LANDAU ASSOCIATES

April 8, 2013

Byung Maeng
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue WA 98008-5452

RE: NOVEMBER 2012 SEMIANNUAL GROUNDWATER MONITORING RESULTS
BOEING DEVELOPMENTAL CENTER, TUKWILA, WASHINGTON

Dear Byung:

This letter transmits the semiannual groundwater monitoring report indicated above on behalf of The Boeing Company for the period following the May 2012 semiannual sampling event (and corresponding report) through the semiannual event in November 2012, including third quarter monitoring performed in September. This letter also provides a brief summary of the data and of remedial activities performed at the site during the reporting period. Remedial actions are underway in Solid Waste Management Unit (SWMU)-20, SWMU-17, and Area of Concern (AOC)-05. Groundwater monitoring data from SWMU-20 wells following the February 2012 condensate line leak is also presented. All other SWMUs and AOCs identified in the 1994 RFA have been excluded from further investigation based on determinations that they do not pose a threat to human health or the environment.

Groundwater monitoring at the Boeing Developmental Center is documented in the attached report and consists of quarterly monitoring performed in September/November 2012 at SWMU-17, AOC-05, and the four SWMU-20 wells monitored related to the condensate line leak; and semiannual monitoring performed in November 2012 at SWMU-20. Analytical data for SWMU-20, SWMU-17, and AOC-05 are enclosed for your review and include sample results summary tables and laboratory data packages. Summary figures, historical analytical summary data, and volatile organic compounds (VOCs) concentration trend charts are provided for key constituents present in SWMU-20; a summary table of cyclohexylamine groundwater results is also provided for the four wells monitored related to the condensate line leak. Included for AOC-05 are a well location figure; cumulative tables for total petroleum hydrocarbons (TPH); benzene, toluene, ethylbenzene, and xylenes (BTEX); and conventional parameters; as well as trend plots for TPH-Gasoline (TPH-G) and BTEX, and nitrate. A well location figure and tables of current data and cumulative data are provided for SWMU-17.

At SWMU-20, *in situ* anaerobic bioremediation continues for treatment of tetrachloroethene (PCE), trichloroethene (TCE), and breakdown products following the last electron donor injection performed in August 2008. Groundwater monitoring results indicate that treatment continues to be enhanced at and near injection wells, as indicated by the persistence of sulfate-reducing to methanogenic aquifer redox conditions,

total organic carbon (TOC) levels generally above 10 milligrams per liter (mg/L), and the detection of end product ethane at several wells (see SWMU-20 Cleanup Action Summary table). At all source-zone wells, PCE and TCE remain below reporting limits and breakdown products cis-1,2-dichloroethene (cDCE) and vinyl chloride (VC) are either below reporting limits or at very low concentrations. All cDCE and VC detections at source zone wells are less than 2 microgram per liter (µg/L), with the exception of well MW-06B where VC was detected in November 2012 at 3.7 µg/L. Following the successful source zone bioremediation that resulted from donor injection to source-zone wells, the highest PCE and TCE concentrations are now present at wells located crossgradient (north) (MW-13A and MW-17A) or upgradient (east) (MW-16A) of the treated source zone (see SWMU-20 Non-Source Zone Wells Summary table). Concentrations have been relatively low at these wells (PCE/TCE less than 4 µg/L) and generally decreasing (MW-13A and MW-17A) or stable (MW-16A). TCE at MW-13A was less than 1 µg/L for three consecutive events as of November 2012, the lowest results since sampling began in 2004. Semiannual monitoring will continue in SWMU-20 to evaluate potential source zone rebound and trends at crossgradient wells. Ongoing semiannual groundwater monitoring in SWMU-20 constitutes MNA with enhancement of natural attenuation due to residual effects of prior injections. Additional injections within SWMU-20 are not anticipated at this time.

Cyclohexlyamine has not been detected in groundwater at the four wells monitored related to the condensate line leak (see SWMU-20 Cyclohexylamine Data table). Quarterly sampling was performed in September and December 2012 and will continue through second quarter 2013, as agreed to with Ecology.

At AOC-05, *in situ* anaerobic bioremediation continues for treatment of TPH-G and BTEX. The eighth injection of nitrate electron acceptor solution took place (at well BDC-103 only) in October 2012. At downgradient wells BDC-101 and BDC-102, and at previously impacted well BDC-104, TPH-G and BTEX remain below detection limits. At BDC-103, TPH-G and BTEX concentrations have decreased substantially following a notable rebound in these contaminants in November 2011 that coincided with a high water table condition and a decrease in nitrate to below reporting limits. Nitrate monitoring is performed at the two nearest downgradient wells and at four wells located farther downgradient. Nitrate concentrations have been above the 10 mg/L action level for the last three quarters at downgradient well BDC-101. Nitrate at downgradient well BDC-102 was greater than 10 mg/L in May and September 2012, but decreased below the action level in November 2012. Nitrate remained below the action level at the four wells farther downgradient (BDC-05-04, MW-17A, MW-18A, and MW-21A). Additional nitrate injections will continue, as needed, to treat remaining sorbed- and non-aqueous phase liquid-phase (NAPL) contamination that can lead to rebound in aqueous-phase concentrations. Groundwater sampling at AOC-05 wells will continue on a quarterly basis to evaluate contaminant treatment and nitrate consumption. Semiannual monitoring for nitrate at the four wells farther downgradient will also continue until nitrate remains below 10 mg/L for two consecutive semiannual events at downgradient wells BDC-101 and BDC-102.

At SWMU-17, groundwater monitoring results from September and November 2012 show that *in situ* anaerobic bioremediation continues to be enhanced following the August 2011 electron donor injection. PCE

and TCE concentrations have decreased to below reporting limits at all wells used for electron donor injection, with the exception of a low detection of TCE at BDC-05-07 (0.4 µg/L). At well BDC-05-10, which had the highest baseline concentration of PCE and the second highest concentration of TCE, the decrease of PCE and TCE to below reporting limits represents a reduction of greater than 96 percent. PCE and/or TCE concentrations have also been reduced from baseline at downgradient monitoring wells BDC-05-19 and BDC-05-20. Enhanced desorption of contaminant mass is evidenced by elevated concentrations of breakdown product *c*DCE relative to baseline PCE and TCE at various wells (max 250 µg/L at BDC-05-09). Increases in one or more breakdown or end products (*c*DCE, VC, and ethene) were observed at all injection wells following injection. Complete reductive dechlorination is indicated by detection of end product ethene at ten wells. The highly reduced aquifer redox conditions required for complete dechlorination have been achieved throughout the core of the plume following injection, as indicated by decreasing concentrations of sulfate and increasing concentrations of methane in all injection wells and at downgradient monitoring wells BDC-05-19 and BDC-05-20. TOC remains elevated at all injection wells (26 to 266 mg/L) and also increased following injection at some downgradient and crossgradient monitoring wells. Quarterly and semiannual monitoring will continue for evaluation of treatment progress. Additional injections within SWMU-17 are not necessary at this time.

As requested by Ecology, Boeing and Landau Associates have developed proposed cleanup levels for the site. We anticipate submittal of a proposed cleanup level document and further discussions with Ecology.

Please call or email me if you have any questions or if you would like to discuss any of the sampling results in more detail.

LANDAU ASSOCIATES, INC.

Clinton L. Jacob, P.E., L.G.
Principal Engineer

CLJ/tam

Enclosures: Developmental Center Groundwater Monitoring – November 2012

SWMU-20 Data Tables, Maps, and Trend Charts
SWMU-17 Data Tables and Map
AOC-05 Data Table, Trend Charts, and Map
Groundwater Elevation Table
Groundwater Sample Collection Forms and Analytical Data (CD)

cc: James Bet, Boeing EHS Remediation (elec. w/o data)
Susanne McIlveen, Boeing Defense, Space & Security, EHS Manager (elec. w/o data)

DEVELOPMENTAL CENTER
GROUNDWATER MONITORING
NOVEMBER 2012

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SWMU-20 VOA/CONVENTIONALS DATA TABLES

SWMU-20 SUMMARY DATA

- **SWMU-20 VOC SUMMARY MAPS**
- **SWMU-20 ANALYTICAL RESULTS SUMMARY (January 1994 through Present)**
- **SWMU-20 VOC CONCENTRATION TREND CHARTS (January 1994 through Present)**
- **SWMU-20 CLEANUP ACTION SUMMARY – SOURCE ZONE**
- **SWMU-20 CLEANUP ACTION SUMMARY – NON-SOURCE ZONE**
- **SWMU-20 CYCLOHEXYLAMINE DATA**

SWMU-20 VOA/CONVENTIONALS DATA
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
NOVEMBER 2012

Sample Name:	DC-MW-6A		DC-MW-6B		DC-MW-9A		DC-MW-10A		DC-MW-10C		DC-MW-11A		DC-MW-12A		DC-MW-13A		DC-MW-13C		DC-MW-14A	
Lab SDG:	1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437	
Lab Sample ID:	6861134		6861136		6861125		6861123		6861122		6861120		6861121		6861115		6861116		6861127	
Sample Date:	11/14/2012		11/14/2012		11/14/2012		11/14/2012		11/14/2012		11/14/2012		11/14/2012		11/13/2012		11/13/2012		11/14/2012	
Test ID: VOA SW8260C (µg/L)																				
Acetone	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U
Acrolein	25	U	25	U	250	U	25	U	25	U	250	U	25	U	25	U	250	U	25	U
Acrylonitrile	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U
Benzene	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
Bromobenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Bromochloromethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Bromodichloromethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Bromoform	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Bromomethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
2-Butanone	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U
n-Butylbenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
sec-Butylbenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
tert-Butylbenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Carbon Disulfide	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Carbon Tetrachloride	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
Chlorobenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Chloroethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Chloroform	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.5		2.0	U	0.2	U
Chloromethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
2-Chlorotoluene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
4-Chlorotoluene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,2-Dibromo-3-chloropropane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Dibromochloromethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Dibromomethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
trans-1,4-Dichloro-2-butene	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U
1,2-Dichlorobenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,3-Dichlorobenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,4-Dichlorobenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,1-Dichloroethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,2-Dichloroethane	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
1,1-Dichloroethene	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
cis-1,2-Dichloroethene	0.3		0.2	U	2.0	U	0.3		6.1		25		2.1		0.2	U	2.0	U	0.6	
trans-1,2-Dichloroethene	0.2	U	0.2	U	2.0	U	0.3		0.4		2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
1,2-Dichloropropane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,3-Dichloropropane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
2,2-Dichloropropane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,1-Dichloropropene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
cis-1,3-Dichloropropene	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
trans-1,3-Dichloropropene	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
Ethylbenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Ethylene Dibromide	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Hexachlorobutadiene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
2-Hexanone	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U
Isopropylbenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
4-Isopropyltoluene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Methyl Iodide	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U

SWMU-20 VOA/CONVENTIONALS DATA
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
NOVEMBER 2012

Sample Name:	DC-MW-6A		DC-MW-6B		DC-MW-9A		DC-MW-10A		DC-MW-10C		DC-MW-11A		DC-MW-12A		DC-MW-13A		DC-MW-13C		DC-MW-14A	
Lab SDG:	1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437	
Lab Sample ID:	6861134		6861136		6861125		6861123		6861122		6861120		6861121		6861115		6861116		6861127	
Sample Date:	11/14/2012		11/14/2012		11/14/2012		11/14/2012		11/14/2012		11/14/2012		11/14/2012		11/13/2012		11/13/2012		11/14/2012	
4-Methyl-2-Pentanone (MIBK)	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	50	U	5.0	U
Methylene Chloride	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Naphthalene	0.5	U	0.5	U	7.5		0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.8	
n-Propylbenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Styrene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,1,2,2-Tetrachloroethane	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
Tetrachloroethene	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	2.2		2.0	U	0.2	U
Toluene	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,2,3-Trichlorobenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,2,4-Trichlorobenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,1,1-Trichloroethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,1,2-Trichloroethane	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
Trichloroethene	0.2	U	0.2	U	2.0	U	0.2	U	0.2	U	2.0	U	0.4		0.8		2.0	U	0.2	U
Trichlorofluoromethane	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,2,3-Trichloropropane	1.0	U	1.0	U	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	10	U	1.0	U
1,2,4-Trimethylbenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
1,3,5-Trimethylbenzene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Vinyl Acetate	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
Vinyl Chloride	0.8		3.7		2.0	U	0.4		4.4		2.0	U	0.2	U	0.2	U	2.0	U	0.2	U
m,p-Xylene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
o-Xylene	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U	0.5	U	5.0	U	0.5	U
NATURAL ATTENUATION PARAMETERS																				
Method Modified RSK175 (µg/L)																				
Methane	13000		2300		21000		19000												16000	
Ethane	4.0	U	1.8	J	11		1.0	U											5.0	J
Ethene	1.0	U	1.0	U	1.0	U	1.0	U											1.0	U
Conventional Parameters																				
Sulfate (mg/L) (EPA 300.0)	0.30	U	7.0		0.53	J	0.30	U											79.0	
Total Organic Carbon (mg/L) (SM20 5310C)	9.0		13.7		30.9		30.6												6.5	

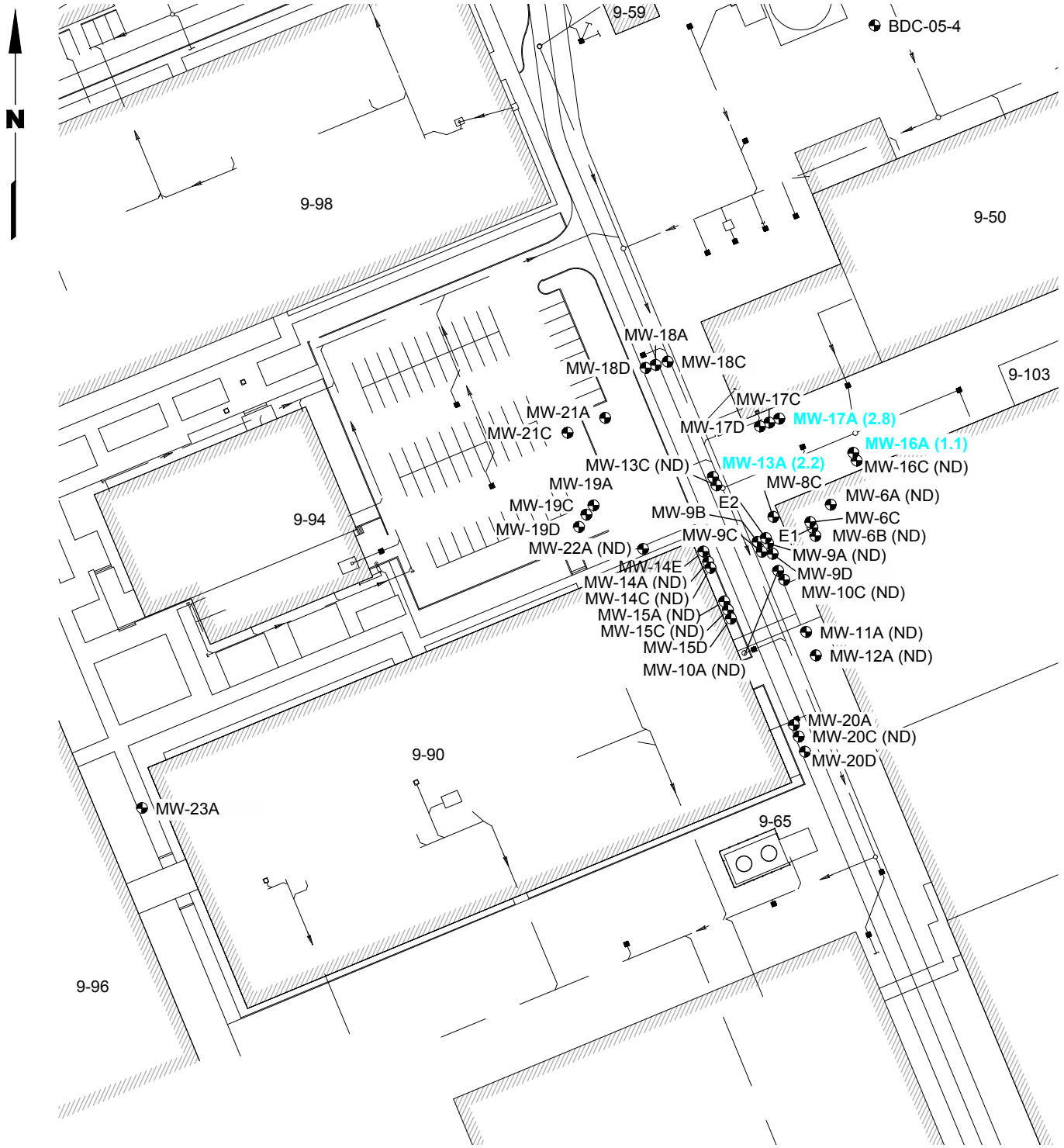
SWMU-20 VOA/CONVENTIONALS DATA
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
NOVEMBER 2012

Sample Name:	DC-MW-14C		DC-MW-15A		DC-MW-15C		DC-MW-16A		DC-MW-16C		DC-MW17A		DC-MW-20C		DC-MW-22A		TRIP BLANK	
Lab SDG:	1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437	
Lab Sample ID:	6861129		6861118		6861119		6861130		6861131		6861114		6861117		6861132		6654138	
Sample Date:	11/14/2012		11/13/2012		11/13/2012		11/14/2012		11/14/2012		11/13/2012		11/13/2012		11/14/2012		11/14/2012	
Test ID: VOA SW8260C (µg/L)																		
Acetone	50	U	5.0	U	50	U	5.0	U	5.0	U	5.0	UJ	50	U	5.0	U	5.0	U
Acrolein	250	U	25	U	250	U	25	U	25	U	25	UJ	250	U	25	U	25	U
Acrylonitrile	50	U	5.0	U	50	U	5.0	U	5.0	U	5.0	UJ	50	U	5.0	U	5.0	U
Benzene	2.0	U	0.4		2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	0.4		0.2	U
Bromobenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Bromochloromethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Bromodichloromethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Bromoform	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Bromomethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
2-Butanone	50	U	5.0	U	50	U	5.0	U	5.0	U	5.0	UJ	50	U	5.0	U	5.0	U
n-Butylbenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
sec-Butylbenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
tert-Butylbenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Carbon Disulfide	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Carbon Tetrachloride	2.0	U	0.2	U	2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	0.2	U	0.2	U
Chlorobenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Chloroethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Chloroform	2.0	U	0.2	U	2.0	U	0.2	U	0.2	U	0.3	J	2.0	U	0.2	U	0.2	U
Chloromethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
2-Chlorotoluene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
4-Chlorotoluene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,2-Dibromo-3-chloropropane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Dibromochloromethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Dibromomethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
trans-1,4-Dichloro-2-butene	50	U	5.0	U	50	U	5.0	U	5.0	U	5.0	UJ	50	U	5.0	U	5.0	U
1,2-Dichlorobenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,3-Dichlorobenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,4-Dichlorobenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,1-Dichloroethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,2-Dichloroethane	2.0	U	0.2	U	2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	0.2	U	0.2	U
1,1-Dichloroethene	2.0	U	0.2	U	2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	0.2	U	0.2	U
cis-1,2-Dichloroethene	2.0	U	0.4		2.0	U	0.6		4.9		0.9	J	2.0	U	0.5		0.2	U
trans-1,2-Dichloroethene	2.0	U	0.2		2.0	U	0.2	U	0.3		0.2	UJ	2.0	U	0.2	U	0.2	U
1,2-Dichloropropane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,3-Dichloropropane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
2,2-Dichloropropane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,1-Dichloropropene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	2.0	U	0.2	U	2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	0.2	U	0.2	U
trans-1,3-Dichloropropene	2.0	U	0.2	U	2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	0.2	U	0.2	U
Ethylbenzene	5.0	U	0.6		5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	2.3		0.5	U
Ethylene Dibromide	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Hexachlorobutadiene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
2-Hexanone	50	U	5.0	U	50	U	5.0	U	5.0	U	5.0	UJ	50	U	5.0	U	5.0	U
Isopropylbenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
4-Isopropyltoluene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Methyl Iodide	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U

SWMU-20 VOA/CONVENTIONALS DATA
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
NOVEMBER 2012

Sample Name:	DC-MW-14C		DC-MW-15A		DC-MW-15C		DC-MW-16A		DC-MW-16C		DC-MW17A		DC-MW-20C		DC-MW-22A		TRIP BLANK	
Lab SDG:	1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437		1349437	
Lab Sample ID:	6861129		6861118		6861119		6861130		6861131		6861114		6861117		6861132		6654138	
Sample Date:	11/14/2012		11/13/2012		11/13/2012		11/14/2012		11/14/2012		11/13/2012		11/13/2012		11/14/2012		11/14/2012	
4-Methyl-2-Pentanone (MIBK)	50	U	5.0	U	50	U	5.0	U	5.0	U	5.0	UJ	50	U	5.0	U	5.0	U
Methylene Chloride	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Naphthalene	5.0	U	120		5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	9.2		0.5	U
n-Propylbenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Styrene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,1,1,2-Tetrachloroethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	2.0	U	0.2	U	2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	0.2	U	0.2	U
Tetrachloroethene	2.0	U	0.2	U	2.0	U	1.1		0.2	U	2.8	J	2.0	U	0.2	U	0.2	U
Toluene	2.0	U	1.2		2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	1.2		0.2	U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,1,1-Trichloroethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,1,2-Trichloroethane	2.0	U	0.2	U	2.0	U	0.2	U	0.2	U	0.2	UJ	2.0	U	0.2	U	0.2	U
Trichloroethene	2.0	U	0.2	U	3.2		1.5		0.2	U	3.5	J	2.0	U	0.2	U	0.2	U
Trichlorofluoromethane	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
1,2,3-Trichloropropane	10	U	1.0	U	10	U	1.0	U	1.0	U	1.0	UJ	10	U	1.0	U	1.0	U
1,2,4-Trimethylbenzene	5.0	U	1.7		5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	4.8		0.5	U
1,3,5-Trimethylbenzene	5.0	U	0.6		5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Vinyl Acetate	5.0	U	0.5	U	5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	0.5	U	0.5	U
Vinyl Chloride	2.0	U	0.8		2.0	U	0.2	U	3.8		0.2	UJ	2.0	U	1.8		0.2	U
m,p-Xylene	5.0	U	0.8		5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	1.5		0.5	U
o-Xylene	5.0	U	0.9		5.0	U	0.5	U	0.5	U	0.5	UJ	5.0	U	3.7		0.5	U
NATURAL ATTENUATION PARAMETERS																		
Method Modified RSK175 (µg/L)																		
Methane															4400			
Ethane															1.7	J		
Ethene															1.0	U		
Conventional Parameters																		
Sulfate (mg/L) (EPA 300.0)															0.30	U		
Total Organic Carbon (mg/L) (SM20 5310C)															22.7			

U = Indicates compound was analyzed for, but was not detected at the given detection limit.
J = Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
µg/L = micrograms per liter
mg/L = milligrams per liter



Legend

- Monitoring Well Location
- (ND) Tetrachloroethene Not Detected at 0.2 µg/L Detection Limit
- (2.8) Tetrachloroethene Groundwater Concentration in µg/L

Boeing/Developmental Center/Summary Report | V:\0250093\112.012\Semiannual GW Report Fall 2012\Figure 1-6.dwg (A) "Figure 1" 3/18/2013

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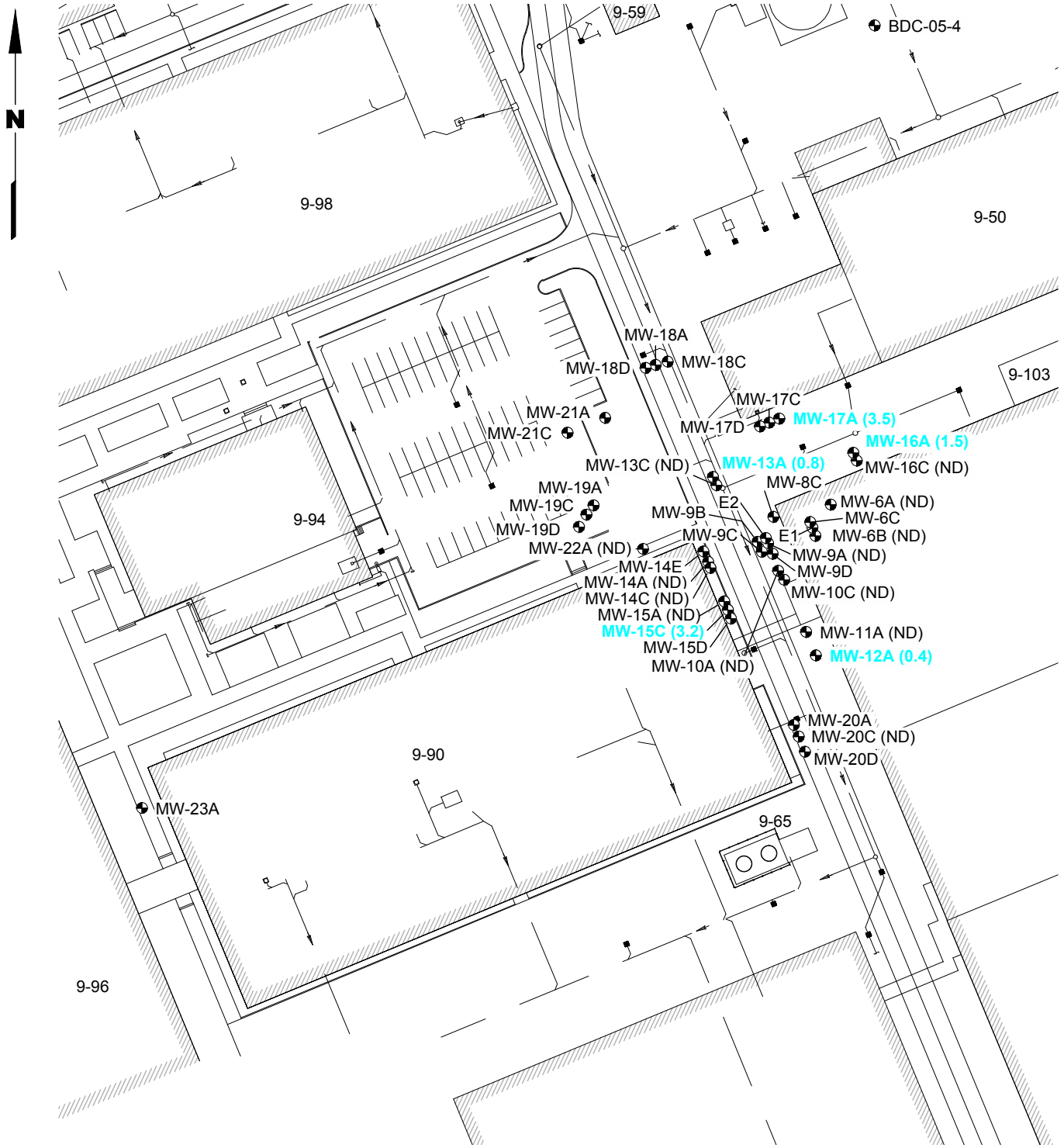
Boeing Developmental Center Tukwila, Washington	**SWMU-20 Tetrachloroethene November 2012 Groundwater Concentrations**	Figure 1



