Level (ft)	Ground Surface Elevation (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
MW-101S				988.52	988.04	NA	
MW-101D	06/27/03	12:25	53.64	988.43	988.24	934.60	
MW-204S				994.87	993.94	NA	
MW-204D	06/27/03	12:18	43.20	994.64	994.26	951.06	
MW-301S	06/27/03	14:00	4.18	971.08	971.03	966.85	
MW-301D	06/27/03	10:58	48.73	970.95	970.39	921.66	921.62' at 16:38
MW-401S				975.17	974.73	NA	
MW-401D	06/27/03	13:54	52.27	974.79	974.57	922.30	
MW-402S				967.05	966.62	NA	
MW-402D	06/27/03	14:07	41.06	966.42	966.36	925.30	
MW-403S				976.96	976.61	NA	
MW-403D	06/27/03	15:53	45.04	977.82	977.36	932.32	
MW-404S				989.70	989.50	NA	
MW-404D	06/27/03	11:40	52.21	989.27	988.83	936.62	
MW-405S				983.04	982.47	NA	
MW-405D	06/27/03	12:02	48.94	983.12	982.45	933.51	
MW-407S				952.99	952.99	NA	
MW-407D	06/27/03	12:04	34.48	953.24	956.24	921.76	
MW-408D	06/27/03	11:59	35.31	955.00	957.07	921.76	
MW-409D	06/27/03	11:38	22.20	942.50	942.49	920.29	
MW-410D	06/27/03	11:49	22.67	945.20	947.63	924.96	
MW-411D	06/27/03			940.50	943.43	NA	Not Accessible.
MW-412D	06/27/03	14:24	34.69	947.00	949.64	914.95	
MW-413D	06/27/03	11:11	48.09	970.24	969.99	921.90	921.96' at 14:12
MW-414D	06/27/03	11:02	49.81	972.00	971.78	921.97	921.99' at 13:46
MW-415S				977.80	977.85	NA	
MW-416D	06/27/03	11:07	43.82	966.00	965.84	922.02	
MW-417D	06/27/03	11:16	42.88	965.10	964.96	922.08	
MW-418D	06/27/03	11:09	42.90	965.40	965.07	922.17	922.09' at 11:07
MW-419M	06/27/03	16:14	45.28	965.00	967.50	922.22	
MW-419D	06/27/03			964.70	967.40	NA	Not Accessible.
MW-420M	06/27/03	16:09	42.44	962.50	964.85	922.41	
MW-420D	06/27/03	16:10	43.38	962.50	965.26	921.88	
MW-421D	06/27/03	16:04	36.33	958.80	958.50	922.17	
MW-422S				981.70	981.30	NA	
MW-422D	06/27/03	13:20	52.47	981.50	980.97	928.50	
MW-423S				979.30	978.96	NA	
MW-424S				980.20	980.06	NA	
MW-424D	06/27/03	13:13	51.51	980.04	979.74	928.23	
MW-425S				976.50	976.09	NA	
MW-426S				966.50	966.24	NA	
MW-427S				976.10	978.34	NA	
MW-428S				985.75	985.43	NA	
MW-429S				985.45	985.08	NA	
MW-430S				985.19	984.87	NA	
MW-431S				982.76	982.46	NA	
MW-432M	06/27/03	13:43	23.00	975.20	974.90	951.90	
MW-432D	06/27/03	13:40	53.48	974.80	974.5	921.02	
MW-433D	06/27/03	13:12	48.56	970.84	970.43	921.87	
MW-434D	06/27/03	13:17	43.36	965.54	965.33	921.97	
MW-435D	06/27/03	13:32	33.93	956.22	955.91	921.98	
MW-436D	06/27/03	13:25	40.26	962.67	962.37	922.11	
MW-437D	06/27/03	15:05	27.51	948.66	948.38	920.87	
MW-438D	06/27/03	13:50	50.78	972.95	972.59	921.81	
MW-439D	06/27/03	15:11	32.35	955.98	955.58	923.23	
MW-440D	06/27/03	14:57	15.78	937.10	936.70	920.92	
MW-441D	06/27/03	15:19	52.88	974.97	974.38	921.50	
MW-442D	06/27/03	12:56	53.82	976.08	975.68	921.86	
MW-443D	06/27/03	12:46	57.87	980.29	979.72	921.85	
MW-444D	06/27/03	14:44	16.47	934.78	934.18	917.71	
MW-445S	06/27/03	13:02	5.96	976.51	976.07	970.11	
MW-446S	06/27/03	12:42	7.12	973.47	975.73	968.61	
MW-447D	06/27/03	15:54	45.95	966.07	965.84	919.89	
MW-448D	06/27/03	14:37	16.30	935.58	935.38	919.08	
MW-449D	06/27/03	15:37	49.16	970.79	970.44	921.28	
MW-450D	06/27/03	14:02	17.49	910.72	910.51	893.02	
MW-451D	06/27/03	15:31	46.16	967.69	967.32	921.16	
MW-452S	06/27/03	13:35	11.12	989.38	989.13	978.01	
MW-453D	06/27/03	15:46	4.45	923.59	923.25	918.80	
CSX-18D	06/27/03	11:10	42.47	961.95	964.96	922.49	
CSX-22	06/27/03	11:30	7.76	965.20	967.35	959.59	

OVERBURDEN GROUNDWATER ELEVATION DATA "WATER TABLE" MONITORING WELLS - MAY 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY						
Monitoring Well I.D.	Date	Time	Water Level (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
HA-5	05/22/03	14:39	5.52	982.94	977.42	
MW-512	05/22/03	14:44	1.91	979.14	977.23	
MW-602	05/22/03	14:14	3.46	981.94	978.48	
MW-603	05/22/03	14:01	4.77	984.42	979.65	
MW-604	05/22/03	14:09	3.07	981.77	978.70	
MW-605	05/22/03	14:28	3.11	978.62	975.51	
MW-606	05/22/03	14:05	4.34	982.87	978.53	
MW-607	05/22/03	14:18	2.62	979.87	977.25	
MW-712	05/22/03	15:11	5.30	982.31	977.01	
MW-718	05/22/03	15:39	3.88	980.27	976.39	
MW-723	05/22/03	13:59	3.50	984.75	981.25	
MW-724	05/22/03	16:26	6.66	979.15	972.49	
MW-726	05/22/03	16:20	3.13	978.70	975.57	
MW-728	05/22/03	16:23	2.64	978.07	975.43	
MW-729	05/22/03	15:33	3.22	977.20	973.98	
MW-734	05/22/03	16:28	6.93	979.14	972.21	
MW-738	05/22/03	15:51	3.14	987.75	984.61	
MW-739	05/22/03	13:13	7.60	989.05	981.45	
MW-744	05/22/03	13:21	5.80	987.55	981.75	
MW-749	05/22/03	15:15	2.82	981.94	979.12	
MW-750	05/22/03	15:57	2.51	985.50	982.99	
MW-753	05/22/03	16:22	1.72	985.37	983.65	
MW-754	05/22/03	16:25	3.34	986.08	982.74	
MW-757	05/22/03	13:03	9.20	988.95	979.75	
MW-760	05/22/03	13:39	2.03	984.49	982.46	
MW-764	05/22/03	13:53	3.47	982.78	979.31	
MW-765	05/22/03	13:06	11.21	988.96	977.75	
MW-766	05/22/03	13:24	6.52	987.15	980.63	
MW-767	05/22/03	12:58	7.18	988.92	981.74	
MW-768	05/22/03	15:07	5.97	985.64	979.67	
MW-771	05/22/03	15:48	3.41	992.54	989.13	
MW-772	05/22/03	12:54	8.75	988.90	980.15	
MW-774	05/22/03	15:02	2.03	989.06	987.03	
MW-775	05/22/03	15:19	1.41	976.91	975.50	
MW-776	05/22/03	15:22	1.28	974.01	972.73	
MW-780	05/22/03	13:43	4.02	985.13	981.11	
MW-781	05/22/03	16:39	4.21	982.06	977.85	
MW-782	05/22/03	15:21	3.73	980.19	976.46	
MW-784	05/22/03	15:30	2.44	980.09	977.65	
MW-787	05/22/03	16:36	5.41	982.12	976.71	
PZ-01	05/22/03	14:51	3.40	978.64	975.24	
PZ-02				978.12		Not Accessible.
PZ-03				981.55		Not Accessible.
PZ-04	05/22/03	14:44	3.08	981.32	978.24	
PZ-05	05/22/03	14:38	2.11	979.59	977.48	
PZ-06	05/22/03	14:23	3.49	981.83	978.34	
PZ-07	05/22/03	14:09	4.09	982.66	978.57	
PZ-08	05/22/03	14:10	4.75	983.11	978.36	
PZ-09	05/22/03	14:02	4.13	982.63	978.50	
PZ-10	05/22/03	13:59	6.12	983.52	977.40	
PZ-11	05/22/03	14:12	3.44	983.46	980.02	
PZ-12				983.33		Not Accessible.
PZ-13	05/22/03	14:16	1.16	984.01	982.85	

OVERBURDEN GROUNDWATER ELEVATION DATA - CONTINUED "WATER TABLE" MONITORING WELLS - MAY 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY						
Monitoring Well I.D.	Date	Time	Water Level (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
PZ-14	05/22/03	14:19	3.13	984.34	981.21	
PZ-15	05/22/03	13:52	4.94	985.71	980.77	
PZ-16	05/22/03	13:46	4.43	985.39	980.96	
PZ-17	05/22/03	13:44	2.71	983.78	981.07	
PZ-18	05/22/03	13:42	3.99	985.48	981.49	
PZ-19	05/22/03	13:57	5.85	983.88	978.03	
PZ-20	05/22/03	13:55	4.23	982.53	978.30	
PZ-21				989.15		Not Accessible.
PZ-22	05/22/03	12:59	8.44	989.03	980.59	
PZ-23	05/22/03	13:31	8.60	989.04	980.44	
PZ-24	05/22/03	13:15	5.93	988.99	983.06	
PZ-25	05/22/03	13:19	6.89	988.92	982.03	
PZ-26				989.05		Not Accessible.
PZ-28	05/22/03	13:23	4.27	989.02	984.75	
PZ-29	05/22/03	15:33	4.31	988.50	984.19	
PZ-30	05/22/03	13:35	4.46	985.25	980.79	
PZ-31	05/22/03	13:10	7.26	988.98	981.72	
VBW-113	05/22/03	16:16	4.50	985.87	981.37	
VEW-105	05/22/03	13:16	4.37	988.08	983.71	
N-19	05/22/03	14:48	1.81	979.66	977.85	
N-23	05/22/03	14:53	3.29	981.15	977.86	
N-15	05/22/03	14:43	4.04	979.44	975.40	
N-13	05/22/03	15:08	5.36	983.19	977.83	
N-00	05/22/03	15:09	3.79	982.88	979.09	
N-11	05/22/03	15:11	2.68	983.13	980.45	
N-10	05/22/03	15:12	2.39	983.66	981.27	
N-12 W	05/22/03	15:06	7.70	985.52	977.82	
N-12 E	05/22/03	15:06	7.71	985.52	977.81	

OVERBURDEN GROUNDWATER ELEVATION DATA "FIRST SAND" MONITORING WELLS - MAY 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY						
Monitoring Well I.D.	Date	Time	Water Level (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
IF-2	05/23/03	13:21	2.33	978.64	976.31	
IF-3	05/23/03	13:22	1.76	978.61	976.85	
MW-130	05/23/03	10:54	3.15	986.02	982.87	
MW-131	05/23/03	10:57	4.16	985.72	981.56	
MW-132	05/23/03	10:48	3.28	984.07	980.79	
MW-133	05/23/03	11:02	4.48	983.13	978.65	
MW-134	05/23/03	10:46	1.49	979.78	978.29	
MW-135	05/23/03	11:28	3.73	984.86	981.13	
MW-136	05/23/03	11:24	4.54	985.67	981.13	
MW-137	05/23/03	11:12	6.22	982.72	976.50	
MW-138	05/23/03	11:14	2.59	982.33	979.74	
MW-503	05/23/03	12:40	8.34	994.49	986.15	
MW-506	05/23/03	12:01	8.63	989.48	980.85	
MW-507	05/23/03	11:57	7.88	989.52	981.64	
MW-601	05/23/03	10:39	2.75	979.47	976.72	
MW-703				989.17		Not Accessible
MW-706	05/23/03	13:00	9.00	987.67	978.67	
MW-707	05/23/03	11:54	8.95	989.06	980.11	
MW-709	05/23/03	11:52	8.45	989.10	980.65	
MW-710	05/23/03	11:31	3.69	985.15	981.46	
MW-711	05/23/03	12:08	9.68	989.16	979.48	
MW-715				982.30		Not Accessible
MW-720	05/23/03	13:51	6.90	979.29	972.39	
MW-721	05/23/03	11:46	6.63	984.81	978.18	
MW-722				988.41		Not Accessible
MW-725	05/23/03	13:59	5.13	978.46	973.33	
MW-727	05/23/03	13:47	4.42	977.84	973.42	
MW-730	05/23/03	12:30	3.52	981.95	978.43	
MW-731	05/23/03	13:15	4.03	977.19	973.16	
MW-732	05/23/03	10:43	1.09	978.89	977.80	
MW-733	05/23/03	13:54	5.97	978.98	973.01	
MW-747	05/23/03	12:46	6.83	988.83	982.00	
MW-748	05/23/03	13:04	3.26	981.98	978.72	
MW-758	05/23/03	13:30	1.71	981.83	980.12	
MW-759	05/23/03	11:06	1.69	976.87	975.18	
MW-770	05/23/03	12:42	8.24	992.62	984.38	
MW-773	05/23/03	13:27	4.02	989.24	985.22	
MW-777	05/23/03	10:52	5.71	985.65	979.94	
MW-786	05/23/03	10:41	4.94	979.35	974.41	
VAW-115				987.17		Not Accessible
VBW-111	05/23/03	11:00	4.13	984.26	980.13	
VBW-112	05/23/03	10:50	5.87	985.44	979.57	
VCW-110	05/23/03	11:27	4.79	985.84	981.05	
VEW-106	05/23/03	12:52	3.63	987.79	984.16	
VPW-101	05/23/03	12:24	3.25	986.81	983.56	
VPW-102	05/23/03	13:42	2.63	966.75	964.12	
VPW-103	05/23/03	13:10	2.87	982.05	979.18	

OVERBURDEN GROUNDWATER ELEVATION DATA "SECOND SAND" MONITORING WELLS - MAY 2003 DELPHI CORPORATION - VANDALIA, OHIO FACILITY						
Monitoring Well I.D.	Date	Time	Water Level (ft)	Top of Riser Elevation (ft)	Groundwater Elevation (ft)	Remarks
HA-1	05/23/03	10:42	5.73	982.24	976.51	
HA-2	05/23/03	10:40	5.54	982.70	977.16	
HA-3	05/23/03	10:39	6.14	982.51	976.37	
HA-4	05/23/03	10:38	3.31	981.15	977.84	
MW-501	05/23/03	12:17	4.91	988.73	983.82	
MW-502	05/23/03	12:24	5.11	990.20	985.09	
MW-504	05/23/03	11:42	3.58	985.50	981.92	
MW-505	05/23/03	12:20	6.99	989.28	982.29	
MW-508	05/23/03	11:40	10.33	989.63	979.30	
MW-509	05/23/03	12:03	6.68	985.37	978.69	
MW-510	05/23/03	12:36	4.60	982.10	977.50	
MW-511	05/23/03	12:45	3.91	980.06	976.15	
MW-513	05/23/03	13:18	10.33	974.84	964.51	
MW-514				968.31		Artesian
MW-515	05/23/03	13:25	3.42	970.44	967.02	
MW-516	05/23/03	10:24	2.28	978.87	976.59	
MW-700	05/23/03	11:24	7.13	988.77	981.64	
MW-701	05/23/03	11:28	7.21	988.92	981.71	
MW-702	05/23/03	11:32	9.31	989.24	979.93	
MW-705	05/23/03	11:36	10.43	989.17	978.74	
MW-708	05/23/03	11:52	7.04	985.24	978.20	
MW-714				982.29		Not Accessible
MW-717	05/23/03	12:59	5.40	979.82	974.42	
MW-719	05/23/03	12:49	5.60	979.01	973.41	
MW-735	05/23/03	12:00	6.80	985.47	978.67	
MW-736	05/23/03	10:58	3.40	979.45	976.05	
MW-737	05/23/03	12:54	5.53	978.96	973.43	
MW-740				973.82		Artesian
MW-741	05/23/03	10:52	5.20	976.19	970.99	
MW-742	05/23/03	11:07	5.29	980.17	974.88	
MW-743	05/23/03	13:13	4.80	976.89	972.09	
MW-745	05/23/03	12:43	5.27	982.49	977.22	
MW-746	05/23/03	12:30	8.26	987.64	979.38	
MW-778	05/23/03	11:57	4.94	982.78	977.84	
MW-779	05/23/03	10:36	4.91	979.40	974.49	
VEW-114	05/23/03	13:04	2.41	989.81	987.40	
VDW-108	05/23/03	12:06	7.55	983.76	976.21	

Attachment B
Data Usability Summary Reports

Data Useability Summary Report
Vandalia Groundwater Migration Control – Second Quarter 2003 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 03.06978

Analytical results for two water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540-R99-008) and method protocol criteria where applicable.

This report pertains to the samples collected on 07 April 2003.
RW-04/07
Eff-04/07

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
pH (Lab-OH)	EPA 150.1	14 days
Solids, Total Dissolved	EPA 160.1	7 days
Total Organic Carbon (TOC)	SM 5310 C	28 days
Volatile Organic Compounds	EPA 624	14 days

The following items and criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field, Method, and Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound and Surrogate Compound Recoveries
- Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times are measured from the time of sample collection to the time of sample preparation or analysis. Holding times were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank samples prepared and analyzed concurrently with the project samples. A trip blank sample was not included with this analysis.

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method-specific criteria.

Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries

Analytical precision and accuracy were evaluated based on the laboratory control (LCS) and matrix spike/matrix spike duplicate (MS/MSD) sample analyses performed concurrently with the project samples. For MS/MSD, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. Results indicate that the relative percent difference between the MS/MSD and LCS was within statistical advisory limit. No corrective action is recommended.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds in one or both of the following circumstances: when target compounds were detected below the reporting limit but above the method detection limit and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Water Use Survey – April 2003 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 03.08709

Analytical results for seven water samples and one quality control sample were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA PB99-993506) and method protocol criteria where applicable.

This report pertains to the samples collected on 29 April 2003.

440OUT-042903	591IN1-042903
440CWL-042903	591OUT-042903
440IN2-042903	591IN2-042903
440IN1-042903	Trip Blank

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organic Compounds	EPA 524.2	14 days

The following items and criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field, Method, and Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound and Surrogate Compound Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times are measured from the time of sample collection to the time of sample preparation or analysis. Holding times were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method or trip blank samples prepared and analyzed concurrently with the project samples.

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method-specific criteria.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds in one or both of the following circumstances: when target compounds were detected below the reporting limit but above the method detection limit and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Groundwater Migration Control – Second Quarter 2003 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 03.09580

Analytical results for two water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540-R99-008) and method protocol criteria where applicable.

This report pertains to the samples collected on 08 May 2003.
RW-05/08
Eff-05/08

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
pH (Lab-OH)	EPA 150.1	14 days
Solids, Total Dissolved	EPA 160.1	7 days
Total Organic Carbon (TOC)	SM 5310 C	28 days
Volatile Organic Compounds	EPA 624	14 days

The following items and criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field, Method, and Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound and Surrogate Compound Recoveries
- Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times are measured from the time of sample collection to the time of sample preparation or analysis. Holding times were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank samples prepared and analyzed concurrently with the project samples. A trip blank sample was not included with this analysis.

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method-specific criteria.

Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries

Analytical precision and accuracy were evaluated based on the laboratory control (LCS) and matrix spike/matrix spike duplicate (MS/MSD) sample analyses performed concurrently with the project samples. For MS/MSD, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. Results indicate that the relative percent difference between the MS/MSD and LCS was within statistical advisory limit. No corrective action is recommended.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds in one or both of the following circumstances: when target compounds were detected below the reporting limit but above the method detection limit and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Useability Summary Report
Vandalia Groundwater Migration Control – Second Quarter 2003 Sampling Event
Analytical Laboratory: TestAmerica, Inc. Laboratories, Inc. – Dayton, Ohio
Job Number: 03.12088

Analytical results for two water samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540-R99-008) and method protocol criteria where applicable.

This report pertains to the samples collected on 09 June 2003.
RW-060903
Effluent-060903

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
pH (Lab-OH)	EPA 150.1	14 days
Solids, Total Dissolved	EPA 160.1	7 days
Total Organic Carbon (TOC)	SM 5310 C	28 days
Volatile Organic Compounds	EPA 624	14 days

The following items and criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed:

- Holding Time Compliance
- Field, Method, and Preparation Blank Sample Analyses
- Instrument Calibration Procedures
- System Monitoring Compound and Surrogate Compound Recoveries
- Matrix Spike, Matrix Spike Duplicate, and Laboratory Control Sample Recoveries
- Sample Data Reporting Format
- Data Qualifiers

Holding Time Compliance

Maximum allowable holding times are measured from the time of sample collection to the time of sample preparation or analysis. Holding times were met for each project sample analyzed as part of this sample delivery group. No corrective action is required.

Blank Sample Analyses

Target compounds were not detected in associated method blank samples prepared and analyzed concurrently with the project samples. A trip blank sample was not included with this analysis.

Continuing Calibration

Continuing instrument calibration procedures for the analysis of project samples were consistent with the prescribed guidelines of 70-130% recovery. No corrective action is recommended.

Surrogate Compound Recoveries

Surrogate compounds were added to each sample prior to analysis of organic parameters to confirm the efficiency of the sample preparation procedures. The calculated recovery for each surrogate compound fell within method-specific criteria.

Matrix Spike/Matrix Spike Duplicate and Laboratory Control Sample Recoveries

Analytical precision and accuracy were evaluated based on the laboratory control (LCS) and matrix spike/matrix spike duplicate (MS/MSD) sample analyses performed concurrently with the project samples. For MS/MSD, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. Results indicate that the relative percent difference between the MS/MSD and LCS was within statistical advisory limit. No corrective action is recommended.

Sample Data Reporting

The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project. No corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds in one or both of the following circumstances: when target compounds were detected below the reporting limit but above the method detection limit and/or when target compounds were detected in the associated method/ preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance or in accordance with the laboratory's Standard Operating Procedures.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable, with the exceptions noted above. Based on our review, the usability of these data is 100%.

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Data Usability Summary Report (DUSR)
Vandalia 2nd Quarter – April 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3D04157

Analytical results for thirteen water samples and seven quality control samples were reviewed to evaluate the data usability. Data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540/R-99/008) and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot: A3D040157	Lot: A3D040159	Lot: A3D040160	Lot: A3D040161	Lot: A3D050115
4522-040203-0001	0713-040203-0001	0894-040203-0001	0816-040203-0001	0816-040303-0001
432M-040203-1220	0713-040203-0002	442D-040203-1400	401D-040203-1220	448D-040303-1205
447D-040203-1550	450D-040203-1050	443D-040203-1845	423S-040203-1505	
4552-040203-0002	416D-040203-1315		0816-040203-0002	
	417D-040203-1525		445S-040203-1735	
	414D-040203-1745			

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organic Compounds by GC/MS (Unpreserved)	SW846 8260B	7 Days

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standards for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date	Target Analyte, %RSD	Associated Samples	Corrective Action
12	03/19 18:11	Acetone, 37.655	0816-040303-0001	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	04/08 07:17	Carbon disulfide, 37.1 1,2-Dibromo-3-chloropropane, 31.6 1,2,4-Trichlorobenzene, 26.3	432M-040203-1220 447D-040203-1550 4552-040203-0002 0713-040203-0001 450D-040203-1050 416D-040203-1315 417D-040203-1525 414D-040203-1745 442D-040203-1400 443D-040203-1845 401D-040203-1220 423S-040203-1505 0816-040203-0002 445S-040203-1735	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.
7	04/10 08:16	Acetone, 28.6 2-Butanone, -28.3 2-Hexanone, -30.2	4552-040203-0001 0713-040203-0002 0894-040203-0001 0816-040203-0001	
12	04/10 17:12	Acetone, -31.6 Dichlorodifluoromethane, -31.5	0816-040303-0001	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target

compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Trip Blank 4552-040203-0001	Acetone 2-Butanone	1.9 µg/L 0.66 µg/L	432M-040203-1220 447D-040203-1550 4552-040203-0002	19 µg/L 6.6 µg/L
Equipment Blank 4552-040203-0002	Chloroform Methylene chloride	0.19 µg/L 0.71 µg/L	432M-040203-1220 447D-040203-1550	0.95 µg/L 7.1 µg/L
Field Blank 0713-040203-0001	Bromodichloromethane Chloroform	0.27 µg/L 0.43 µg/L	450D-040203-1050 416D-040203-1315 417D-040203-1525 414D-040203-1745 432M-040203-1220 447D-040203-1550 4552-040203-0002	1.35 µg/L 2.15 µg/L
Trip Blank 0713-040203-0002	Acetone 2-Butanone	1.7 µg/L 0.60 µg/L	450D-040203-1050 416D-040203-1315 417D-040203-1525 414D-040203-1745	17 µg/L 6 µg/L
Trip Blank 0894-040203-0001	Acetone 2-Butanone	1.7 µg/L 0.62 µg/L	442D-040203-1400 443D-040203-1845	17 µg/L 6.2 µg/L
Trip Blank 0816-040203-0001	Acetone 2-Butanone	1.8 µg/L 0.69 µg/L	401D-040203-1220 423S-040203-1505 0816-040203-0002 445S-040203-1735	18 µg/L 6.9 µg/L
Field Blank 0713-040303-0001	Acetone 2-Butanone	7.9 µg/L 0.73 µg/L	448D-040303-1205	79 µg/L 7.3 µg/L
Method Blank, I-7 04/08, 08:45	1,2,4-Trichlorobenzene	0.50 µg/L	432M-040203-1220 447D-040203-1550 4552-040203-0002 0713-040203-0001 450D-040203-1050 416D-040203-1315 417D-040203-1525 414D-040203-1745 442D-040203-1400 443D-040203-1845 401D-040203-1220 423S-040203-1505 0816-040203-0002 445S-040203-1735	2.5 µg/L
Method Blank, I-7 04/10, 09:44	Methylene chloride 1,2,4-Trichlorobenzene	0.89 µg/L 0.49 µg/L	4552-040203-0001 0713-040203-0002 0894-040203-0001 0816-040203-0001	8.9 µg/L 2.45 µg/L
Method Blank, I-10 04/09, 13:26	Methylene chloride	0.59 µg/L	448D-040303-1205	5.9 µg/L

System Monitoring Compound Recoveries

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results and fell within the laboratory specific quality control criteria, without exception. No qualification of the data is recommended.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

Data Usability Summary Report (DUSR)
Vandalia 2nd Quarter – April 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3D05122

Analytical results for eleven water samples and ten quality control samples were reviewed to evaluate the data usability. Data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540/R-99/008), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot: A3D050122	Lot: A3D050124	Lot: A3D050126
0713-040303-0001	0713-040403-0001	0816-040403-0001
0713-040303-0002	C18D-040403-1040	436D-040403-1245
422D-040303-1100	418D-040403-1250	0816-040403-0002
420D-040303-1530		0816-040403-0003
0716-040303-0003		

Lot: A3D050129	Lot: A3D050133	Lot: A3D050135
0894-040303-0001	0894-040403-0001	4552-040403-0001
444D-040303-1245	0894-040403-0002	432D-040403-1045
440D-040303-1615	439D-040403-1300	441D-040403-1310

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organic Compounds by GC/MS (Unpreserved)	SW846 8260B	7 Days

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- GC/MS Instrument Performance Check
- Initial Calibration Procedures
- Continuing Calibration Procedures
- Blank Sample Analysis
- System Monitoring Compound Recoveries
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Internal Standard Recoveries
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standards for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date	Target Analyte, %RSD	Associated Samples	Corrective Action
11	03/26 13:12	Acetone, 32.157	C18D-040403-1040 418D-040403-1250 436D-040403-1245 0816-040403-0002 0816-040403-0003 444D-040303-1245 440D-040303-1615 439D-040403-1300 432D-040403-1045 441D-040403-1310	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.
12	03/19 18:11	Acetone, 37.655	0713-040303-0002 0713-040403-0001 4552-040403-0001 0816-040403-0001 0894-040303-0001 0894-040403-0001 0894-040403-0002	

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
10	04/08 08:57	Bromoform, -26.4 1,2-Dibromo-3-chloropropane, -31.8	420D-040303-1530	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.

11	04/08 09:28	Acetone, 53.1 2-Butanone, 34.3 2-Hexanone, -37.4 4-Methyl-2-pentanone, -27.0	C18D-040403-1040 418D-040403-1250 436D-040403-1245 0816-040403-0002 0816-040403-0003 444D-040303-1245 440D-040303-1615 439D-040403-1300 432D-040403-1045 441D-040403-1310	
12	04/10 17:12	Acetone, -31.6 Dichlorodifluoromethane, -31.5	0713-040303-0002 0713-040403-0001 4552-040403-0001 0816-040403-0001 0894-040303-0001 0894-040403-0001 0894-040403-0002	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Field Blank 0713-040303-0001	Acetone Chloroform	7.9 µg/L 0.73 µg/L	422D-040303-1100 420D-040303-1530 0716-040303-0003 444D-040303-1245 440D-040303-1615	79 µg/L 3.65 µg/L
Trip Blank 0713-040303-0002	2-Butanone	0.69 µg/L	0713-040303-0001 422D-040303-1100 420D-040303-1530 0716-040303-0003	6.9 µg/L
Equipment Blank 0716-040303-0003	Methylene chloride	1.2 µg/L	422D-040303-1100 420D-040303-1530	12 µg/L
Trip Blank 0713-040403-0001	2-Butanone	0.72 µg/L	C18D-040403-1040 418D-040403-1250	7.2 µg/L
Trip Blank 0816-040403-0001	2-Butanone	0.65 µg/L	436D-040403-1245 0816-040403-0002 0816-040403-0003	6.5 µg/L
Equipment Blank 0816-040403-0003	Methylene chloride	0.96 µg/L	436D-040403-1245 0816-040403-0002	9.6 µg/L
Trip Blank 0894-040303-0001	2-Butanone	0.77 µg/L	444D-040303-1245 440D-040303-1615	7.7 µg/L
Trip Blank 4552-040403-0001	2-Butanone	0.62 µg/L	432D-040403-1045 441D-040403-1310	6.2 µg/L
Method Blank, I-10 04/08, 13:19	Acetone Methylene chloride	1.8 µg/L 0.60 µg/L	420D-040303-1530	18 µg/L 6 µg/L

Method Blank, I-10 04/09, 13:26	Methylene chloride	0.59 µg/L	0713-040303-0001 422D-040303-1100 0716-040303-0003	5.9 µg/L
Method Blank, I-11 04/08, 10:18	Methylene chloride	0.55 µg/L	C18D-040403-1040 418D-040403-1250 436D-040403-1245 0816-040403-0002 0816-040403-0003 444D-040303-1245 440D-040303-1615 439D-040403-1300 432D-040403-1045 441D-040403-1310	5.5 µg/L

System Monitoring Compound Recoveries

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results and fell within the laboratory specific quality control criteria without exception. No qualification of the data is recommended.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard. No qualification of the data is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data

qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Summary Report (DUSR)
Vandalia 2nd Quarter – April 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3D05137

Analytical results for thirteen water samples and seven quality control samples were reviewed to evaluate the data usability. Data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540/R-99/008) and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot: A3D050137	Lot: A3D090211	Lot: A3D090213	Lot: A3D090216	Lot: A3D100269
4552-040303-0001	0816-040703-0001	0713-040703-0002	4552-040703-0001	0713-040803-0001
446S-040303-1215	0816-040703-0002	425S-040703-1425	413D-040703-1530	0713-040803-0002
438D-040303-1530	449D-040703-1530	420M-040703-1640	437D-040703-1800	419D-040803-1100
451D-040303-1745	0816-040703-0003			419M-040803-1450
				421D-040803-1705
				0713-040803-0003

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organic Compounds by GC/MS (Unpreserved)	SW846 8260B	7 Days

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- GC/MS Instrument Performance Check
- Initial Calibration Procedures
- Continuing Calibration Procedures
- Blank Sample Analysis
- System Monitoring Compound Recoveries
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Internal Standard Recoveries
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standards for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date	Target Analyte, %RSD	Associated Samples	Corrective Action
11	03/26 13:12	Acetone, 32.157	451D-040303-1745 446S-040303-1215 438D-040303-1530 449D-040703-1530 425S-040703-1425 420M-040703-1640 413D-040703-1530 437D-040703-1800 0816-040703-0001 0816-040703-0003 419D-040803-1100 419M-040803-1450 421D-040803-1705 0713-040803-0003	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.
12	03/19 18:11	Acetone, 37.655	4552-040303-0001	

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	04/11 14:55	Acetone, -35.9 1,2,4-Trichlorobenzene, 25.2	0816-040703-0002	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.
7	04/15 07:55	Acetone, 40.5 2-Butanone, -30.1 2-Hexanone, -25.7	0713-040803-0002	
11	04/08 09:28	Acetone, 53.1 2-Butanone, 34.3 2-Hexanone, -37.4 4-Methyl-2-pentanone, -27.0	451D-040303-1745 446S-040303-1215 438D-040303-1530	
11	04/11 09:28	Acetone, 31.0 Bromoform, 36.5 Dichlorodifluoromethane, -27.1 Tetrachloroethene, 25.4 1,2,4-Trichlorobenzene, -30.7	449D-040703-1530 425S-040703-1425 420M-040703-1640 413D-040703-1530 437D-040703-1800 0816-040703-0001 0816-040703-0003	

11	04/12 10:27	Acetone, 47.5 Bromoform, 32.9 2-Butanone, 28.3 1,2-Dibromo-3-chloropropane, -30.0 2-Hexanone, -34.6 1,2,4-Trichlorobenzene, -38.4	419D-040803-1100 419M-040803-1450 421D-040803-1705 0713-040803-0003	
12	04/10 17:12	Acetone, -31.6 Dichlorodifluoromethane, -31.5	4552-040303-0001	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and common laboratory contaminants (methylene chloride, acetone, 2-butanone, and cyclohexane), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Field Blank 0816-040703-0001	Chloroform	0.24 µg/L	449D-040703-1530 0816-040703-0003 425S-040703-1425 420M-040703-1640 413D-040703-1530 437D-040703-1800	1.2 µg/L
Trip Blank 0816-040703-0002	Acetone 2-Butanone	2.0 µg/L 0.66 µg/L	0816-040703-0001 449D-040703-1530 0816-040703-0003	20 µg/L 6.6 µg/L
Equipment Blank 0816-040703-0003	Methylene chloride Trichloroethene	0.75 µg/L 0.18 µg/L	449D-040703-1530	7.5 µg/L 0.9 µg/L
Trip Blank 0713-040703-0002	2-Butanone	0.60 µg/L	425S-040703-1425 420M-040703-1640	6 µg/L
Trip Blank 4552-040703-0001	2-Butanone	0.64 µg/L	413D-040703-1530 437D-040703-1800	6.4 µg/L
Field Blank 0713-040803-0001	Bromodichloromethane Chloroform	0.21 µg/L 0.37 µg/L	419D-040803-1100 419M-040803-1450 421D-040803-1705 0713-040803-0003	1.05 µg/L 1.85 µg/L
Equipment Blank 0713-040803-0003	Bromodichloromethane Bromomethane Chloroform	0.26 µg/L 0.22 µg/L 0.67 µg/L	419D-040803-1100 419M-040803-1450 421D-040803-1705	1.3 µg/L 1.1 µg/L 3.35 µg/L
Method Blank, I-7 04/11, 16:44	Methylene chloride 1,2,4-Trichlorobenzene	0.55 µg/L 0.63 µg/L	0816-040703-0002	5.5 µg/L 3.15 µg/L
Method Blank, I-7 04/14, 15:33	1,2,4-Trichlorobenzene	0.49 µg/L	0713-040803-0001 0713-040703-0002 4552-040703-0001	2.45 µg/L
Method Blank, I-11 04/08, 10:18	Methylene chloride	0.55 µg/L	451D-040303-1745 446S-040303-1215 438D-040303-1530	5.5 µg/L
Method Blank, I-11 04/11, 10:19	Methylene chloride	0.47 µg/L	449D-040703-1530 425S-040703-1425 420M-040703-1640	4.7 µg/L

			413D-040703-1530 437D-040703-1800 0816-040703-0001 0816-040703-0003	
Method Blank, I-11 04/12, 11:17	Methylene chloride	0.40 µg/L	419D-040803-1100 419M-040803-1450 421D-040803-1705 0713-040803-0003	4.0 µg/L

System Monitoring Compound Recoveries

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results and fell within the laboratory specific quality control criteria, without exception. No qualification of the data is recommended.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 2nd Quarter – April 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3D10273