Boeing/Developmental Center/Summary Report | V:\0250093\112.012\Semiannual GW Report Fall 2012\Figure 1-6.dwg (A) "Figure 2" 3/18/2013

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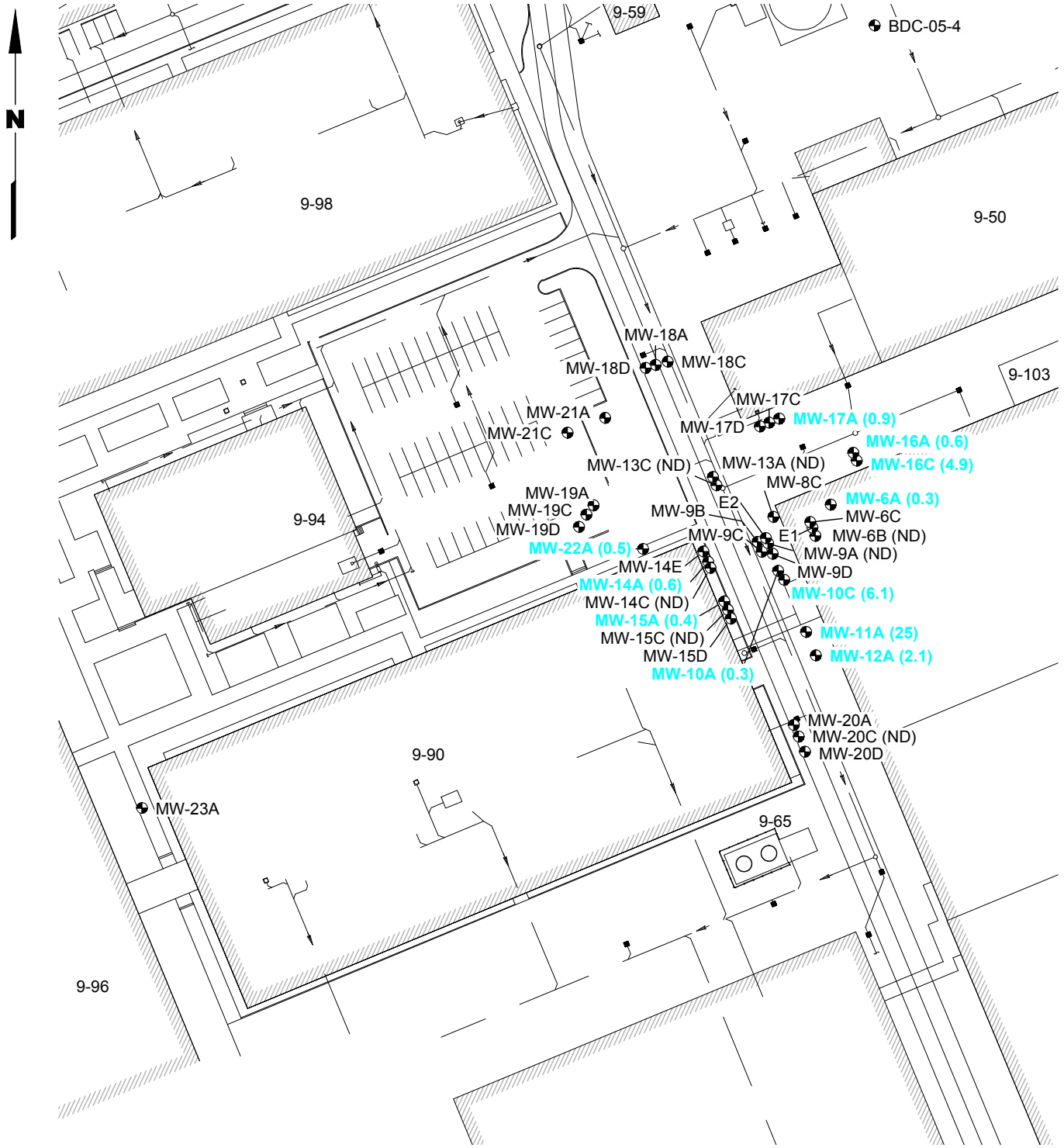
Boeing Developmental Center
Tukwila, Washington

SWMU-20 Trichloroethene
November 2012
Groundwater Concentrations

Figure
2



Boeing/Developmental Center/Summary Report | V:\025\093\112.012\Semiannual GW Report Fall 2012\Figure 1-6.dwg (A) "Figure 3" 3/18/2013

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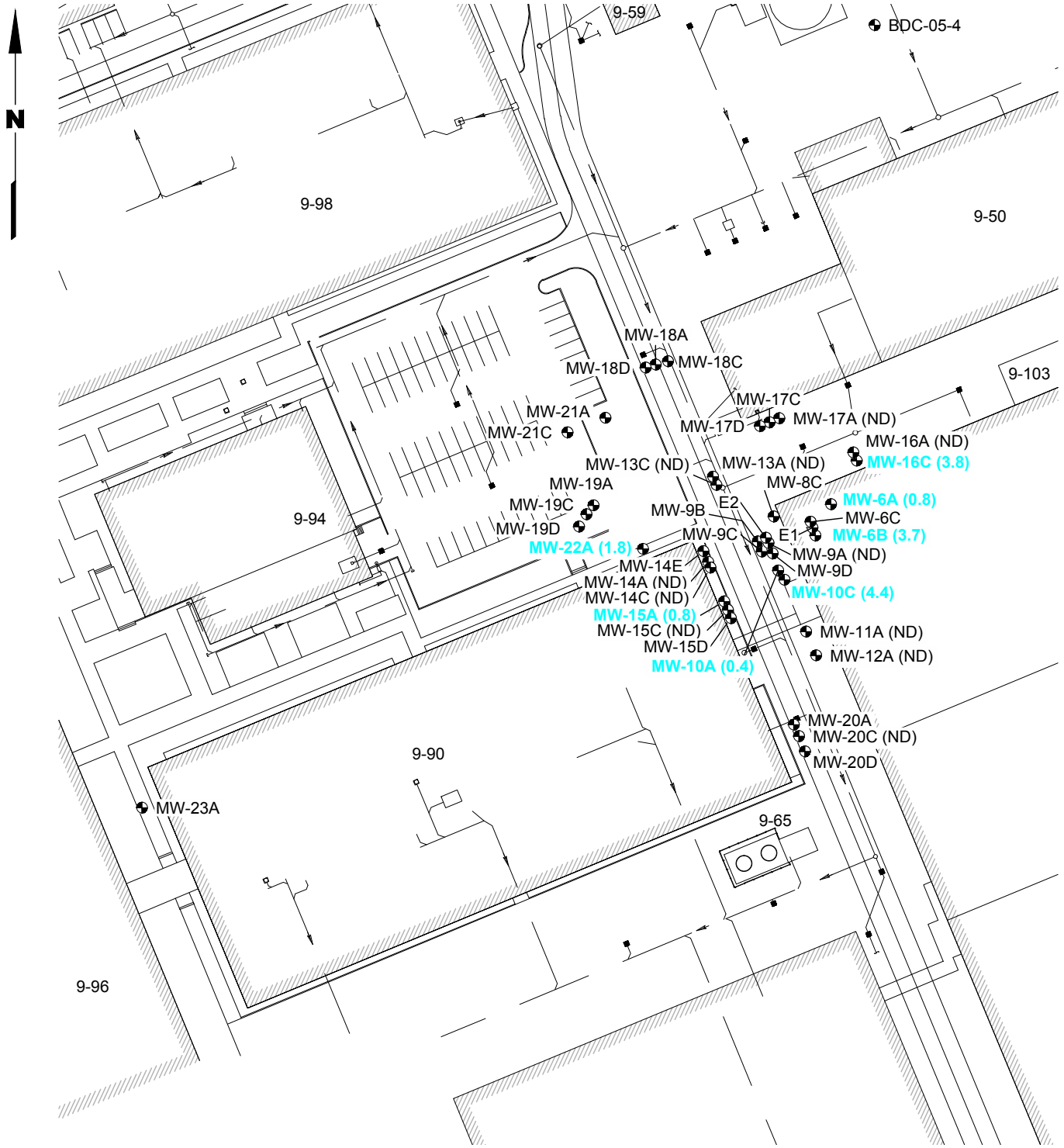
Boeing Developmental Center
Tukwila, Washington

SWMU-20 Cis-1,2-Dichloroethene
November 2012
Groundwater Concentrations

Figure
3



Boeing/Developmental Center/Summary Report | V:\0250093\112.012\Semiannual GW Report Fall 2012\Figure 1-6.dwg (A) "Figure 4" 4/9/2013

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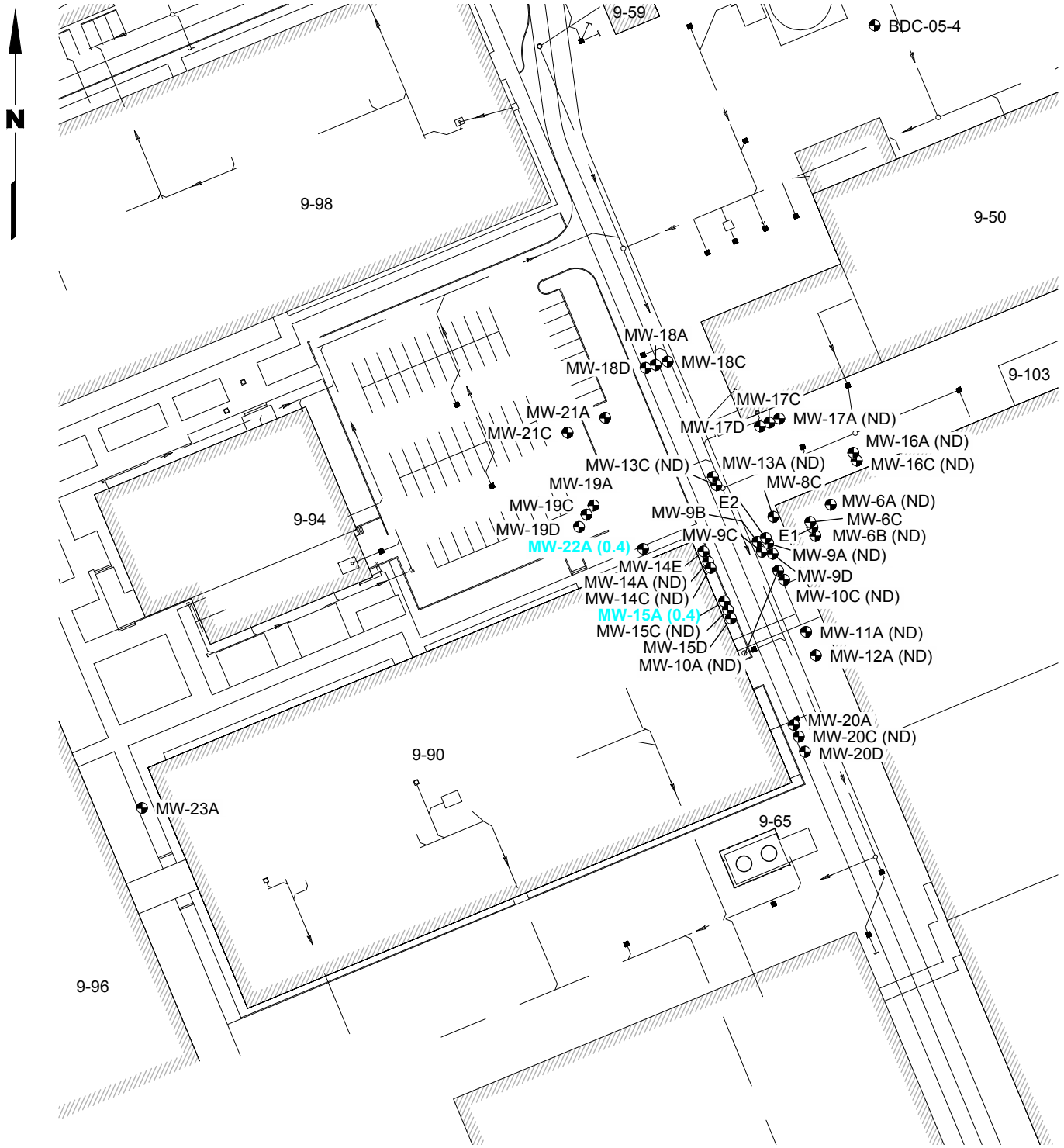
Boeing Developmental Center
Tukwila, Washington

SWMU-20 Vinyl Chloride
November 2012
Groundwater Concentrations

Figure
4



Legend

- Monitoring Well Location
- (ND) Benzene Not Detected at 0.2 µg/L Detection Limit
- (0.4) Benzene Groundwater Concentration in µg/L

Boeing/Developmental Center/Summary Report | V:\0250093\112.012\Semiannual GW Report Fall 2012\Figure 1-6.dwg (A) "Figure 5" 3/18/2013

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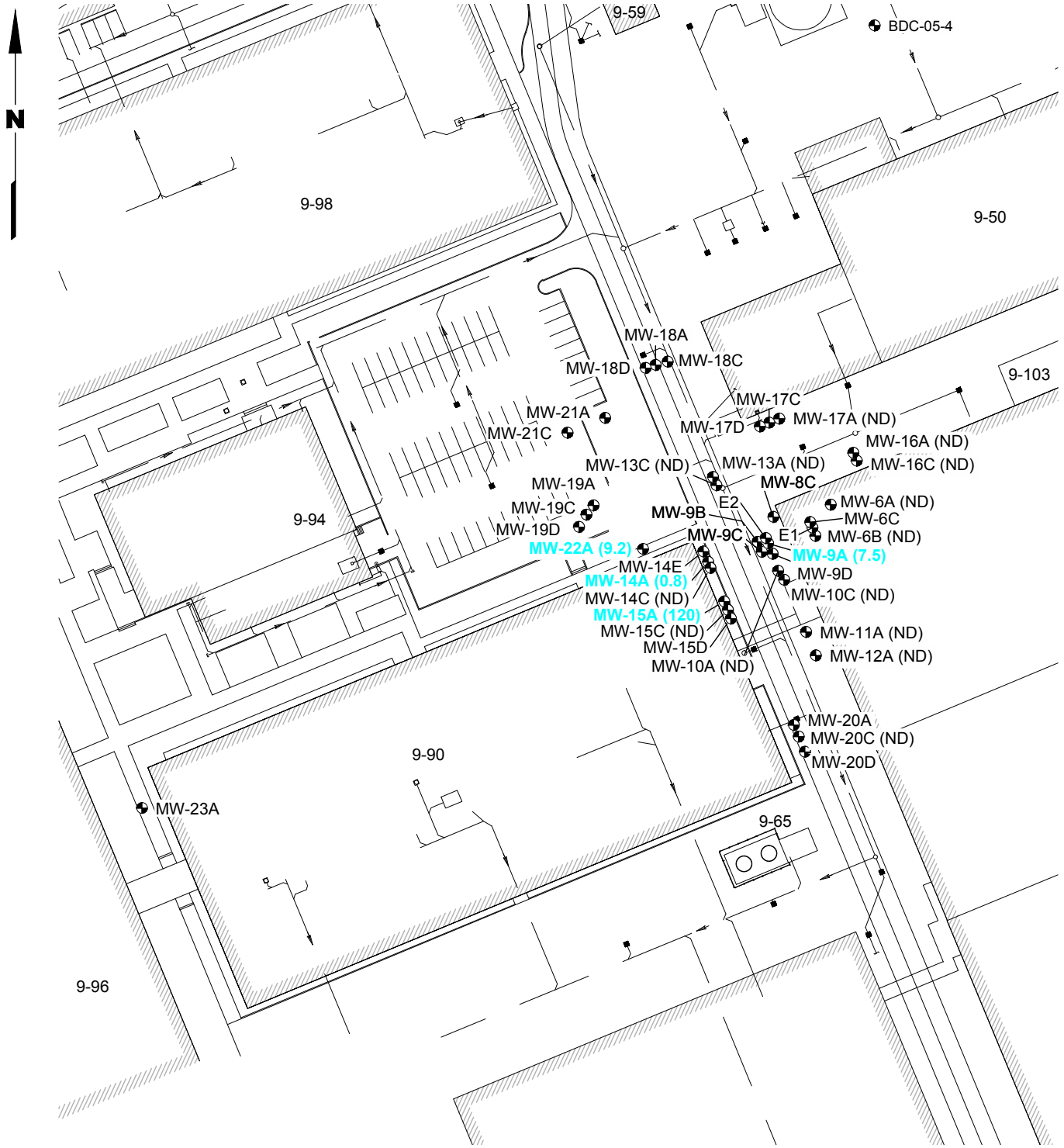
Boeing Developmental Center Tukwila, Washington	**SWMU-20 Benzene November 2012 Groundwater Concentrations**	Figure 5



Boeing/Developmental Center/Summary Report | V:\0250093\112.012\Semiannual GW Report Fall 2012\Figure 1-6.dwg (A) "Figure 6" 3/18/2013

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Boeing Developmental Center Tukwila, Washington	**SWMU-20 Naphthalene November 2012 Groundwater Concentrations**	Figure 6

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

TETRACHLOROETHENE (µg/L)

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05	Aug-05	Nov-05	Feb-06
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
06B	**27**	**5.87**	**14.4**	**9.62 J**	**26.18**	**13.7**	**14.3**	**21.5**	**21.3**	**17**	**16.9**	**18.9**	**16.3**	**22.6**	**2.3**	**6**	**10.19**	**2.6**	**2.4**	**10**	**10**	**7.9**	**3.9**	**9.5**	**1.9**	<1.0	<1.0	nt	<2.0	<1.0	<1.0	<1.0
06C	**22**	<1.00	<10.00	<10.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
08C	**16**	<1.00	<5.00	<5.00	<3.33	<10.00	**13.5**	<5.00	<4.00	<4.00	<4.00	**7.8**	<5.00	<1.00	<2.00	<2.00	<2.00	<1.00	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
09A	**420**	**2568.25**	**1589**	**1970**	**785.7**	**114**	**272**	**98**	**76**	**96.9**	**56.6**	**39.4**	**94**	**5.1**	**38**	**40**	**36.6**	**12.65**	**16**	**14**	**540**	**1800**	**1000**	**150**	<3.0	<5.0	<10	nt	<1.0	<1.0	<1.0	<1.0
09B	**820**	**1972.65**	**668.1**	**1266**	**934.6**	**78.9**	**75.9**	**44.3**	**35**	**10.9**	**21.5**	**31.3**	<10.00	**6.74**	**3.6**	<2.00	**6.62**	**1.18**	**2.1**	<1.0	<1.0	**1.0**	**250**	<3.0	<5.0	<5.0	<10	nt	<1.0	<1.0	<1.0	<1.0
09C	nd	**11.32**	<5.00	<10.00	**1.24**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
09D	**8.8**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
10A	**180**	**635.8**	**754 E**	**468.85**	**242.1**	**114**	**342**	**67.5**	**77.8**	**76.5**	**70.3**	**72.5**	**86.4**	**38**	**21.5**	**16.6**	**21.63**	**30.3**	**11**	**24**	**24**	**34**	**58**	**29**	**14**	**15**	**4.7**	nt	**4.2**	**2.7**	**3.3**	**3.7**
10C	**6.9**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
11A	**5.2**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
12A	**3.9**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
13A	**10**	**4.17**	<5.00	<5.00	**6.82**	**3**	**2.1**	**3.2**	**2.1**	**1.7**	**1.5**	**1.6**	**1.3**	<1.00	<1.00	**1.2**	<1.00	<1.00	**1.6**	**2.7**	**2.4**	**3.4**	**3.0**	**5.1**	nt	**4.3**	nt	nt	**6.1**	nt	**6.0**	nt
13C	**5.1**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
14A	**410**	**4.42**	<5.00	**133.57**	**96.06**	**11.2**	<5.00	<4.00	<2.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	nt	<10	<10	<3.0	<1.0
14C	**7.2**	**9.02**	**10.53**	**8.64 J**	**5.44**	**6.1**	<1.00	<10.00	<10.00	<10.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
14E	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
15A	**11**	<1.00	<5.00	<5.00	<5.00	<2.00	<1.00	<4.00	<2.00	<1.00	<2.00	<3.33	<10.00	<1.00	<10.00	<10.00	<10.00	<1.00	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
15C	**13**	<1.00	<33.30	<5.00	<1.00	**1.1**	<1.00	<2.00	<10.00	<10.00	<10.00	<3.33	<1.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
16A	**1.6**	**1.10**	<5.00	<5.00	<1.00	**1.7**	<1.00	**1.1**	<1.00	<1.00	<1.00	**1.64**	**1.03**	**1.3**	**2.3**	**2.2**	<1.00	<1.00	<1.0	<1.0	**1.2**	**1.2**	**1.1**	**1.2**	nt	**1.2**	nt	nt	**1.2**	nt	**1.3**	nt
16C	nd	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
17A	**36**	1.39	<5.00	<5.00	**1.55**	<1.00	**1.3**	**2.7**	**1.90 J**	**2.2**	<1.00	**2.6**	**2.4**	**2.5**	**2.1**	**2.6**	**4.15**	nt	<1.0	**3.8**	**4.6**	**4.6**	**4.8**	**4.8**	nt	**5.2**	nt	nt	nt	nt	**4.0**	nt
17C	**36**	<1.00	<5.00	<5.00	<1.00	**1.6**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	**46**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	**5.4**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	nt	nt	nt	nt	nt	nt
18C	**4.6**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
18D	**4.6**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	**6**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0
19C	**6.5**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
19D	**9.5**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	**3.4**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	**3.9**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
20D	**4.3**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	<1.0
23A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	<1.0

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

TETRACHLOROETHENE (µg/L)

	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12
06A	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
06B	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
06C	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
08C	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<5.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	**1.9**	<10	<5.0	<1.0	<1.0	<2.0	<0.2	<0.2	<2.0
09B	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
09C	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09D	<1.0	nt	<1.0	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
10A	**1.8**	**1.6**	<0.2	**1.2**	**1.1**	**1.2**	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<0.2	<0.2	<0.2
10C	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
11A	<1.0	nt	<1.0	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
12A	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	**0.2**	<0.2
13A	**7.1**	nt	**8.3**	nt	**8.2**	**6.4**	**8.7**	**6.5**	**7.7**	**9.2**	**9.4**	**3.6**	**3.9**	**1.6**	**2.3**	**2.2**
13C	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0
14A	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
14C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
14E	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
15A	<5.0	nt	<3.0	nt	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	<1.0	<1.0	<10	<0.2	<0.1	<0.2
15C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
15D	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
16A	**1.0**	nt	<0.2	nt	**1.1**	**1.7**	**1.2**	**1.5**	**1.6**	**2.2**	**1.4**	**1.3**	**1.6**	**1.4**	**1.6**	**1.1**
16C	<1.0	nt	**1.2**	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
17A	**4.2**	nt	**2.2**	nt	**4.7**	**4.2**	**4.3**	**4.2**	**3.2**	**3.7**	**4.0**	**2.3**	**3.1**	**2.6**	**3.1**	**2.8**
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18C	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
18D		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	<1.0	nt	<0.2	nt	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
23A	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt

nd = Not Detected.
nt = Not Tested.
J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.
E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Bold = Detected compound.

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

TRICHLOROETHENE (µg/L)

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05	Aug-05	Nov-05	Feb-06
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**1.0**	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
06B	**4.2**	**3.57**	**6.00 J**	<5.00	**7.37**	**3.5**	**2.5**	**4.9**	**4.7**	**4.6**	**6.5**	**3.5**	**2.6**	**4.54**	**2.2**	**4.7**	**8.71**	**5.83**	**4.7**	**5.9**	**4.5**	**2.9**	**1.0**	**3.2**	**1.2**	<1.0	<1.0	nt	<2.0	<1.0	<1.0	<1.0
06C	**1.6**	<1.00	**31.36**	<10.00	<1.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**91.6**	<2.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
08C	**21**	**3.16**	<5.00	<5.00	<3.33	<10.00	**26.2**	<5.00	<4.00	<4.00	<4.00	**26.6**	<5.00	<1.00	<2.00	<2.00	<2.00	<1.00	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
09A	**500**	**1796.5**	**1507**	**2318**	**1160**	**90.8**	**191**	**49.3**	**51.1**	**69.2**	**56.4**	**15.4**	**77**	**3.5**	**35**	**23**	**24.3**	**25.21**	**32**	**24**	**580**	**990**	**1500**	**230**	**11**	**19**	<10	nt	<1.0	<1.0	<1.0	<1.0
09B	**160**	**1463**	**524.7**	**1206**	**554**	**58.6**	**35.2**	**28.7**	**31.5**	**4.9**	**15.4**	**20.65**	<10.00	**7.5**	**4.8**	**2.6**	**11.2**	**5.79**	**4.8**	**2.5**	**12**	**9.7**	**370**	**4.2**	**16**	**17**	<10	nt	<1.0	<1.0	<1.0	<1.0
09C	nd	**19.41**	<5.00	<10.00	**3.54**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
09D	**2.2**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
10A	**120**	**333.23**	**411 E**	**268.41**	**115.3**	**56.7**	**128**	**28.4**	**38.2**	**36.6**	**48.8**	**23.8**	**33.9**	**19.2**	**14**	**8.3**	**13.11**	**17.02**	**18**	**24**	**29**	**32**	**49**	**27**	**12**	**15**	**4.8**	nt	**5.4**	**6.3**	**6.7**	**9.6**
10C	**3.9**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
11A	**7**	**2.41**	<5.00	<5.00	**2.54**	**1.9**	**1**	<1.00	<1.00	**1.2**	**1.6**	<1.00	**1.03**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	**1.9**	**2.2**	**2.2**	**2.8**	**2.1**	nt	**2.0**	nt	nt	**2.0**	nt	**2.0**	nt
12A	**5.5**	**1.13**	<5.00	<5.00	<1.00	**1.7**	**1.2**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
13A	**31**	**12.23**	<5.00	**9.57 J**	**16.52**	**3.4**	**3.4**	**2**	**1.5**	**2.9**	**3**	**1.1**	**1.7**	**1.8**	**2.3**	**2.4**	**2.12**	**1.28**	<1.0	**3.4**	**3.3**	**3.9**	**3.8**	**4.6**	nt	**4.0**	nt	nt	**4.6**	nt	**4.5**	nt
13C	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
14A	**600**	**6.25**	<5.00	**151.58**	**146.72**	**84.1**	**2.8**	<4.00	<2.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**2.9**	**39**	<5.0	nt	<10	<10	<3.0	<1.0
14C	**6.6**	**14.41**	**21.93**	**13.33**	**7.61**	**12.5**	<1.00	<10.00	<10.00	<10.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
14E	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
15A	**7.5**	<1.00	<5.00	<5.00	<5.00	<2.00	<1.00	<4.00	<2.00	<1.00	<2.00	<3.33	<10.00	<1.00	<10.00	<10.00	<10.00	<1.00	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
15C	**12**	<1.00	<33.30	<5.00	<1.00	**7.5**	<1.00	<2.00	**12**	<10.00	<10.00	<3.33	<1.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
16A	**4.4**	**5.02**	<5.00	<5.00	**2.57**	**4**	**2.1**	**2.6**	**2**	**1.9**	<1.00	<1.00	<1.00	**1.01**	**1.4**	**1.2**	**1.08**	<1.00	<1.0	<1.0	**1.5**	**1.3**	**1.2**	**1.2**	nt	**1.3**	nt	nt	**1.8**	nt	**2.2**	nt
16C	nd	<1.00	<5.00	<10.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
17A	**7.2**	**17.42**	**17.04**	<5.00	**7.28**	<1.00	**9.8**	**17.5**	**4.9**	**18**	**2**	<1.00	**12.4**	**11.1**	**11.5**	**6.6**	**13.99**	nt	**5.9**	**7.4**	**7.5**	**7.4**	**7.9**	**6.5**	nt	**4.8**	nt	nt	nt	nt	**5.4**	nt
17C	**2.1**	<1.00	<5.00	<5.00	<1.00	**14.1**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	**2.3**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	nt	nt	nt	nt	nt	nt
18C	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
18D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	**1.5**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0
19C	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
19D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	**1.1**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	**1.8**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
20D	**1.5**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	<1.0
23A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	<1.0

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

TRICHLOROETHENE (µg/L)

	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12
06A	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
06B	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
06C	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
08C	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<5.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	**0.2**	**4.6**	<10	<1.0	<1.0	<1.0	<2.0	<0.2	<0.2	<2.0
09B	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
09C	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09D	<1.0	nt	<1.0	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
10A	**3.7**	**1.6**	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<0.2	<0.2	<0.2
10C	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
11A	**1.1**	nt	**1.5**	nt	**1.5**	**1.1**	**1.2**	**1.2**	<1.0	**1.0**	**1.1**	<1.0	<1.0	**0.5**	**0.7**	<2.0
12A	<1.0	nt	**0.7**	nt	<1.0	<1.0	**0.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.6**	<0.2	**0.4**
13A	**4.6**	nt	**6.5**	nt	**7.0**	**4.2**	**6.8**	**3.7**	**5.6**	**6.0**	**5.3**	**2.8**	**2.4**	<1.0	**0.8**	**0.8**
13C	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0
14A	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
14C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
14E	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
15A	<5.0	nt	<3.0	nt	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	<1.0	<1.0	<10	<0.2	<1.0	<0.2
15C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	**3.2**
15D	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
16A	**1.4**	nt	**0.8**	nt	**1.3**	**1.2**	**1.3**	**1.4**	**1.6**	**1.5**	**1.4**	**1.1**	**1.4**	**1.3**	**1.7**	**1.5**
16C	<1.0	nt	**2.3**	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
17A	**4.4**	nt	**6.3**	nt	**5.3**	**4.3**	**5.1**	**5.2**	**4.9**	**4.5**	**3.1**	**4.8**	**2.2**	**2.8**	**2.0**	**3.5**
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18C	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
18D		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	<1.0	<1.0	**0.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	<1.0	nt	**0.2**	nt	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	<1.0	<1.0	**0.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
23A	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt

nd = Not Detected.
nt = Not Tested.
J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.
E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Bold = Detected compound.