Analytical results for thirteen water samples and five quality control samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540/R-99/008), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A3D100273	Lot No.: A3D110283	Lot No.: A3D110284	Lot No.: A3D110290
4552-040803-0001	0713-040903-0001	0816-040903-0001	4552-040903-0001
434D-040803-1115	0713-040903-0002	424D-040903-1250	433D-040903-1105
301D-040803-1630	409D-040903-1105	424S-040903-1650	435D-040903-1345
4552-040803-0002	407D-040903-1315	422S-040903-1920	412D-040903-1700
	410D-040903-1705		4552-040903-0002

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Field Replicate Percent Difference
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standards for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date	Target Analyte, %RSD	Associated Samples	Corrective Action
11	03/26 13:12	Acetone, 32.157	434D-040803-1115 301D-040803-1630	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.
12	03/19 18:11	Acetone, 37.655	0713-040903-0001 409D-040903-1105 407D-040903-1315 410D-040903-1705 424D-040903-1250 424S-040903-1650 422S-040903-1920 433D-040903-1105 435D-040903-1345	

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	04/15 07:55	Acetone, 40.5 2-Butanone, -30.1 2-Hexanone, -25.7	412D-040903-1700 4552-040903-0002 4552-040803-0001 0713-040903-0002	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.
7	04/17 08:09	Acetone, 28.2 Carbon disulfide, 164.3	0816-040903-0001 4552-040903-0001	
11	04/12 10:27	Acetone, 47.5 Bromoform, 32.9 2-Butanone, 28.3 1,2-Dibromo-3-chloropropane 2-Hexanone, -34.6 1,2,4-Trichlorobenzene, -38.4	434D-040803-1115 301D-040803-1630	

12	04/14 16:46	Acetone, -66.0 Bromoform, 30.5 2-Butanone, 27.0 Dibromochloromethane, 26.8 2-Hexanone, 30.8	0713-040903-0001 409D-040903-1105 407D-040903-1315 410D-040903-1705 424D-040903-1250 424S-040903-1650 422S-040903-1920 433D-040903-1105 435D-040903-1345	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, and cyclohexane), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Trip Blank 4552-040803-0001	2-Butanone	0.59 µg/L	434D-040803-1115 301D-040803-1630 4552-040803-0002	5.9 µg/L
Field Blank 0713-040903-0001	Bromodichloromethane Chloroform	0.26 µg/L 0.71 µg/L	409D-040903-1105 407D-040903-1315 410D-040903-1705 424D-040903-1250 424S-040903-1650 422S-040903-1920 433D-040903-1105 435D-040903-1345 412D-040903-1700 4552-040903-0002	1.3 µg/L 3.55 µg/L
Equipment Blank 4552-040903-0002	Chloroform Methylene chloride	0.20 µg/L 0.55 µg/L	433D-040903-1105 435D-040903-1345 412D-040903-1700	1.0 µg/L 5.5 µg/L
Method Blank, I-7 04/14, 15:33	1,2,4-Trichlorobenzene	0.49 µg/L	4552-040803-0002	2.45 µg/L
Method Blank, I-11 04/12, 11:17	Methylene chloride	0.40 µg/L	434D-040803-1115 301D-040803-1630	4 µg/L
Field Blank 0713-040803-0001 SDG# 3D05137	Bromodichloromethane Chloroform	0.21 µg/L 0.37 µg/L	434D-040803-1115 301D-040803-1630 4552-040803-0002	1.05 µg/L 1.85 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control criteria. In a few instances, sample extracts required dilution prior to analysis to either improve

instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Field Replicate Percent Difference

The replicate percent difference was evaluated for each field duplicate sample pair in order to monitor the precision or reproducibility of the data. The RPD for each sample pair was within the QA/QC limit of 30% for aqueous samples with the following exceptions. The RPDs for cis-1,2-dichloroethene and Trichloroethene fell above the QC limits for sample 301D-040803-1630 and the associated duplicate sample 4552-040803-0002. It is recommended that the average value for these compounds be used to represent the true concentrations for each analyte.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Report (DUR)
Vandalia 2nd Quarter – April 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # 3D12194

Analytical results for four water samples and five quality control samples were reviewed to evaluate the data usability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA PB99-993506), and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot No.: A3D120194	Lot No.: A3D120195	Lot No.: A3D120197
0816-041003-0001 453D-041003-1630 0816-041003-0002	0713-041003-0001 0713-041003-0002 408D-041003-1340 0713-041003-0003	4552-041003-0001 411D-041003-1200

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organics by GC/MS (Unpreserved)	SW846 8260B	7 day analysis

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 30% relative standard deviation (RSD). No qualification of the data is recommended.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols of 25% drift (D), with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	04/15 07:55	Acetone, 40.5 2-Butanone, -30.1 2-Hexanone, -25.7	453D-041003-1630 0816-041003-0002 408D-041003-1340 411D-041003-1200 0713-041003-0001 0713-041003-0003	Flag "UJ" where the target analyte was non-detect and flag "J" for concentrations detected above the reporting limit.
11	04/17 11:47	Acetone, -48.0 2-Butanone, -43.9 Dichlorodifluoromethane, 48.0	0816-041003-0001 0713-041003-0002 4552-041003-0001	

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for the common laboratory contaminants (methylene chloride, acetone, 2-butanone, cyclohexane, and phthalate esters), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Field Blank 0713-041003-0001	Bromodichloromethane Chloroform	0.25 µg/L 0.64 µg/L	453D-041003-1630 0816-041003-0002 408D-041003-1340 0713-041003-0003 411D-041003-1200	1.25 µg/L 3.2 µg/L
Equipment Blank 0713-041003-0003	Chloroform Methylene chloride	0.19 µg/L 0.55 µg/L	408D-041003-1340	0.95 µg/L 5.5 µg/L

System Monitoring Compounds

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 8260B to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results. The calculated recovery of these compounds fell within the laboratory specific quality control

criteria. In a few instances, sample extracts required dilution prior to analysis to either improve instrument performance by minimizing matrix interference or enable quantification of the detected target analytes within the instrument calibration range. Where applicable, the laboratory qualified the reported results of the surrogate compounds with "DIL" indicating the system monitoring compound recovery could not be calculated due to a sample extract dilution. In cases where the instrument resolution appeared to be unaffected by the diluted sample matrix, the sample results were accepted without qualification.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 8260B to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

Data Usability Summary Report (DUSR)
Vandalia 2nd Quarter – April 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # A3D230232

Analytical results for nine water samples and one quality control sample were reviewed to evaluate the data usability. Data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540/R-99/008) and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot: A3D230232
0816-042103-0001
SW1-042103-1330
SW2-042103-1400
SW3-042103-1450
SW4-042103-1415
SW5-042103-1302
SW6-042103-1237
SW7-042103-1218
0816-042103-0002
0816-042103-0003

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Volatile Organic Compounds by GC/MS	SW846 8260B	14 Days
Purgeables	CFR136A 624	14 Days

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- Holding Times
- GC/MS Instrument Performance Check
- Initial Calibration Procedures
- Continuing Calibration Procedures
- Blank Sample Analysis
- System Monitoring Compound Recoveries
- Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- Internal Standard Recoveries
- Sample Data Reporting Format
- Data Qualifiers
- Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the initial calibration standards for the following target compound(s) exhibited a percent relative standard deviation (%RSD) greater than the acceptance criteria of 30%:

Inst.	Date	Target Analyte, %RSD	Associated Samples	Corrective Action
9	05/01 17:35	Cyclohexane, 72.909	SW1-042103-1330 SW2-042103-1400 SW3-042103-1450 SW4-042103-1415 SW5-042103-1302 SW6-042103-1237 SW7-042103-1218 0816-042103-0002	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols, with the following exception(s):

During the analysis of volatile organic compounds (SW846 8260B), the continuing calibration verification (CCV) standards for the following target compound(s) exhibited a percent drift (%D) greater than the acceptance criteria of 25%:

Inst.	Date	Target Analyte, %D	Associated Samples	Corrective Action
7	04/29 07:50	Acetone, 45.4 2-Butanone, -40.8 Dichlorodifluoromethane, 41.9 2-Hexanone, -37.3	0816-042103-0001 0816-042103-0003	Qualify positive results as "J", estimated and non-detected analytes as "UJ", estimated detection limit.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and common laboratory contaminants (methylene chloride, acetone, 2-butanone, and cyclohexane), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
0816-042103-0001 Trip Blank	2-Butanone	0.6 µg/L	SW1-042103-1330 SW2-042103-1400 SW3-042103-1450 SW4-042103-1415 SW5-042103-1302 SW6-042103-1237 SW7-042103-1218 0816-042103-0002 0816-042103-0003	6 µg/L
0816-042103-0003 Field Blank	Acetone Bromodichloromethane 2-Butanone Chloroform	1.5 µg/L 0.38 µg/L 0.63 µg/L 0.78 µg/L	SW1-042103-1330 SW2-042103-1400 SW3-042103-1450 SW4-042103-1415 SW5-042103-1302 SW6-042103-1237 SW7-042103-1218 0816-042103-0002	15 µg/L 1.9 µg/L 6.3 µg/L 3.9 µg/L
Method Blank, I-7 04/29, 09:18	1,2,4-Trichlorobenzene	0.45 µg/L	0816-042103-0001 0816-042103-0003	2.25 µg/L

System Monitoring Compound Recoveries

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Methods 8260B and 624 to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results and fell within the laboratory specific quality control criteria, without exception. No qualification of the data is recommended.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Methods 8260B and 624 to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and – 50% of the corresponding CCV standard.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Data Usability Summary Report (DUSR)
Vandalia 2nd Quarter – May 2003 Sampling Event
Analytical Laboratory: Severn Trent Laboratories, Inc. – North Canton, OH
Sample Delivery Group # A3E160345

Analytical results for three water samples and one quality control sample were reviewed to evaluate the data usability. Data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Data Review* (EPA 540/R-99/008) and method protocol criteria where applicable as prescribed by "Test Methods for Evaluating Solid Waste", SW846, Update III, 1996. This DUR pertains to the following samples:

Lot: A3E160345
0688-051403-0001
600LWR-051403-1450
600MID-051403-1510
600UPR-051403-1525

Project samples were analyzed according to the following analytical methods:

Parameter	Analytical Method	Holding Time Criteria
Purgeables	CFR136A 624	14 Days

References:
SW846 – "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", 3rd Edition, November 1986 and its updates.

The following items/criteria applicable to the analysis of project samples and associated QA/QC procedures were reviewed.

- ❑ Holding Times
- ❑ GC/MS Instrument Performance Check
- ❑ Initial Calibration Procedures
- ❑ Continuing Calibration Procedures
- ❑ Blank Sample Analysis
- ❑ System Monitoring Compound Recoveries
- ❑ Laboratory Control Samples, Matrix Spike/Matrix Spike Duplicate Recoveries
- ❑ Internal Standard Recoveries
- ❑ Sample Data Reporting Format
- ❑ Data Qualifiers
- ❑ Summary

Holding Times

Maximum allowable holding times, measured from the time of sample collection to the time of sample preparation or analysis, were met for each project sample analyzed as part of this sample delivery group. No qualification of the data is recommended.

GC/MS Instrument Performance Check

GC/MS instrument performance checks for the instruments used in the analysis of project samples fell within method specific criteria without exception. No qualification of the data is recommended.

Initial Calibration Procedures

Initial instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No qualification of the data is recommended.

Continuing Calibration Procedures

Continuing instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by EPA protocols. No qualification of the data is recommended.

Blank Sample Analysis

In accordance with cited USEPA guidelines, positive sample results should be reported unless the concentration of the compound in the project sample is less than or equal to 10 times (10X) the amount in any blank for metals and common laboratory contaminants (methylene chloride, acetone, 2-butanone, and cyclohexane), or 5 times (5X) the amount for other target compounds. Target compounds were not detected in associated blank samples (trip, equipment, method) prepared and analyzed concurrently with the project samples, with the following exception(s):

Blank	Target Compound	Concn.	Associated Samples	Flag sample results with a "U" if ≤ to this value
Trip Blank 0688-051403-0001	Acetone Methylene chloride Toluene	7.7 µg/L 2.8 µg/L 0.62 µg/L	600LWR-051403-1450 600MID-051403-1510 600UPR-051403-1525	77.0 µg/L 28.0 µg/L 3.1 µg/L
Method Blank, I9 5/21/03, 12:29	Methylene chloride	3.4 µg/L	0688-051403-0001 600LWR-051403-1450 600MID-051403-1510 600UPR-051403-1525	34.0 µg/L

System Monitoring Compound Recoveries

System monitoring/surrogate compounds were added to each sample prior to analysis of organic parameters by EPA Method 624 to confirm the efficiency of the sample preparation procedure. The calculated recovery for each surrogate compound was evaluated to confirm the accuracy of the reported results and fell within the laboratory specific quality control criteria, without exception. No qualification of the data is recommended.

Laboratory Control Samples (LCS), Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

Analytical precision and accuracy was evaluated based on the laboratory control and matrix spike sample analyses performed concurrently with the project samples. For matrix spike samples, after the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability to identify these compounds within the sample matrix. For LCS analyses, after the addition of a known amount of each target analyte into laboratory reagent water, the sample was analyzed to confirm the ability of the analytical system to accurately quantify the compounds. The reported recovery of MS/MSD and LCS analyses fell within the laboratory QA acceptance criteria. No qualification of the data is recommended.

Internal Standard Recoveries

Internal Standard compounds were added to each sample matrix prior to the analysis of organic parameters by EPA Method 624 to quantify the amount of the target compounds detected within each sample. The calculated response of each IS compound fell within the QA/QC criteria of +100% and –50% of the corresponding CCV standard. No qualification of the data is recommended.

Sample Data Reporting Format

The sample data are presented using USEPA Contract Laboratory Protocol (CLP) format. The data package has been reviewed for completeness and found to contain each required sample result and associated QA/QC report form. The reporting format is complete and compliant with the objectives of the project, no corrective action is recommended.

Data Qualifiers

Data qualifiers were assigned by the laboratory to the reported results to identify target compounds detected below the reporting limit but above the method detection limit, and/or when target compounds were detected in the associated method/preparation blank sample. Based on a spot check of the data qualifiers used, these flags appeared to be applied to the reported results in accordance with EPA guidance.

Summary

The results presented in each report were found to be compliant with the data quality objectives for the project and usable. Based on our review, the usability of these data is 100% with the few exceptions noted above.

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Attachment C
Groundwater Migration Control System
Monthly Discharge Reports

MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY DISCHARGE REPORT
APRIL 2003

DATE	AVERAGE INFLOW (GPM)	DAILY DISCHARGE (GPD)
4/1/2003	38.1	54914
4/2/2003	37.4	53819
4/3/2003	35.4	50949
4/4/2003	33.3	47909
4/5/2003	33.2	47875
4/6/2003	33.7	48537
4/7/2003	33.9	48758
4/8/2003	33.5	48292
4/9/2003	33.4	48110
4/10/2003	33.2	47788
4/11/2003	33.0	47489
4/12/2003	32.7	47104
4/13/2003	33.1	47704
4/14/2003	32.9	47404
4/15/2003	33.0	47587
4/16/2003	25.3	36460
4/17/2003	19.4	27924
4/18/2003	19.0	27330
4/19/2003	20.1	28878
4/20/2003	20.3	29297
4/21/2003	20.5	29483
4/22/2003	20.8	29918
4/23/2003	20.9	30109
4/24/2003	20.4	29439
4/25/2003	20.0	28830
4/26/2003	20.3	29216
4/27/2003	15.2	21822
4/28/2003	20.5	29585
4/29/2003	19.1	27458
4/30/2003	18.5	26602
	TOTAL DISCHARGE	1166584
	AVERAGE DAILY DISCHARGE	38886

MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY DISCHARGE REPORT
MAY 2003

DATE	AVERAGE INFLOW (GPM)	DAILY DISCHARGE (GPD)
5/1/2003	17.5	25233
5/2/2003	17.5	25196
5/3/2003	18.7	26938
5/4/2003	19.2	27598
5/5/2003	18.8	27036
5/6/2003	19.5	28099
5/7/2003	20.2	29037
5/8/2003	20.6	29602
5/9/2003	21.5	31021
5/10/2003	27.4	39459
5/11/2003	33.0	47506
5/12/2003	37.4	53889
5/13/2003	40.5	58251
5/14/2003	40.6	58436
5/15/2003	40.6	58436
5/16/2003	40.9	58887
5/17/2003	40.8	58793
5/18/2003	40.9	58930
5/19/2003	13.5	19434
5/20/2003	7.4	10621
5/21/2003	37.0	53234
5/22/2003	34.2	49221
5/23/2003	38.2	55017
5/24/2003	18.6	26819
5/25/2003	39.1	56278
5/26/2003	39.0	56111
5/27/2003	43.9	63145
5/28/2003	46.4	66887
5/29/2003	46.3	66742
5/30/2003	46.1	66366
5/31/2003	46.2	66498
	TOTAL DISCHARGE	1398715
	AVERAGE DAILY DISCHARGE	45120

MIGRATION CONTROL AND TREATMENT SYSTEM - VANDALIA FACILITY
DAILY DISCHARGE REPORT
JUNE 2003

DATE	AVERAGE INFLOW (GPM)	DAILY DISCHARGE (GPD)
6/1/2003	43.0	61962
6/2/2003	45.9	66143
6/3/2003	45.9	66062
6/4/2003	45.8	65948
6/5/2003	45.7	65825
6/6/2003	45.5	65472
6/7/2003	45.6	65673
6/8/2003	45.6	65670
6/9/2003	45.9	66078
6/10/2003	46.0	66231
6/11/2003	46.2	66489
6/12/2003	46.3	66743
6/13/2003	46.4	66871
6/14/2003	30.5	43857
6/15/2003	46.4	66844
6/16/2003	46.6	67071
6/17/2003	46.6	67078
6/18/2003	46.7	67249
6/19/2003	46.7	67316
6/20/2003	43.1	62034
6/21/2003	21.0	30196
6/22/2003	30.2	43513
6/23/2003	45.7	65762
6/24/2003	45.3	65254
6/25/2003	35.1	50496
6/26/2003	44.5	64026
6/27/2003	44.5	64119
6/28/2003	44.3	63783
6/29/2003	44.2	63669
6/30/2003	44.0	63318
	TOTAL DISCHARGE	1870748
	AVERAGE DAILY DISCHARGE	62358

Attachment D
Groundwater Migration Control System
Activity Log

Vandalia Treatment System 79022-054
Activity Log

Date	Time on site	Time left site	H&A personnel	Activities while on-site
4-3-03	9:30	11:30	TMV	Alarm on System Low RW-LVL → Restart system in Alarm RW speed to 33.1
4-4-03	9:30		TMV	Adjust RW-LVL to stop Alarm / weekly Inspection CFM@ 1000+
4-11-03	14:00	15:00	TMV	Weekly Inspection CFM @ 1000+
4-18-03	9:45	11:00	TMV	Weekly Inspection CFM@ 1000+
04-25-03	15:00	17:00	TMV	Weekly Inspection CFM @ 1000+
05-02-03	10:30	11:30	TMV	Weekly Inspection CFM@ 1000+
5-10-03	10:15	10:45	TMV	Weekly Inspection CFM@ 1000+
5-14-03	14:00	16:20	TMV	Weekly Inspection CFM@ 1000+
5-19-03	07:45	21:45	TMV	System Shut down for installation of new Recovery Well pump
5-20-03	08:20	19:30	TMV	Finish work on installation Recovery well pump
5-22-03	16:45	19:30	TMV	Trouble Shoot variable feed Drive
5/23/03	14:00	14:30	TMV	Weekly Inspection
5/29/03	13:45	15:30	TMV	Weekly Inspection CFM@ 1000+
6/5/03	13:30	16:30	TMV	Weekly Inspection CFM@ 1000+, Clean up MC
06/10/03	13:30	14:45	DJB&CAB	Weekly Inspection CFM@ 1000+, Check Drawspace
06/19/03	10:30	11:30	DJB	Weekly Inspection CFM@ 1000+, Check Drawspace
6-27/03	16:45		TMV	Weekly Inspection CFM@ 1000+
7-3-03	12:52	13:45	TMV	Weekly Inspection CFM @ 1000+

Attachment E
Groundwater Migration Control System
Inspection Checklist

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 4-4-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes.

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	10:29	62.52	970 39	907.87
MW-414D	10:23	63.77	971 78	908.01
MW-413D	10:25	62.11	969 99	907.88
MW-416D	10:21	58.09	965.84	907.75

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 4-4-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 4-11-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	14:22	62.21	970.39	908.18
MW-414D	14:24	63.51	971.78	908.27
MW-413D	14:19	61.83	969.99	908.16
MW-416D	14:14	57.72	965.84	908.12

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 4-11-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 4-18-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	Y	Small leak at RC Well Inlet
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	-	
CHECK CARBON FILTER PRESSURES	X				N/A	-	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes.
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	10:23	65.20	970 39	905.19
MW-414D	10:20	66.58	971 78	905.20
MW-413D	10:32	64.93	969 99	905.06
MW-416D	10:27	61.04	965 84	904.80

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 4-18-03
INSPECTION BY: TMU

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	Y	Low water level → will extend deeper
ACCESS ROAD		X	Y	N	at later time.
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 4-25-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P M SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	15:57	62.25	970.39	908.14
MW-414D	15:44	62.42	971.78	908.36
MW-413D	15:53	61.82	969.99	908.17
MW-416D	15:48	57.82	965.84	908.02

* Heavy Rain

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 4-25-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT.	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5-2-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5-2-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X						
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A		
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes.
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	10:36	63.83	970 39	906.56
MW-414D	10:53	65.28	971 78	906.50
MW-413D	10:46	63.34	969 99	906.59
MW-416D	10:41	59.51	965 84	906.33

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5/10/03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A		

Notes: @ 12:30 Turned up blower speed to 85% efficiency from 75%

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5/10/05
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	10:38	48.04	970.39	922.35
MW-414D	10:32	51.40	971.78	920.38
MW-413D	10:48	49.71	969.99	920.28
MW-416D	10:40	45.58	965.84	920.26

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5/14/03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Tnp Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	15:32	45.51	970 39	924.88
MW-414D	15:29	46.65	971 78	925.13
MW-413D	15:30	[illegible]	969 99	925.09
MW-416D	15:36	40.68	965 84	925.16

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5/14/03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5/23/03
INSPECTION BY: TMU

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT/VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT/VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WWATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	--	
CHECK CARBON FILTER PRESSURES	X				N/A	--	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	13.34	42.16	970 39	928.23
MW-414D	13:30	44.09	971 78	927.69
MW-413D	13:42	42.25	969 99	927.74
MW-416D	13:37	38 04	965.84	927.80
Per Well		43.07	13.27	

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5/23/03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5/29/03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A		
CHECK CARBON FILTER PRESSURES	X				N/A		
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P M SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes.

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	15:05	47.05	970.39	923.34
MW-414D	15:02	48.41	971.78	923.37
MW-413D	15:12	46.59	969.99	923.30
MW-416D	15:08	42.46	965.84	923.38

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 5/29/03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A		
SOLID	X		N/A		

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 6-5-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	14:33	49.87	970.39	920.52
MW-414D	14:29	51.38	971.78	920.40
MW-413D	14:41	49.70	969.99	920.29
MW-416D	14:37	45.46	965.84	920.38

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 6-5-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X				
SOLID	X				

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 06/10/03
INSPECTION BY: DJBe

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	—	—	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				—	—	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X	—	—	
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	—	
AMP TRANSFER PUMP MOTORS			X		—	—	
TRANSFER PUMPS - PERFORM P.M. SERVICE			X		—	—	
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X	—	—	
CHECK & CALIBRATE INSTRUMENTATION				X	—	—	
MANUALLY OPERATE & CHECK VALVES				X	—	—	
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X	—	—	

Notes.

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	13:55	49.17	970.39	921.22
MW-414D	14:09	50.26	971.78	921.53
MW-413D	14:00	48.43	969.99	921.56
MW-416D	14:04	44.15	965.84	921.69

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 06/10/03
INSPECTION BY: DJBe

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y	N	
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 06/19/03
INSPECTION BY: DJBe

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X	—	—	Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X			Y	N	
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				—	—	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X	—	—	
CHECK BAG FILTER PRESSURES	X				Y	N	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X		Y	N	
TRANSFER PUMPS - PERFORM P.M. SERVICE			X		—	—	
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X	—	—	
CHECK & CALIBRATE INSTRUMENTATION				X	—	—	
MANUALLY OPERATE & CHECK VALVES				X	—	—	
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X	—	—	

Notes.

[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	10:05	48.98	970.39	921.41
MW-414D	10:09	50.20	971.78	921.58
MW-413D	10:17	48.23	969.99	921.76
MW-416D	10:22	44.11	965.84	921.73

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 06/18/03
INSPECTION BY: DJBC

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X	Y	N	
GATES		X	Y	N	
LOCKS		X	Y	N	
SIGNS		X	Y	N	
SITE		X	Y	N	
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X	Y		
BUILDING		X	Y	N	
RECOVERY WELL		X	Y	N	
ACCESS ROAD		X	Y	N	
WASTE					
CARBON	X		N/A	—	
SOLID	X		N/A	—	

Notes:

DELPHI CORPORATION-MIGRATION CONTROL SYSTEM
OPERATIONS AND MAINTENANCE PLAN
TABLE 1 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 6-27-03
INSPECTION BY: TMV

	MINIMUM FREQUENCY		INSPECTED/	CORRECTIVE	
	EVERY WEEK	EVERY MONTH	TESTED (YES or NO)	MEASURES REQ'D (YES or NO)	COMMENTS
SITE SAFETY					
FIRST AID KIT	X		Y	N	
EYEWASH STATION	X		Y	N	
FIRE EXTINGUISHERS\SMOKE DETECTORS	X		Y	N	
EMERGENCY LIGHTING	X		Y	N	
SITE ISSUES	X		Y	N	
SITE SECURITY					
FENCING		X			
GATES		X			
LOCKS		X			
SIGNS		X			
SITE		X			
SITE GROUNDS					
DRAINAGE DITCHES/SWALES		X			
BUILDING		X			
RECOVERY WELL		X			
ACCESS ROAD		X			
WASTE					
CARBON	X		N/A		
SOLID	X		N/A		

Notes:

79022 - ~~105~~ 054

DELPHI CORPORATION - MIGRATION CONTROL SYSTEM
OPERATIONS MAINTENANCE PLAN
TABLE 2 - SITE INSPECTION CHECKLIST

INSPECTION DATE: 6-27-03
INSPECTION BY: TMV

	EVERY WEEK	EVERY MONTH	EVERY 3 MONTHS	MIN. 6 MO. OR AS REQD(1)	INSPECTED/ TESTED (YES) OR (NO)	CORRECTIVE MEASURES REQ'D (YES or NO)	COMMENTS
GROUNDWATER SYSTEM							
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X				Y	N	
LOG SYSTEM OPERATING PARAMETERS	X				Y	N	
USE PLC TO CHECK SYSTEM OPERATING CONDITIONS	X				Y	N	
TEST LEVEL CONTROLS ETC.	X				Y	N	
USE PLC TO VERIFY DIAL OUT STATUS IS ENABLED	X				Y	N	
INSPECT CONTAINMENT SUMP/FLOOR SEAL	X				Y	N	
INSPECT BUILDING AND FOUNDATION INTEGRITY	X				Y	N	
INSPECT\VERIFY HEATING AND VENTILATING SYSTEM OPERATIONS				X			Test Trip Set Point and Clean Screens and Louvers
INSPECT\VISUALLY CHECK LIGHTING SYSTEM & EMERGENCY SYSTEM	X				Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X				Y	N	
VERIFY PUMP OPERATION	X				Y	N	
WELL LEVELS - MANUALLY CHECK WATER LEVEL VS. PLC DATA		X					
SAMPLING (SEE TABLE IN NPDES ATTACHMENTS)	X				Y	N	
AIR STRIPPER - CHECK SOLIDS ACCUMULATION				X			
CHECK BAG FILTER PRESSURES	X				N/A	—	
CHECK CARBON FILTER PRESSURES	X				N/A	—	
AIR STRIPPER - CHECK BLOWER OPERATION AND PRESSURE DROP	X				Y	N	
AMP TRANSFER PUMP MOTORS			X				
TRANSFER PUMPS - PERFORM P.M. SERVICE			X				
AIR STRIPPER - MEASURE AIR FLOW, FULL INSPECTION				X			
CHECK & CALIBRATE INSTRUMENTATION				X			
MANUALLY OPERATE & CHECK VALVES				X			
MANUALLY TEST SAFETY INTERLOCKS - SEE TABLE 3				X			

Notes:
[1] Frequency that may be required is based on manufacturer data for the system equipment, system alarms, and Owner requirements

WELL ID	TIME	WATER LEVEL TOR	TOR ELEVATION	WATER ELEVATION TOR
MW-301D	10:58	48.73	970.39	921.66
MW-414D	11:02	49.21	971.78	921.97
MW-413D	11:11	48.09	969.99	921.90
MW-416D	11:07	43.82	965.84	922.02

Attachment F
Cassel Road Water Service Connections and Well Closures

Water Service Connections and Well Closures
Delphi Corporation – Vandalia, Ohio

Water Service Connections with Well Closures

ADDRESS	WELLS	STATUS
10754 Cassel Road	2	Completed 01/3/02.
10916 Cassel Road	2	Water service connection completed 02/13/03. Well closure completed 03/28/03.
11430 Cassel Road	1	Completed 01/3/02.
11470 Cassel Road	1	Completed 10/8/01.
11600 Cassel Road	3	Water service connection completed 05/16/03. Well closures completed 06/02/03.

Well Closures Only

ADDRESS	WELLS	STATUS
10320 Cassel Road	1	Completed 04/17/02.
10680 Cassel Road	1	Completed 07/02/02.
10712 Cassel Road	1	Completed 07/02/02.
10800 Cassel Road	1	Completed 02/5/02.
10868 Cassel Road	1	Completed 03/25/03.
10956 Cassel Road	1	Completed 03/14/02.
11098 Cassel Road	1	Completed 02/5/02.
11180 Cassel Road	1	Previous well closure confirmed.
11228 Cassel Road	1	Previous well closure confirmed.
11256 Cassel Road	1	Completed 04/17/02.
11460 Cassel Road	1	Hook-up of front outside spigot to home's water distribution system completed 02/13/03. Well closure completed 03/25/03.
11536 Cassel Road	1	Completed 03/14/02.

DNR 7810.00

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
1939 Fountain Square Drive
Columbus, Ohio 43224-1385
Voice: (614) 265-6739 Fax: (614) 265-6767

0129585

LOCATION

~~County~~ Montgomery Township _____ Circle One or Both Section/Lot Number _____

Owner/Builder Poppock
~~Circle~~ One or Both

Address of Well Location 11600 (Number) Cassel Rd. (Street Name)

City Vandalia Zip Code +4 45377-9436

_____ miles _____ (n, e, s, w) of _____ (nearest intersection)

Property Location Description on the _____ (n, e, s, w) side of _____ (road name)

Location of Well in State Plane coordinates, if available N ☐ S ☐ X _____ ft. or m +/- _____ Y _____ ft. or m +/- _____

Elevation of Well _____ ft. or m +/- _____ Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other Back yard

ORIGINAL WELL ODNR Well Log Number _____ Copy attached? Yes or No (circle ~~one~~)

MEASURED CONSTRUCTION DETAILS Date of measurements June 2003

Depth of Well 91' 10" Static Water Level 40'
Size of Casing 5" Length of casing Unknown
Well Condition Fair

SEALING PROCEDURE

Method of Placement Poured

			Sealing Material	Volume
Placement: From 2	To 92		Bentonite Chips	18 Bags
From 0	To 2		Sakrete	1 Bag
From	To			

Was Casing Removed? Yes or No (circle one)

Condition of Casing Fair
Perforations: From N/A To _____
From _____ To _____

Date Sealing Performed June 2003
Reason(s) for Sealing No longer used

CONTRACTOR

Name Moody's of Dayton, Inc. ODH Registration # 636
Address 4359 Infirmary Rd., PO Box 509
City/State/Zip Miamisburg, OH 45343-0509

Signature Doug Wagner
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224-1385
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

ONR 7810.00

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
1939 Fountain Square Drive
Columbus, Ohio 43224-1385
Voice: (614) 265-6739 Fax: (614) 265-6767

0129584

LOCATION

County Montgomery Township _____ Section/Lot Number _____ (Circle One or Both)

Owner/Builder Poppock (Circle One or Both)

Address of Well Location 11600 (Number) Cassel Rd. (Street Name)

City Vandalia Zip Code +4 45377-9436

_____ miles _____ (n, e, s, w) of _____ (nearest intersection)

Property Location Description on the _____ (n, e, s, w) side of _____ (road name)

Location of Well in State Plane coordinates, if available N ☐ S ☐ X _____ ft. or m +/- _____ Y _____ ft. or m +/- _____

Elevation of Well _____ ft. or m +/- _____ Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other Side yard

ORIGINAL WELL ODNR Well Log Number _____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements June 2003

Depth of Well 147' 7" Static Water Level 45'

Size of Casing 5" Length of casing Unknown

Well Condition Fair

SEALING PROCEDURE

Method of Placement Poured

			Sealing Material	Volume
Placement:	From 2	To 147	Bentonite Chips	9 Bags
	From 0	To 2	Sakrete	1 bag
	From	To		

Was Casing Removed? Yes or No (circle one)

Condition of Casing Fair

Perforations: From N/A To _____

From _____ To _____

Date Sealing Performed June 2003

Reason(s) for Sealing No longer used

CONTRACTOR

Name Moody's of Dayton, Inc. ODH Registration # 636

Address 4359 Infirmary Rd., PO Box 509

City/State/Zip Miamisburg, OH 45343-0509

Signature Doug Wagner

I hereby certify the information given is accurate and correct to the best of my knowledge.

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Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

ONR 7810.00

WATER WELL SEALING REPORT
OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Water
1939 Fountain Square Drive
Columbus, Ohio 43224-1385
Voice: (614) 265-6739 Fax: (614) 265-6767

0129583

LOCATION

County Montgomery Township _____ Circle One or Both Section/Lot Number _____

Owner/Builder Poppock
Circle One or Both

Address of Well Location 11600 (Number) Cassel Rd. (Street Name)

City Vandalia Zip Code +4 45377-9436

_____ miles _____ (n, e, s, w) of _____ (nearest intersection)

Property Location Description on the _____ (n, e, s, w) side of _____ (road name)

Location of Well in State Plane coordinates, if available N ☐ S ☐ X _____ ft. or m +/- _____ Y _____ ft. or m +/- _____

Elevation of Well _____ ft. or m +/- _____ Datum Plain: ☐ NAD27 ☐ NAD83

Source of Coordinates: ☐ GPS ☐ Survey ☐ Other Front yard

ORIGINAL WELL ODNR Well Log Number _____ Copy attached? Yes or No (circle one)

MEASURED CONSTRUCTION DETAILS Date of measurements June 2003

Depth of Well 116' 5" Static Water Level 25'
Size of Casing 5" Length of casing Unknown
Well Condition Fair

SEALING PROCEDURE

Method of Placement Poured

Placement:	From	To	Sealing Material	Volume
	2	116	Bentonite Chips	13 bags
	0	2	Sakrete	1 bag

Was Casing Removed? Yes or No (circle one)

Condition of Casing Fair
Perforations: From N/A To _____
From _____ To _____

Date Sealing Performed June 2003
Reason(s) for Sealing No longer used

CONTRACTOR

Name Moody's of Dayton, Inc. ODH Registration # 636
Address 4359 Infirmary Rd., PO Box 509
City/State/Zip Miamisburg, OH 45343-0509

Signature Doug Wagner
I hereby certify the information given is accurate and correct to the best of my knowledge.

Completion of this form is required by section 1521.05 (B) (9), Ohio Revised Code - file within 30 days after completion of sealing.