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

CIS-1,2-DICHLOROETHENE (µg/L)

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05	Aug-05	Nov-05	Feb-06
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**23**	**45**	**2.6**	**3.3**	nt	**2.6**	**1.6**	**1.3**	**1.4**
06B	**23**	**43.71**	**53.75**	**29.45**	**58.31**	**46.3**	**30.5**	**37.4**	**60.9**	**61.8**	**76.4**	**66.7**	**9.9**	**70.1**	**49.7**	**71.5**	**91.77**	**63.94**	**27**	**40**	**23**	**13**	**11**	**10**	**13**	**10**	**11**	nt	**5.5**	**1.8**	**1.1**	<1.0
06C	**7.9**	**14.57**	**99.09**	<10.00	**1.01**	**107**	**1.9**	**3.1**	**22.1**	**28.3**	**12.3**	**1.1**	**181 E**	<2.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**1.4**	<1.0	**3.6**	nt	**1.1**	**1.1**	**1.1**	<1.0
08C	**44**	**14.95**	<5.00	**5.55 J**	**8**	**1.1**	**37.6**	<5.00	**37.3**	**46.1**	**42.3**	**38.4**	<5.00	**1.1**	<2.00	**3.2**	<2.00	<1.00	<1.0	<1.0	<1.0	<3.0	<5.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
09A	**2500**	**5790.9**	**3286**	**7484**	**6143**	**443**	**816**	**520**	**258**	**206.E**	**199**	**94.3**	**680**	**15.5**	**187**	**421**	**60.75**	**266.6**	**100**	**280**	**1600**	**2300**	**2300**	**970**	**370**	**460**	**41**	nt	<1.0	<1.0	<1.0	<1.0
09B	**940**	**5010.35**	**1307 E**	**3407 E**	**1521**	**207**	**142**	**164 E**	**510**	**35.1**	**111**	**939 E**	**178**	**122.04**	**41.2**	**102.4**	**135.2**	**112.3**	**100**	<180	**180**	**140**	**850**	**250**	**530**	**300**	**890**	nt	**12**	<1.0	<1.0	<1.0
09C	**520**	**431.66**	**159.69**	**70**	**33.67**	**29.8**	**1.6**	**4.6**	**2.6**	**2**	**1.7**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.1**	**6.7**	**2.7**	**4.1**	**8.9**	**4.0**	**1.7**	<1.0	**1.7**	nt	**1.2**	**7.6**	**1.2**	<1.0
09D	**5.1**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
10A	**470**	**421.26**	**297 E**	**249.16**	**159.2**	**90.1**	**17.8**	**29**	**66.1**	**58.5**	**74.1**	**29.3**	**6.9**	**33.3**	**20.6**	**10.6**	**14.14**	**14.09**	**36**	**80**	**110**	**88**	**98**	**80**	**170**	**100**	**24**	nt	**26**	**48**	**47**	**42**
10C	**14**	**1.93**	<5.00	<5.00	**1.01**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	**3.7**	**3.3**	**14**	**6.2**	**4.3**	nt	**6.4**	nt	nt	**4.0**	nt	<1.0	nt
11A	**54**	**15.86**	**10.82**	**7.17 J**	**10.27**	**9.3**	**6.4**	**4.9**	**6.6**	**6.1**	**4.2**	**2.8**	**2.3**	**2.1**	**1.1**	**1.5**	**1.55**	**1.27**	**2.1**	**6.0**	**12**	**17**	**18**	**21**	nt	**20**	nt	nt	**20**	nt	**22**	nt
12A	**20**	**2.30**	**17.5**	<5.00	**1.09**	**9.5**	**6.6**	<1.00	**6.1**	**3.7**	**3**	**1.7**	**1.7**	**1.8**	**1.03**	**1.9**	**2.07**	**1.46**	**2.2**	**1.8**	**3.3**	**1.4**	**4**	**1.8**	nt	**4.4**	nt	nt	**2.0**	nt	**3.8**	nt
13A	**8.2**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.6**	<1.00	<1.00	**1.2**	**1.3**	**1.2**	**1.2**	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
13C	**16**	**1.14**	<5.00	<5.00	<1.00	**1.3**	<1.00	**1.3**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	**1.4**	**<1.0**	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
14A	**590**	**15.50**	**9.83 J**	**294.36**	**115.94**	**249**	**114**	**6.4**	**24.2**	**18.3**	**9.5**	**4.9**	**3.7**	**7**	**3.2**	**3.8**	<1.00	<1.00	<1.0	<1.0	**7.2**	**23**	**170**	**140**	**560**	**1200**	**300**	nt	<10	<10	**6.0**	<1.0
14C	**110**	**187.91**	**1017.82**	**237.4**	**70.06**	**326**	**211**	**183**	**163**	**136**	**82.7**	**25.6**	**21.7**	**6.2**	<1.00	**1.2**	**2.83**	**1.64**	<1.0	**1.5**	**2.4**	**31**	**13**	**63**	nt	**22**	nt	nt	**11**	nt	<1.0	nt
14E	**1.1**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
15A	**9.1**	**3.29**	<5.00	<5.00	<5.00	**3.6**	**3.5**	**4.5**	**5**	**5.5**	**5.5**	**15.65**	<10.00	<1.00	<10.00	<10.00	<10.00	**4.99**	**4.9**	**2.8**	**2.8**	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
15C	**92**	**69.14**	**640.52**	**93.62**	**1.47**	**463**	**532**	**187**	**1470**	**1100**	**719**	**785 E**	**90.5**	**53.2**	**28.4**	**1.01**	**2.53**	<1.00	**1.1**	<1.0	<1.0	**2.9**	**5.7**	**9.1**	nt	**11**	nt	nt	**13**	nt	<1.0	nt
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
16A	**5.5**	**12.63**	**5.38 J**	<5.00	**25.39**	**12**	**3.2**	**6.2**	**2.4**	**1.7**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.76**	**1.82**	**2.6**	<1.0	**1.2**	**2.4**	**1.3**	**2.3**	nt	**1.8**	nt	nt	**2.6**	nt	**2.1**	nt
16C	**14**	**11.83**	**6.24 J**	<10.00	**5.66**	**2.6**	**1.6**	**1.6**	**1.13**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	**1.7**	nt	**2.4**	nt	nt	**2.8**	nt	**4.6**	nt
17A	**4.3**	**1.38**	<5.00	<5.00	**1.09**	<1.00	**1.4**	**1.2**	**2.90 J**	**4.13**	<1.00	**2.3**	**3.8**	**4.1**	**4.3**	**2.3**	**2.1**	nt	**2**	<1.0	**1.0**	**1.4**	**1.6**	**1.0**	nt	**1.2**	nt	nt	nt	nt	**1.1**	nt
17C	**5.3**	<1.00	<5.00	<5.00	**1.19**	**1.6**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	**1.8**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	nt	nt	nt	nt	nt	nt
18C	**1.3**	**2.02**	<5.00	<5.00	<1.00	**1**	<1.00	<1.00	<1.00	<1.00	**1.1**	**1.8**	**2.8**	**1.9**	**2.1**	**1.3**	**1.59**	**1.42**	<1.0	<1.0	<1.0	**1.7**	**<1.0**	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
18D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	**2.4**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0
19C	**1.7**	**1.17**	<5.00	<5.00	**1.37**	**1.3**	<1.00	<1.00	**1.2**	**1.2**	**1.2**	**2**	**1.2**	**1.4**	<1.00	**1.03**	<1.00	**1.01**	<1.0	<1.0	<1.0	<1.0	1	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
19D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	**16**	**7.34**	**6.06 J**	<5.00	**2.46**	**2.5**	**2.1**	**1.9**	**1.6**	<1.00	<1.00	<1.00	**1.5**	<1.00	<1.00	**1.3**	<1.00	**1.09**	**1.1**	<1.0	**1.3**	**2.1**	**1.6**	**1.4**	nt	**1.7**	nt	nt	**1.7**	nt	**2.1**	nt
20D	**1.8**	**2.22**	<5.00	<5.00	**46.38**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.0	<1.0	**1.3**	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**3.5**	**2.3**	**2.3**	**1.4**	**1.4**
23A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	<1.0

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

CIS-1,2-DICHLOROETHENE (µg/L)

	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12
06A	<1.0	<1.0	**0.4**	<1.0	<1.0	<0.2	<1.0	**1.7**	<4.0	**1.9**	**1.3**	<1.0	<1.0	**0.3**	**0.4**	**0.3**
06B	<1.0	<1.0	**1.4**	**3.8**	**1.4**	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	**0.5**	<0.2
06C	<1.0	<1.0	**0.3**	<1.0	<1.0	**0.2**	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
08C	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<5.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09A	<1.0	<1.0	**0.3**	<1.0	<1.0	<1.0	**110**	**160**	<10	<5.0	<1.0	<1.0	<2.0	**0.2**	**0.2**	<2.0
09B	<1.0	<1.0	**0.3**	<1.0	<1.0	<1.0	**0.2**	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
09C	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09D	<1.0	nt	<1.0	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
10A	**63**	**38**	**7.4**	**32**	**28**	**22**	**22**	**1.6**	<2.0	<1.0	<1.0	<1.0	<2.0	**0.2**	**0.2**	**0.3**
10C	**1.5**	nt	**1.9**	nt	**6.7**	**7.2**	**15**	**8.5**	<1.0	<1.0	<1.0	**3.5**	**5.8**	**3.7**	**5.4**	**6.1**
11A	**20**	nt	**24**	nt	**26**	**27**	**26**	**33**	**26**	**30**	**26**	**22**	**22**	**23**	**24**	**25**
12A	**1.5**	nt	**4.4**	nt	**2.4**	**3.2**	**3.2**	**4.7**	**1.4**	**4.7**	<1.0	**4.3**	<1.0	**3.1**	<0.2	**2.1**
13A	<1.0	nt	**0.3**	nt	**0.4**	<1.0	**0.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2
13C	<1.0	nt	**0.8**	nt	**0.8**	<1.0	**0.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0
14A	**2.1**	**3.0**	<1.0	<1.0	**1.5**	**1.6**	**1.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.6**	**0.3**	**0.6**
14C	<1.0	nt	<0.2	nt	<1.0	**1.1**	**1.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
14E	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
15A	<5.0	nt	<3.0	nt	**1.4**	<1.0	<3.0	<1.0	<3.0	<1.0	<1.0	<1.0	<10	**0.3**	<1.0	**0.4**
15C	<1.0	nt	<0.2	nt	<1.0	<1.0	**1.8**	**1.9**	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
15D	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
16A	**2.3**	nt	**4.2**	nt	**1.9**	**1.2**	**1.2**	**1.0**	<1.0	<1.0	<1.0	<1.0	<1.0	**0.5**	**0.5**	**0.6**
16C	**5.2**	nt	**2.0**	nt	**8.8**	**7**	**7.8**	**5.3**	**5.0**	**4.9**	**3.7**	**3.3**	**3.7**	**3.3**	**4.8**	**4.9**
17A	<1.0	nt	**1.0**	nt	**1.0**	<1.0	**0.8**	**1.2**	**1.4**	**1.1**	<1.0	**2.3**	**1.5**	**1.0**	**0.5**	**0.9**
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18C	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
18D		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	<1.0	<1.0	**0.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19C	<1.0	nt	**0.3**	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	**1.8**	nt	**2.1**	nt	**1.6**	**1.6**	**1.6**	**1.5**	**1.4**	**1.7**	**1.3**	**1.4**	**1.1**	**1.3**	**1.2**	<2.0
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	**2.4**	**1.8**	**2.2**	**2.5**	**2.5**	**2**	**2.6**	**2.2**	**2.5**	**2.1**	**1.7**	**1.2**	**1.1**	**0.9**	**0.6**	**0.5**
23A	<1.0	<1.0	<0.2	<1.0	<1.0	**0.3**	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt

nd = Not Detected.
nt = Not Tested.
J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.
E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Bold = Detected compound.

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

VINYL CHLORIDE (µg/L)

.

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05	Aug-05	Nov-05	Feb-06
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**4.0**	**5.9**	**31**	<1.0	nt	<1.0	<1.0	**1.2**	**4.8**
06B	**13**	**36.53**	**31.8**	**52.29**	**44.78**	**54.5**	**49.4**	**63.7**	**88.7**	**55**	**62.7**	**46.3**	**4.2**	**48.4**	**25.9**	**8**	**21.58**	**10.62**	**8.9**	**12**	**11**	**8.4**	**17**	**9.4**	**2.3**	**3.6**	<1.0	nt	<2.0	**1.6**	**1.3**	**1.4**
06C	30	**20.89**	**34.09**	**38.34**	**22.06**	**164**	**12**	**18.3**	**50.3**	**39.5**	**26.1**	**6**	**54.6**	**4.4**	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
08C	**130**	**42.13**	**32.69**	**35.33**	**35.96**	**129**	**41.2**	**201**	**488**	**256**	**210**	**20.6**	<5.00	**49.7**	**21.4**	**2.4**	<2.00	<1.00	<1.0	<1.0	<1.0	<3.0	<5.0	**2.8**	nt	**3.5**	nt	nt	<1.0	nt	<1.0	nt
09A	**240**	**917.05**	**449**	**1385**	**844.9**	**124**	**228**	**80.9**	**185**	**127**	**135**	**83.8**	**425**	**14**	**278**	**499**	**17.95**	**86.44**	**7.8**	**46**	**150**	**120**	**180**	**37**	**150**	**220**	**37**	nt	<1.0	<1.0	<1.0	<1.0
09B	**140**	**648.6**	**175.6**	**836**	**228.2**	**104**	**62.6**	**41.7**	**270**	**20.9**	**50.7**	**439.56**	**132**	**152.36**	**66.6**	**82.6**	**146.7**	**78.9**	**110**	**7.6**	**27**	**19**	**360**	<3.0	**100**	**340**	**520**	nt	**24**	**1.7**	<1.0	**1.3**
09C	**190**	**233.79**	**185 E**	**71.74**	**50.13**	**106**	**19.4**	**59.8**	**147**	**102.5**	**87.8**	**1.1**	<1.00	**59**	**16.4**	<1.00	<1.00	<1.00	<1.0	**18**	**8.6**	**5.6**	**8.0**	**3.3**	<1.0	**1.5**	<1.0	nt	<1.0	**2.2**	<1.0	<1.0
09D	nd	**1.37**	<5.00	<5.00	<1.00	**1**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
10A	**120**	**116.25**	**16.12**	**31.6**	**651.2**	**80.9**	**16.7**	**48.2**	**33.4**	**9.8**	**8.8**	**8.7**	**1.3**	**12.1**	**3.5**	**3**	**3.32**	**3.32**	**2.9**	**28**	**54**	**36**	**9.1**	**6.4**	**4.0**	**23**	**6.8**	nt	**7.2**	**76**	**73**	**150**
10C	**39**	**28.29**	**33.16**	**40.41**	**18.69**	**11.6**	**10.1**	**9**	<1.00	**4.3**	**3.8**	**1.7**	**1.6**	**2.8**	**1.4**	**2.1**	<1.00	<1.00	<1.0	**8.4**	**15**	**15**	**8.8**	**4.0**	nt	**11**	nt	nt	**1.9**	nt	**1.0**	nt
11A	**39**	**26.80**	**8.37 J**	**12.14**	**14.04**	**3.8**	**1.8**	<1.00	<1.00	<1.00	**3.4**	<1.00	<1.00	**1.1**	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
12A	**14**	<1.00	**17.16**	<5.00	<1.00	**2.9**	**8.6**	<1.00	**9.4**	**6.7**	**1.1**	**1.3**	<1.00	**2.7**	**1.06**	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
13A	**12**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
13C	**760**	**3.03**	<5.00	**15.24**	**11.48**	**3.6**	**1.9**	**2.5**	**2.2**	<1.00	<1.00	**1**	**1.8**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	**1.6**	**3.3**	**4.9**	**2.2**	**2.5**	nt	**3.3**	nt	nt	<1.0	nt	**3.8**	nt
14A	**170**	**11.38**	**30.32**	**44.4**	**36.4**	**339**	**232**	**162**	**270**	**158**	**70**	**29.1**	**13.74**	**58.2**	**20.9**	**19.7**	<1.00	<1.00	<1.0	<1.0	**69**	**28**	**240**	**110**	**180**	**650**	**1000**	nt	<10	<10	<3.0	<1.0
14C	**120**	**103.49**	**1587.3**	**1477**	**134.78**	**414**	**175**	**1296**	**307**	**148**	**144**	**39.4**	**56.4**	**30.2**	<1.00	<1.00	**4.67**	**1.21**	<1.0	<1.0	**4.4**	**50**	**35**	**44**	nt	**75**	nt	nt	**6.1**	nt	**1.8**	nt
14E	**10**	**1.43**	<5.00	<5.00	<1.00	**1.3**	<1.00	<1.00	**1.3**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
15A	**16**	**13.84**	**31.2**	**54.62**	**19.45**	**19.4**	**23**	**20.4**	**23.5**	**17.4**	**18.6**	**61.61**	**17.2**	**2.9**	**37**	**16**	<10.00	**3.86**	**1.8**	**2.0**	**3.3**	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
15C	**38**	**38.79**	**142.38**	**69.81**	**5.12**	**104**	**220**	**69**	**598**	**519**	**500**	**772 E**	**194 E**	**121.2**	**49.2**	**1.4**	**21.32**	<1.00	**1.5**	<1.0	**1.3**	**5.6**	**16**	**11**	nt	**17**	nt	nt	**6.4**	nt	<1.0	nt
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**8.6**	**5.2**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
16A	**6**	**9.18**	<5.00	<5.00	**8.42**	**4.4**	<1.00	<1.00	**2.2**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
16C	**15**	**23.46**	**38.59**	**45.16**	**31.71**	**20.8**	**11.8**	**11.3**	**9.1**	**3**	<1.00	**1.4**	<1.00	**1.9**	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	**1.4**	**3.8**	**2.6**	**5.4**	nt	**8.5**	nt	nt	**7.7**	nt	**12**	nt
17A	nd	<1.00	<5.00	<5.00	<1.00	**1**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	nt	nt	<1.0	nt
17C	**10**	**2.32**	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	nt	nt	nt	nt	nt	nt
18C	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.1**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
18D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0
19C	**5.5**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
19D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	**47**	**20.12**	**12.63**	**13.77**	**8.32**	**6.7**	**3.4**	**3.3**	**3.4**	<1.00	<1.00	**1.6**	**1.8**	<1.00	**1.9**	<1.00	**1.06**	<1.00	<1.0	**1.4**	**2.7**	**4.0**	**3.1**	**2.4**	nt	**4.6**	nt	nt	**2.3**	nt	**2.9**	nt
20D	nd	**6.98**	<5.00	<5.00	**31.12**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**2.0**	**2.9**	**3.2**	**2.2**	**3.3**
23A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	<1.0

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

VINYL CHLORIDE (µg/L)

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	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12
06A	**1.6**	**1.5**	**2.1**	**6.7**	**2.9**	**1.2**	**1.4**	<1.0	<4.0	<1.0	**1.9**	**1.7**	**1.4**	**0.8**	**1.2**	**0.8**
06B	**1.3**	**1.1**	**2.6**	**9.5**	**6.5**	**1**	<1.0	<1.0	<1.0	<1.0	**4.2**	**5.4**	**5.2**	**0.8**	**6.0**	**3.7**
06C	<1.0	<1.0	<0.2	<1.0	<1.0	**0.3**	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
08C	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<5.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09A	<1.0	**1.2**	**1.1**	<1.0	**2.8**	<1.0	**85**	**42**	<10	<5.0	<1.0	<1.0	<2.0	<0.2	<0.2	<2.0
09B	<1.0	<1.0	**0.5**	<1.0	<1.0	<1.0	**0.4**	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
09C	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	**0.2**	<1.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09D	<1.0	nt	<1.0	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
10A	**19**	**20**	**9.2**	**35**	**44**	**78**	**180**	**5.0**	<2.0	<1.0	<1.0	<1.0	<2.0	**0.4**	**0.4**	**0.4**
10C	**2.2**	nt	**2.6**	nt	**5.8**	**5.6**	**6.9**	**7.5**	<1.0	<1.0	<1.0	**4.4**	**4.7**	**4.3**	**4.0**	**4.4**
11A	<1.0	nt	<1.0	nt	<1.0	<1.0	**0.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.4**	**0.4**	<2.0
12A	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
13A	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2
13C	**2.2**	nt	**3.4**	nt	**4.4**	**2**	**0.6**	**2.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.3**	<2.0
14A	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	**0.2**	<0.2
14C	<1.0	nt	**1.0**	nt	**2.5**	**11**	**22**	**4.3**	**1.1**	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
14E	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
15A	<5.0	nt	<3.0	nt	**2.6**	**1.3**	<3.0	<2.0	<3.0	**1.4**	**1.6**	**1.4**	<10	**1.0**	**1.2**	**0.8**
15C	<1.0	nt	<0.2	nt	**2.2**	**2.5**	**6.6**	**6.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
15D	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
16A	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
16C	**6.3**	nt	<0.2	nt	**10**	**8.9**	**7.9**	**8.8**	**6.3**	**5.6**	**3.4**	**2.8**	**3.2**	**2.5**	**4.2**	**3.8**
17A	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18C	<1.0	nt	<0.2	nt	**0.2**	<1.0	**0.2**	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
18D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	**1.6**	nt	**1.5**	nt	**1.8**	**1.3**	**2.5**	**2.7**	**2.0**	**2.3**	**1.8**	**1.4**	**1.8**	**2.1**	**1.5**	<2.0
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	**1.7**	**2.4**	**2.4**	**2.3**	**2.7**	**1.3**	**1.9**	**3.1**	**2.5**	**1.8**	**1.7**	**2.7**	**2.2**	**1.7**	**2.0**	**1.8**
23A	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt

nd = Not Detected.
nt = Not Tested.
J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.
E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Bold = Detected compound.