ORIGINAL COPY TO - ODNR, DIVISION OF WATER, 1939 FOUNTAIN SQ. DRIVE, COLS., OHIO 43224-1385
Blue - Customer's copy Pink - Driller's copy Green - Local Health Dept. copy

Attachment G
DNAPL Recovery System
Daily Inspection Checklist

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 5/6/03
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	TRAILER MOVED FROM
SIGNS	X	Y	N	35 TO CONTAIN.
SITE	X	Y	N	BODY.
SITE GROUNDS				SECONDARY
SECONDARY CONTAINMENT	X	Y	N	PAD
TRAILER	X	Y	N	
RECOVERY WELLS	X	N	—	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION INSPECTION DATE: 5/6/03

DNAPL SYSTEM INSPECTION INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		N/A	—	
LOG SYSTEM OPERATING PARAMETERS	X		N/A	—	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		N/A	—	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		N/A	—	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	Y	REPLACE INLET VALVE ON BAG FILTER
VISUALLY INSPECT ELECTRICAL SYSTEM	X		N/A	—	
VERIFY PUMP OPERATION	X		N/A	—	
VERIFY VACUUM OPERATION	X		N/A	—	
VERIFY COMPRESSOR OPERATION	X		N/A	—	
CHECK BAG FILTER	X		N/A	—	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N/A	—	
MANUALLY OPERATE & CHECK VALVES		X	N/A	—	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well:	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	N/A		
MeOH/FRESH WATER FLOW METER (GALLONS)			
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)			

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 5/12/03
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	Hooked Trailer up to Electricity All Welders Plug on Pole
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION INSPECTION DATE: 5/12/03

DNAPL SYSTEM INSPECTION INSPECTION BY: DJBc

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		N/A	—	
LOG SYSTEM OPERATING PARAMETERS	X		N/A	—	
INSPECT SECONDARY CONTAINMENT		X	Y	N	Pre Operation
INSPECT RESIN VESSELS		X	Y	N	Prep.
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	Hooked Sys.
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	To Electric
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well:	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)			
MeOH/FRESH WATER FLOW METER (GALLONS)	N/A		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)			

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 5/14/03
INSPECTION BY: DJBe

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION INSPECTION DATE: 5/14/03

DNAPL SYSTEM INSPECTION INSPECTION BY: DJBe

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		N/A	—	SYSTEM NOT YET RUN
LOG SYSTEM OPERATING PARAMETERS	X		~~N/A~~ Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y	N	
INSPECT OIL/WATER SEPARATOR		X	Y	N	
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y	N	
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y	N	
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	N	
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y	N	
VERIFY VACUUM OPERATION	X		Y	N	
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y	N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37446		
MeOH/FRESH WATER FLOW METER (GALLONS)	1523.1		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	0"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 8/15/03
INSPECTION BY: C. Barnett

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	X	No	
SITE ISSUES	X	X	No	
SITE SECURITY				
LOCKS	X	X	No	
SIGNS	X	X	No	
SITE	X	X	No	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	X	No	
TRAILER	X	X	No	
RECOVERY WELLS	X	X	No	
WASTE				
SATELLITE COLLECTION POINT	X	X	No	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 5/15/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y	N	
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37,468		
MeOH/FRESH WATER FLOW METER (GALLONS)	~~249~~ 1523.1		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	1/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE 05/16/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Barnick

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	Y	Changed O-Ring at Bag Filter
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X	N		
INSPECT OIL/WATER SEPARATOR		X	N		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y	Y	Tighted clamp
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y	N	
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well: R-13	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37485	37486	
MeOH/FRESH WATER FLOW METER (GALLONS)	1523.1	1523.1	
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	0 1/4"	0 1/4"	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 5/19/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Burnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-13	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37,585		
MeOH/FRESH WATER FLOW METER (GALLONS)	1523.1		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	1/4" - 3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 5/20/03
INSPECTION BY: DJBC

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	N	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 5/20/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X	N		
INSPECT OIL/WATER SEPARATOR		X	N		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37,566		
MeOH/FRESH WATER FLOW METER (GALLONS)	1523.1		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 1/2"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 5/21/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C Barnix

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37,593		
MeOH/FRESH WATER FLOW METER (GALLONS)	1523.1		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	2 3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION

INSPECTION DATE: 5/22/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Burnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X	N		
INSPECT OIL/WATER SEPARATOR		X	N		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Mercury switch not working
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37,631		
MeOH/FRESH WATER FLOW METER (GALLONS)	1673.5		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 3/16"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 5/23/03

INSPECTION BY: C. Barnard

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y		
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Mercury Switch
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37,691		
MeOH/FRESH WATER FLOW METER (GALLONS)	1745.9		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	23/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 5/27/03
INSPECTION BY: C. Barnett

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	↓	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	↓	
SITE	X	Y	↓	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	↓	
RECOVERY WELLS	X	Y	↓	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 5/27/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-13	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37,726		
MeOH/FRESH WATER FLOW METER (GALLONS)	1745.9		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 5/28/03

INSPECTION BY: C. Burnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y		
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X			
INSPECT OIL/WATER SEPARATOR		X			
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X				
VERIFY VACUUM OPERATION	X				
VERIFY COMPRESSOR OPERATION	X				
CHECK BAG FILTER	X				
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37,943		
MeOH/FRESH WATER FLOW METER (GALLONS)	1745.9		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 5/29/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	37957		
MeOH/FRESH WATER FLOW METER (GALLONS)	1745.9		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 3/8 - 1/2"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 5/30/02

INSPECTION BY: C. Barnes

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y		
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X	↓		
INSPECT OIL/WATER SEPARATOR		X			
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg Switch
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,061		
MeOH/FRESH WATER FLOW METER (GALLONS)	1745.9		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	~ 3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 06/02/03
INSPECTION BY: C. Barnett

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y		
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y		
SITE	X	Y		
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y		
RECOVERY WELLS	X	Y		
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 6/02/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		6/02/03
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		CBM
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg Switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,156		
MeOH/FRESH WATER FLOW METER (GALLONS)	1745.9		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	2 3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 6/03/03

INSPECTION BY: C. Burns

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X			
INSPECT OIL/WATER SEPARATOR		X			
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	H_2 switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,164		
MeOH/FRESH WATER FLOW METER (GALLONS)	1745.9		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

6/03/03

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/04/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,206		
MeOH/FRESH WATER FLOW METER (GALLONS)	1745.9		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/05/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg Switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	N		

6/05/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,230		
MeOH/FRESH WATER FLOW METER (GALLONS)	2038.5		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 5/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

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DELPHI CORPORATION

INSPECTION DATE: 6/06/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg Switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

CW 6/06/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38230		
MeOH/FRESH WATER FLOW METER (GALLONS)	2313.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈3/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 06/09/03
INSPECTION BY: C. Barnes

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y		
SITE ISSUES	X	Y		
SITE SECURITY				
LOCKS	X	Y		
SIGNS	X	Y		
SITE	X	Y		
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y		
TRAILER	X	Y		
RECOVERY WELLS	X	Y		
WASTE				
SATELLITE COLLECTION POINT	X	Y		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/09/03

INSPECTION BY:

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg Switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,234		
MeOH/FRESH WATER FLOW METER (GALLONS)	2313.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 3/8		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/10/03

INSPECTION BY: C. Barnes

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	Hg Switch
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

6/10/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well: R-13	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,235	38,235	
MeOH/FRESH WATER FLOW METER (GALLONS)	2313.4	2313.4	
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	≈ 3/8"	≈ 3/8"	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/11/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

6/11/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-13	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38254		
MeOH/FRESH WATER FLOW METER (GALLONS)	2448.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	1/2"		

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/12/03

INSPECTION BY: C. Burnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X			
INSPECT OIL/WATER SEPARATOR		X			
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X				
VERIFY VACUUM OPERATION	X			Y	~~AUTO setting @ PLC~~ LAB 6/12/03
VERIFY COMPRESSOR OPERATION	X			N	
CHECK BAG FILTER	X			N	
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y	N	
MANUALLY OPERATE & CHECK VALVES		X	Y	N	

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-13	Recovery Well: R-12	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38307	38,362	
MeOH/FRESH WATER FLOW METER (GALLONS)	2448.4	2448.4	
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	1/2"	1/2"	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/13/03

INSPECTION BY: C. Burnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		All working good
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,371		
MeOH/FRESH WATER FLOW METER (GALLONS)	2848.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	5/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 06/16/03
INSPECTION BY: C. Barnett

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	+	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	+	
SITE	X	Y	+	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	+	
RECOVERY WELLS	X	Y	+	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N?.	Strong fuel oil odor

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/16/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

06/16/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,401		
MeOH/FRESH WATER FLOW METER (GALLONS)	2448.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	5/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/17/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X	N		
INSPECT OIL/WATER SEPARATOR		X	N		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y	Y	AUTO Setting
VERIFY COMPRESSOR OPERATION	X		Y	N	
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-12	Recovery Well: R-13	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38410	35419	
MeOH/FRESH WATER FLOW METER (GALLONS)	2448.4	2448.4	
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	5/8"	5/8"	

* Inspection will be performed at a minimum of once per week when system is available for operation

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/18/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y		
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-13	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38432		
MeOH/FRESH WATER FLOW METER (GALLONS)	2848.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	5/8"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/19/03

INSPECTION BY: C. Barnes

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

06/19/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-13	Recovery Well: R-15	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,487	38,496	
MeOH/FRESH WATER FLOW METER (GALLONS)	2848.4	2848.4	
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3/8"	5/8"	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/20/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X	N		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	N		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

06/20/03

CB

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-15	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38653		
MeOH/FRESH WATER FLOW METER (GALLONS)	2848.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION
DNAPL SYSTEM SITE AND SAFETY INSPECTION

INSPECTION DATE: 06/23/03
INSPECTION BY: CMS

	INSPECT * PRE-OPERATION	INSPECTED (YES or NO)	CORRECTION REQUIRED (YES or NO)	COMMENTS
SITE SAFETY				
FIRST AID KIT	X	Y	N	
SITE ISSUES	X	Y	+	
SITE SECURITY				
LOCKS	X	Y	N	
SIGNS	X	Y	N	
SITE	X	Y	N	
SITE GROUNDS				
SECONDARY CONTAINMENT	X	Y	N	
TRAILER	X	Y	N	
RECOVERY WELLS	X	Y	N	
WASTE				
SATELLITE COLLECTION POINT	X	Y	N	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/23/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	Y	Seep at watchglass
LOG SYSTEM OPERATING PARAMETERS	X		Y	N	
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

06/23/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-15	Recovery Well: R-3	Recovery Well:
INFLUENT FLOW METER (GALLONS)	38,918	38,987	
MeOH/FRESH WATER FLOW METER (GALLONS)	2448.4	2448.4	
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3/4"	3/4"	

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/24/03

INSPECTION BY: C. Burnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

06/24/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-3	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	39,003		
MeOH/FRESH WATER FLOW METER (GALLONS)	2445.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/25/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	N		
INSPECT RESIN VESSELS		X	N		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

06-25-03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-3	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	39133		
MeOH/FRESH WATER FLOW METER (GALLONS)	2448.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

DNAPL SYSTEM INSPECTION

INSPECTION DATE: 06/26/03

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	Y		
MANUALLY OPERATE & CHECK VALVES		X	Y		

06/26/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-3	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	39,468		
MeOH/FRESH WATER FLOW METER (GALLONS)	2448.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

DELPHI CORPORATION

INSPECTION DATE: 06/27/03

DNAPL SYSTEM INSPECTION

INSPECTION BY: C. Barnett

DNAPL SYSTEM CHECKLIST	PRE-OPERATION	EVERY WEEK *	INSPECTED (YES) OR (NO)	CORRECTION REQUIRED (YES) OR (NO)	COMMENTS
VERIFY EQUIPMENT IS OPERATING WITH NO DAMAGE OR LEAKS	X		Y	N	
LOG SYSTEM OPERATING PARAMETERS	X		Y		
INSPECT SECONDARY CONTAINMENT		X	Y		
INSPECT RESIN VESSELS		X	Y		
INSPECT OIL/WATER SEPARATOR		X	Y		
INSPECT\VERIFY COOLING AND VENTILATING SYSTEM OPERATIONS	X		Y		
INSPECT\VISUALLY CHECK LIGHTING SYSTEM	X		Y		
VISUALLY INSPECT SYSTEM PIPING FOR LEAKS		X	Y		
VISUALLY INSPECT ELECTRICAL SYSTEM	X		Y		
VERIFY PUMP OPERATION	X		Y		
VERIFY VACUUM OPERATION	X		Y		
VERIFY COMPRESSOR OPERATION	X		Y		
CHECK BAG FILTER	X		Y		
MANUALLY OPERATE AND CHECK FLOAT SWITCHES		X	N		
MANUALLY OPERATE & CHECK VALVES		X	N		

06/27/03

DNAPL SYSTEM PRE-OPERATION PARAMETERS	Recovery Well: R-3	Recovery Well:	Recovery Well:
INFLUENT FLOW METER (GALLONS)	39476		
MeOH/FRESH WATER FLOW METER (GALLONS)	2448.4		
MEASURE OF DNAPL IN O/W SEPARATOR (INCHES)	3/4"		

* Inspection will be performed at a minimum of once per week when system is available for operation.

Attachment H
Historical Sampling Results
MW-301D, MW-413D, MW-416D, MW-418D, MW-420D

Delphi Corporation Vandalia Facility MW-301D

Monitoring Zone: Belfast | Screened Interval: Belfast

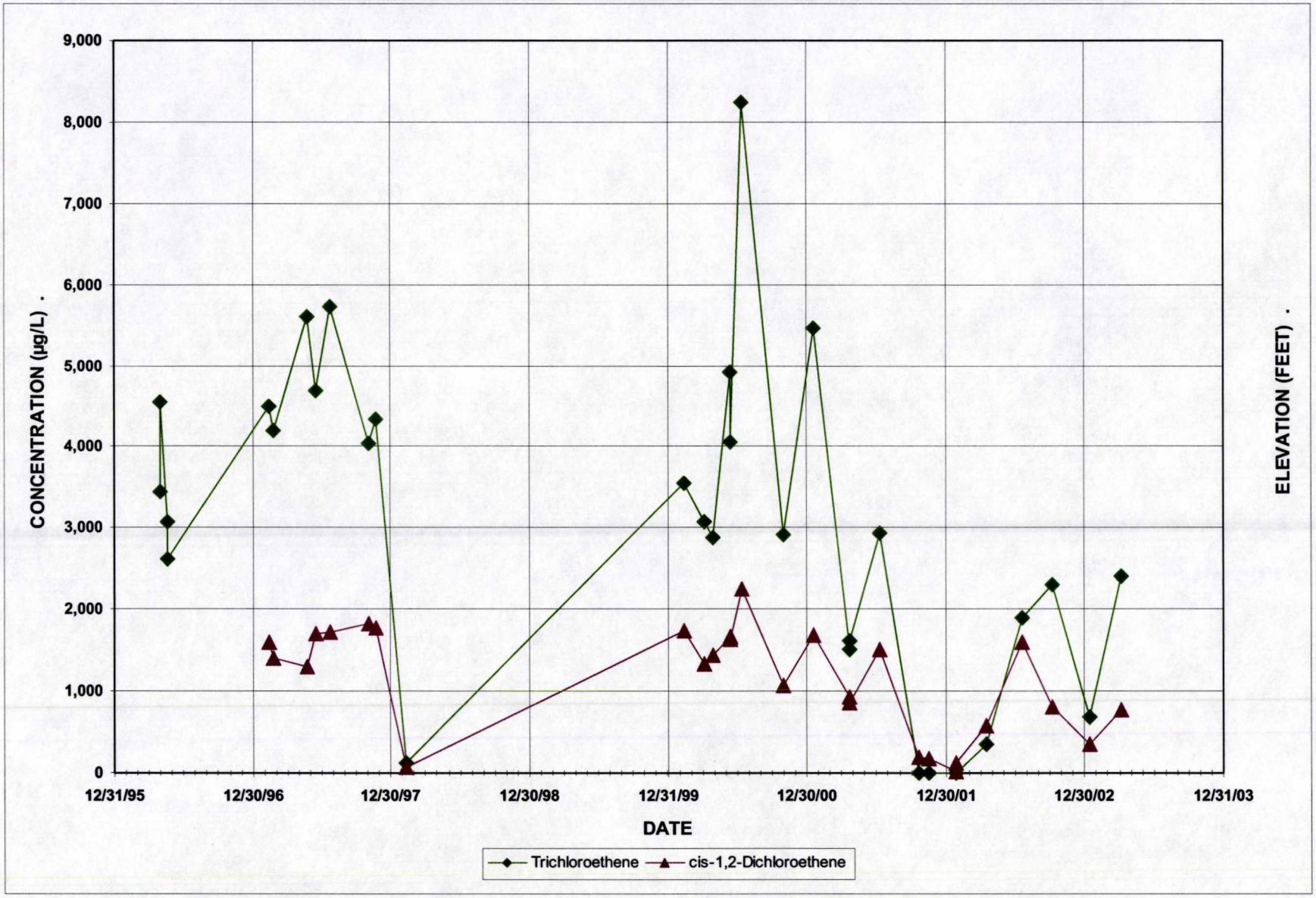
Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
4/8/2003	Trichloroethene	301D-040803-1630DL	2400 ug/L	J	SW8260	0.1 ug/L
1/14/2003	Trichloroethene	301D-011403-N	680 ug/L		SW8260	0.1 ug/L
10/7/2002	Trichloroethene	301D-100702-1450DL	2300 ug/L		SW8260	0.1 ug/L
7/19/2002	Trichloroethene	301D-071902-N	1900 ug/L		SW8260	0.5 ug/L
4/16/2002	Trichloroethene	301D-041602-NDL	350 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	301D-012802-N	5 ug/L	U	SW 8260B	5 ug/L
1/28/2002	Trichloroethene	Bailer Dup Low Flow 301D-012802-B	5 ug/L	U	SW 8260B	5 ug/L
11/15/2001	Trichloroethene	301D-111501-N	5 ug/L		SW 8260B	5 ug/L
10/22/2001	Trichloroethene	301D-102201-N	6.9 ug/L		SW 8260B	5 ug/L
7/9/2001	Trichloroethene		2940 ug/L		SW 8260B	250 ug/L
4/24/2001	Trichloroethene	Duplicate	1620 ug/L		SW 8260A	100 ug/L
4/24/2001	Trichloroethene		1520 ug/L		SW 8260A	100 ug/L
1/18/2001	Trichloroethene		5460 ug/L		SW 8260A	250 ug/L
11/1/2000	Trichloroethene		2910 ug/L		SW 8260A	100 ug/L
7/11/2000	Trichloroethene		8240 ug/L		SW 8260A	500 ug/L
6/13/2000	Trichloroethene	Low Flow	4060 ug/L		SW 8260A	500 ug/L
6/12/2000	Trichloroethene		4930 ug/L		SW 8260A	100 ug/L
4/27/2000	Trichloroethene		2880 ug/L		SW 8260A	500 ug/L
4/5/2000	Trichloroethene		3080 ug/L		SW 8260A	50 ug/L
2/11/2000	Trichloroethene		3550 ug/L		8260	50 ug/L
2/11/1998	Trichloroethene		130 ug/L	V	8260	5 ug/L
11/23/1997	Trichloroethene		4340 ug/L		8260	250 ug/L
11/4/1997	Trichloroethene	Dilution	4050 ug/L	D	8260	250 ug/L
7/23/1997	Trichloroethene		5730 ug/L		8260	500 ug/L
6/17/1997	Trichloroethene	Dilution	4700 ug/L	D	8260	500 ug/L
5/23/1997	Trichloroethene		5600 ug/L		8260	130 ug/L
2/21/1997	Trichloroethene		4200 ug/L		8260	130 ug/L
2/11/1997	Trichloroethene		4500 ug/L		8260	50 ug/L
5/20/1996	Trichloroethene	Duplicate	2620 ug/L		624	ug/L
5/20/1996	Trichloroethene		3080 ug/L		624	ug/L
4/29/1996	Trichloroethene	Duplicate	4550 ug/L		624	5 ug/L
4/29/1996	Trichloroethene		3450 ug/L		624	5 ug/L

Flag Definitions :