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

BENZENE (µg/L)

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05	Aug-05	Nov-05	Feb-06
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
06B	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.3**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<2.0	<1.0	<1.0	<1.0
06C	nd	**8.64**	**230.09**	**29.96**	**13.7**	**5.6**	**2.9**	**3.4**	**4.6**	**4.1**	**4.2**	**4.2**	**5.7**	**2.8**	**2.7**	<1.00	**2.76**	**1.94**	**1.7**	<1.0	<1.0	<1.0	**2.2**	<1.0	<1.0	**1.9**	**1.2**	nt	**1.7**	**1.9**	**1.9**	**1.3**
08C	nd	**225.74**	**135.58**	**104.73**	**104.6**	**31.8**	**121**	**27.5**	**6.1**	<4.00	<4.00	13.6	<5.00	<1.00	<2.00	**15.8**	<2.00	<1.00	<1.0	**5.4**	**4.4**	<3.0	<5.0	**2.0**	nt	**1.3**	nt	nt	<1.0	nt	<1.0	nt
09A	nd	<1.00	<5.00	<500.00	<50.00	<3.33	<10.00	<4.00	<5.00	<1.00	<4.00	<1.00	<10.00	<1.00	<10.00	<10.00	<5.00	<1.00	<1.0	<1.0	<1.0	<15	<20	<20	<3.0	<5.0	<10	nt	<1.0	<1.0	<1.0	<1.0
09B	nd	**19.76**	<33.30	<50.00	<10.00	**2.5**	<1.00	<1.00	**7.5**	**3.1**	**3.3**	<3.33	<10.00	<2.00	<2.00	<2.00	<2.00	<1.00	**1.2**	<1.0	<1.0	<1.0	<1.0	<3.0	<5.0	<5.0	<10	nt	<1.0	<1.0	<1.0	<1.0
09C	nd	<1.00	<5.00	<10.00	<1.00	**9.6**	**2.4**	**6.3**	**9.3**	**4.8**	**3.6**	**1.7**	**2.5**	**1.7**	<1.00	**1.5**	**1.36**	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
09D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
10A	nd	<1.00	<5.00	<50.00	<10.00	<1.00	<3.33	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	<1.0	<1.0	<1.0
10C	nd	1.15	<5.00	<5.00	**1.33**	**1.4**	**1.4**	**1.5**	**1.4**	**1.2**	**1.3**	**1.3**	**1.1**	**1.1**	<1.00	**1.4**	**1.23**	<1.00	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
11A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
12A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
13A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
13C	nd	**4.88**	**69.66**	**33.56**	**25.76**	**75**	**34.1**	**36.5**	**20.5**	**7.6**	**6.8**	**3.9**	**3.3**	**3**	<1.00	**2**	**2.31**	**1.16**	<1.0	<1.0	**3.6**	**6.9**	**2.7**	**4.2**	nt	**1.3**	nt	nt	**1.9**	nt	**3.0**	nt
14A	nd	<1.00	<5.00	<20.00	<1.00	<10.00	<5.00	<4.00	<2.00	<2.00	<2.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	nt	<10	<10	<3.0	<1.0
14C	nd	<1.00	<5.00	<5.00	**26.44**	**22**	**11.7**	<10.00	<10.00	<10.00	**4.3**	**2.8**	**4.64**	**2.5**	**1.2**	**1.4**	**1.33**	<1.00	<1.0	<1.0	**1.1**	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
14E	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
15A	nd	<1.00	<5.00	<5.00	<5.00	<2.00	<1.00	<4.00	<2.00	<1.00	<2.00	<3.33	<10.00	<1.00	<10.00	<10.00	<10.00	<1.00	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
15C	nd	<1.00	<33.30	<5.00	<1.00	<3.33	<1.00	<2.00	<10.00	<10.00	<10.00	<3.33	**5.2**	**5.2**	**5.4**	<1.00	**4.28**	**2.92**	**3.2**	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
16A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**2**	<1.00	**10.9**	**49.8**	**1.6**	**46.03**	**33.88**	**15**	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
16C	nd	<1.00	<5.00	<10.00	<1.00	**3.3**	**31.2**	**11.3**	**14.4**	**18.8**	**1.7**	**15**	**8.3**	**10**	**6.4**	**7.8**	**4.33**	**4.99**	**4.5**	**1.7**	**2.6**	**1.2**	**2.8**	<1.0	nt	**1.0**	nt	nt	<1.0	nt	<1.0	nt
17A	nd	<1.00	<5.00	<5.00	<1.00	**78.8**	**2.7**	<1.00	<1.00	<1.00	<1.00	**11.2**	<1.00	<1.00	<1.00	**1.5**	<1.00	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	nt	nt	<1.0	nt
17C	nd	**142.64**	**73.23**	**34.26**	**92.46**	**40.6**	**22.5**	**36.6**	**4.7**	**21.8**	**8.53**	**5.6**	**2.7**	**3.7**	**2.4**	**2.1**	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	nt	nt	nt	nt	nt	nt
18C	**14**	**8.77**	**5.28 J**	<5.00	**5.79**	**5.4**	**3.1**	**3.6**	**4**	**2.9**	**2.7**	**1.5**	**1.4**	**1.5**	<1.00	**1.1**	**1.26**	<1.00	<1.0	<1.0	<1.0	**2.2**	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
18D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	**1.1**	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<1.0	nt	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0
19C	**61**	**17.57**	**13.44**	**7.14 J**	**10.46**	**6.8**	**5.6**	**6.8**	**6.2**	**3.4**	**2.9**	**2.2**	**1.8**	**1.8**	**1.3**	**1.2**	**1.43**	**1.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
19D	**3.9**	**3.60**	<5.00	<5.00	**2.42**	**2.2**	**1.6**	**1.9**	**1.7**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	nd	<1.00	<5.00	<5.00	<1.00	**1.1**	<1.00	**1.1**	**1.1**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	**1.1**	<1.0	<1.0	nt	<1.0	nt	nt	<1.0	nt	<1.0	nt
20D	nd	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	<1.0
23A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.0	<1.0	<1.0	<1.0	<1.0

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

BENZENE (µg/L)

	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12
06A	<1.0	<1.0	**0.4**	<1.0	<1.0	**0.3**	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
06B	<1.0	<1.0	<0.2	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
06C	**1.3**	**1.2**	**1.2**	<1.0	<1.0	**0.9**	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
08C	<10	nt	<5.0	nt	<3.0	<5.0	<5.0	<5.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<10	<5.0	<1.0	<1.0	<2.0	<0.2	<0.2	<2.0
09B	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
09C	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0	<3.0	nt	nt	nt	nt	nt	nt
09D	<1.0	nt	<1.0	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
10A	<1.0	<1.0	**0.3**	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<0.2	<0.2	<0.2
10C	<1.0	nt	**0.2**	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
11A	<1.0	nt	<1.0	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
12A	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
13A	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2
13C	**2.1**	nt	**2.1**	nt	**1.2**	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<2.0
14A	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
14C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
14E	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
15A	<5.0	nt	<3.0	nt	<1.0	<1.0	<3.0	<1.0	<3.0	<1.0	<1.0	<1.0	<10	**0.4**	<1.0	**0.4**
15C	<1.0	nt	**0.4**	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<2.0
15D	<1.0	nt	<1.0	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
16A	<1.0	nt	<0.2	nt	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
16C	<1.0	nt	<0.2	nt	<1.0	<1.0	**0.2**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2	<0.2
17A	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.2	<0.2
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18C	<1.0	nt	<0.2	nt	<0.2	<1.0	<0.2	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
18D		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	<1.0	<1.0	<0.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19C	<1.0	nt	<0.2	nt	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	<1.0	nt	**0.5**	nt	**0.6**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.4**	<2.0
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	<1.0	<1.0	**0.4**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**0.2**	**0.4**	**0.4**
23A	<1.0	<1.0	<0.2	<1.0	<1.0	**0.2**	<1.0	<1.0	<1.0	<1.0	nt	nt	nt	nt	nt	nt

nd = Not Detected.
nt = Not Tested.
J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.
E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Bold = Detected compound.

SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

NAPHTHALENE (µg/L)

	Jan-94	May-95	Oct-95	Feb-96	May-96	Aug-96	Nov-96	Feb-97	May-97	Aug-97	Nov-97	Jun-98	Oct-98	Jun-99	Nov-99	Jun-00	Dec-00	Jun-01	Dec-01	Jun-02	Dec-02	Jun-03	Nov-03	May-04	Aug-04	Oct-04	Feb-05	Mar-05	May-05	Aug-05	Nov-05	Feb-06
06A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<5.0	<5.0	<5.0	<5.0	nt	<5.0	<5.0	<5.0	<5.0
06B	nt	nt	nt	nt	<1.00	**2.8**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.4**	<1.00	<1.00	<1.00	<1.00	**4.5**	**1.8**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<10	<5.0	<5.0	<5.0
06C	nt	nt	nt	nt	**29.26**	**10.4**	**9.1**	**8.8**	**7.2**	<1.00	**18.4**	**3**	**25.1**	**3.4**	<1.00	**7.7**	**44.97**	**9.73**	**2.8**	<5.0	<5.0	<5.0	**220**	**14**	<5.0	<5.0	<5.0	nt	<5.0	<5.0	<5.0	<5.0
08C	nt	nt	nt	nt	**351.9**	**401**	**155**	**370**	**234**	**118**	**292**	**600 E**	**38.6**	**230**	**137**	**109.2**	**174.1**	**125**	**210**	**180 J**	**290**	**390**	**300**	**130**	nt	**180**	nt	nt	**130**	nt	**82**	nt
09A	nt	nt	nt	nt	<50.00	<3.33	<10.00	<4.00	<5.00	<1.00	**7**	<1.00	<10.00	<1.00	<10.00	<10.00	**8.65**	**3.63**	<1.0	<5.0	<5.0	<75	<100	<100	<15	<25	<50	nt	<5.0	<5.0	<5.0	<5.0
09B	nt	nt	nt	nt	<10.00	<2.00	<1.00	<1.00	**13.8**	**22.4**	<2.00	<3.33	<10.00	**3.4**	**4.6**	<2.00	**11.2**	**2.24**	**3.1**	<5.0	<5.0	<5.0	<5.0	<15	<25	<25	<50	nt	<5.0	<5.0	<5.0	<5.0
09C	nt	nt	nt	nt	<1.00	**1.2**	<1.00	**8.8**	**6.5**	<1.00	**25**	<1.00	<1.00	**9.9**	**6.8**	<1.00	**1.67**	**1.8**	**1.3**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**7.7**	**68**	nt	**51**	**29**	**12**	**5.1**
09D	nt	nt	nt	nt	<1.00	**1.3**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
10A	nt	nt	nt	nt	<10.00	**4.2**	<3.33	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	<5.0	<5.0	<5.0
10C	nt	nt	nt	nt	**14.27**	**30.5**	**6.3**	**56.1**	**6.4**	**7.6**	**5.8**	**2.8**	<1.00	**3.8**	**4.7**	**2.7**	**5.77**	<1.00	**36**	**5.0**	<5.0	<5.0	<5.0	**9.4**	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
11A	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**5.1**	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
12A	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
13A	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
13C	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
14A	nt	nt	nt	nt	<1.00	<10.00	<5.00	<4.00	<2.00	<2.00	<2.00	<1.00	<1.00	**150**	**4.8**	**235**	**113.23**	**84.7**	**35**	**5.7**	<5.0	<5.0	<5.0	<5.0	<5.0	<25	<25	nt	<50	<50	<15	<5.0
14C	nt	nt	nt	nt	<2.00	<10.00	<1.00	<10.00	<10.00	<10.00	**11.8**	**7.2**	**6.5**	**6.3**	**7.3**	**17.2**	**8.7**	**6.79**	**3.5**	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
14E	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
15A	nt	nt	nt	nt	**423.67**	**239**	**152**	**247**	**136**	**67.3**	**465 E**	**1721 E**	**916**	**58.9**	**561**	**797**	**695.6**	**985.5**	**1100**	**840 J**	**510**	**370**	**490**	**700**	nt	**430**	nt	nt	**440**	nt	**390**	nt
15C	nt	nt	nt	nt	<1.00	**1**	<1.00	**4.4**	<10.00	<10.00	<10.00	<3.33	**4.8**	<2.00	<2.00	**29.8**	<1.00	<1.00	<1.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
15D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**7.4**	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
16A	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**3.1**	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
16C	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
17A	nt	nt	nt	nt	<1.00	**62**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	nt	nt	<5.0	nt
17C	nt	nt	nt	nt	<1.00	<1.00	**26.6**	<1.00	**0.6**	**37.3**	**106**	<1.00	<1.00	**31.9**	**16.6**	**13.7**	nt	**12.12**	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	<5.0	nt	nt	nt	nt	nt	nt	nt	nt
18C	nt	nt	nt	nt	<1.00	<1.00	<1.00	**1.7**	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.1**	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
18D	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.54**	nt	nt	nt	nt	nt	<5.0	nt	nt	<5.0	nt	<5.0	<5.0	<5.0	<5.0
19C	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
19D	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**5.48**	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	**1.81**	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	<5.0	nt	nt	<5.0	nt	<5.0	nt
20D	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**207.4**	<1.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**9.9**	**140**	**180**	**170**	**210 J**
23A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	**19**	**130**	**100**	<5.0	**45**

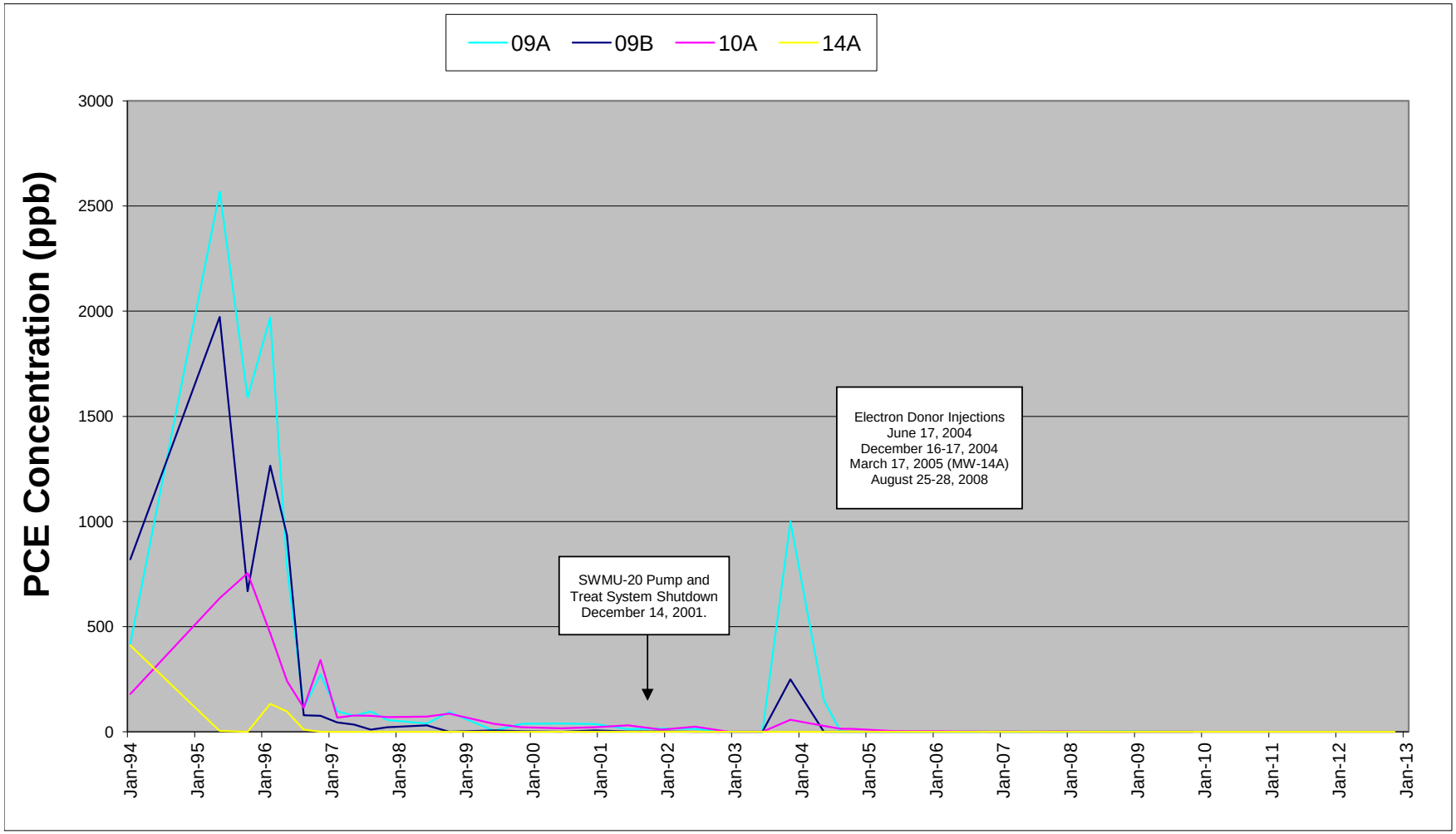
SWMU-20 ANALYTICAL RESULTS SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
JANUARY 1994 THROUGH PRESENT

NAPHTHALENE (µg/L)

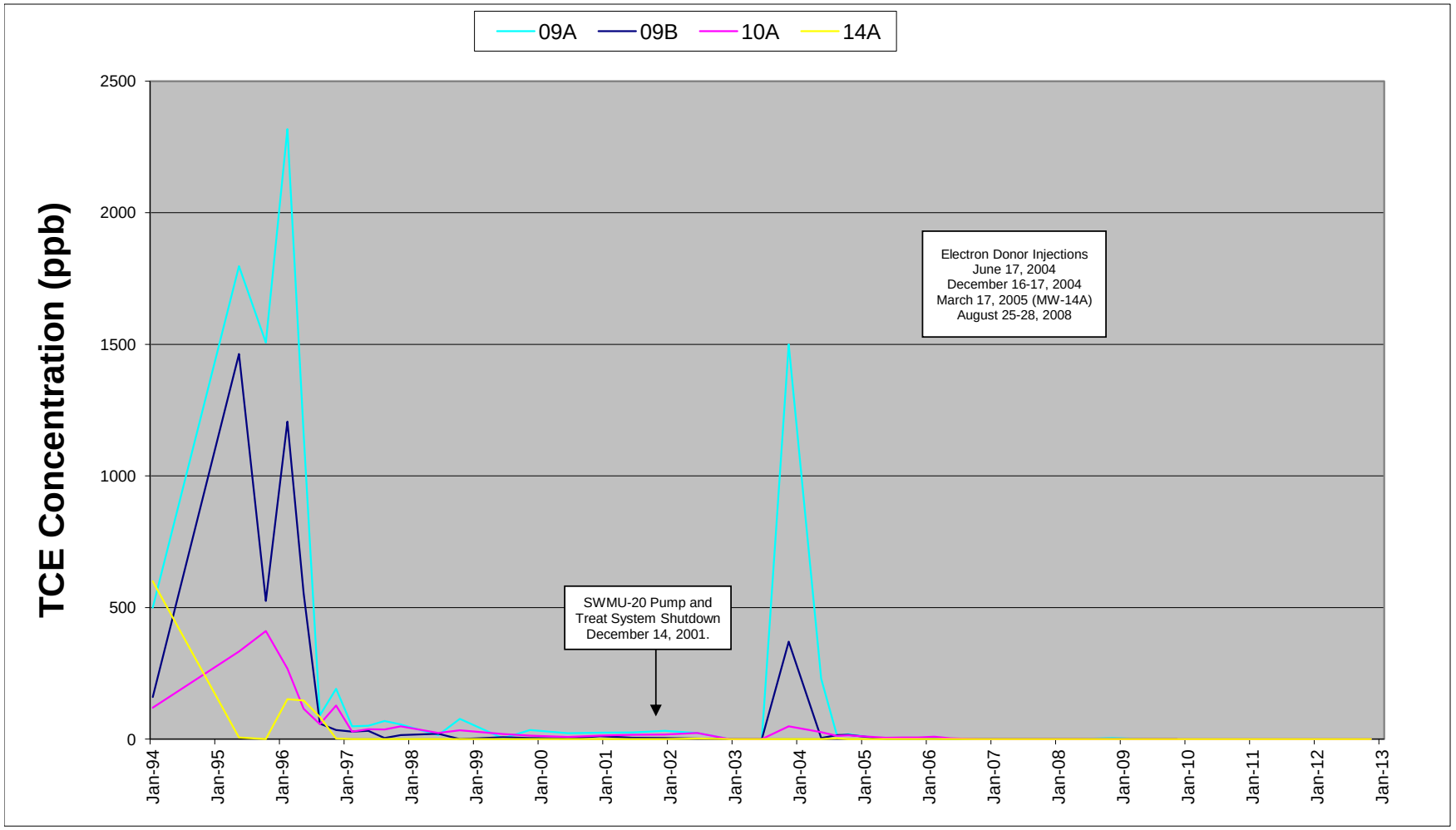
	May-06	Aug-06	Nov-06	Feb-07	May-07	Nov-07	May-08	Nov-08	May-09	Nov-09	May-10	Nov-10	May-11	Nov-11	May-12	Nov-12
06A	<5.0	<5.0	<0.5	<5.0	<5.0	<0.5	<5.0	<5.0	<20	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5
06B	<5.0	<5.0	**0.6**	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5
06C	<5.0	<5.0	**5.0**	<5.0	<5.0	**4.6**	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt
08C	**910**	nt	**440**	nt	**500**	**540**	**180**	**1100**	**62**	**65**	nt	nt	nt	nt	nt	nt
09A	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<0.5	<5.0	<50	<25	<5.0	<5.0	<5.0	**5.3**	**9.5**	**7.5**
09B	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	**0.6**	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt
09C	<5.0	<5.0	**14**	**18**	**5.5**	<5.0	**6.7**	<5.0	**56**	**69**	nt	nt	nt	nt	nt	nt
09D	<5.0	nt	<2.5	nt	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt
10A	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5
10C	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	**100**	39	12	<5.0	<5.0	<0.5	<0.5	<0.5
11A	<5.0	nt	<5.0	nt	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<5.0
12A	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5
13A	<5.0	nt	<0.5	nt	<0.5	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5
13C	<5.0	nt	**16**	nt	**16**	<5.0	**0.5**	<5.0	<5.0	**<5.0**	22	**6.5**	<5.0	<5.0	<0.5	<5.0
14A	<10	<5.0	**7.0**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	**0.5**	<0.5	**0.8**
14C	<5.0	nt	**6.3**	nt	**6.2**	<5.0	<5.0	<5.0	<5.0	**<5.0**	15	<5.0	<5.0	<0.5	<0.5	<5.0
14E	<5.0	nt	<0.5	nt	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt
15A	**220**	nt	**180**	nt	**72**	**170**	**180**	**230**	**170**	**190**	**310**	**240**	**210**	**190**	**170**	**120**
15C	<5.0	nt	<0.5	nt	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<5.0
15D	<5.0	nt	<2.5	nt	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt
16A	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5
16C	<5.0	nt	<0.5	nt	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5
17A	<5.0	nt	<0.5	nt	<0.5	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5
17C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
17D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
18C	<5.0	nt	<0.5	nt	**0.6**	<5.0	<0.5	**86**	**47**	**<5.0**	nt	nt	nt	nt	nt	nt
18D		nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
19A	<5.0	<5.0	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt
19C	<5.0	nt	**0.5**	nt	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	nt	nt	nt	nt	nt	nt
19D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
20C	<5.0	nt	**0.8**	nt	<0.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<5.0
20D	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21A	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
21C	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
22A	**120**	**200**	**140**	**110**	**100**	**25**	**41**	**32**	**51**	**15**	**14**	**16**	**20**	**12**	**15**	**9.2**
23A	**69**	**140**	**9.0**	**26**	**36**	**6.1**	**5.3**	<5.0	**9.8**	**<5.0**	nt	nt	nt	nt	nt	nt

nd = Not Detected.
nt = Not Tested.
J = Indicates the analyte was positively identified; the associated numerical value is the approximate approximate concentration of the analyte in the sample.
E = Estimated concentration calculated for an analyte response above the valid instruction calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Bold = Detected compound.

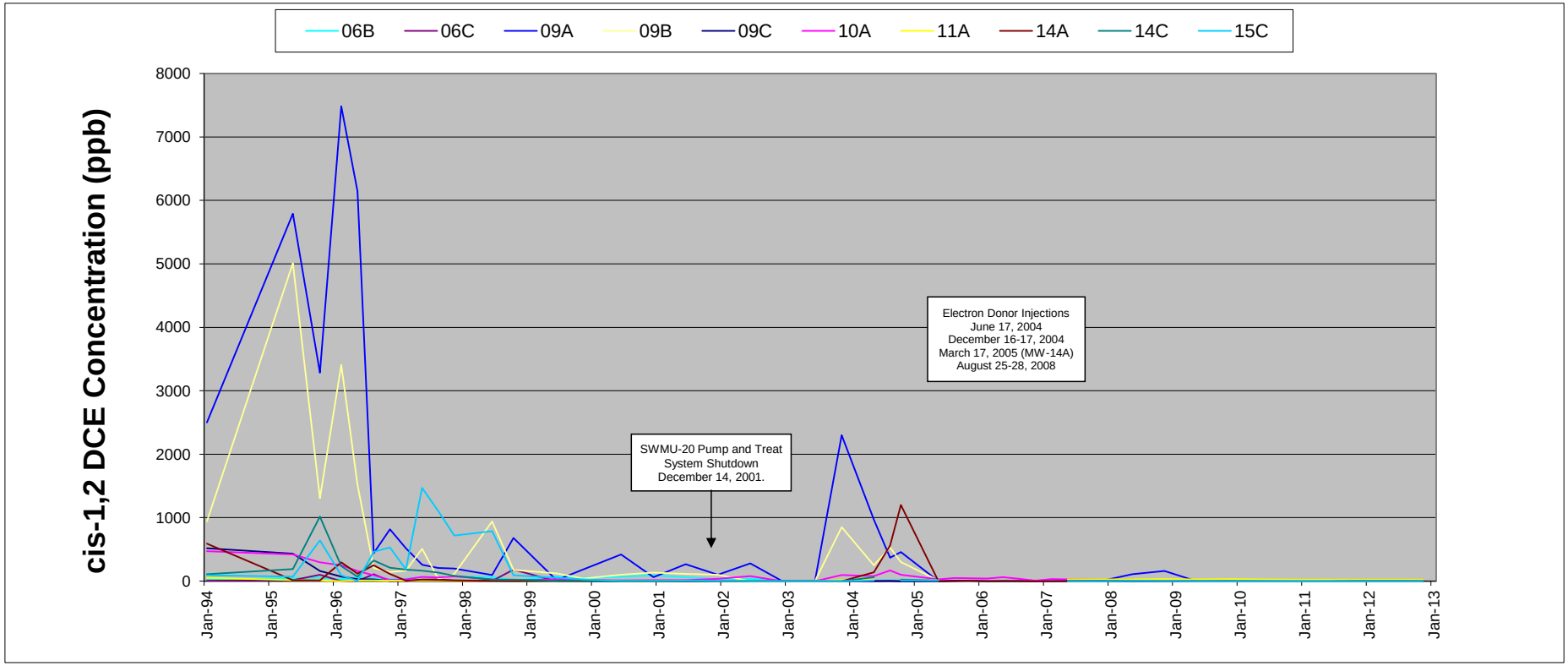
DEVELOPMENTAL CENTER WELLS
TETRACHLOROETHENE CONCENTRATIONS
(Wells with PCE Historically Detected over 50 ppb)



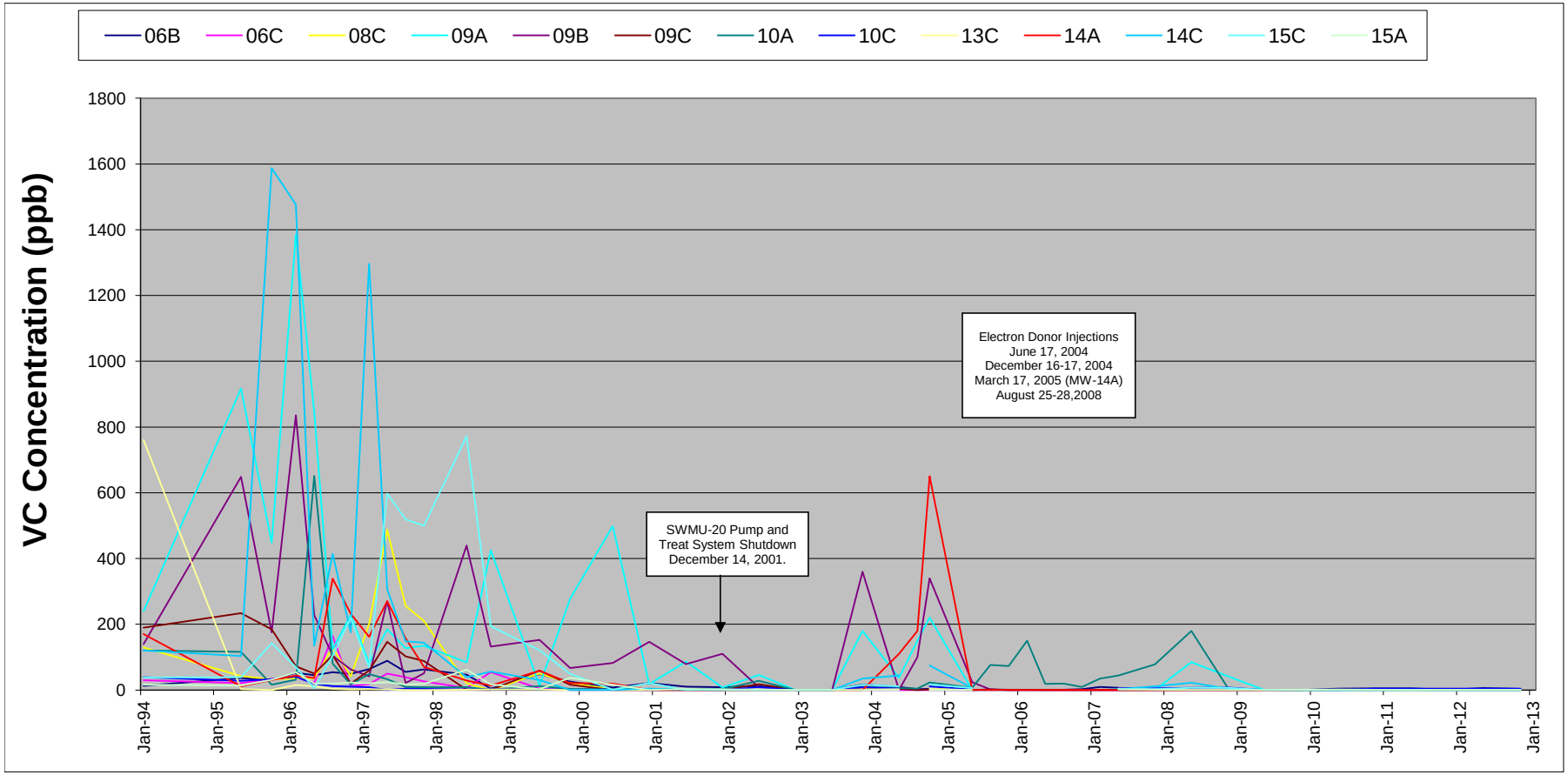
DEVELOPMENTAL CENTER WELLS
TRICHLOROETHENE CONCENTRATIONS
(Wells with TCE Historically Detected over 50 ppb)