B -- The compound was also detected in the blank associated with the sample.
D -- The result was quantified from a dilution of the original sample.
J -- The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-301D

Monitoring Zone: Belfast Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-413D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
4/7/2003	Trichloroethene	413D-040703-1530DL	100 ug/L		SW8260	0.1 ug/L
1/13/2003	Trichloroethene	413D-011303-N	76 ug/L		SW8260	0.1 ug/L
10/4/2002	Trichloroethene	413D-100402-0945DL	140 ug/L		SW8260	0.1 ug/L
7/18/2002	Trichloroethene	413D-071802-N	150 ug/L		SW8260	0.5 ug/L
4/25/2002	Trichloroethene	413D-042502-NDL	22 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	413D-012802-N	107 ug/L		SW 8260B	5 ug/L
10/22/2001	Trichloroethene	413D 102201-N	18.3 ug/L		SW 8260B	5 ug/L
7/9/2001	Trichloroethene		460 ug/L		SW 8260B	250 ug/L
4/24/2001	Trichloroethene		139 ug/L		SW 8260A	1 ug/L
1/18/2001	Trichloroethene		204 ug/L		SW 8260A	25 ug/L
11/1/2000	Trichloroethene		121 ug/L		SW 8260A	5 ug/L
7/11/2000	Trichloroethene		321 ug/L		SW 8260A	250 ug/L
6/13/2000	Trichloroethene		509 ug/L		SW 8260A	50 ug/L
6/13/2000	Trichloroethene	Low Flow	613 ug/L		SW 8260A	50 ug/L
4/27/2000	Trichloroethene		1790 ug/L		SW 8260A	250 ug/L
4/13/2000	Trichloroethene		3680 ug/L		SW 8260A	100 ug/L
4/4/2000	Trichloroethene		1210 ug/L		SW 8260A	50 ug/L
2/11/2000	Trichloroethene		51.2 ug/L		8260	1 ug/L
2/13/1998	Trichloroethene	Duplicate	350 ug/L		8260	5 ug/L
2/11/1998	Trichloroethene		300 ug/L		8260	5 ug/L
11/22/1997	Trichloroethene	Duplicate	143 ug/L		8260	12.5 ug/L
11/22/1997	Trichloroethene		125 ug/L		8260	10 ug/L
11/11/1997	Trichloroethene		83.8 ug/L		8260	5 ug/L

Flag Definitions :

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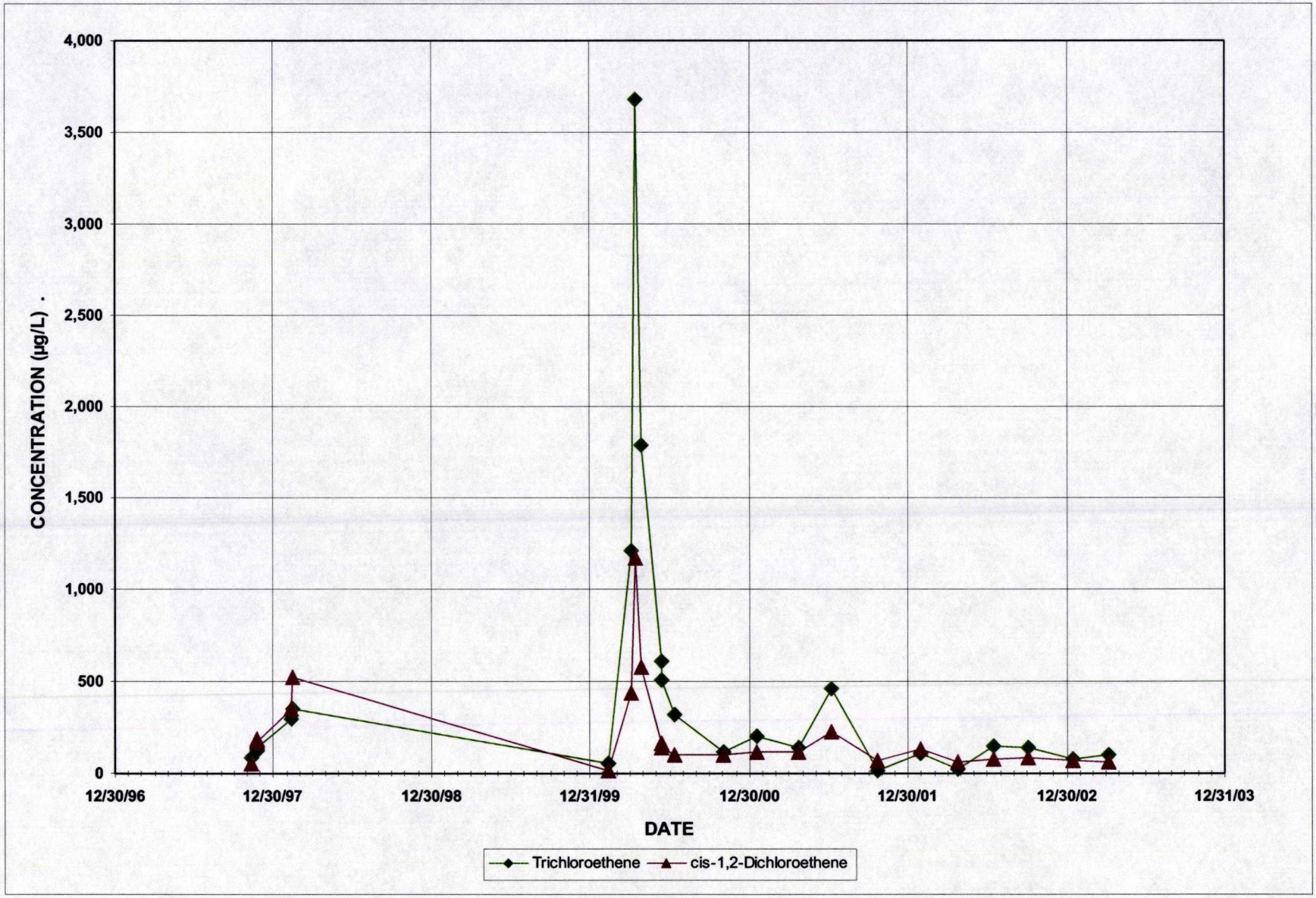
D -- The result was quantified from a dilution of the original sample.
J -- The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-413D

Monitoring Zone: Belfast Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-416D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
4/2/2003	Trichloroethene	416D-040203-1315	0.88 ug/L	J	SW8260	0.1 ug/L
1/13/2003	Trichloroethene	416D-011303-N	0.1 ug/L	U	SW8260	0.1 ug/L
10/1/2002	Trichloroethene	416D-100102-1820DL	3.4 ug/L	J	SW8260	0.1 ug/L
7/19/2002	Trichloroethene	416D-071902-N	2.6 ug/L	J	SW8260	0.5 ug/L
4/18/2002	Trichloroethene	416D-041802-NDL	3 ug/l	J	SW8260	0.1 ug/l
1/28/2002	Trichloroethene	416D-012802-N	5 ug/L	U	SW 8260B	5 ug/L
10/24/2001	Trichloroethene	416D-102401-N	29.2 ug/L		SW 8260B	5 ug/L
7/12/2001	Trichloroethene	Duplicate	5.5 ug/L		SW 8260B	5 ug/L
7/12/2001	Trichloroethene		5 ug/L	U	SW 8260B	5 ug/L
4/24/2001	Trichloroethene		6.3 ug/L		SW 8260A	1 ug/L
1/18/2001	Trichloroethene		5 ug/L	U	SW 8260A	5 ug/L
10/31/2000	Trichloroethene		5.4 ug/L		SW 8260A	5 ug/L
7/11/2000	Trichloroethene		5.1 ug/L		SW 8260A	5 ug/L
6/12/2000	Trichloroethene		6.1 ug/L		SW 8260A	5 ug/L
4/26/2000	Trichloroethene		5.6 ug/L		SW 8260A	5 ug/L
4/5/2000	Trichloroethene		6 ug/L		SW 8260A	1 ug/L
2/8/2000	Trichloroethene	Duplicate	6.5 ug/L		8260	1 ug/L
2/8/2000	Trichloroethene		6.1 ug/L		8260	1 ug/L

Flag Definitions :

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D -- The result was quantified from a dilution of the original sample.
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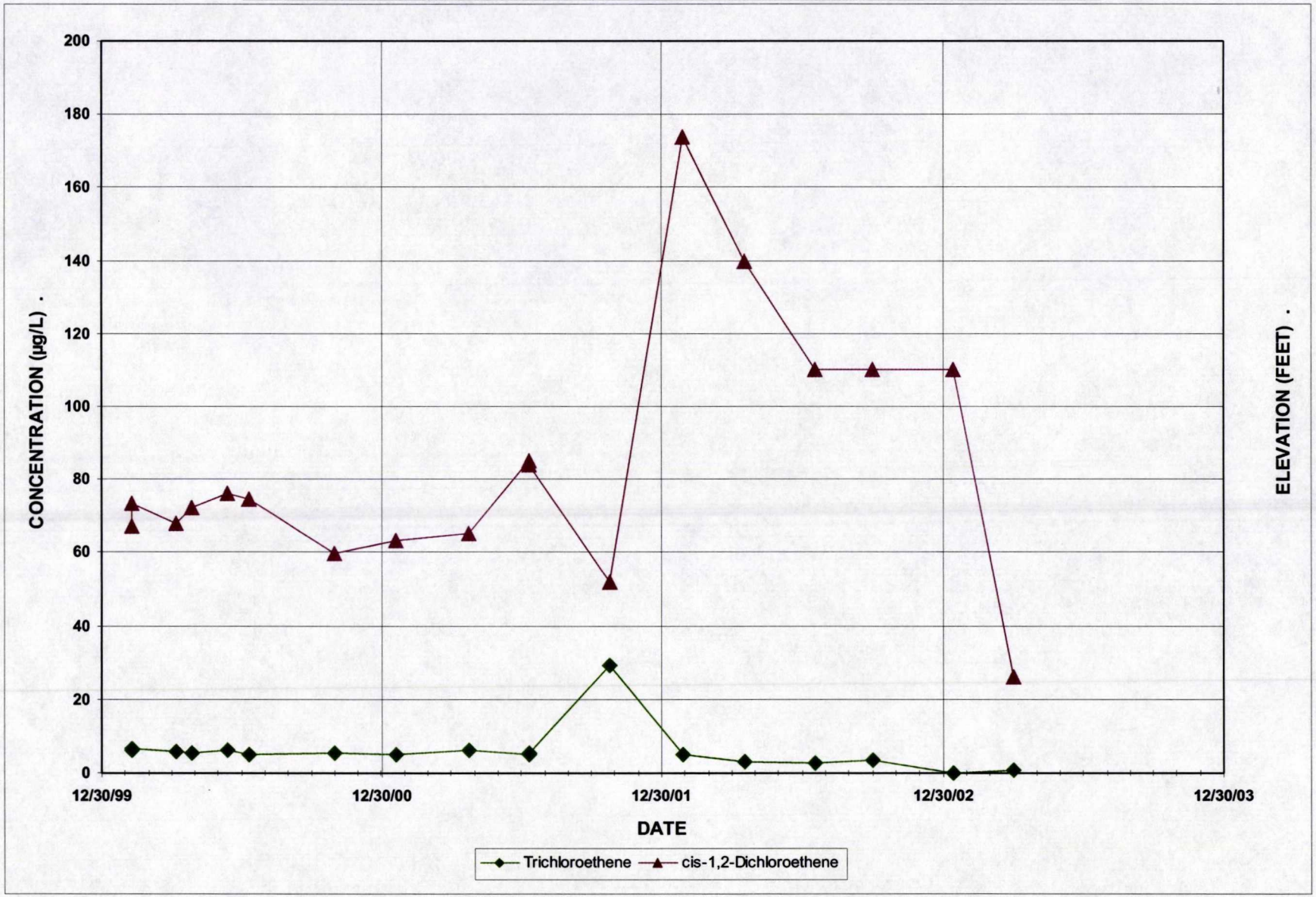
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-416D

Monitoring Zone: Belfast Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-418D

Monitoring Zone: Belfast Screened Interval: Belfast

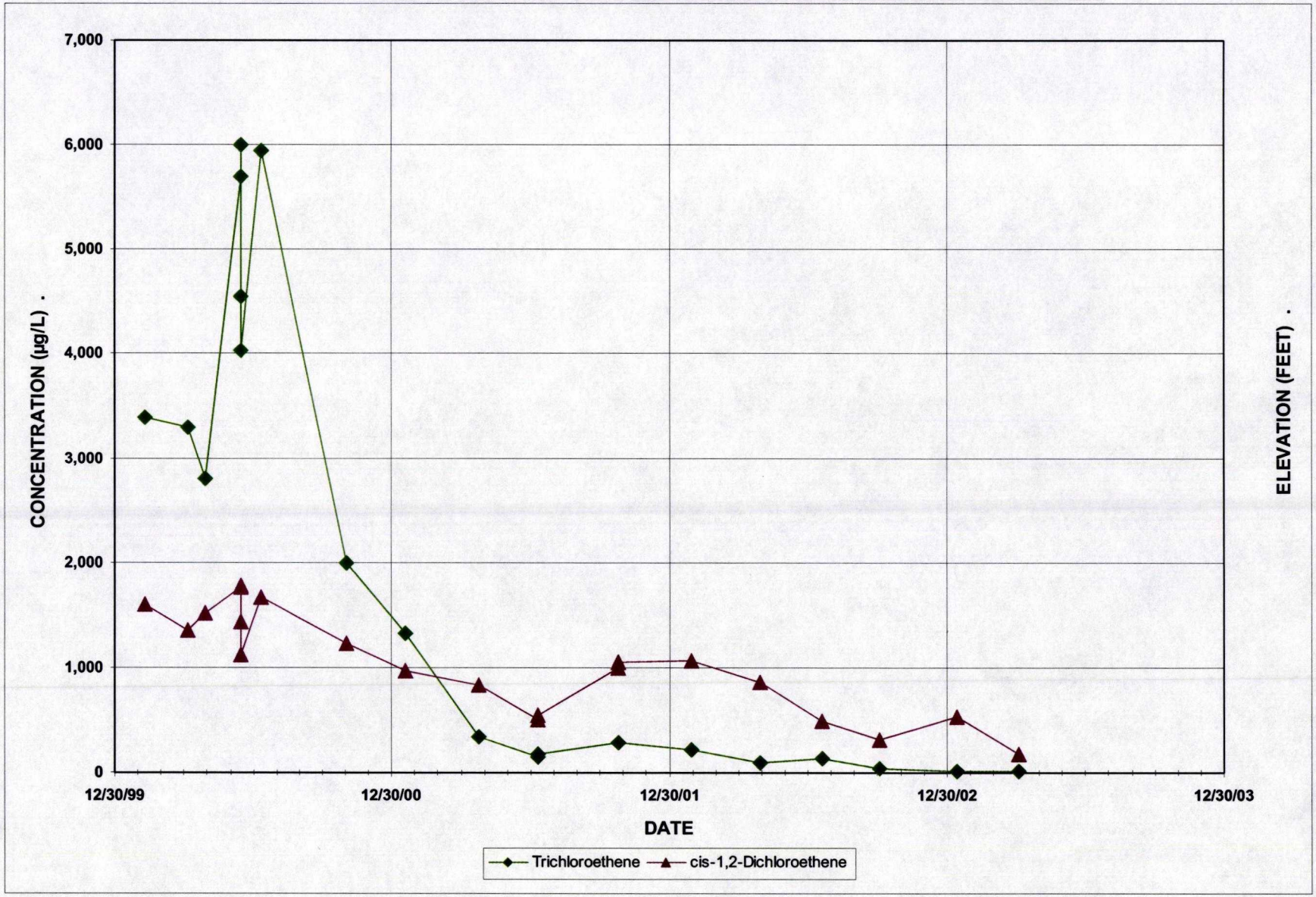
Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
4/4/2003	Trichloroethene	418D-040403-1250DL	10 ug/L		SW8260	0.1 ug/L
1/14/2003	Trichloroethene	418D-011403-N	19 ug/L	J	SW8260	0.1 ug/L
10/3/2002	Trichloroethene	418D-100302-1525DL	44 ug/L		SW8260	0.1 ug/L
7/19/2002	Trichloroethene		140 ug/L		SW8260	0.5 ug/L
4/30/2002	Trichloroethene	418D-043002-NDL	94 ug/l		SW8260	0.1 ug/l
1/28/2002	Trichloroethene	418D-012802-N	212 ug/L		SW 8260B	50 ug/L
10/24/2001	Trichloroethene	418D-102401-BD	284 ug/L		SW 8260B	100 ug/L
10/24/2001	Trichloroethene	0001-102401-BD	290 ug/L		SW 8260B	50 ug/L
7/11/2001	Trichloroethene		173 ug/L		EPA 524.2	20 ug/L
7/11/2001	Trichloroethene		151 ug/L		SW 8260B	5 ug/L
4/24/2001	Trichloroethene		341 ug/L		SW 8260A	10 ug/L
1/18/2001	Trichloroethene		1320 ug/L		SW 8260A	250 ug/L
10/31/2000	Trichloroethene		1990 ug/L		SW 8260A	250 ug/L
7/11/2000	Trichloroethene		5950 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Low Flow Duplicate	4040 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Low Flow	4550 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Duplicate	6000 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene		5700 ug/L		SW 8260A	500 ug/L
4/27/2000	Trichloroethene		2800 ug/L		SW 8260A	500 ug/L
4/5/2000	Trichloroethene		3290 ug/L		SW 8260A	50 ug/L
2/8/2000	Trichloroethene		3390 ug/L		8260	50 ug/L

Flag Definitions :

B -- The compound was also detected in the blank associated with the sample.
D -- The result was quantified from a dilution of the original sample.
J -- The result reported is estimated, most commonly because the compound was detected, but a a concentration below the quantitation limit.
U -- The compound was analyzed for but not detected.
V -- The sample or extract exceeded a prescribed holding time.

Delphi Corporation Vandalia Facility MW-418D

Monitoring Zone: Belfast Screened Interval: Belfast



Delphi Corporation Vandalia Facility MW-420D

Monitoring Zone: Belfast Screened Interval: Belfast

Sample Date	Compound	Notes	Results	Flag	Method	Method Detection Limit
4/3/2003	Trichloroethene	420D-040303-1530DL	270 ug/L		SW8260	0.1 ug/L
1/16/2003	Trichloroethene	420D-011603-N	0.1 ug/L	U	SW8260	0.1 ug/L
10/3/2002	Trichloroethene	420D-100302-1029DL	70 ug/L		SW8260	0.1 ug/L
7/18/2002	Trichloroethene	420D-071802-N	65 ug/L		SW8260	0.5 ug/L
4/17/2002	Trichloroethene	420D-041702-DDL	57 ug/l		SW8260	0.1 ug/l
4/17/2002	Trichloroethene	420D-041702-NDL	52 ug/l		SW8260	0.1 ug/l
1/31/2002	Trichloroethene	420D-013102-N	64.5 ug/L		SW 8260B	50 ug/L
10/24/2001	Trichloroethene	420D-102401-N	275 ug/L		SW 8260B	50 ug/L
7/11/2001	Trichloroethene		229 ug/L		EPA 524.2	20 ug/L
7/11/2001	Trichloroethene		182 ug/L		SW 8260B	5 ug/L
4/25/2001	Trichloroethene		207 ug/L		SW 8260A	10 ug/L
1/19/2001	Trichloroethene		560 ug/L		SW 8260A	25 ug/L
10/30/2000	Trichloroethene		752 ug/L		SW 8260A	20 ug/L
7/12/2000	Trichloroethene		2290 ug/L		SW 8260A	250 ug/L
6/14/2000	Trichloroethene		2690 ug/L		SW 8260A	500 ug/L
6/14/2000	Trichloroethene	Low Flow	2500 ug/L		SW 8260A	500 ug/L
4/26/2000	Trichloroethene		3870 ug/L		SW 8260A	250 ug/L
4/6/2000	Trichloroethene	Duplicate	4570 ug/L		SW 8260A	100 ug/L
4/6/2000	Trichloroethene		4830 ug/L		SW 8260A	100 ug/L
2/7/2000	Trichloroethene		5400 ug/L		8260	50 ug/L

Flag Definitions :

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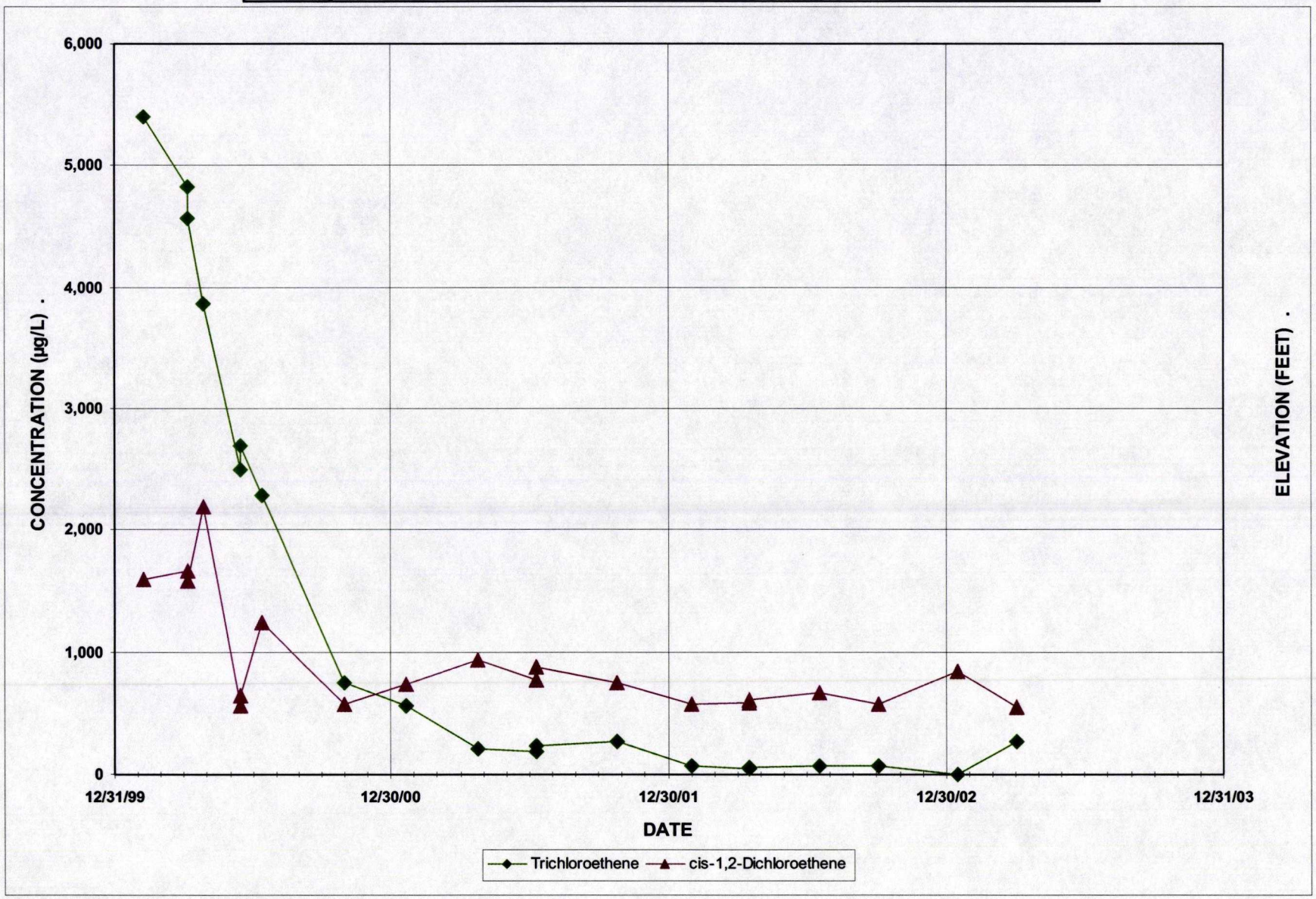
Delphi Corporation Vandalia Facility MW-420D

Monitoring Zone: Belfast Screened Interval: Belfast

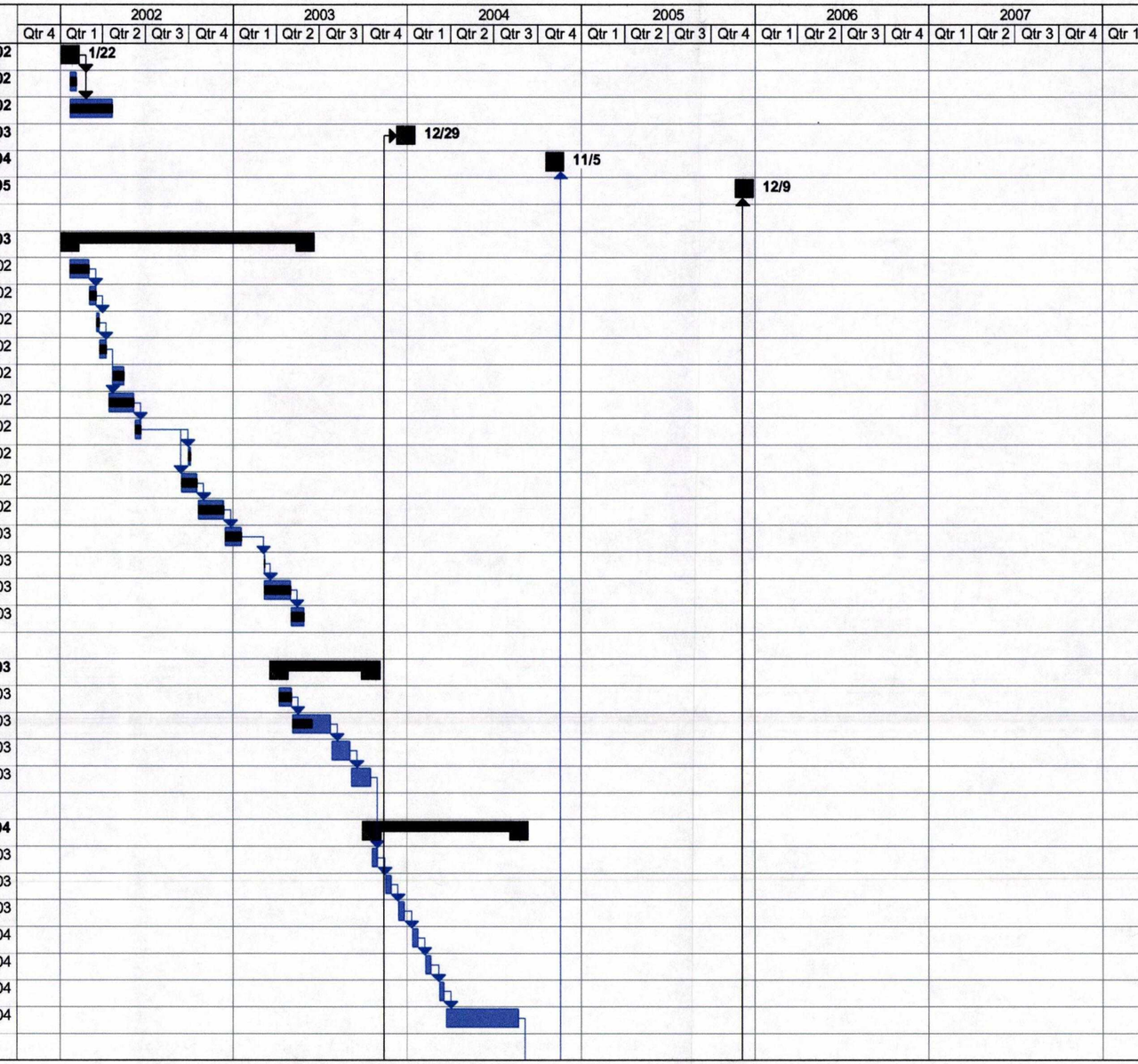


Attachment I
Project Schedule

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Mon 7/14/03

ID	Task Name	% Comple	Duration	Start	Finish
1	**Streamlined Order Executed**	100%	**0 days**	**Tue 1/22/02**	**Tue 1/22/02**
2	**Project Manager Designation**	100%	**11 days**	**Tue 1/22/02**	**Tue 2/5/02**
3	**Interim Measure & Implementation Report**	100%	**65 days**	**Tue 1/22/02**	**Mon 4/22/02**
4	**EI Report - Human Exposures: AOC Deadline 12/31/03**	0%	**1 day**	**Mon 12/29/03**	**Mon 12/29/03**
5	**EI Report - GW Stabilization: AOC Deadline 12/31/04**	0%	**1 day**	**Fri 11/5/04**	**Fri 11/5/04**
6	**Final Corrective Measures Proposal: AOC Deadline 12/31/05**	0%	**1 day**	**Fri 12/9/05**	**Fri 12/9/05**
7					
8	**Offsite Groundwater Investigation**	**100%**	**353 days**	**Tue 1/22/02**	**Thu 5/29/03**
9	Complete Current Phase of BTZ Wells	100%	6 wks	Tue 1/22/02	Mon 3/4/02
10	Evaluate/Summarize Data	100%	2 wks	Tue 3/5/02	Mon 3/18/02
11	Conf Call w/ USEPA to ID Next Locations (if required)	100%	1 wk	Tue 3/19/02	Mon 3/25/02
12	PR Coordination	100%	2 wks	Tue 3/26/02	Mon 4/8/02
13	"Sugar Rock" Outcrop Survey	100%	4 wks	Mon 4/22/02	Fri 5/17/02
14	Phase II Offsite Well Installation	100%	8 wks	Mon 4/15/02	Fri 6/7/02
15	Evaluate/Summarize Phase II Data	100%	2 wks	Mon 6/10/02	Fri 6/21/02
16	Conf Call w/ USEPA to ID Next Locations	100%	1 wk	Mon 9/30/02	Fri 10/4/02
17	PR Coordination	100%	5 wks	Mon 9/16/02	Fri 10/18/02
18	Phase III Offsite Well Installation	100%	8 wks	Mon 10/21/02	Fri 12/13/02
19	Evaluate/Summarize Data	100%	5 wks	Mon 12/16/02	Fri 1/17/03
20	Meet w/ USEPA to Discuss Findings	100%	1 day	Thu 3/6/03	Thu 3/6/03
21	Additional Outcrop Mapping/Seep Sampling Coordination	100%	8 wks	Fri 3/7/03	Thu 5/1/03
22	Extended Seep Sampling	100%	4 wks	Fri 5/2/03	Thu 5/29/03
23					
24	**Overburden Groundwater Migration Control Interim Measure**	**36%**	**140 days**	**Mon 4/7/03**	**Fri 10/17/03**
25	Overburden IM Design	100%	20 days	Mon 4/7/03	Fri 5/2/03
26	Permitting w/ OEPA	50%	60 days	Mon 5/5/03	Fri 7/25/03
27	IM Construction	0%	30 days	Mon 7/28/03	Fri 9/5/03
28	IM Startup/Debugging	0%	30 days	Mon 9/8/03	Fri 10/17/03
29					
30	**Final EI Perimeter Monitoring (6 mos)**	**0%**	**220 days**	**Mon 10/20/03**	**Fri 8/20/04**
31	Final EI GW Perimeter Monitoring	0%	2 wks	Mon 10/20/03	Fri 10/31/03
32	Final EI GW Perimeter Monitoring	0%	2 wks	Mon 11/17/03	Fri 11/28/03
33	Final EI GW Perimeter Monitoring	0%	2 wks	Mon 12/15/03	Fri 12/26/03
34	Final EI GW Perimeter Monitoring	0%	2 wks	Mon 1/12/04	Fri 1/23/04
35	Final EI GW Perimeter Monitoring	0%	2 wks	Mon 2/9/04	Fri 2/20/04
36	Final EI GW Perimeter Monitoring	0%	2 wks	Mon 3/8/04	Fri 3/19/04
37	Begin Preparation of Draft GW EI Report	0%	110 days	Mon 3/22/04	Fri 8/20/04
38					



Project: Delphi Vandalia, OH

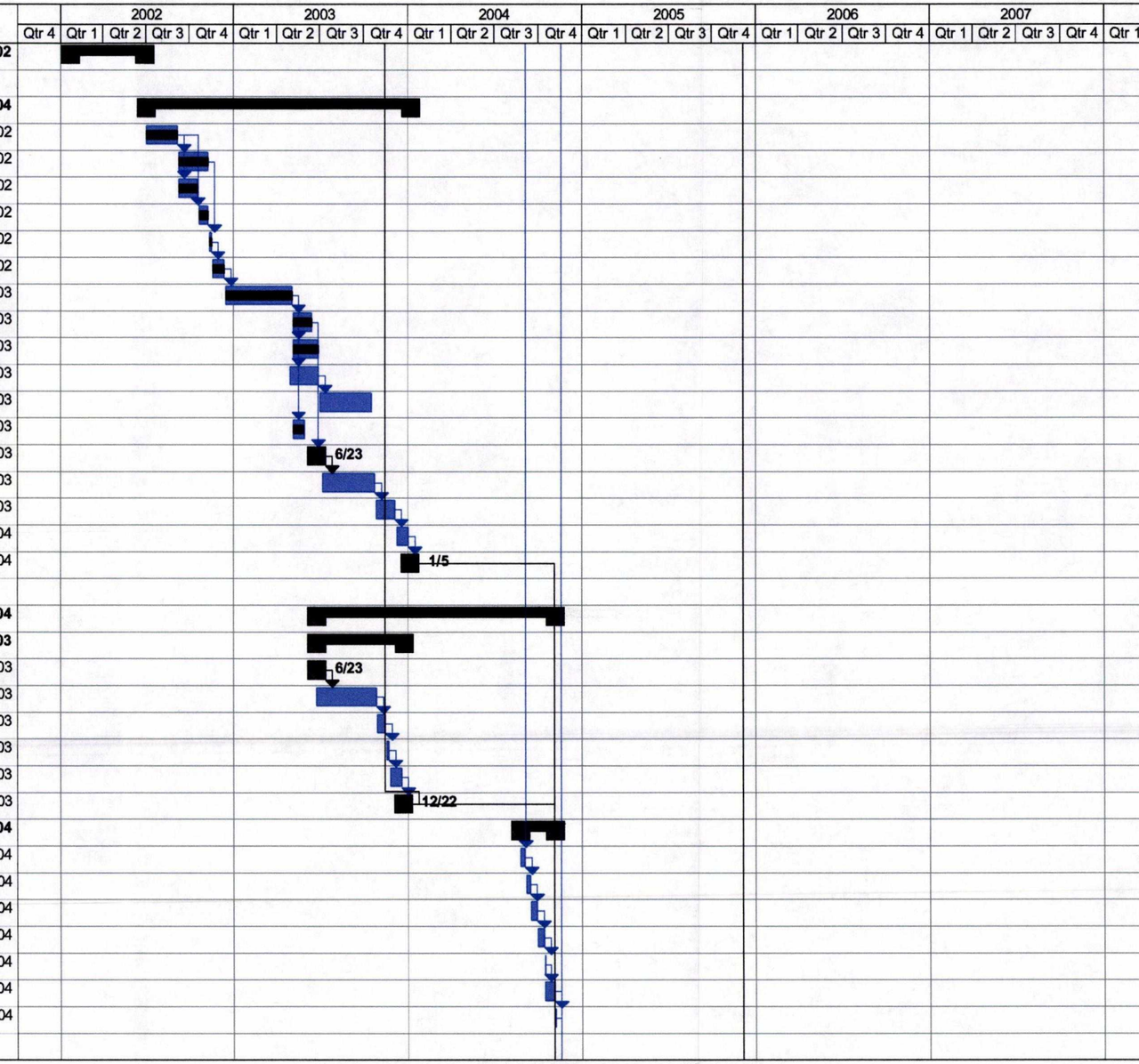
Task		Milestone		Rolled Up Split		External Tasks		Deadline	
Split		Summary		Rolled Up Milestone		Project Summary			
Progress		Rolled Up Task		Rolled Up Progress		External Milestone			

Notes and Abbreviations:
1. Schedule may be revised as necessary to accomodate unexpected field conditions or inclement weather.