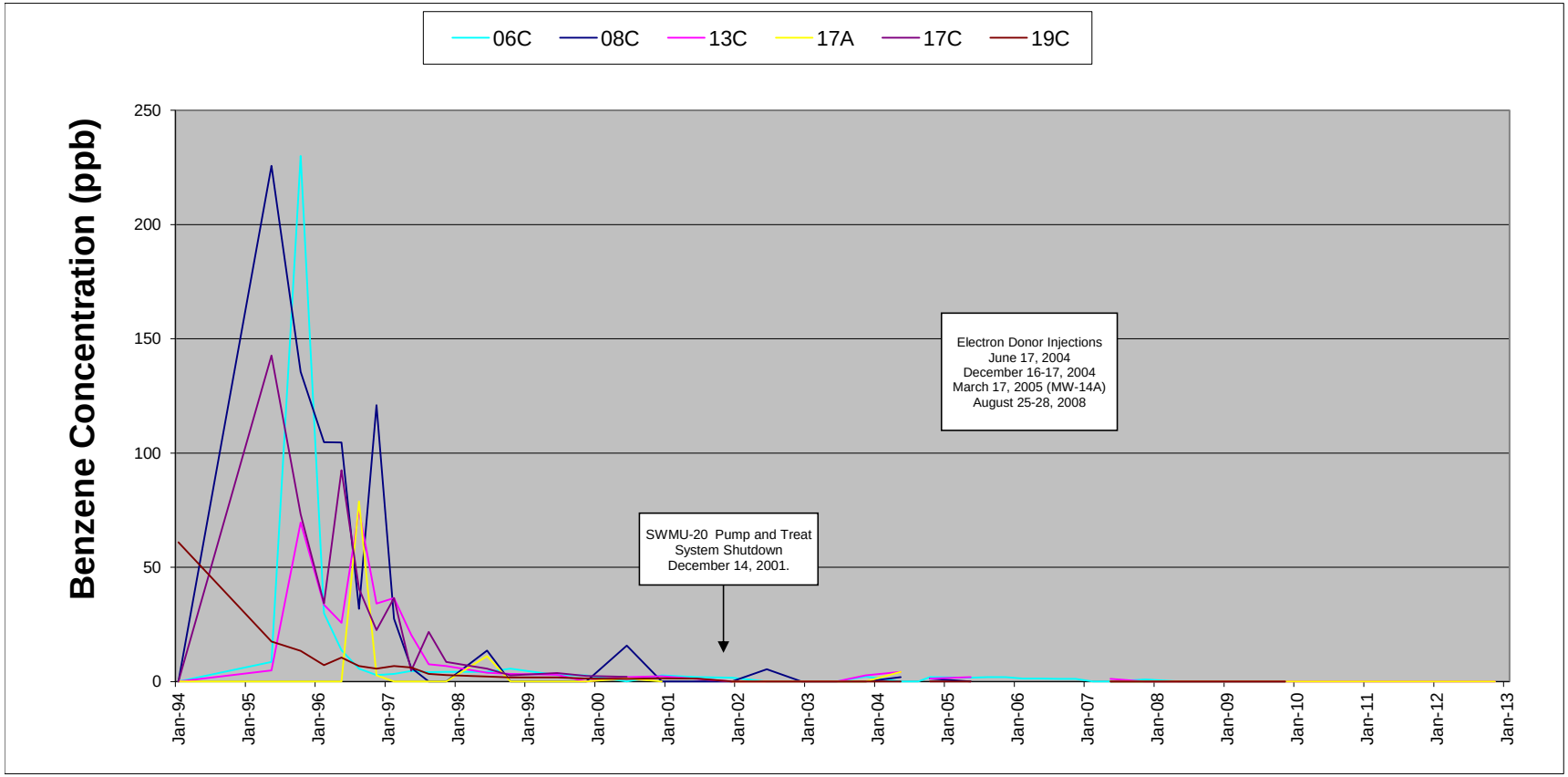
DEVELOPMENTAL CENTER WELLS
CIS-1,2 DICHLOROETHENE CONCENTRATIONS
(Wells with cis-1,2 DCE Historically Detected over 50 ppb)



DEVELOPMENTAL CENTER WELLS
VINYL CHLORIDE CONCENTRATIONS
(Wells with VC Historically Detected over 50 ppb)



DEVELOPMENTAL CENTER WELLS
BENZENE CONCENTRATIONS
(Wells with Benzene Historically Detected over 50 ppb)



SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II (mg/L)	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
06A (c)	06/15/2004	-2				<1.0	**1.0**	**23**	**4.0**	<0.50	<0.50	6.34	-19.6	0.8	58.9	<0.50	6.5	18.8	---
06A (c)	08/23/2004	67				<1.0	<1.0	**45**	**5.9**	<0.50	<0.50	0.46	92	3.5	40.7	21	7.0	288	Hazy brown
06A (c)	10/19/2004	124	-58			<1.0	<1.0	**2.6**	**31**	<0.50	<0.50	0.70	54	3.0	44.8	530	6.8	80.8	---
06A (c)	02/22/2005	250	68			<1.0	<1.0	**3.3**	<1.0	<0.50	<0.50	1.15	187	2.4	<0.1	130	6.8	244	---
06A (c)	05/16/2005	333	151			<1.0	<1.0	**2.6**	<1.0	<0.50	<0.50	1.25	58	3.0	0.1	10000	6.9	145	---
06A (c)	08/22/2005	431	249			<1.0	<1.0	**1.6**	<1.0	<0.50	<0.50	1.26	212	2.7	3.1	390	6.8	54.2	Clear, with yellow tint
06A (c)	11/14/2005	515	333			<1.0	<1.0	**1.3**	**1.2**	<0.50	<0.50	0.93	108	3.0	0.1	3700	6.9	31.8	---
06A (c)	02/22/2006	615	433			<1.0	<1.0	**1.4**	**4.8**	<11.4	<12.3	0.80	186	2.6	60.4	10100	6.4	15.5	---
06A (c)	05/18/2006	700	518			<1.0	<1.0	<1.0	**1.6**	<11	<12	6.41	1	3.0	20.9	16000	6.6	23.9	---
06A (c)	08/16/2006	790	608			<1.0	<1.0	<1.0	**1.5**	<1.1	<1.2	0.89	240	2.2	23.1	18800	6.5	23.2	---
06A (c)	11/29/2006	895	713			<0.2	<0.2	**0.4**	**2.1**	<1.1	<1.2	2.09	102	2.6	33.1	20200	6.5	31.4	---
06A (c)	02/23/2007	981	799			<1.0	<1.0	<1.0	**6.7**	<1.1	<1.2	0.65	-97	4.5	26.2	17400	6.5	24.6	---
06A (c)	05/24/2007	1071	889			<1.0	<1.0	<1.0	**2.9**	<1.1	**2.0**	0.56	184	4.0	21.0	18300	6.7	21.5	---
06A (c)	11/30/2007	1261	1079			<0.2	<0.2	<0.2	**1.2**	<1.1	**2.2**	0.80	173	3.0	29.1	21900	6.7	22.6	---
06A (c)	05/21/2008	1434	1252		-96	<1.0	<1.0	<1.0	**1.4**	<1.1	**1.3**	2.11	-82	2.5	21.0	13200	6.9	20.1	---
06A (c)	11/25/2008	1622	1440		92	<1.0	<1.0	**1.7**	<1.0	<1.1	<1.2	1.71	-73	3.4	0.1	19700	6.5	150	---
06A (c)	05/20/2009	1798	1616		268	<4.0	<4.0	<4.0	<4.0	<1.1	<1.2	0.52	-45	4.0	<0.5	19500	6.8	38.2	---
06A (c)	11/19/2009	1981	1799		451	<1.0	<1.0	**1.9**	<1.0	<1.1	<1.2	2.66	6	2.8	0.8	20100	6.2	25.4	---
06A (c)	5/24/2010	2167	1985		637	<1.0	<1.0	**1.3**	**1.9**	<1.1	<1.2	3.56	448	2.0	16	19900	6.6	19.3	---
06A (c)	11/11/2010	2338	2156		808	<1.0	<1.0	<1.0	**1.7**	<1.1	<1.2	4.75	106	2.6	0.4	24700	7.0	20.2	---
06A (c)	5/4/2011	2512	2330		982	<1.0	<1.0	<1.0	**1.4**	<1.1	<1.2	2.14	22	2.5	<0.2	21400	7.1	13.6	---
06A (c)	11/13/2011	2705	2523		1175	<0.2	<0.2	**0.3**	**0.8**	<1.1	<1.2	5.80	-54	1.0	0.3	6370	7.2	12.7	---
06A (c)	5/15/2012	2889	2707		1359	<0.2	<0.2	**0.4**	**1.2**	<1.0	<1.0	0.08	66	2.0	4.3	13000	6.7	11.6	---
06A (c)	11/14/2012	3072	2890		1542	<0.2	<0.2	**0.3**	**0.8**	<1.0	<4.0	0.02	-0.5	1.5	<0.30	13000	6.9	9.0	---
06B	05/04/2004	-44				**9.5**	**3.2**	**10**	**9.4**	<0.50	<0.50	0.36	179	4.5	18.7	130	6.8	25.6	Clear, yellow tint
06B	08/23/2004	67				**1.9**	**1.2**	**13**	**2.3**	<0.50	<0.50	0.45	115	3.2	33.8	1100	6.9	177	Yellow-brown tint (nearly clear)
06B	10/19/2004	124	-58			<1.0	<1.0	**10**	**3.6**	<0.50	<0.50	0.61	217	3.5	14.8	590	6.7	53.6	Yellow tint
06B	02/22/2005	250	68			<1.0	<1.0	**11**	<1.0	<0.50	<0.50	0.79	224	2.6	<0.5	3800	6.9	968	---
06B	05/16/2005	333	151			<2.0	<2.0	**5.5**	<2.0	<0.50	<0.50	1.51	133	3.5	<0.5	2300	6.9	336	Clear, yellow-brown tint
06B	08/22/2005	431	249			<1.0	<1.0	**1.8**	**1.6**	<0.50	<0.50	1.21	217	2.8	<0.1	440	6.9	100	Clear, with yellow tint
06B	11/14/2005	515	333			<1.0	<1.0	**1.1**	**1.3**	<0.50	<0.50	1.05	241	2.8	<0.1	2900	6.9	64.4	---
06B	02/22/2006	615	433			<1.0	<1.0	<1.0	**1.4**	**53.5**	<12.3	0.74	184	2.6	14.8	13000	6.4	30.4	---
06B	05/18/2006	700	518			<1.0	<1.0	<1.0	**1.3**	<11	<12	2.25	52	3.2	13.6	16000	6.6	25.9	---
06B	08/16/2006	790	608			<1.0	<1.0	<1.0	**1.1**	<1.1	<1.2	0.82	225	2.4	12.9	21700	6.5	14.7	---
06B	11/29/2006	895	713			<0.2	<0.2	**1.4**	**2.6**	<1.1	<1.2	1.82	111	2.4	10.9	22000	6.5	25.2	---
06B	02/23/2007	981	799			<1.0	<1.0	**3.8**	**9.5**	<1.1	<1.2	0.75	-66	5.0	25.0	17700	6.5	21.1	---
06B	05/24/2007	1071	889			<1.0	<1.0	**1.4**	**6.5**	<1.1	<1.2	0.58	151	3.0	11.3	18500	6.6	21.4	---
06B	11/30/2007	1261	1079			<0.2	<0.2	<0.2	**1.0**	<1.1	**4.0**	0.83	135	4.0	26.3	24900	6.4	26.5	---
06B	05/21/2008	1434	1252		-96	<1.0	<1.0	<1.0	<1.0	<1.1	**4.9**	2.66	-61	3.4	21.1	12700	6.7	20.4	---
06B	11/25/2008	1622	1440		92	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.53	-68	2.4	0.2	18400	6.6	19.6	---
06B	05/20/2009	1798	1616		268	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.33	-36	4.0	<0.5	25300	6.9	20.9	---
06B	11/19/2009	1981	1799		451	<1.0	<1.0	<1.0	<1.0	<1.1	**6.7**	1.01	10	2.8	0.1	22500	6.9	20.0	---
06B	5/24/2010	2167	1985		637	<1.0	<1.0	<1.0	**4.2**	<1.1	**1.6**	3.05	417	2.0	3.0	7110	7.0	19.1	---
06B	11/11/2010	2338	2156		808	<1.0	<1.0	<1.0	**5.4**	<1.1	**1.4**	3.40	112	2.0	8.6	4600	7.1	15.8	---

SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II (mg/L)	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
06B	5/4/2011	2512	2330		982	<1.0	<1.0	<1.0	**5.2**	<1.1	<1.2	2.55	57	2.2	19.7	2120	7.1	12.6	---
06B	11/13/2011	2705	2523		1175	<0.2	<0.2	<0.2	**0.8**	<1.1	<1.2	6.10	-34	1.5	0.3	2260	7.3	14.8	---
06B	5/15/2012	2889	2707		1359	<0.2	<0.2	**0.5**	**6.0**	<1.0	**1.3**	0.14	71	1.8	10.9	2200	6.6	11.4	---
06B	11/14/2012	3072	2890		1542	<0.2	<0.2	<0.2	**3.7**	<1.0	**1.8**	0.02	10	2.0	7.0	2300	6.8	**13.7**	---
06C	05/04/2004	-44				<1.0	<1.0	<1.0	<1.0	<0.50	**0.6**	0.40	93	5.0	20.7	360	6.7	29.0	---
06C	08/23/2004	67				<1.0	<1.0	**1.4**	<1.0	**5.7**	**5.9**	0.63	95	2.5	42.7	3100	6.3	1560	White froth on surface of purge water
06C	10/19/2004	124	-58			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	2.00	206	3.0	18.1	450	6.3	464	Yellow tint
06C	02/22/2005	250	68			<1.0	<1.0	**3.6**	<1.0	<0.50	<0.50	0.82	198	2.6	<0.5	2400	6.9	858	---
06C	05/16/2005	333	151			<1.0	<1.0	**1.1**	<1.0	<0.50	<0.50	1.94	98	3.0	0.2	2700	7.0	111	Clear, with yellow tint
06C	08/22/2005	431	249			<1.0	<1.0	**1.1**	<1.0	<0.50	<0.50	1.36	194	2.8	<0.1	510	7.0	68.7	Clear, with yellow tint
06C	11/14/2005	515	333			<1.0	<1.0	**1.1**	<1.0	<0.50	<0.50	1.07	258	2.0	<0.1	2900	7.0	48.3	---
06C	02/22/2006	615	433			<1.0	<1.0	<1.0	<1.0	**47.7**	<12.3	0.88	247	1.4	47.5	12300	6.6	93.4	---
06C	05/18/2006	700	518			<1.0	<1.0	<1.0	<1.0	<11	<12	4.88	129	2.0	30.6	15000	6.6	36.6	---
06C	08/16/2006	790	608			<1.0	<1.0	<1.0	<1.0	<1.1	**2.3**	0.93	231	1.6	31.8	18900	6.6	13.4	---
06C	11/29/2006	895	713			<0.2	<0.2	**0.3**	<0.2	<1.1	**1.4**	2.25	192	1.8	27.3	20600	6.6	46.4	---
06C	02/23/2007	981	799			<1.0	<1.0	<1.0	<1.0	<1.1	**1.7**	1.08	-46	4.0	25.9	18900	6.4	39.0	---
06C	05/24/2007	1071	889			<1.0	<1.0	<1.0	<1.0	<1.1	**2.0**	0.72	216	3.5	20.8	20800	6.5	34.0	---
06C	11/30/2007	1261	1079			<0.2	<0.2	**0.2**	**0.3**	<1.1	**2.8**	1.58	174	4.2	32.6	30500	6.2	40.2	---
06C	05/21/2008	1434	1252		-96	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.91	-16	2.5	21.0	23800	6.3	31.9	---
06C	11/25/2008	1622	1440		92	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	3.39	-66	2.6	<0.1	28700	6.8	634	---
06C	05/20/2009	1798	1616		268	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.66	-28	3.5	<0.8	20600	6.9	39.2	---
06C	11/19/2009	1981	1799		451	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	1.89	26	NM	<0.1	25600	6.2	42.8	---
09A	05/03/2004	-45				**150**	**230**	**970**	**37**	<0.50	<0.50	0.46	287	1.0	64.2	8.4	6.7	16.2	Clear, yellow tint
09A	08/23/2004	67				<3.0	**11**	**370**	**150**	**4.2**	<0.50	0.40	143	2.6	51.8	4.7	7.1	56.8	Clear with black tint, H2S odor
09A	10/19/2004	124	-58			<5.0	**19**	**460**	**220**	**2.7**	<0.50	0.53	219	4.0	77.4	17	6.9	19.6	Clear, slightly yellow tint
09A	02/21/2005	249	67			<10	<10	**41**	**37**	**1.9**	<0.50	0.78	169	2.0	<0.5	1500	7.1	2110	Hazy, yellow color
09A	05/11/2005	328	146			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	1.53	141	2.0	<0.5	1700	7.2	1260	Hazy, yellow-brown tint
09A	08/22/2005	431	249			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	1.58	141	2.8	<0.1	460	6.8	156	Clear, yellow-brown tint
09A	11/14/2005	515	333			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	1.07	238	2.0	<0.1	2600	6.9	62.8	---
09A	02/21/2006	614	432			<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	0.94	332	2.6	0.2	5650	6.3	58.8	---
09A	05/15/2006	697	515			<1.0	<1.0	<1.0	<1.0	<11	<12	1.35	193	2.2	63.4	15000	6.4	44.4	---
09A	08/16/2006	790	608			<1.0	<1.0	<1.0	**1.2**	<1.1	**2.1**	1.55	175	2.0	56.8	16800	6.4	50.0	---
09A	11/27/2006	893	711			<0.2	<0.2	**0.3**	**1.1**	**1.9**	**6.3**	2.09	211	3.2	52.5	15200	6.6	51.0	---
09A	02/22/2007	980	798			<1.0	<1.0	<1.0	<1.0	<1.1	**7.8**	0.65	-107	4.6	0.3	15300	6.4	48.8	---
09A	05/22/2007	1069	887			<1.0	<1.0	<1.0	**2.8**	<1.1	**4.8**	0.75	91	2.6	0.1	16700	6.6	43.1	---
09A	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0	<1.1	**24.5**	1.01	147	3.8	45.4	27600	6.4	40.6	---
09A	05/19/2008	1432	1250		-98	<0.2	**0.2**	**110**	**85**	**7.8**	**35.6**	2.26	-82	3.0	29.4	17100	6.7	31.0	---
09A	11/24/2008	1621	1439		91	**1.9**	**4.6**	**160**	**42**	**4.0**	**2.1**	2.61	-52	3.0	<2.0	13700	6.2	5600	---
09A	05/18/2009	1796	1614		266	<10	<10	<10	<10	<1.1	<1.2	0.44	-88	2.5	<2.0	18100	7.1	1620	---
09A	11/16/2009	1978	1796		448	<5.0	<1.0	<5.0	<5.0	<1.1	<1.2	1.23	-61	2.6	<1.0	16600	6.6	403	---
09A	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	11.09	515	2.2	<1.0	18700	7.0	72.8	Duffy: Interference w/DO sensor?
09A	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<1.0	<1.1	**2.0**	3.92	118	2.2	0.3	24400	7.0	70.0	---
09A	5/3/2011	2511	2329		981	<2.0	<2.0	<2.0	<2.0	<1.1	**2.0**	2.55	33	2.0	<0.2	17800	6.9	44.4	---
09A	11/13/2011	2705	2523		1175	<0.2	<0.2	**0.2**	<0.2	<1.1	**1.2**	2.23	-66	1.2	0.4	11800	7.0	39.4	---

SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II (mg/L)	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
09A	5/14/2012	2888	2706		1358	<0.2	<0.2	**0.2**	<0.2	<1.0	**13**	0.57	91	1.5	0.40	22000	6.4	30.5	---
09A	11/14/2012	3072	2890		1542	<2.0	<2.0	<2.0	<2.0	<1.0	**11**	0.02	-4	2.0	0.53	21000	6.6	30.9	---
09B	05/03/2004	-45				<3.0	**4.2**	**250**	<3.0	<0.50	<0.50	0.37	269	4.0	61.4	2.7	6.8	20.7	Clear, yellow tint
09B	08/23/2004	67				<5.0	**16**	**530**	**100**	**0.76**	<0.50	0.34	174	1.4	73.0	23	7.4	29.7	Clear, yellow-brown tint, H2S odor
09B	10/19/2004	124	-58			<5.0	**17**	**300**	**340**	**1.4**	<0.50	0.30	219	1.0	59.6	29	7.5	24.3	Clear with yellow color
09B	02/21/2005	249	67			<10	<10	**890**	**520**	**1.7**	<0.50	0.56	160	2.8	1.0	2000	6.8	608	Hazy, tan brown color
09B	05/11/2005	328	146			<1.0	<1.0	**12**	**24**	<0.50	<0.50	1.48	158	3.5	0.4	9600	7.0	219	Hazy, yellow-brown tint
09B	08/22/2005	431	249			<1.0	<1.0	<1.0	**1.7**	<0.50	<0.50	1.45	224	2.5	<0.1	400	6.7	17.6	Clear, with yellow-brown tint
09B	11/14/2005	515	333			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	1.24	235	1.4	<0.1	3100	6.8	51.2	---
09B	02/21/2006	614	432			<1.0	<1.0	<1.0	**1.3**	<11.4	<12.3	0.90	329	2.8	<0.1	8730	6.3	46.4	---
09B	05/15/2006	697	515			<1.0	<1.0	<1.0	<1.0	<11	<12	1.11	191	1.8	33.9	17000	6.3	45.6	---
09B	08/16/2006	790	608			<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.94	188	1.6	55.4	19300	6.3	250	---
09B	11/27/2006	893	711			<0.2	<0.2	**0.3**	**0.5**	<1.1	<1.2	1.76	190	2.8	50.2	21800	6.5	78.2	---
09B	02/22/2007	980	798			<1.0	<1.0	<1.0	<1.0	<1.1	**1.6**	0.67	-80	3.5	0.2	16100	6.3	64.0	---
09B	05/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0	<1.1	**1.4**	0.76	154	3.0	<0.1	18700	6.5	35.3	---
09B	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0	<1.1	**3.8**	1.29	238	2.2	58.3	29800	6.2	44.5	---
09B	05/19/2008	1432	1250		-98	<0.2	<0.2	**0.2**	**0.4**	<1.1	**3.0**	2.34	-78	3.4	39.1	12900	6.4	37.3	---
09B	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<1.0	<1.1	**17.6**	2.22	-47	3.0	<1.0	27000	6.7	27.0	---
09B	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0	<1.1	**6.9**	0.38	-38	3.5	<0.5	19700	6.9	37.1	---
09B	11/16/2009	1978	1796		448	<1.0	<1.0	<1.0	<1.0	<1.1	**16.1**	1.27	12	3.5	<0.1	24500	6.2	28.1	---
09C	05/03/2004	-45				<1.0	<1.0	**4.0**	**3.3**	**1.9**	**0.7**	0.33	229	4.0	19.1	350	6.8	28.5	Clear, yellow tint
09C	08/23/2004	67				<1.0	<1.0	**1.7**	<1.0	**1.1**	**2.8**	0.47	114	2.6	23.2	610	6.7	302	Clear, H2S odor
09C	10/19/2004	124	-58			<1.0	<1.0	<1.0	**1.5**	**1.1**	<0.50	0.60	185	3.0	12.2	620	7.0	99.6	Near clear, yellow tint
09C	02/21/2005	249	67			<1.0	<1.0	**1.7**	<1.0	<0.50	**1.6**	0.60	154	2.0	<0.1	3500	6.6	300	Clear with yellow tint
09C	05/11/2005	328	146			<1.0	<1.0	**1.2**	<1.0	<0.50	<0.50	1.34	138	2.5	<0.1	2700	6.4	44.6	Yellow-brown tint
09C	08/22/2005	431	249			<1.0	<1.0	**7.6**	**2.2**	<0.50	<0.50	1.31	230	2.5	<0.1	360	6.7	52.0	---
09C	11/14/2005	515	333			<1.0	<1.0	**1.2**	<1.0	<0.50	<0.50	1.41	228	2.4	<0.1	7300	6.9	50.6	---
09C	02/21/2006	614	432			<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	0.78	326	2.4	<0.1	10300	6.5	44.2	---
09C	05/15/2006	697	515			<1.0	<1.0	<1.0	<1.0	<11	<12	1.01	192	2.0	27.9	21000	7.0	42.1	---
09C	08/16/2006	790	608			<1.0	<1.0	<1.0	<1.0	<1.1	**1.6**	0.80	199	1.2	28.8	22900	6.5	33.0	---
09C	11/27/2006	893	711			<0.2	<0.2	<0.2	<0.2	<1.1	**9.1**	1.40	289	2.4	26.7	23500	6.5	44.0	---
09C	02/22/2007	980	798			<1.0	<1.0	<1.0	<1.0	<1.1	**3.9**	0.75	-32	3.6	0.2	17700	6.5	33.8	---
09C	05/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0	<1.1	**5.4**	0.52	123	3.5	<0.1	20600	6.6	25.4	---
09C	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0	<1.1	**5.4**	0.81	147	3.6	27.3	30000	6.5	27.1	---
09C	05/19/2008	1432	1250		-98	<0.2	<0.2	<0.2	**0.2**	<1.1	**15.2**	2.11	-57	4.6	18.6	22800	6.5	22.3	---
09C	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.92	-44	1.8	<2.0	17700	6.6	334	---
09C	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0	<1.1	**4.3**	0.45	-44	3.5	<0.5	21400	7.0	24.0	---
09C	11/16/2009	1978	1796		448	<3.0	<3.0	<3.0	<3.0	<1.1	**1.9**	1.27	-7	3.0	<0.1	22400	6.4	20.7	---
10A	05/03/2004	-45				**29**	**27**	**80**	**6.4**	<0.50	<0.50	0.60	108	2.0	37.8	2.8	6.8	20.0	Clear, yellow tint
10A	08/23/2004	67				**14**	**12**	**170**	**4.0**	<0.50	<0.50	0.49	181	3.5	38.9	1.1	7.0	59.6	Clear, black tint
10A	10/19/2004	124	-58			**15**	**15**	**100**	**23**	<0.50	<0.50	0.66	224	4.0	37.8	2.7	7.0	24.0	Clear
10A	02/21/2005	249	67			**4.7**	**4.8**	**24**	**6.8**	<0.50	**0.54**	0.53	166	3.6	24.3	430	7.0	22.4	Clear, yellow color
10A	05/11/2005	328	146			**4.2**	**5.4**	**26**	**7.2**	<0.50	<0.50	0.95	47	3.0	27.9	540	7.2	25.9	Clear, yellow-brown tint
10A	08/22/2005	431	249			**2.7**	**6.3**	**48**	**76**	<0.50	<0.50	0.73	177	2.0	48.8	240	7.0	31.4	Clear, with yellow-brown tint

SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II (mg/L)	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
10A	11/14/2005	515	333			**3.3**	**6.7**	**47**	**73**	<0.50	<0.50	0.91	178	2.0	50.6	370	7.1	34.1	---
10A	02/21/2006	614	432			**3.7**	**9.6**	**42**	**150**	<11.4	<12.3	0.54	320	2.0	53.9	1130	6.8	45.8	---
10A	05/15/2006	697	515			**1.8**	**3.7**	**63**	**19**	<11	<12	0.67	190	1.8	57.4	3100	6.8	49.2	---
10A	08/16/2006	790	608			**1.6**	**1.6**	**38**	**20**	<1.1	<1.2	1.50	201	1.4	57.5	1620	6.7	50.8	---
10A	11/27/2006	893	711			<0.2	<0.2	**7.4**	**9.2**	**2.6**	**2.6**	2.67	201	3.0	57.9	1650	6.9	56.0	---
10A	02/22/2007	980	798			**1.2**	<1.0	**32**	**35**	<1.1	<1.2	0.57	-176	4.6	20.4	1370	6.8	56.4	---
10A	05/22/2007	1069	887			**1.1**	<1.0	**28**	**44**	<1.1	**1.4**	0.88	73	3.0	10.2	2590	6.9	47.3	---
10A	11/29/2007	1260	1078			**1.2**	<1.0	**22**	**78**	**4.4**	**3.7**	0.80	106	4.2	47.9	4810	6.9	47.8	---
10A	05/19/2008	1432	1250		-98	<1.0	<1.0	**22**	**180**	**7.9**	**4.4**	2.19	-177	4.0	32.5	4870	7.0	33.3	---
10A	11/24/2008	1621	1439		91	<1.0	<1.0	**1.6**	**5.0**	<1.1	<1.2	2.29	-87	3.4	1.3	16900	7.1	1200	---
10A	05/18/2009	1796	1614		266	<2.0	<2.0	<2.0	<2.0	<1.1	<1.2	0.66	-80	3.3	<1.0	17900	6.9	168	---
10A	11/16/2009	1978	1796		448	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	3.14	-40	4.2	<1.0	18200	6.3	69.2	---
10A	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	16.23	341	3.0	<1.0	17600	6.8	60.4	Duffy: Replace DO electrolic membrane
10A	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	4.09	67	2.4	0.5	22800	6.9	56.8	---
10A	5/3/2011	2511	2329		981	<2.0	<2.0	<2.0	<2.0	<1.1	<1.2	2.47	-21	2.5	<0.2	20700	6.9	41.6	---
10A	11/13/2011	2705	2523		1175	<0.2	<0.2	**0.2**	**0.4**	<1.1	<1.2	2.45	-38	2.0	0.3	15400	7.1	33.8	---
10A	5/14/2012	2888	2706		1358	<0.2	<0.2	**0.2**	**0.4**	<1.0	<1.0	0.57	88	2.5	0.32	20000	6.4	38.0	---
10A	11/14/2012	3072	2890		1542	<0.2	<0.2	**0.3**	**0.4**	<1.0	<1.0	0.03	-16	2.0	<0.30	19000	6.6	30.6	---
14A	05/04/2004	-44				<1.0	<1.0	**140**	**110**	<0.50	<0.50	0.53	-8	7.5	38.9	590	6.8	20.7	Clear, yellow tint
14A	08/23/2004	67				<1.0	**2.9**	**560**	**180**	**0.89**	**0.67**	0.54	162	3.2	30.1	810	6.8	22.6	---
14A	10/19/2004	124	-58			<5.0	**39**	**1200**	**650**	<0.50	<0.50	0.64	69	3.0	43.3	350	6.9	20.6	---
14A	02/21/2005	249	67	-24		<5.0	<5.0	**300**	**1000**	**13**	**2.7**	0.41	101	1.8	3.8	1700	6.9	44.0	Clear, yellow tint
14A	05/16/2005	333	151	60		<10	<10	<10	<10	<0.50	<0.50	5.90	45	4.0	<2.0	590	6.4	8620	---
14A	08/22/2005	431	249	158		<10	<10	<10	<10	<0.50	<0.50	1.62	234	3.0	<2.0	220	6.8	5380	Clear, yellow-brown
14A	11/15/2005	516	334	243		<3.0	<3.0	**6.0**	<3.0	<0.50	<0.50	1.26	257	2.0	<0.1	2500	6.4	602	---
14A	02/21/2006	614	432	341		<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	1.36	335	2.0	<0.1	5400	7.4	180	---
14A	05/17/2006	699	517	426		<2.0	<2.0	**2.1**	<2.0	<11	<12	1.78	76	2.8	12.0	9400	6.4	67.1	---
14A	08/16/2006	790	608	517		<1.0	<1.0	**3.0**	<1.0	<1.1	<1.2	1.16	240	1.2	16.5	6320	6.5	66.0	---
14A	11/29/2006	895	713	622		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	1.57	248	2.8	11.8	11100	6.3	72.0	---
14A	02/22/2007	980	798	707		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.89	-56	7.0	0.2	7670	6.2	34.9	---
14A	05/23/2007	1070	888	797		<1.0	<1.0	**1.5**	<1.0	<1.1	<1.2	1.11	165	3.0	8.6	10100	6.3	27.5	---
14A	12/03/2007	1264	1082	991		<1.0	<1.0	**1.6**	<1.0	<1.1	<1.2	2.29	-86	3.2	15.9	14500	6.4	55.6	---
14A	05/20/2008	1433	1251	1160	-97	<1.0	<1.0	**1.2**	<1.0	<1.1	<1.2	3.45	-88	3.6	<0.1	12100	6.3	26.3	---
14A	11/24/2008	1621	1439	1348	91	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.79	-70	3.0	194	14500	6.1	8.68	---
14A	05/20/2009	1798	1616	1525	268	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.41	-95	3.5	20.0	14400	6.3	9.83	---
14A	11/17/2009	1979	1797	1706	449	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.81	-18	3.2	165	15800	5.7	6.22	---
14A	5/24/2010	2167	1985	1894	637	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	4.29	311	2.8	5.1	14600	6.4	8.07	---
14A	11/10/2010	2337	2155	2064	807	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.47	171	2.6	38.6	14300	6.8	6.88	---
14A	5/5/2011	2513	2331	2240	983	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	2.96	83	1.8	8.4	15100	7.1	3.28	---
14A	11/13/2011	2705	2523	2432	1175	<0.2	<0.2	**0.6**	<0.2	<1.1	<1.2	2.04	-52	1.5	<0.1	7510	6.9	8.05	---
14A	5/14/2012	2888	2706	2615	1358	<0.2	<0.2	**0.3**	**0.2**	<1.0	**8.7**	0.13	62	2.6	3.4	16000	6.4	5.9	---
14A	11/14/2012	3072	2890	2799	1542	<0.2	<0.2	**0.6**	<0.2	<1.0	**5.0**	0.03	31	1.5	79.0	16000	6.4	6.5	---
15A	05/03/2004	-45				<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
15A	10/26/2004	131	-51			<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
15A	05/16/2005	333	151			<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	

SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II (mg/L)	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
15A	11/15/2005	516	334			<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
15A	05/17/2006	699	517			<5.0	<5.0	<5.0	<5.0	NA	NA	0.79	131	NA	NA	NA	6.7	NA	---
15A	11/29/2006	895	713			<3.0	<3.0	<3.0	<3.0	NA	NA	1.26	513	NA	NA	NA	6.6	NA	---
15A	05/23/2007	1070	888			<1.0	<1.0	**1.4**	**2.6**	NA	NA	1.19	144	NA	NA	NA	6.7	NA	---
15A	12/03/2007	1264	1082			<1.0	<1.0	<1.0	**1.3**	NA	NA	1.31	-105	NA	NA	NA	6.6	NA	---
15A	05/20/2008	1433	1251		-97	<3.0	<3.0	<3.0	<3.0	NA	NA	2.57	-135	NA	NA	NA	6.7	NA	---
15A	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<2.0	NA	NA	2.07	-61	NA	NA	NA	6.8	NA	---
15A	05/19/2009	1797	1615		267	<3.0	<3.0	<3.0	<3.0	NA	NA	0.35	-33	NA	NA	NA	6.9	NA	---
15A	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	**1.4**	NA	NA	0.72	-0.1	NA	NA	NA	6.3	NA	---
15A	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	**1.6**	NA	NA	1.10	606	NA	NA	NA	6.8	NA	---
15A	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	**1.4**	NA	NA	2.42	118	NA	NA	NA	7.1	NA	---
15A	5/5/2011	2513	2331		983	<10	<10	<10	<10	NA	NA	4.83	-19	NA	NA	NA	7.2	NA	---
15A	11/13/2011	2705	2523		1175	<0.2	<0.2	**0.3**	**1.0**	NA	NA	4.01	-41	NA	NA	NA	7.3	NA	---
15A	5/14/2012	2888	2706		1358	<1.0	<1.0	<1.0	**1.2**	NA	NA	0.64	56	NA	NA	NA	6.7	NA	---
15A	11/13/2012	3071	2889		1541	<0.2	<0.2	**0.4**	**0.8**	NA	NA	0.03	23	NA	NA	NA	6.8	NA	---
19A	05/02/2004	-46	-228			<1.0	<1.0	<1.0	<1.0	NA	NA	0.33	-3	NA	NA	NA	6.5	NA	---
19A	02/21/2005	249	67			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.65	180	NA	47.4	17	6.7	15.5	---
19A	05/12/2005	329	147			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.63	169	3.0	31.3	9.1	6.8	14.2	Clear, colorless
19A	08/22/2005	431	249			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.74	106	3.0	68.3	16	6.6	10.5	Clear, colorless
19A	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.56	201	2.6	95.9	35	6.8	9.30	---
19A	02/22/2006	615	433			<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	0.77	65	3.0	124.0	111	6.6	31.3	---
19A	05/17/2006	699	517			<1.0	<1.0	<1.0	<1.0	<11	<12	1.14	56	2.0	73.4	230	6.4	15.7	---
19A	08/15/2006	789	607			<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.60	229	2.0	47.3	202	6.4	11.5	---
19A	11/27/2006	893	711			<0.2	**0.2**	**0.3**	<0.2	<1.1	<1.2	0.88	264	2.0	41.9	186	6.4	13.6	---
19A	02/22/2007	980	798			<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.42	-23	3.0	20.7	248	6.2	19.8	---
19A	05/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0	<1.1	**5.2**	0.34	277	3.5	30.8	179	6.4	15.4	---
19A	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.67	243	2.2	37.2	235	6.2	14.3	---
19A	05/20/2008	1433	1251		-97	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	3.23	-79	3.8	20.9	134	6.4	11.5	---
19A	11/23/2008	1620	1438		90	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	1.62	-61	2.0	46.1	97.8	6.4	10.6	---
19A	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.30	-28	3.2	28.6	127	6.8	12.8	---
19A	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	1.58	-2	3.4	22.1	122	6.5	10.7	---
22A	03/21/2005	277	95	4		<1.0	<1.0	**3.5**	**2.0**	<0.50	<0.50	1.86	53	2.8	12.8	280	7.0	11.1	Hazy, suspended silt
22A	05/12/2005	329	147	56		<1.0	<1.0	**2.3**	**2.9**	<0.50	<0.50	0.83	155	2.6	1.3	300	7.1	31.3	---
22A	08/22/2005	431	249	158		<1.0	<1.0	**2.3**	**3.2**	<0.50	<0.50	0.70	170	2.6	3.0	230	6.9	26.5	Clear, slight yellow-brown tint
22A	11/16/2005	517	335	244		<1.0	<1.0	**1.4**	**2.2**	<0.50	<0.50	1.67	321	2.4	1.3	1300	6.3	29.9	---
22A	02/22/2006	615	433	342		<1.0	<1.0	**1.4**	**3.3**	<11.4	<12.3	0.69	97	2.0	59.0	1940	6.8	32.0	---
22A	05/17/2006	699	517	426		<1.0	<1.0	**2.4**	**1.7**	<11	<12	0.67	102	2.6	32.7	3600	6.8	17.6	---
22A	08/15/2006	789	607	516		<1.0	<1.0	**1.8**	**2.4**	<1.1	<1.2	0.65	239	2.0	54.7	5700	6.7	24.0	---
22A	11/30/2006	896	714	623		<0.2	**0.3**	**2.2**	**2.4**	<1.1	<1.2	2.15	286	2.6	40.0	4020	6.6	25.2	---
22A	02/22/2007	980	798	707		<1.0	<1.0	**2.5**	**2.3**	<1.1	<1.2	0.53	-76	5.0	<0.1	3000	6.6	22.4	---
22A	05/23/2007	1070	888	797		<1.0	<1.0	**2.5**	**2.7**	<1.1	<1.2	0.30	51	3.0	27.3	3510	6.8	18.2	---
22A	12/03/2007	1264	1082	991		<1.0	<1.0	**2.0**	**1.3**	<1.1	<1.2	0.61	41	2.6	12.3	2030	6.6	16.0	---
22A	05/20/2008	1433	1251	1160	-97	<1.0	<1.0	**2.6**	**1.9**	<1.1	<1.2	2.83	-103	4.0	20.2	1540	6.7	13.8	---
22A	11/23/2008	1620	1438	1347	90	<1.0	<1.0	**2.2**	**3.1**	<1.1	<1.2	1.13	-70	1.8	2.6	3100	6.8	19.2	---
22A	05/19/2009	1797	1615	1524	267	<1.0	<1.0	**2.5**	**2.5**	<1.1	<1.2	0.26	-43	3.2	3.4	3490	7.0	21.0	---

SWMU-20 CLEANUP ACTION SUMMARY - SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days)				Volatile Organic Compounds						Aquifer Redox Conditions					Donor Parameters		Notes
		1st Injection	2nd Injection	3rd (b) Injection	4th Injection	PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	DO (mg/L)	ORP (mV)	Iron II (mg/L)	Sulfate (mg/L)	Methane (µg/L)	pH	TOC (mg/L)	
22A	11/18/2009	1980	1798	1707	450	<1.0	<1.0	**2.1**	**1.8**	<1.1	<1.2	0.43	-3.3	3.0	2.1	2060	6.4	13.8	---
22A	5/24/2010	2167	1985	1894	637	<1.0	<1.0	**1.7**	**1.7**	<1.1	<1.2	6.58	204	2.4	0.6	2370	7.0	15.1	---
22A	11/11/2010	2338	2156	2065	808	<1.0	<1.0	**1.2**	**2.7**	<1.1	<1.2	3.27	113	2.2	0.5	4650	7.0	21.8	---
22A	5/4/2011	2512	2330	2239	982	<1.0	<1.0	**1.1**	**2.2**	<1.1	<1.2	1.96	4	2.0	0.6	6350	7.0	22.4	---
22A	11/13/2011	2705	2523	2432	1175	<0.2	<0.2	**0.9**	**1.7**	<1.1	<1.2	2.89	-38	1.2	0.4	2510	7.3	17.6	---
22A	5/14/2012	2888	2706	2615	1358	<0.2	<0.2	**0.6**	**2.0**	<1.0	**3.3**	0.03	45	2.2	<0.30	5100	6.8	25.4	---
22A	11/14/2012	3072	2890	2799	1542	<0.2	<0.2	**0.5**	**1.8**	<1.0	**1.7**	0.03	1	1.8	<0.30	4400	6.9	22.7	---
23A	03/21/2005	277	95	4		<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.63	81	2.0	0.4	410	7.0	33.0	Slight yellow tint
23A	05/12/2005	329	147	56		<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.58	158	2.0	<0.1	260	7.2	39.9	---
23A	08/22/2005	431	249	158		<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.75	130	3.4	1.5	98	7.0	21.0	---
23A	11/16/2005	517	335	244		<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	0.49	291	2.6	4.1	140	7.2	30.8	---
23A	02/22/2006	615	433	342		<1.0	<1.0	<1.0	<1.0	<11.4	<12.3	0.60	127	2.2	91.8	1520	6.4	34.5	---
23A	05/17/2006	699	517	426		<1.0	<1.0	<1.0	<1.0	<11	<12	0.60	120	3.0	38.8	1700	6.7	30.0	---
23A	08/15/2006	789	607	516		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.77	256	2.2	63.9	3080	6.7	32.6	---
23A	11/30/2006	896	714	623		<0.2	<0.2	<0.2	<0.2	<1.1	<1.2	1.96	287	2.5	40.7	1930	6.2	45.2	---
23A	02/22/2007	980	798	707		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.40	-58	2.0	2.9	1360	6.5	34.6	---
23A	05/23/2007	1070	888	797		<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.41	193	3.3	52.7	1850	6.4	38.7	---
23A	11/30/2007	1261	1079	988		<0.2	<0.2	**0.3**	<0.2	<1.1	<1.2	0.55	159	2.2	81.1	4430	6.6	38.6	---
23A	05/21/2008	1434	1252	1161	-96	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	3.12	-28	2.2	31.7	1570	6.1	29.6	---
23A	11/25/2008	1622	1440	1349	92	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	4.22	-68	1.8	<0.1	3270	6.8	39.0	---
23A	05/19/2009	1797	1615	1524	267	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.31	-3	3.2	0.1	2370	6.5	39.1	---
23A	11/18/2009	1980	1798	1707	450	<1.0	<1.0	<1.0	<1.0	<1.1	<1.2	0.41	1	2.4	1.6	1970	6.5	30.9	---

PCE = Tetrachloroethene
TCE = Trichloroethene
cDCE = cis-1,2-Dichloroethene
VC = Vinyl Chloride
DO = Dissolved Oxygen
ORP = Oxidation Reduction Potential
TOC = Total Organic Carbon

Bold = Detect
µg/L = micrograms pr liter
mg/L = milligrams per liter
mV = millivolts
NA = Not analyzed

(a) Injections occurred on:
6/17/04 (6A, B, C; 9A, B, C)
12/16-17/04 (6A, 6B;9A,9B)
3/17/05 (14A)
8/25-28/08 (6A, 9A, 10A)

(b) Conducted at Well MW-14A only.
(c) MW-06A installed June 2004.

6/17/2004	for elapsed time relative to injection
12/16/2004	for elapsed time relative to injection
3/17/2005	for elapsed time relative to injection
8/25/2008	for elapsed time relative to injection

SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days) 1st Injection	2nd Injection	3rd (b) Injection	4th Injection	Volatile Organic Compounds PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)
MW-8C	5/3/2004	-45				<1.0	<1.0	<1.0	**2.8**
MW-8C	10/25/2004	130	-52			<1.0	<1.0	<1.0	**3.5**
MW-8C	5/12/2005	329	147			<1.0	<1.0	<1.0	<1.0
MW-8C	11/14/2005	515	333			<1.0	<1.0	<1.0	<1.0
MW-8C	5/15/2006	697	515			<10	<10	<10	<10
MW-8C	11/27/2006	893	711			<5.0	<5.0	<5.0	<5.0
MW-8C	5/21/2007	1068	886			<3.0	<3.0	<3.0	<3.0
MW-8C	11/29/2007	1260	1078			<5.0	<5.0	<5.0	<5.0
MW-8C	5/19/2008	1432	1250		-98	<5.0	<5.0	<5.0	<5.0
MW-8C	11/23/2008	1620	1438		90	<5.0	<5.0	<5.0	<5.0
MW-8C	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0
MW-8C	11/16/2009	1978	1796		448	<3.0	<3.0	<3.0	<3.0
MW-9D	5/3/2004	-45				<1.0	<1.0	<1.0	<1.0
MW-9D	10/19/2004	124	-58			<1.0	<1.0	<1.0	<1.0
MW-9D	5/11/2005	328	146			<1.0	<1.0	<1.0	<1.0
MW-9D	11/14/2005	515	333			<1.0	<1.0	<1.0	<1.0
MW-9D	5/15/2006	697	515			<1.0	<1.0	<1.0	<1.0
MW-9D	11/27/2006	893	711			<1.0	<1.0	<1.0	<1.0
MW-9D	5/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0
MW-9D	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0
MW-9D	5/19/2008	1432	1250		-98	<0.2	<0.2	<0.2	<0.2
MW-9D	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<1.0
MW-9D	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0
MW-9D	11/16/2009	1978	1796		448	<1.0	<1.0	<1.0	<1.0
MW-10C	5/3/2004	-45				<1.0	<1.0	**4.3**	**4.0**
MW-10C	10/19/2004	124	-58			<1.0	<1.0	**6.4**	**11**
MW-10C	5/11/2005	328	146			<1.0	<1.0	**4.0**	**1.9**
MW-10C	11/14/2005	515	333			<1.0	<1.0	<1.0	**1.0**
MW-10C	5/15/2006	697	515			<1.0	<1.0	**1.5**	**2.2**
MW-10C	11/27/2006	893	711			<0.2	<0.2	**1.9**	**2.6**
MW-10C	5/22/2007	1069	887			<1.0	<1.0	**6.7**	**5.8**
MW-10C	11/29/2007	1260	1078			<1.0	<1.0	**7.2**	**5.6**
MW-10C	5/19/2008	1432	1250		-98	<0.2	<0.2	**15**	**6.9**
MW-10C	11/24/2008	1621	1439		91	<1.0	<1.0	**8.5**	**7.5**
MW-10C	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0
MW-10C	11/16/2009	1978	1796		448	<1.0	<1.0	<1.0	<1.0
MW-10C	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0
MW-10C	11/10/2010	2337	2155		807	<1.0	<1.0	**3.5**	**4.4**
MW-10C	5/3/2011	2511	2329		981	<1.0	<1.0	**5.8**	**4.7**
MW-10C	11/13/2011	2705	2523		1175	<0.2	<0.2	**3.7**	**4.3**
MW-10C	5/14/2012	2888	2706		1358	<0.2	<0.2	**5.4**	**4.0**
MW-10C	11/14/2012	3072	2890		1542	<0.2	<0.2	**6.1**	**4.4**
MW-11A	5/2/2004	-46				<1.0	**2.1**	**21**	<1.0
MW-11A	10/25/2004	130	-52			<1.0	**2.0**	**20**	<1.0
MW-11A	5/12/2005	329	147			<1.0	**2.0**	**20**	<1.0
MW-11A	11/15/2005	516	334			<1.0	**2.0**	**22**	<1.0
MW-11A	5/16/2006	698	516			<1.0	**1.1**	**20**	<1.0
MW-11A	11/26/2006	892	710			<1.0	**1.5**	**24**	<1.0
MW-11A	5/22/2007	1069	887			<1.0	**1.5**	**26**	<1.0
MW-11A	11/27/2007	1258	1076			<1.0	**1.1**	**27**	<1.0
MW-11A	5/19/2008	1432	1250		-98	<0.2	**1.2**	**26**	**0.2**
MW-11A	11/23/2008	1620	1438		90	<1.0	**1.2**	**33**	<1.0

SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days) 1st Injection	2nd Injection	3rd (b) Injection	4th Injection	Volatile Organic Compounds PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)
MW-11A	05/18/2009	1796	1614		266	<1.0	<1.0	**26**	<1.0
MW-11A	11/17/2009	1979	1797		449	<1.0	**1.0**	**30**	<1.0
MW-11A	5/19/2010	2162	1980		632	<1.0	**1.1**	**26**	<1.0
MW-11A	11/8/2010	2335	2153		805	<1.0	<1.0	**22**	<1.0
MW-11A	5/3/2011	2511	2329		981	<1.0	<1.0	**22**	<1.0
MW-11A	11/13/2011	2705	2523		1175	<0.2	**0.5**	**23**	**0.4**
MW-11A	5/14/2012	2888	2706		1358	<0.2	**0.7**	**24**	**0.4**
MW-11A	11/14/2012	3072	2890		1542	<2.0	<2.0	**25**	<2.0
MW-12A	5/2/2004	-46				<1.0	<1.0	**1.8**	<1.0
MW-12A	10/25/2004	130	-52			<1.0	<1.0	**4.4**	<1.0
MW-12A	5/12/2005	329	147			<1.0	<1.0	**2.0**	<1.0
MW-12A	11/15/2005	516	334			<1.0	<1.0	**3.8**	<1.0
MW-12A	5/16/2006	698	516			<1.0	<1.0	**1.5**	<1.0
MW-12A	11/26/2006	892	710			<0.2	**0.7**	**4.4**	<0.2
MW-12A	5/22/2007	1069	887			<1.0	<1.0	**2.4**	<1.0
MW-12A	11/27/2007	1258	1076			<1.0	<1.0	**3.2**	<1.0
MW-12A	5/19/2008	1432	1250		-98	<0.2	**0.6**	**3.2**	<0.2
MW-12A	11/23/2008	1620	1438		90	<1.0	<1.0	**4.7**	<1.0
MW-12A	05/18/2009	1796	1614		266	<1.0	<1.0	**1.4**	<1.0
MW-12A	11/17/2009	1979	1797		449	<1.0	<1.0	**4.7**	<1.0
MW-12A	5/19/2010	2162	1980		632	<1.0	<1.0	<1.0	<1.0
MW-12A	11/8/2010	2335	2153		805	<1.0	<1.0	**4.3**	<1.0
MW-12A	5/3/2011	2511	2329		981	<1.0	<1.0	<1.0	<1.0
MW-12A	11/13/2011	2705	2523		1175	<0.2	**0.6**	**3.1**	<0.2
MW-12A	5/14/2012	2888	2706		1358	**0.2**	<0.2	<0.2	<0.2
MW-12A	11/14/2012	3072	2890		1542	<0.2	**0.4**	**2.1**	<0.2
MW-13A	5/2/2004	-46				**5.1**	**4.6**	<1.0	<1.0
MW-13A	10/25/2004	130	-52			**4.3**	**4.0**	<1.0	<1.0
MW-13A	5/12/2005	329	147			**6.1**	**4.6**	<1.0	<1.0
MW-13A	11/14/2005	515	333			**6.0**	**4.5**	<1.0	<1.0
MW-13A	5/16/2006	698	516			**7.1**	**4.6**	<1.0	<1.0
MW-13A	11/27/2006	893	711			**8.3**	**6.5**	**0.3**	<0.2
MW-13A	5/21/2007	1068	886			**8.2**	**7.0**	**0.4**	<0.2
MW-13A	11/28/2007	1259	1077			**6.4**	**4.2**	<1.0	<1.0
MW-13A	5/19/2008	1432	1250		-98	**8.7**	**6.8**	**0.3**	<0.2
MW-13A	11/23/2008	1620	1438		90	**6.5**	**3.7**	<1.0	<1.0
MW-13A	05/18/2009	1796	1614		266	**7.7**	**5.6**	<1.0	<1.0
MW-13A	11/17/2009	1979	1797		449	**9.2**	**6.0**	<1.0	<1.0
MW-13A	5/20/2010	2163	1981		633	**9.4**	**5.3**	<1.0	<1.0
MW-13A	11/10/2010	2337	2155		807	**3.6**	**2.8**	<1.0	<1.0
MW-13A	5/4/2011	2512	2330		982	**3.9**	**2.4**	<1.0	<1.0
MW-13A	11/3/2011	2695	2513		1165	**1.6**	<1.0	<1.0	<1.0
MW-13A	5/14/2012	2888	2706		1358	**2.3**	**0.8**	<0.2	<0.2
MW-13A	11/13/2012	3071	2889		1541	**2.2**	**0.8**	<0.2	<0.2
MW-13C	5/2/2004	-46				<1.0	<1.0	<1.0	**2.5**
MW-13C	10/25/2004	130	-52			<1.0	<1.0	<1.0	**3.3**
MW-13C	5/12/2005	329	147			<1.0	<1.0	<1.0	<1.0
MW-13C	11/14/2005	515	333			<1.0	<1.0	<1.0	**3.8**
MW-13C	5/16/2006	698	516			<1.0	<1.0	<1.0	**2.2**
MW-13C	11/27/2006	893	711			<0.2	<0.2	**0.8**	**3.4**
MW-13C	5/21/2007	1068	886			<0.2	<0.2	**0.8**	**4.4**
MW-13C	11/28/2007	1259	1077			<1.0	<1.0	<1.0	**2**

SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days) 1st Injection	2nd Injection	3rd (b) Injection	4th Injection	Volatile Organic Compounds PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)
MW-13C	5/19/2008	1432	1250		-98	<0.2	<0.2	**0.2**	**0.6**
MW-13C	11/23/2008	1620	1438		90	<1.0	<1.0	<1.0	**2.2**
MW-13C	05/18/2009	1796	1614		266	<1.0	<1.0	<1.0	<1.0
MW-13C	11/17/2009	1979	1797		449	<1.0	<1.0	<1.0	<1.0
MW-13C	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0
MW-13C	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<1.0
MW-13C	5/4/2011	2512	2330		982	<1.0	<1.0	<1.0	<1.0
MW-13C	11/3/2011	2695	2513		1165	<1.0	<1.0	<1.0	<1.0
MW-13C	5/14/2012	2888	2706		1358	<0.2	<0.2	<0.2	**0.3**
MW-13C	11/13/2012	3071	2889		1541	<2.0	<2.0	<2.0	<2.0
MW-14C	5/4/2004	-44				<1.0	<1.0	**63**	**44**
MW-14C	10/26/2004	131	-51	-142		<1.0	<1.0	**22**	**75**
MW-14C	5/16/2005	333	151	60		<1.0	<1.0	**11**	**6.1**
MW-14C	11/15/2005	516	334	243		<1.0	<1.0	<1.0	**1.8**
MW-14C	5/17/2006	699	517	426		<1.0	<1.0	<1.0	<1.0
MW-14C	11/29/2006	895	713	622		<0.2	<0.2	<0.2	**1.0**
MW-14C	5/23/2007	1070	888	797		<1.0	<1.0	<1.0	**2.5**
MW-14C	12/3/2007	1264	1082	991		<1.0	<1.0	**1.1**	**11**
MW-14C	5/20/2008	1433	1251	1160	-97	<1.0	<1.0	**1.4**	**22**
MW-14C	11/24/2008	1621	1439	1348	91	<1.0	<1.0	<1.0	**4.3**
MW-14C	05/20/2009	1798	1616	1525	268	<1.0	<1.0	<1.0	**1.1**
MW-14C	11/17/2009	1979	1797	1706	449	<1.0	<1.0	<1.0	<1.0
MW-14C	5/24/2010	2167	1985	1894	637	<1.0	<1.0	<1.0	<1.0
MW-14C	11/10/2010	2337	2155	2064	807	<1.0	<1.0	<1.0	<1.0
MW-14C	5/5/2011	2513	2331	2240	983	<1.0	<1.0	<1.0	<1.0
MW-14C	11/13/2011	2705	2523	2432	1175	<0.2	<0.2	<0.2	<0.2
MW-14C	5/14/2012	2888	2706	2615	1358	<0.2	<0.2	<0.2	<0.2
MW-14C	11/14/2012	3072	2890	2799	1542	<2.0	<2.0	<2.0	<2.0
MW-14E	5/4/2004	-44				<1.0	<1.0	<1.0	<1.0
MW-14E	10/26/2004	131	-51	-142		<1.0	<1.0	<1.0	<1.0
MW-14E	5/16/2005	333	151	60		<1.0	<1.0	<1.0	<1.0
MW-14E	11/15/2005	516	334	243		<1.0	<1.0	<1.0	<1.0
MW-14E	5/17/2006	699	517	426		<1.0	<1.0	<1.0	<1.0
MW-14E	11/29/2006	895	713	622		<0.2	<0.2	<0.2	<0.2
MW-14E	5/23/2007	1070	888	797		<1.0	<1.0	<1.0	<1.0
MW-14E	12/3/2007	1264	1082	991		<1.0	<1.0	<1.0	<1.0
MW-14E	5/20/2008	1433	1251	1160	-97	<1.0	<1.0	<1.0	<1.0
MW-14E	11/24/2008	1621	1439	1348	91	<1.0	<1.0	<1.0	<1.0
MW-14E	05/20/2009	1798	1616	1525	268	<1.0	<1.0	<1.0	<1.0
MW-14E	11/17/2009	1979	1797	1706	449	<1.0	<1.0	<1.0	<1.0
MW-15C	5/3/2004	-45				<1.0	<1.0	**9.1**	**11**
MW-15C	10/26/2004	131	-51			<1.0	<1.0	**11**	**17**
MW-15C	5/16/2005	333	151			<1.0	<1.0	**13**	**6.4**
MW-15C	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0
MW-15C	5/17/2006	699	517			<1.0	<1.0	<1.0	<1.0
MW-15C	11/29/2006	895	713			<0.2	<0.2	<0.2	<0.2
MW-15C	5/23/2007	1070	888			<1.0	<1.0	<1.0	**2.2**
MW-15C	12/3/2007	1264	1082			<1.0	<1.0	<1.0	**2.5**
MW-15C	5/20/2008	1433	1251		-97	<1.0	<1.0	**1.8**	**6.6**
MW-15C	11/24/2008	1621	1439		91	<1.0	<1.0	**1.9**	**6.6**
MW-15C	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0
MW-15C	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	<1.0

SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days) 1st Injection	2nd Injection	3rd (b) Injection	4th Injection	Volatile Organic Compounds PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)
MW-15C	5/20/2010	2163	1981		633	<1.0	<1.0	<1.0	<1.0
MW-15C	11/10/2010	2337	2155		807	<1.0	<1.0	<1.0	<1.0
MW-15C	5/5/2011	2513	2331		983	<1.0	<1.0	<1.0	<1.0
MW-15C	11/13/2011	2705	2523		1175	<0.2	<0.2	<0.2	<0.2
MW-15C	5/14/2012	2888	2706		1358	<0.2	<0.2	<0.2	<0.2
MW-15C	11/13/2012	3071	2889		1541	<2.0	**3.2**	<2.0	<2.0
MW-15D	5/3/2004	-45				<1.0	<1.0	<1.0	<1.0
MW-15D	10/26/2004	131	-51			<1.0	<1.0	<1.0	<1.0
MW-15D	5/16/2005	333	151			<1.0	<1.0	<1.0	<1.0
MW-15D	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0
MW-15D	5/17/2006	699	517			<1.0	<1.0	<1.0	<1.0
MW-15D	11/29/2006	895	713			<1.0	<1.0	<1.0	<1.0
MW-15D	5/23/2007	1070	888			<1.0	<1.0	<1.0	<1.0
MW-15D	12/3/2007	1264	1082			<1.0	<1.0	<1.0	<1.0
MW-15D	5/20/2008	1433	1251		-97	<1.0	<1.0	<1.0	<1.0
MW-15D	11/24/2008	1621	1439		91	<1.0	<1.0	<1.0	<1.0
MW-15D	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0
MW-15D	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	<1.0
MW-16A	5/2/2004	-46				**1.2**	**1.2**	**2.3**	<1.0
MW-16A	10/25/2004	130	-52			**1.2**	**1.3**	**1.8**	<1.0
MW-16A	5/12/2005	329	147			**1.2**	**1.8**	**2.6**	<1.0
MW-16A	11/15/2005	516	334			**1.3**	**2.2**	**2.1**	<1.0
MW-16A	5/16/2006	698	516			**1.0**	**1.4**	**2.3**	<1.0
MW-16A	11/26/2006	892	710			<0.2	**0.8**	**4.2**	<0.2
MW-16A	5/22/2007	1069	887			**1.1**	**1.3**	**1.9**	<1.0
MW-16A	11/28/2007	1259	1077			**1.7**	**1.2**	**1.2**	<1.0
MW-16A	5/19/2008	1432	1250		-98	**1.2**	**1.3**	**1.2**	<0.2
MW-16A	11/23/2008	1620	1438		90	**1.5**	**1.4**	**1.0**	<1.0
MW-16A	05/18/2009	1796	1614		266	**1.6**	**1.6**	<1.0	<1.0
MW-16A	11/16/2009	1978	1796		448	**2.2**	**1.5**	<1.0	<1.0
MW-16A	5/20/2010	2163	1981		633	**1.4**	**1.4**	<1.0	<1.0
MW-16A	11/10/2010	2337	2155		807	**1.3**	**1.1**	<1.0	<1.0
MW-16A	5/4/2011	2512	2330		982	**1.6**	**1.4**	<1.0	<1.0
MW-16A	11/13/2011	2705	2523		1175	**1.4**	**1.3**	**0.5**	<0.2
MW-16A	5/14/2012	2888	2706		1358	**1.6**	**1.7**	**0.5**	<0.2
MW-16A	11/14/2012	3072	2890		1542	**1.1**	**1.5**	**0.6**	<0.2
MW-16C	5/2/2004	-46				<1.0	<1.0	**1.7**	**5.4**
MW-16C	10/25/2004	130	-52			<1.0	<1.0	**2.4**	**8.5**
MW-16C	5/12/2005	329	147			<1.0	<1.0	**2.8**	**7.7**
MW-16C	11/15/2005	516	334			<1.0	<1.0	**4.6**	**12**
MW-16C	5/16/2006	698	516			<1.0	<1.0	**5.2**	**6.3**
MW-16C	11/26/2006	892	710			**1.2**	**2.3**	**2.0**	<0.2
MW-16C	5/22/2007	1069	887			<1.0	<1.0	**8.8**	**10**
MW-16C	11/28/2007	1259	1077			<1.0	<1.0	**7**	**8.9**
MW-16C	5/19/2008	1432	1250		-98	<0.2	<0.2	**7.8**	**7.9**
MW-16C	11/23/2008	1620	1438		90	<1.0	<1.0	**5.3**	**8.8**
MW-16C	05/18/2009	1796	1614		266	<1.0	<1.0	**5.0**	**6.3**
MW-16C	11/16/2009	1978	1796		448	<1.0	<1.0	**4.9**	**5.6**
MW-16C	5/20/2010	2163	1981		633	<1.0	<1.0	**3.7**	**3.4**
MW-16C	11/10/2010	2337	2155		807	<1.0	<1.0	**3.3**	**2.8**
MW-16C	5/4/2011	2512	2330		982	<1.0	<1.0	**3.7**	**3.2**
MW-16C	11/13/2011	2705	2523		1175	<0.2	<0.2	**3.3**	**2.5**

SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days) 1st Injection	2nd Injection	3rd (b) Injection	4th Injection	Volatile Organic Compounds PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)
MW-16C	5/14/2012	2888	2706		1358	<0.2	<0.2	**4.8**	**4.2**
MW-16C	11/14/2012	3072	2890		1542	<0.2	<0.2	**4.9**	**3.8**
MW-17A	5/2/2004	-46				**4.8**	**6.5**	**1.0**	<1.0
MW-17A	10/25/2004	130	-52			**5.2**	**4.8**	**1.2**	<1.0
MW-17A	11/15/2005	516	334			**4.0**	**5.4**	**1.1**	<1.0
MW-17A	5/15/2006	697	515			**4.2**	**4.4**	<1.0	<1.0
MW-17A	11/27/2006	893	711			**2.2**	**6.3**	**1.0**	<0.2
MW-17A	5/21/2007	1068	886			**4.7**	**5.3**	**1.0**	<0.2
MW-17A	11/29/2007	1260	1078			**4.2**	**4.3**	<1.0	<1.0
MW-17A	5/19/2008	1432	1250		-98	**4.3**	**5.1**	**0.8**	<0.2
MW-17A	11/23/2008	1620	1438		90	**4.2**	**5.2**	**1.2**	<1.0
MW-17A	05/19/2009	1797	1615		267	**3.2**	**4.9**	**1.4**	<1.0
MW-17A	11/12/2009	1974	1792		444	**3.7**	**4.5**	**1.1**	<1.0
MW-17A	5/20/2010	2163	1981		633	**4.0**	**3.1**	<1.0	<1.0
MW-17A	11/8/2010	2335	2153		805	**2.3**	**4.8**	**2.3**	<1.0
MW-17A	5/3/2011	2511	2329		981	**3.1**	**2.2**	**1.5**	<1.0
MW-17A	11/3/2011	2695	2513		1165	**2.6**	**2.8**	**1.0**	<1.0
MW-17A	5/14/2012	2888	2706		1358	**3.1**	**2.0**	**0.5**	<0.2
MW-17A	11/13/2012	3071	2889		1541	**2.8**	**3.5**	**0.9**	<0.2
MW-18A	5/2/2004	-46	-228			<1.0	<1.0	<1.0	<1.0
MW-18C	5/2/2004	-46				<1.0	<1.0	<1.0	<1.0
MW-18C	10/25/2004	130	-52			<1.0	<1.0	<1.0	<1.0
MW-18C	5/12/2005	329	147			<1.0	<1.0	<1.0	<1.0
MW-18C	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0
MW-18C	5/17/2006	699	517			<1.0	<1.0	<1.0	<1.0
MW-18C	11/27/2006	893	711			<0.2	<0.2	<0.2	<0.2
MW-18C	5/21/2007	1068	886			<0.2	<0.2	<0.2	**0.2**
MW-18C	11/28/2007	1259	1077			<1.0	<1.0	<1.0	<1.0
MW-18C	5/19/2008	1432	1250		-98	<0.2	<0.2	<0.2	**0.2**
MW-18C	11/23/2008	1620	1438		90	<1.0	<1.0	<1.0	<1.0
MW-18C	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0
MW-18C	11/17/2009	1979	1797		449	<1.0	<1.0	<1.0	<1.0
MW-19C	5/2/2004	-46				<1.0	<1.0	<1.0	<1.0
MW-19C	10/25/2004	130	-52			<1.0	<1.0	<1.0	<1.0
MW-19C	5/12/2005	329	147			<1.0	<1.0	<1.0	<1.0
MW-19C	11/15/2005	516	334			<1.0	<1.0	<1.0	<1.0
MW-19C	5/17/2006	699	517			<1.0	<1.0	<1.0	<1.0
MW-19C	11/27/2006	893	711			<0.2	<0.2	**0.3**	<0.2
MW-19C	5/22/2007	1069	887			<1.0	<1.0	<1.0	<1.0
MW-19C	11/29/2007	1260	1078			<1.0	<1.0	<1.0	<1.0
MW-19C	5/20/2008	1433	1251		-97	<1.0	<1.0	<1.0	<1.0
MW-19C	11/23/2008	1620	1438		90	<1.0	<1.0	<1.0	<1.0
MW-19C	05/19/2009	1797	1615		267	<1.0	<1.0	<1.0	<1.0
MW-19C	11/18/2009	1980	1798		450	<1.0	<1.0	<1.0	<1.0
MW-20C	5/3/2004	-45				<1.0	<1.0	**1.4**	**2.4**
MW-20C	10/25/2004	130	-52			<1.0	<1.0	**1.7**	**4.6**
MW-20C	5/12/2005	329	147			<1.0	<1.0	**1.7**	**2.3**
MW-20C	11/15/2005	516	334			<1.0	<1.0	**2.1**	**2.9**
MW-20C	5/17/2006	699	517			<1.0	<1.0	**1.8**	**1.6**
MW-20C	11/29/2006	895	713			<0.2	**0.2**	**2.1**	**1.5**
MW-20C	5/21/2007	1068	886			<0.2	<0.2	**1.6**	**1.8**

SWMU-20 CLEANUP ACTION SUMMARY - NON SOURCE ZONE
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Well	Date	Elapsed Time from Injections (a) (days) 1st Injection	2nd Injection	3rd (b) Injection	4th Injection	Volatile Organic Compounds PCE (µg/L)	TCE (µg/L)	cDCE (µg/L)	VC (µg/L)
MW-20C	11/29/2007	1260	1078			<1.0	<1.0	**1.6**	**1.3**
MW-20C	5/20/2008	1433	1251		-97	<1.0	<1.0	**1.6**	**2.5**
MW-20C	11/23/2008	1620	1438		90	<1.0	<1.0	**1.5**	**2.7**
MW-20C	05/19/2009	1797	1615		267	<1.0	<1.0	**1.4**	**2.0**
MW-20C	11/18/2009	1980	1798		450	<1.0	<1.0	**1.7**	**2.3**
MW-20C	5/20/2010	2163	1981		633	<1.0	<1.0	**1.3**	**1.8**
MW-20C	11/8/2010	2335	2153		805	<1.0	<1.0	**1.4**	**1.4**
MW-20C	5/4/2011	2512	2330		982	<1.0	<1.0	**1.1**	**1.8**
MW-20C	11/3/2011	2695	2513		1165	<1.0	<1.0	**1.3**	**2.1**
MW-20C	5/14/2012	2888	2706		1358	<0.2	<0.2	**1.2**	**1.5**
MW-20C	11/13/2012	3071	2889		1541	<2.0	<2.0	<2.0	<2.0

PCE = Tetrachloroethene
TCE = Trichloroethene
cDCE = cis-1,2-Dichloroethene
VC = Vinyl Chloride
µg/L - micrograms per liter
Bold = Detect

(a) Injections occurred on:
6/17/04 (6A, B, C; 9A, B, C)
12/16-17/04 (6A, 6B;9A,9B)
3/17/05 (14A)
8/25-28/08 (6A, 9A, 10A)

(b) Conducted at Well MW-14A only.

6/17/2004	for elapsed time relative to injection
12/16/2004	for elapsed time relative to injection
3/17/2005	for elapsed time relative to injection
8/25/2008	for elapsed time relative to injection

SWMU-20 CYCLOHEXYLAMINE DATA
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

Location	Lab ID:	Date Collected	Cyclohexylamine (mg/L) Method 8015B
MW-19A	VH99C	9/4/2012	1.0 U
	VV84	12/11/2012	1.0 U
MW-21A	VH99A	9/4/2012	1.0 U
	VV84	12/11/2012	1.0 U
MW-22A	VH99B	9/4/2012	1.0 U
	VV84	12/11/2012	1.0 U
BDC-05-23	VI09A	9/5/2012	1.0 U
	VV84	12/11/2012	1.0 U

U = Indicates the compound was not detected at the reported concentration.

DEVELOPMENTAL CENTER

GROUNDWATER MONITORING

NOVEMBER 2012

SWMU-17 VOA/METALS/CONVENTIONALS DATA TABLES

SWMU-17 CLEANUP ACTION SUMMARY

SWMU-17 REMEDIAL ACTION INJECTION AND MONITORING WELLS

SWMU-17 VOA/METALS/CONVENTIONALS DATA
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
SEPTEMBER AND NOVEMBER 2012

Sample Name:	BDC-05-02	BDC-05-02	BDC-05-03	BDC-05-04	BDC-05-05	BDC-05-07	BDC-05-08	BDC-05-09	BDC-05-10	BDC-05-11	BDC-05-12	BDC-05-12	BDC-05-13	BDC-05-14	BDC-05-15	BDC-05-16	BDC-05-16-Dup	BDC-05-16	BDC-05-17	BDC-05-18	BDC-05-18
LLI Sample ID:	6778664	6863376	6863406	6864654	6864660	6863370	6864648	6863364	6863358	6863352	6778662	6863346	6863334	6863328	6863382	6778666	6778676	6863388	6863394	6778656	6863412
LLI SDG:	1333588	1349834	1349834	1350030	1350030	1349834	1350030	1349834	1349834	1349834	1333588	1349834	1349834	1349834	1349834	1333588	1333588	1349834	1349834	1333588	1349834
Sample Date:	9/5/2012	11/15/2012	11/15/2012	11/16/2012	11/16/2012	11/15/2012	11/16/2012	11/15/2012	11/15/2012	11/15/2012	9/5/2012	11/15/2012	11/15/2012	11/15/2012	11/15/2012	9/5/2012	9/5/2012	11/15/2012	11/15/2012	9/5/2012	11/15/2012
Test ID: VOA SW8260C (µg/L)																					
Vinyl Chloride	2.0 U	5.5	0.7	0.5 U	0.5 U	0.8	0.5 U	20	49	5.7	3.3	5.4	2.3	2.0	7.5	8.1	7.9	4.9	5.4	0.2	0.5 U
cis-1,2-Dichloroethene	57	32	0.5 U	3.3	0.5 U	24	1.3	24	4.4	6.1	6.5	7.9	1.0 U	1.1	1.5	0.9	0.9	1.0 U	5.0 U	11	16
Trichloroethene	2.0 U	2.0 U	0.5 U	0.5 U	1.1	0.4	0.5 U	2.0 U	1.0 U	1.0 U	0.2 U	1.0 U	1.0 U	0.2 U	1.0 U	0.4 U	0.4 U	1.0 U	5.0 U	3.1	4.3
Tetrachloroethene	2.0 U	2.0 U	0.5 U	0.5 U	0.5 U	0.2 U	0.5 U	2.0 U	1.0 U	1.0 U	0.2 U	1.0 U	1.0 U	0.2 U	1.0 U	0.4 U	0.4 U	1.0 U	5.0 U	1.5	1.0
Test ID: Total Metals (mg/L)																					
Arsenic (EPA 200.8)		0.0137	0.0077	0.0118	0.0007 J1	0.0155	0.0139	0.0737	0.0692	0.0428		0.0365	0.0595	0.0220	0.0541			0.0406	0.0808		0.0150
Copper (EPA 200.8)		0.0031 U	0.0032	0.0022	0.0025	0.0020 U	0.0050	0.0055	0.0031	0.0031		0.0024	0.0020 U	0.0020 U	0.0020 U			0.0020 U	0.0020 U		0.0020 U
Test ID: Dissolved Metals (mg/L)																					
Arsenic (EPA 200.8)		0.0130	0.0073	0.0095	0.0005 J1	0.0171	0.0101	0.0698	0.0600	0.0380		0.0356	0.0545	0.0192	0.0485			0.0371	0.0619		0.0143
Copper (EPA 200.8)		0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U	0.0020 U		0.0020 U	0.0020 U	0.0020 U	0.0020 U			0.0020 U	0.0020 U		0.0020 U
Test ID: Conventionals (mg/L)																					
Sulfate (EPA 300.0)	0.30 U	0.30 U	1.2	14.3	20.6	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	0.30 U	2.0	2.4
Total Organic Carbon (SM5310C)	116	106	8.3	6.5	1.0 U	26.0	8.1	266	122	73.8	50.4	52.9	30.2	39.9	71.2	40.6	39.1	32.3	73.5	1.8	1.7
Test ID: Dissolved Gases; Mod RSK-175 (µg/L)																					
Methane	10000	20000			3.0 U	23000		27000	24000	26000	22000	27000	22000	24000	27000	22000	22000	28000	23000	7900	8300
Ethane	1.0 U	1.0 U			1.0 U	1.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethene	1.0 U	1.0 U			1.0 U	1.0 U		69	8.5	7.6	1.0 J1	1.1 J1	3.7 J1	1.4 J1	1.8 J1	6.0 J	4.9 J	4.0 J1	2.0 J1	1.0 U	1.0 U
Acetylene	1.0 U	1.0 U			1.0 U	1.0 U		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

SWMU-17 VOA/METALS/CONVENTIONALS DATA
DEVELOPMENTAL CENTER GROUNDWATER MONITORING
SEPTEMBER AND NOVEMBER 2012

Sample Name:	BDC-05-19	BDC-05-19	BDC-05-20	BDC-05-20	BDC-05-21	BDC-05-21	BDC-05-22	BDC-05-22	BDC-05-23	BDC-05-23	BDC-05-24	BDC-05-24	Trip Blank	Trip Blank	Trip Blank
LLI Sample ID:	6778660	6863340	6778668	6864630	6778670	6864642	6778672	6864636	6778674	6864624	6778658	6863400	6778678	1349834	1350030
LLI SDG:	1333588	1349834	1333588	1350030	1333588	1350030	1333588	1350030	1333588	1350030	1333588	1349834	1333588	6863418	6864666
Sample Date:	9/5/2012	11/15/2012	9/5/2012	11/16/2012	9/5/2012	11/16/2012	9/5/2012	11/16/2012	9/5/2012	11/16/2012	9/5/2012	11/15/2012	9/5/2012	11/15/2012	11/16/2012
Test ID: VOA SW8260C (µg/L)															
Vinyl Chloride	15	15	2.0	3.5	2.9	2.9	0.8	0.7	0.9	0.5	0.9	0.5 U	0.2 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	13	9.9	12	17	0.6	0.6	9.5	10	6.2	6.9	4.0	1.2	0.2 U	0.5 U	0.5 U
Trichloroethene	2.0 U	1.1	0.4 U	0.6	0.3	0.5 U	1.8	1.6	0.7	0.8	1.2	0.5 U	0.2 U	0.5 U	0.5 U
Tetrachloroethene	2.0 U	1.0 U	0.4 U	0.5 U	0.2 U	0.5 U	0.2 U	0.5 U	0.2 U	0.5 U	0.2 U	0.5 U	0.2 U	0.5 U	0.5 U
Test ID: Total Metals (mg/L)															
Arsenic (EPA 200.8)		0.0884		0.0122		0.0198		0.0328		0.0115		0.0017 J1			
Copper (EPA 200.8)		0.0060		0.0020 U		0.0020 U		0.0020 U		0.0020 U		0.0020 U			
Test ID: Dissolved Metals (mg/L)															
Arsenic (EPA 200.8)		0.0735		0.0132		0.0196		0.0314		0.0103		0.0029			
Copper (EPA 200.8)		0.0020 U		0.0020 U		0.0020 U		0.0020 U		0.0020 U		0.0020 U			
Test ID: Conventionals (mg/L)															
Sulfate (EPA 300.0)	1.4	1.8	0.30 U	0.30 U	1.4	0.62 J1	14.7	17.8	8.8	4.9	0.30 U	0.30 U			
Total Organic Carbon (SM5310C)	68.0	68.1	12.1	13.1	9.5	8.9	7.6	7.7	11.3	11.6	7.4	10.7			
Test ID: Dissolved Gases; Mod RSK-175 (µg/L)															
Methane	19000	24000	14000	18000									15 U		
Ethane	1.0 U	1.0 U	1.0 U	1.0 U									5.0 U		
Ethene	3.9 J1	5.5	1.0 U	1.0 U									5.0 U		
Acetylene	1.0 U	1.0 U	1.0 U	1.0 U									5.0 U		

U = Indicates compound was analyzed for, but was not detected at the given detection limit.
J1 = Estimated concentration when the value is less than the laboratory's established reporting limits.