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Mon 7/14/03

ID	Task Name	% Comple	Duration	Start	Finish
39	**Onsite Investigation Work Plan**	**100%**	**114 days**	**Tue 1/22/02**	**Fri 6/28/02**
49					
50	**Onsite Work Plan Implementation**	**58%**	**396 days**	**Mon 7/1/02**	**Mon 1/5/04**
51	Field Event I	100%	50 days	Mon 7/1/02	Fri 9/6/02
52	Data Eval to Develop Field Event II	100%	45 days	Mon 9/9/02	Fri 11/8/02
53	Data Validation	100%	30 days	Mon 9/9/02	Fri 10/18/02
54	Data Summary	100%	15 days	Mon 10/21/02	Fri 11/8/02
55	Meeting with Delphi and USEPA (Chicago)	100%	1 wk	Mon 11/11/02	Fri 11/15/02
56	Field Event II SOW Finalized	100%	20 days	Mon 11/18/02	Fri 12/13/02
57	Field Event II	100%	100 days	Mon 12/16/02	Fri 5/2/03
58	Data Eval to Develop Field Event III	100%	30 days	Mon 5/5/03	Fri 6/13/03
59	Data Validation	100%	40 days	Mon 5/5/03	Fri 6/27/03
60	IM Design (if necessary)	0%	45 days	Mon 4/28/03	Fri 6/27/03
61	IM Implementation (if necessary)	0%	80 days	Mon 6/30/03	Fri 10/17/03
62	Data Report	80%	20 days	Mon 5/5/03	Fri 5/30/03
63	Conf. Call with Delphi and USEPA	100%	1 day	Mon 6/23/03	Mon 6/23/03
64	Field Event III	0%	80 days	Mon 7/7/03	Fri 10/24/03
65	Data Validation	0%	30 days	Mon 10/27/03	Fri 12/5/03
66	Data Report	0%	20 days	Mon 12/8/03	Fri 1/2/04
67	Conf. Call with Delphi and USEPA	0%	1 day	Mon 1/5/04	Mon 1/5/04
68					
69	**Environmental Indicators Reports**	**1%**	**359 days**	**Mon 6/23/03**	**Thu 11/4/04**
70	**Human Health EI**	**1%**	**131 days**	**Mon 6/23/03**	**Mon 12/22/03**
71	Meet w/ USEPA to Discus Human Health EI Approach	100%	1 day	Mon 6/23/03	Mon 6/23/03
72	Prepare Final Draft Human Health EI Report and Submit to USEPA	0%	90 days	Tue 6/24/03	Mon 10/27/03
73	USEPA Review Final Draft Human Health EI Report	0%	14 days	Tue 10/28/03	Fri 11/14/03
74	USEPA Meeting- Final Draft Human Health EI Report	0%	5 days	Mon 11/17/03	Fri 11/21/03
75	Prepare Final Human Health EI Report	0%	20 days	Mon 11/24/03	Fri 12/19/03
76	Submit Final Human Health EI Report EPA	0%	1 day	Mon 12/22/03	Mon 12/22/03
77	**Groundwater Stabilization EI**	**0%**	**54 days**	**Mon 8/23/04**	**Thu 11/4/04**
78	Finalize First Draft Groundwater Stabilization EI Report for Delphi	0%	10 days	Mon 8/23/04	Fri 9/3/04
79	Delphi Review First Draft Groundwater Stabilization EI Report	0%	7 days	Mon 9/6/04	Tue 9/14/04
80	Prepare Final Draft Groundwater Stabilization EI Report and Submit to USEPA	0%	10 days	Wed 9/15/04	Tue 9/28/04
81	USEPA Review Final Draft Groundwater Stabilization EI Report	0%	10 days	Wed 9/29/04	Tue 10/12/04
82	Meeting with USEPA - Final Draft Groundwater Stabilization EI Report	0%	1 day	Wed 10/13/04	Wed 10/13/04
83	Prepare Final Groundwater Stabilization EI Report	0%	15 days	Thu 10/14/04	Wed 11/3/04
84	Submit Final Groundwater Stabilization EI Report EPA	0%	1 day	Thu 11/4/04	Thu 11/4/04
85					



Project: Delphi Vandalia, OH

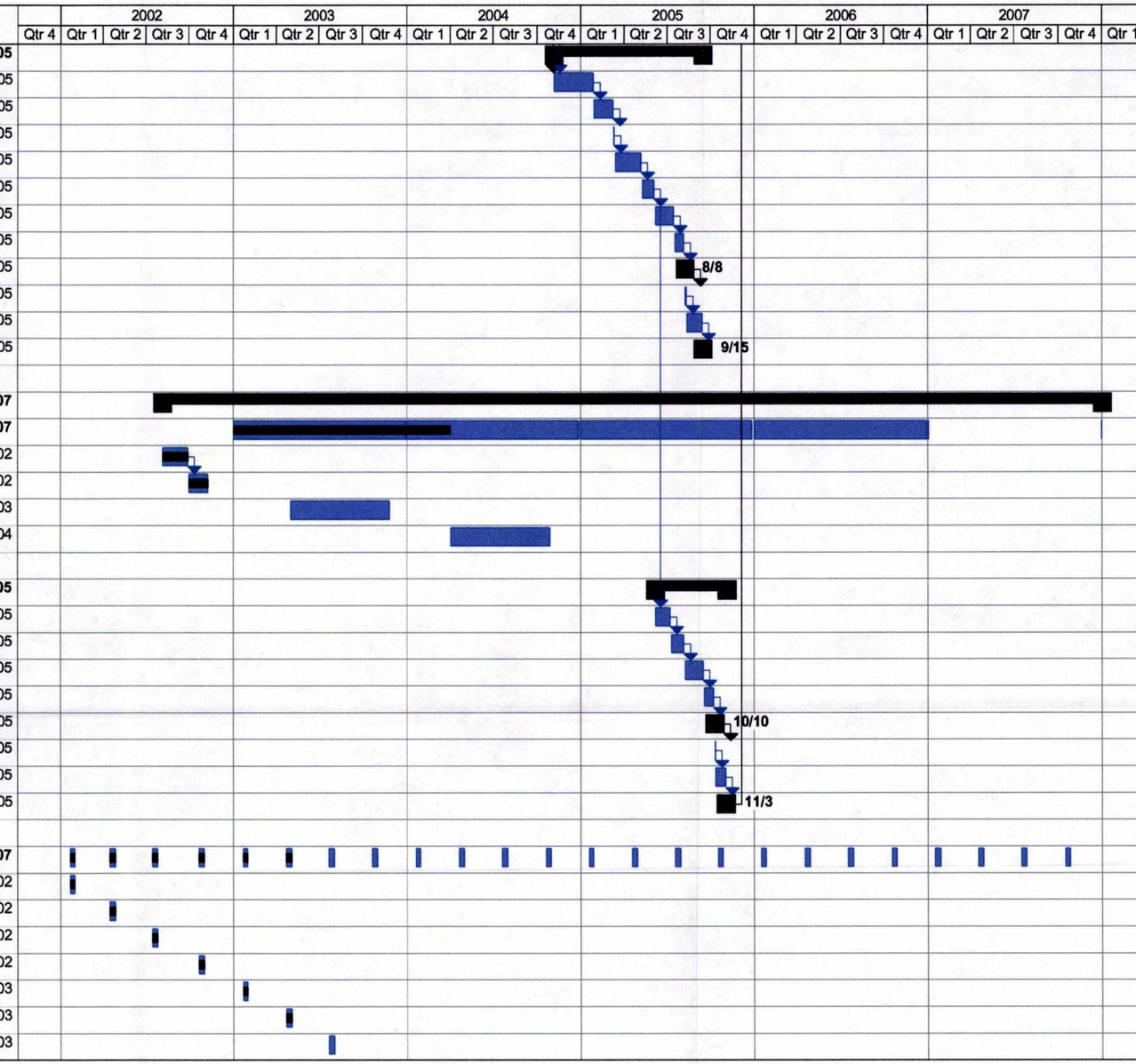
Task | Split | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Split | Rolled Up Milestone | Rolled Up Progress | External Tasks | Project Summary | External Milestone | Deadline

Notes and Abbreviations:
1. Schedule may be revised as necessary to accomodate unexpected field conditions or inclement weather.

SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Mon 7/14/03

ID	Task Name	% Comple	Duration	Start	Finish
86	**Investigation Report**	**0%**	**225 days**	**Fri 11/5/04**	**Thu 9/15/05**
87	Prepare First Draft Report to Delphi	0%	60 days	Fri 11/5/04	Thu 1/27/05
88	Delphi Review First Draft Report	0%	30 days	Fri 1/28/05	Thu 3/10/05
89	Meeting on First Draft Report	0%	1 day	Fri 3/11/05	Fri 3/11/05
90	Second Draft Report to Delphi	0%	40 days	Mon 3/14/05	Fri 5/6/05
91	Delphi Review Second Draft Report	0%	20 days	Mon 5/9/05	Fri 6/3/05
92	Final Draft Report	0%	30 days	Mon 6/6/05	Fri 7/15/05
93	Delphi Review Final Draft Report	0%	15 days	Mon 7/18/05	Fri 8/5/05
94	Submit Final Draft Report to EPA for Review	0%	1 day	Mon 8/8/05	Mon 8/8/05
95	Meeting with USEPA - Final Report	0%	2 days	Tue 8/9/05	Wed 8/10/05
96	Prepare Final Report	0%	25 days	Thu 8/11/05	Wed 9/14/05
97	Submit Final Report to USEPA	0%	1 day	Thu 9/15/05	Thu 9/15/05
98					
99	**Interim Measures**	**28%**	**1411 days**	**Mon 8/5/02**	**Mon 12/31/07**
100	**GW Migration Control O&M**	**31%**	**1305 days**	**Tue 12/31/02**	**Mon 12/31/07**
107	**DNAPL Recovery Design Build**	100%	8 wks	Mon 8/5/02	Fri 9/27/02
108	**DNAPL Recovery O&M**	100%	6 wks	Mon 9/30/02	Fri 11/8/02
109	DNAPL Recovery	0%	30 wks	Thu 5/1/03	Wed 11/26/03
110	DNAPL Recovery	0%	30 wks	Thu 4/1/04	Wed 10/27/04
111					
112	**Corrective Measure Proposal**	**0%**	**109 days**	**Mon 6/6/05**	**Thu 11/3/05**
113	Prepare First Draft CM Proposal to Delphi	0%	25 days	Mon 6/6/05	Fri 7/8/05
114	Delphi Review First Draft CM Proposal	0%	20 days	Mon 7/11/05	Fri 8/5/05
115	Prepare Final Draft CM Proposal	0%	30 days	Mon 8/8/05	Fri 9/16/05
116	Delphi Review Final Draft CM Proposal	0%	15 days	Mon 9/19/05	Fri 10/7/05
117	Submit Final Draft CM Proposal to EPA for Review	0%	1 day	Mon 10/10/05	Mon 10/10/05
118	Meeting with USEPA - Final CM Proposal	0%	2 days	Tue 10/11/05	Wed 10/12/05
119	Prepare Final CM Proposal	0%	15 days	Thu 10/13/05	Wed 11/2/05
120	Submit Final CM Proposal	0%	1 day	Thu 11/3/05	Thu 11/3/05
121					
122	**Quarterly GW Sampling**	**25%**	**1505 days**	**Mon 1/21/02**	**Fri 10/26/07**
123	Quarterly GW Sampling 1	100%	2 wks	Mon 1/21/02	Fri 2/1/02
124	Quarterly GW Sampling 2	100%	2 wks	Mon 4/15/02	Fri 4/26/02
125	Quarterly GW Sampling 3	100%	2 wks	Mon 7/15/02	Fri 7/26/02
126	Quarterly GW Sampling 4	100%	2 wks	Mon 10/21/02	Fri 11/1/02
127	Quarterly GW Sampling 5	100%	2 wks	Mon 1/20/03	Fri 1/31/03
128	Quarterly GW Sampling 6	100%	2 wks	Mon 4/21/03	Fri 5/2/03
129	Quarterly GW Sampling 7	0%	2 wks	Mon 7/21/03	Fri 8/1/03



Project: Delphi Vandalia, OH

Task		Milestone		Rolled Up Split		External Tasks		Deadline	
Split		Summary		Rolled Up Milestone		Project Summary			
Progress		Rolled Up Task		Rolled Up Progress		External Milestone			

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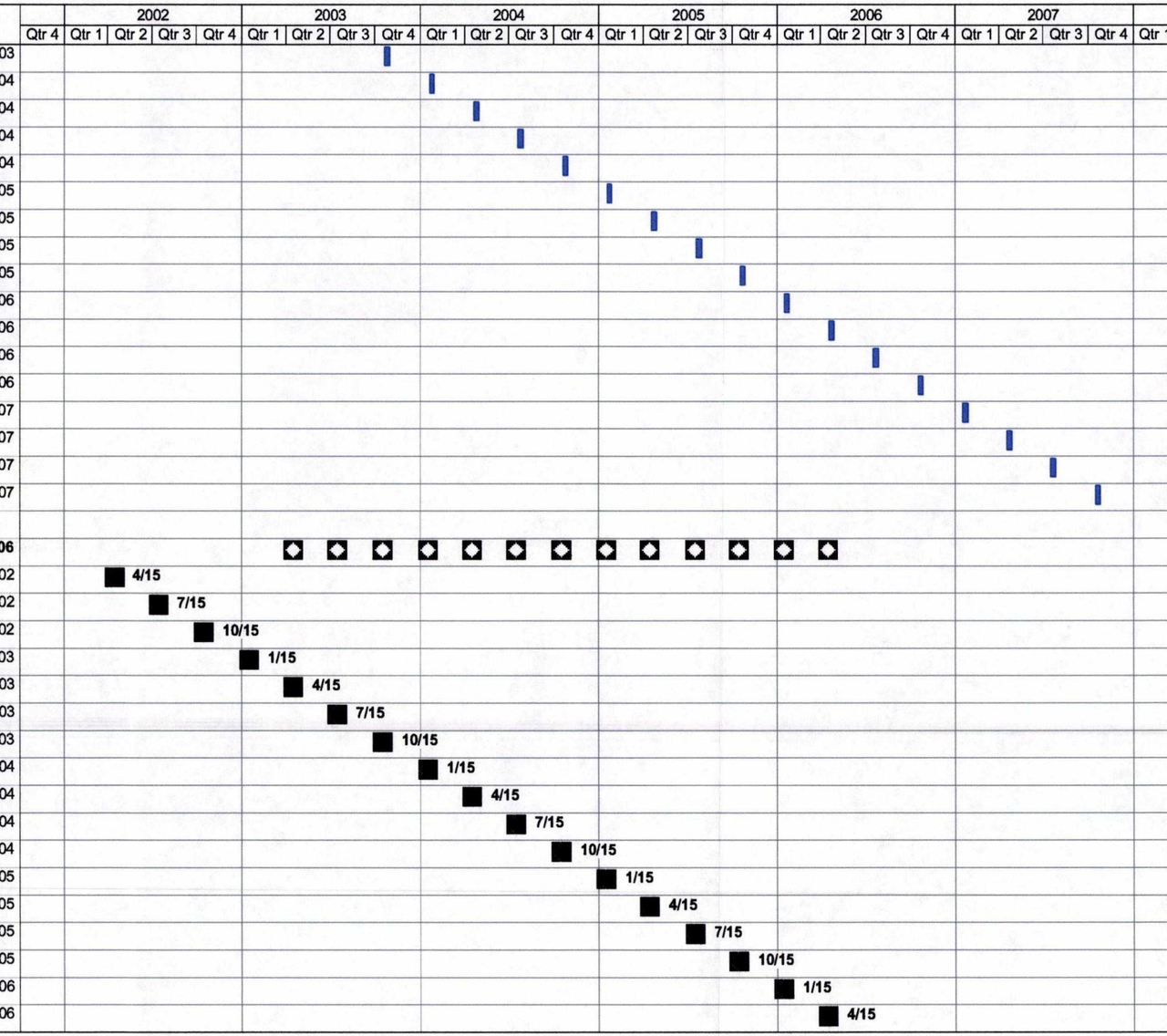
SCHEDULE: DELPHI VANDALIA, OHIO CORRECTIVE ACTION

Revised Mon 7/14/03

ID	Task Name	% Comple	Duration	Start	Finish
130	Quarterly GW Sampling 8	0%	2 wks	Mon 10/20/03	Fri 10/31/03
131	Quarterly GW Sampling 9	0%	2 wks	Mon 1/19/04	Fri 1/30/04
132	Quarterly GW Sampling 10	0%	2 wks	Mon 4/19/04	Fri 4/30/04
133	Quarterly GW Sampling 11	0%	2 wks	Mon 7/19/04	Fri 7/30/04
134	Quarterly GW Sampling 12	0%	2 wks	Mon 10/18/04	Fri 10/29/04
135	Quarterly GW Sampling 13	0%	2 wks	Mon 1/17/05	Fri 1/28/05
136	Quarterly GW Sampling 14	0%	2 wks	Mon 4/18/05	Fri 4/29/05
137	Quarterly GW Sampling 15	0%	2 wks	Mon 7/18/05	Fri 7/29/05
138	Quarterly GW Sampling 16	0%	2 wks	Mon 10/17/05	Fri 10/28/05
139	Quarterly GW Sampling 17	0%	2 wks	Mon 1/16/06	Fri 1/27/06
140	Quarterly GW Sampling 18	0%	2 wks	Mon 4/17/06	Fri 4/28/06
141	Quarterly GW Sampling 19	0%	2 wks	Mon 7/17/06	Fri 7/28/06
142	Quarterly GW Sampling 20	0%	2 wks	Mon 10/16/06	Fri 10/27/06
143	Quarterly GW Sampling 21	0%	2 wks	Mon 1/15/07	Fri 1/26/07
144	Quarterly GW Sampling 22	0%	2 wks	Mon 4/16/07	Fri 4/27/07
145	Quarterly GW Sampling 23	0%	2 wks	Mon 7/16/07	Fri 7/27/07
146	Quarterly GW Sampling 24	0%	2 wks	Mon 10/15/07	Fri 10/26/07
147					
148	**Progress Reports**	**0%**	**1045 days**	**Mon 4/15/02**	**Sat 4/15/06**
149	Progress Report 2	100%	0 days	Mon 4/15/02	Mon 4/15/02
150	Progress Report 3	100%	0 days	Mon 7/15/02	Mon 7/15/02
151	Progress Reports 4	100%	0 days	Tue 10/15/02	Tue 10/15/02
152	Progress Reports 5	100%	0 days	Wed 1/15/03	Wed 1/15/03
153	Progress Reports 6	100%	0 days	Tue 4/15/03	Tue 4/15/03
154	Progress Reports 7	0%	0 days	Tue 7/15/03	Tue 7/15/03
155	Progress Reports 8	0%	0 days	Wed 10/15/03	Wed 10/15/03
156	Progress Reports 9	0%	0 days	Thu 1/15/04	Thu 1/15/04
157	Progress Reports 10	0%	0 days	Thu 4/15/04	Thu 4/15/04
158	Progress Reports 11	0%	0 days	Thu 7/15/04	Thu 7/15/04
159	Progress Reports 12	0%	0 days	Fri 10/15/04	Fri 10/15/04
160	Progress Reports 13	0%	0 days	Sat 1/15/05	Sat 1/15/05
161	Progress Reports 14	0%	0 days	Fri 4/15/05	Fri 4/15/05
162	Progress Reports 15	0%	0 days	Fri 7/15/05	Fri 7/15/05
163	Progress Reports 16	0%	0 days	Sat 10/15/05	Sat 10/15/05
164	Progress Reports 17	0%	0 days	Sun 1/15/06	Sun 1/15/06
165	Progress Reports 18	0%	0 days	Sat 4/15/06	Sat 4/15/06



Project: Delphi Vandalia, OH

Task | Split | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Split | Rolled Up Milestone | Rolled Up Progress | External Tasks | Project Summary | External Milestone | Deadline

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