µg/L = micrograms per liter.
mg/L = milligrams per liter.

GROUNDWATER DATA SUMMARY
BOEING DEVELOPMENTAL CENTER SWMU-17

		Pilot Injection	Full Injection #1	Volatile Organic Compounds							Metals				Aquifer Redox Conditions						Donor Indicators		
		Elapsed Time From Injection	Elapsed Time From Injection	PCE	TCE	*c* DCE	VC	Ethene	Ethane	Acetylene	As, Tot	As, Dis	Cu, Tot	Cu, Dis	DO	Nitrate	Iron II	Sulfate	Methane	ORP	TOC	pH	
		(days)	(days)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg-N/L)	(mg/L)	(mg/L)	(mg/L)	(mV)	(mg/L)		
Preliminary Screening Level (Fresh Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0034	0.0034									
Preliminary Screening Level (Marine Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0089 (a)	0.0089 (a)									
Well	Date																						Comments
BDC-05-02	5/21/2007	-526		20	24	1.2	<1.0				0.003	0.002	0.004	<0.002									
(IW)	11/26/2007	-337		12	14	1.3	<1.0				0.001	<0.001	<0.002	<0.002									
	5/22/2008	-159		14	20	1.2	<0.2				0.002	<0.001	0.004	<0.002									
BDC-05-02	10/23/2008	-5		31	62	2.9	<1.0	<1.1	<1.2	<1.1	0.003	0.003	0.006	<0.002	5.15	0.4	0.2	13.0	0.19	87.1	5.5	6.47	
BDC-05-02	11/20/2008	23		5.1	4.2	0.7	<0.2	<1.1	<1.2	<1.1	0.017	0.011	0.008	<0.002	0.29	<0.1	1.8	64.8	3.3	-111	430	6.47	
BDC-05-02	12/16/2008	49		6.6	7.3	1.3	<1.0	<1.1	<1.2	<1.1	0.024	0.017	0.030	0.003	1.28	<0.1	3.4	88.8	2.9	-225	610	6.41	
BDC-05-02	1/16/2009	80		7.5	22	3.7	<1.0	<1.1	<1.2	<1.1	0.022	0.014	0.029	<0.002	0.09	<1.0	3.5	6.9	6.2	-304	732	6.10	
BDC-05-02	2/11/2009	106		9.5	17	12	<1.0	<1.1	<1.2	<1.1	0.046	0.040	0.004	<0.002	2.36	<0.1	4.0	<0.1	13.2	-99	433	6.32	
BDC-05-02	3/9/2009	132		9.1	8.1	25	<1.0	<1.1	<1.2	<1.1	0.041	0.036	0.004	<0.002	0.09	<1.0	3.5	<1.0	22.9	-102	317	6.43	
BDC-05-02	4/16/2009	170		7.3	6.0	41	<1.0	<1.1	<1.2	<1.1	0.029	0.025	0.003	<0.002	1.78	<0.1	3.0	<0.5	26.3	-97	274	6.59	
BDC-05-02	5/13/2009	197		4.4	4.6	35	1.4	<1.1	<1.2		0.024	0.019	0.004	0.002	0.27	<0.1	5.2	<0.1	23.0	-63	215	6.61	
BDC-05-02	8/16/2009	292		1.8	1.1	49	<1.0	<1.1	<1.2	<1.1	0.023	0.017	0.009	<0.002	1.58	<0.5	3.6	<0.5	22.6	-23	125	6.77	Black tint, black flakes, suspended solids
BDC-05-02	11/13/2009	381		1.0	<1.0	70	<1.0	<1.1	<1.2	<1.1	0.020	0.016	0.003	<0.002	1.07	<0.1	2.8	0.3	21.1	-26	44.1	6.05	Black tint
BDC-05-02	2/16/2010	476		<1.0	<1.0	54	<1.0	<1.1	<1.2	<1.1	0.022	0.020	0.005	0.002	1.52	<0.5	2.0	0.5	22.5	763	86.7	6.87	
BDC-05-02	5/18/2010	567		<1.0	1.0	32	<1.0	<1.1	<1.2	<1.1	0.013	0.012	<0.002	<0.002	1.83	<0.5	2.3	<0.5	18.4	515	20.6	6.69	
BDC-05-02	8/17/2010	658		<1.0	<1.0	23	<1.0	<1.1	<1.2	<1.1	0.010	0.008	<0.002	<0.002	2.82	0.2	2.7	1.4	20.2	55	13.3	6.74	
BDC-05-02	11/9/2010	742		<1.0	<1.0	14	<1.0	<1.1	<1.2	<1.1	0.006	0.005	<0.002	<0.002	2.77	<0.1	2.2	0.3	16.9	72	10.8	6.83	
BDC-05-02	2/15/2011	840		<1.0	<1.0	13	<1.0	<1.1	<1.2	<1.1	0.007	0.006	0.003	<0.002	2.43	<0.1	3.0	0.7	17.8	114	13.2	6.80	
BDC-05-02	5/2/2011	916		0.6	0.9	22	0.3	<1.1	<1.2	<1.1	0.008	0.007	<0.002	<0.002	2.09	<0.1	1.4	0.2	13.3	13	9.8	6.86	
BDC-05-02	7/31/2011	1006	-18	<1.0	<1.0	10	<1.0	<1.1	<1.2	<1.1	0.006	0.005	<0.002	<0.002	1.97	<0.1	3.2	0.2	15.0	-35	8.7	6.82	
BDC-05-02	11/2/2011	1100	76	8.4	4.8	150	1.6	<1.1	<1.2	<1.1	0.025	0.022	0.010	0.010	2.40	<0.1	3.5	1.4	9.0	-28	5360	5.43	
BDC-05-02	2/19/2012	1209	185	<4.0	<4.0	220	<4.0	<1.0	<1.0	<1.0					1.37	<0.5	1.3	<1.5	8.5	-32	673	6.70	
BDC-05-02	5/7/2012	1287	263	<2.0	<2.0	180	<2.0	<1.0	<1.0	<1.0	0.051	0.049	0.004	<0.002	0.60		2.2	0.8	19.0	35	412	6.71	
BDC-05-02	9/5/2012	1408	384	<2.0	<2.0	57	<2.0	<1.0	<1.0	<1.0					0.11		1.8	<0.3	10.0	71	116	6.45	
BDC-05-02	11/15/2012	1479	455	<2.0	<2.0	32	5.5	<1.0	<1.0	<1.0	0.014	0.013	<0.003	<0.002	0.03		1.2	<0.3	20.0	17	106	6.49	
BDC-05-03	5/21/2007	-526		3.5	8.1	11	<1.0				0.003	<0.001	0.004	<0.002									
(MW 17 ft DG)	11/26/2007	-337		2.3	4.4	7.2	<1.0				0.002	<0.001	0.003	<0.002									
	5/22/2008	-159		3.8	8.5	13	<0.2				0.002	<0.001	0.003	<0.002									
BDC-05-03	10/23/2008	-5		4.2	8.2	17	<0.2	<1.1	<1.2	<1.1	0.004	0.002	0.004	0.002	0.37	<0.1	0.1	4.9	2.1	48.9	4.9	6.23	
BDC-05-03	11/20/2008	23		1.8	2.1	2.7	<0.2	<1.1	<1.2	<1.1	0.003	0.001	0.004	<0.002	2.07	0.9	1.6	8.5	3.6	-8	7.0	6.23	
BDC-05-03	12/16/2008	49		2.2	4.1	5.8	<1.0	<1.1	<1.2	<1.1	0.001	<0.001	0.002	<0.002	1.20	0.4	2.4	20.1	4.7	-67	5.4	6.44	
BDC-05-03	1/16/2009	80		1.5	1.2	<1.0	<1.0	<1.1	<1.2	<1.1	0.001	<0.001	0.002	<0.002	0.71	1.7	0.4	10.3	1.5 J	-144	3.2	6.17	
BDC-05-03	2/11/2009	106		1.8	3.2	4.4	<1.0	<1.1	<1.2	<1.1	0.002	<0.001	0.002	<0.002	2.43	0.9	2.4	6.2	5.4	-60	5.4	6.59	
BDC-05-03	3/9/2009	132		1.3	1.7	1.4	<1.0	<1.1	<1.2	<1.1	<0.001	<0.001	<0.002	<0.002	0.86	1.0	1.0	6.6	4.3	39	4.8	6.48	
BDC-05-03	4/16/2009	170		1.5	2.2	2.8	<1.0	<1.1	<1.2	<1.1	0.001	0.002	<0.002	<0.002	1.42	1.0	1.4	4.8	3.3	14	5.4	6.69	
BDC-05-03	5/13/2009	197		1.2	2.1	3.4	<1.0	<1.1	<1.2		0.001	0.0004	0.004	0.002	1.06	1.0	3.0	4.8	6.9	31	5.5	6.75	
BDC-05-03	8/16/2009	292		2.2	4.3	8.1	<1.0	<1.1	<1.2	<1.1	0.001	0.001	<0.002	<0.002	0.85	0.1	3.0	3.0	8.3	-42	6.5	7.11	
BDC-05-03	11/13/2009	381		1.2	1.2	<1.0	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.003	<0.002	1.66	0.2	3.0	5.6	5.0	57	4.3	6.37	
BDC-05-03	2/16/2010	476		1.4	1.0	<1.0	<1.0	<1.1	<1.2	<1.1	0.002	<0.001	0.005	0.005	1.25	2.5	0.0	8.6	<0.0007	663	3.5	6.30	
BDC-05-03	5/18/2010	567		1.2	1.8	2.7	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.004	0.003	0.88	1.5	2.0	4.9	2.4	346	4.7	6.42	
BDC-05-03	8/17/2010	658		2.3	5.2	14	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.003	<0.002	2.10	0.2	2.7	2.8	7.1	73	7.6	6.79	
BDC-05-03	11/9/2010	742		1.4	1.7	3.7	<1.0	<1.1	<1.2	<1.1	0.001	0.001	0.003	<0.002	3.20	0.5	2.2	5.3	3.0	133	4.7	7.61	
BDC-05-03	2/15/2011	840		1.3	<1.0	2.3	<1.0	<1.1	<1.2	<1.1	0.001	0.0003	0.005	0.003	2.86	0.7	0.0	6.2	4.6	166	5.4	7.01	
BDC-05-03	5/2/2011	916	-108	1.7	1.0	0.2	<0.2	<1.1	<1.2	<1.1	0.002	0.0004	0.005	0.003	3.31	0.8	0.0	5.5	0.3	203	4.1	6.91	
BDC-05-03	11/2/2011	1100	76	1.4	1.6	20	2.0				0.018	0.017	0.004	0.002	1.20	<0.1	1.6	<1.0		-60	70.0	6.72	
BDC-05-03	5/6/2012	1286	262	0.6	1.3	<0.2	0.3				0.002	0.004	0.003	0.010	0.02		1.2	10.3		82	4.9	6.26	
BDC-05-03	11/15/2012	1479	455	<0.5	<0.5	<0.5	0.7				0.008	0.007	0.003	<0.002	0.01		0.3	1.2		13	8.3	6.79	
BDC-05-04	5/21/2007	-526		<1.0	<1.0	1.4	<1.0				0.018	<0.001	<0.002	<0.002									
(MW 22 ft XG)	11/26/2007	-337		<1.0	<1.0	1.6	<1.0				0.009	<0.001	<0.002	<0.002									
	5/22/2008	-159		1.5	0.9	1.2	<0.2				0.018	<0.001	<0.002	<0.002									
BDC-05-04	10/23/2008	-5		1.1	0.8	2.1	<0.2	<1.1	<1.2	<1.1	0.009	<0.001	<0.002	<0.002	2.45	7.6	0.1	31.0	0.3	73.5	3.8	6.33	
BDC-05-04	11/20/2008	23		1.1	0.7	3.6	<0.2	<1.1	<1.2	<1.1	0.019	<0.001	<0.002	<0.002	0.59	4.5	0.8	25,2	0.05	-16	5.1	6.25	
BDC-05-04	12/16/2008	49		<1.0	<1.0	2.4	<1.0	<1.1	<1.2	<1.1	0.019	0.002	0.003	<0.002	0.55	5.5	1.0	30.4	1.6	-98	6.9	6.24	
BDC-05-04	1/16/2009	80		<1.0	<1.0	2.0	<1.0	<1.1	<1.2	<1.1	0.017	<0.001	<0.002	<0.002	0.06	4.3	1.0	21.8	1.5	-192	5.1	6.23	

GROUNDWATER DATA SUMMARY
BOEING DEVELOPMENTAL CENTER SWMU-17

		Pilot Injection	Full Injection #1	Volatile Organic Compounds							Metals				Aquifer Redox Conditions						Donor Indicators		
		Elapsed Time From Injection	Elapsed Time From Injection	PCE	TCE	*c* DCE	VC	Ethene	Ethane	Acetylene	As, Tot	As, Dis	Cu, Tot	Cu, Dis	DO	Nitrate	Iron II	Sulfate	Methane	ORP	TOC	pH	
		(days)	(days)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg-N/L)	(mg/L)	(mg/L)	(mg/L)	(mV)	(mg/L)		
Preliminary Screening Level (Fresh Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0034	0.0034									
Preliminary Screening Level (Marine Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0089 (a)	0.0089 (a)									
Well	Date																						Comments
BDC-05-04	2/11/2009	106		1.0	<1.0	1.5	<1.0	<1.1	<1.2	<1.1	0.020	<0.001	<0.002	<0.002	2.45	5.9	1.0	31.8	1.1	-54	6.8	6.17	
BDC-05-04	3/9/2009	132		1.0	<1.0	1.3	<1.0	<1.1	<1.2	<1.1	0.014	0.001	0.002	<0.002	0.27	4.8	1.5	30.1	0.2	35	5.2	6.22	
BDC-05-04	4/16/2009	170		1.2	<1.0	<1.0	<1.0	<1.1	<1.2	<1.1	0.011	0.001	<0.002	<0.002	1.48	5.9	1.4	33.6	<0.0007	68	5.7	6.29	
BDC-05-04	5/13/2009	197		<1.0	<1.0	1.0	<1.0	<1.1	<1.2		0.007	0.001	0.002	0.002	0.33	4.5	1.6	26.6	0.4	49	5.2	6.37	
BDC-05-04	8/16/2009	292		1.3	<1.0	<1.0	<1.0	<1.1	<1.2	<1.1	0.012	0.001	0.002	<0.002	0.86	5.4	2.2	30.6	<0.0007	93	5.0	6.97	
BDC-05-04	11/13/2009	381		<1.0	<1.0	1.2	<1.0	<1.1	<1.2	<1.1	0.005	0.001	<0.002	<0.002	0.56	2.2	3.0	18.4	2.4	109	4.4	5.86	
BDC-05-04	2/16/2010	476		<1.0	<1.0	1.1	<1.0	<1.1	<1.2	<1.1	0.004	0.002	0.012	0.002	0.88	<0.1	3.3	24.6	1.5	899	8.9	6.24	
BDC-05-04	5/18/2010	567		1.1	<1.0	1.2	<1.0	<1.1	<1.2	<1.1	0.014	0.001	0.005	<0.002	0.75	<0.1	3.0	25.4	1.3	473	7.1	6.19	
BDC-05-04	8/17/2010	658		<1.0	<1.0	3.0	<1.0	<1.1	<1.2	<1.1	0.012	0.002	0.006	<0.002	1.00	<0.1	2.8	17.7	3.5	108	8.7	6.48	
BDC-05-04	11/9/2010	742		<1.0	<1.0	4.3	<1.0	<1.1	<1.2	<1.1	0.008	0.004	<0.002	<0.002	2.21	<0.1	2.2	21.3	3.0	101	7.2	6.84	
BDC-05-04	2/15/2011	840		<1.0	<1.0	2.9	<1.0	<1.1	<1.2	<1.1	0.007	0.004	<0.002	<0.002	2.50	<0.1	2.4	19.4	4.5	93	6.9	6.85	
BDC-05-04	5/2/2011	916	-108	0.4	0.5	3.1	<0.2	<1.1	<1.2	<1.1	0.008	0.004	<0.002	<0.002	1.69	<0.1	2.2	18.0	1.8	49	6.8	6.76	
BDC-05-04	11/2/2011	1100	76	<1.0	<1.0	4.2	<1.0				0.007	0.006	<0.002	<0.002	1.52	<1.0	1.2	<1.0		-3	6.6	7.17	
BDC-05-04	5/7/2012	1287	263	0.4	0.6	3.6	<0.2				0.017	0.016	<0.002	<0.002	0.16		2.0	21.5		98	8.6	6.39	
BDC-05-04	11/16/2012	1480	456	<0.5	<0.5	3.3	<0.5				0.012	0.010	0.002	<0.002	0.02		1.2	14.3		27	6.5	6.65	
BDC-05-05	5/21/2007	-526		<1.0	<1.0	<1.0	<1.0				0.002	<0.001	0.003	<0.002									
(MW UG)	11/26/2007	-337		<1.0	<1.0	<1.0	<1.0				<0.001	<0.001	<0.002	<0.002									
	5/22/2008	-159		0.3	0.8	<0.2	<0.2				0.002	<0.001	0.003	<0.002									
BDC-05-05	10/23/2008	-5																					
BDC-05-05	11/20/2008	23		0.3	0.7	<0.2	<0.2				0.005	0.001	0.005	0.003	4.61					52		6.25	
BDC-05-05	12/16/2008	49																					
BDC-05-05	1/16/2009	80																					
BDC-05-05	2/11/2009	106																					
BDC-05-05	3/9/2009	132																					
BDC-05-05	4/16/2009	170																					
BDC-05-05	5/13/2009	197		<1.0	<1.0	<1.0	<1.0				0.003	<0.001	0.006	0.002	3.24					68		6.72	
BDC-05-05	8/16/2009	292																					
BDC-05-05	11/13/2009	381		<1.0	<1.0	<1.0	<1.0				0.001	<0.001	<0.002	<0.002	2.85	1.2	0.0	8.7		166		5.84	
BDC-05-05	2/16/2010	476																					
BDC-05-05	5/18/2010	567		<1.0	<1.0	<1.0	<1.0				0.002	0.0004	0.002	<0.002	3.47		0.0			494		6.74	
BDC-05-05	8/17/2010	658																					
BDC-05-05	11/9/2010	742		<1.0	1.1	<1.0	<1.0				0.001	0.0004	0.003	<0.002	3.20					135		6.90	
BDC-05-05	2/15/2011	840																					
BDC-05-05	5/2/2011	916	-108	0.3	0.8	<0.2	<0.2				0.001	0.0003	0.003	<0.002	3.40					158		6.98	
BDC-05-05	11/2/2011	1100	76	<1.0	1.2	<1.0	<1.0				0.001	0.0003	0.002	0.003	2.84	<0.1	0.0	7.5		85	1.7	7.66	
BDC-05-05	5/6/2012	1286	262	0.4	0.9	<0.2	<0.2				<0.001	<0.001	0.003	<0.002	3.23		0.0	22.1		219	1.1	6.42	
BDC-05-05	11/16/2012	1480	456	<0.5	1.1	<0.5	<0.5	<1.0	<1.0	<1.0	0.001	0.0005	0.003	<0.002	1.76		0.2	20.6	<0.003	27	<1.0	6.82	
BDC-05-07	5/21/2007	-526		30	22	10	<1.0				0.003	<0.001	0.014	0.009									
(IW)	11/26/2007	-337		28	25	11	<1.0				<0.001	<0.001	0.011	0.002									
	5/22/2008	-159		33	32	9.2	<0.2				0.002	<0.001	0.012	0.006									
BDC-05-07	10/23/2008	-5		22	24	14	<0.2	<1.1	<1.2	<1.1	0.004	0.002	0.022	0.013	9.71	9.6	0.0	33.4	0.6	86.0	7.8	6.47	
BDC-05-07	11/20/2008	23		17	17	4.9	<0.2	<1.1	<1.2	<1.1	0.003	<0.001	0.016	0.010	0.60	2.2	0.4	15.8	0.2	-27	4.6	6.46	
BDC-05-07	12/16/2008	49		16	25	7.2	<1.0	<1.1	<1.2	<1.1	0.003	0.001	0.016	0.012	1.20	4.8	0.0	29.4	0.6	-107	6.1	6.49	
BDC-05-07	1/16/2009	80		20	23	6.4	<1.0	<1.1	<1.2	<1.1	0.002	<0.001	0.013	0.008	0.00	8.4	0.0	32.6	0.03	-182	6.3	6.38	
BDC-05-07	2/11/2009	106		23	28	9.9	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.017	0.012	2.05	11.2	0.0	37.5	1.5	-68	9.3	6.37	
BDC-05-07	3/9/2009	132		20	21	8.4	<1.0	<1.1	<1.2	<1.1	<0.002	<0.001	0.013	0.009	0.00	8.8	0.3	35.3	5.5	-23	6.8	6.37	
BDC-05-07	4/16/2009	170		20	21	11	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.015	0.008	0.27	8.2	0.0	31.2	5.1	35	8.1	6.43	
BDC-05-07	5/13/2009	197		11	13	7.5	<1.0	<1.1	<1.2		0.002	0.001	0.016	0.008	0.29	6.8	0.4	27.2	7.9	34	7.3	6.47	
BDC-05-07	8/16/2009	292		11	12	13	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.010	<0.002	0.74	2.3	2.0	23.2	6.8	67	8.2	6.73	
BDC-05-07	11/13/2009	381		6.5	5.3	5.6	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.004	<0.002	0.50	<0.1	2.8	5.7	4.7	16	9.1	6.48	
BDC-05-07	2/16/2010	476		6.4	6.9	28	<1.0	<1.1	<1.2	<1.1	0.004	0.003	0.017	0.006	1.04	<0.1	2.5	20.4	5.2	839	14.7	6.88	
BDC-05-07	5/18/2010	567		5.8	9.2	41	1.2	<1.1	<1.2	<1.1	0.009	0.003	0.009	<0.002	1.06	<0.5	2.0	16.4	6.0	525	14.8	6.77	
BDC-05-07	8/17/2010	658		2.8	7.8	19	<1.0	<1.1	<1.2	<1.1	0.006	0.003	0.008	<0.002	2.30	<0.1	2.5	8.6	7.1	-15	18.8	7.34	
BDC-05-07	11/9/2010	742		<1.0	9.4	20	<1.0	<1.1	<1.2	<1.1	0.008	0.005	0.009	<0.002	2.42	<0.1	2.2	15.2	5.1	13	15.2	7.35	
BDC-05-07	2/15/2011	840		<1.0	8.7	20	<1.0	<1.1	<1.2	<1.1	0.013	0.010	0.012	0.002	3.02	<0.1	2.8	11.8	5.1	21	14.0	7.16	

GROUNDWATER DATA SUMMARY
BOEING DEVELOPMENTAL CENTER SWMU-17

		Pilot Injection	Full Injection #1	Volatile Organic Compounds							Metals				Aquifer Redox Conditions						Donor Indicators		
		Elapsed Time From Injection	Elapsed Time From Injection	PCE	TCE	*c* DCE	VC	Ethene	Ethane	Acetylene	As, Tot	As, Dis	Cu, Tot	Cu, Dis	DO	Nitrate	Iron II	Sulfate	Methane	ORP	TOC	pH	
		(days)	(days)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg-N/L)	(mg/L)	(mg/L)	(mg/L)	(mV)	(mg/L)		
Preliminary Screening Level (Fresh Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0034	0.0034									
Preliminary Screening Level (Marine Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0089 (a)	0.0089 (a)									
Well	Date																						Comments
BDC-05-07	5/2/2011	916	-108	5.2	11	17	<0.2	<1.1	<1.2	<1.1	0.017	0.004	0.014	0.003	2.14	0.1	2.6	15.6	3.2	33	16.8	6.90	
BDC-05-07	11/2/2011	1100	76	11	6.9	39	<1.0	<1.1	<1.2	<1.1	0.042	0.035	0.010	0.006	2.06	<0.1	2.4	<1.0	16.1	-51	1780	6.31	
BDC-05-07	5/7/2012	1287	263	0.8	<0.2	23	0.9	<1.0	<1.0	<1.0	0.026	0.024	0.003	<0.002	0.17		1.6	0.4	27.0	100	48.5	6.34	
BDC-05-07	11/15/2012	1479	455	<0.2	0.4	24	0.8	<1.0	<1.0	<1.0	0.016	0.017	<0.002	<0.002	0.01		1.6	<0.3	23.0	3.0	26	6.60	
BDC-05-08	10/23/2008	-5		1.1	3.7	3.5	<0.2	<1.1	<1.2	<1.1	0.007	<0.001	0.004	<0.002	1.90	0.3	0.0	8.9	4.7	-12.0	5.1	6.65	
(MW 24 ft XG)	11/20/2008	23		1.1	3.4	4.2	<0.2	<1.1	<1.2	<1.1	0.035	0.004	0.036	<0.002	0.80	0.7	2.2	7.2	5.5	-43	5.9	6.63	
	12/16/2008	49		1.2	4.3	4.3	<1.0	<1.1	<1.2	<1.1	0.008	0.001	0.006	<0.002	0.50	0.9	4.6	21.8	3.6	-99	5.4	6.61	
BDC-05-08	1/16/2009	80		1.3	4.2	3.6	<1.0	<1.1	<1.2	<1.1	0.008	0.002	0.007	<0.002	0.25	1.7	3.0	7.0	6.9	-185	5.8	6.59	
BDC-05-08	2/11/2009	106		<1.0	3.2	3.9	<1.0	<1.1	<1.2	<1.1	0.019	0.001	0.010	<0.002	2.38	0.3	4.4	4.7	4.4	-78	7.0	6.69	
BDC-05-08	3/9/2009	132		<1.0	2.7	3.5	<1.0	<1.1	<1.2	<1.1	0.009	0.003	0.007	<0.002	0.07	<0.1	3.6	3.8	4.9	-4	6.7	6.65	
BDC-05-08	4/16/2009	170		<1.0	2.3	4.4	<1.0	<1.1	<1.2	<1.1	0.007	0.003	0.006	<0.002	0.42	<0.1	2.0	1.7	6.7	-8	6.8	6.80	
BDC-05-08	5/13/2009	197		<1.0	1.6	3.0	<1.0	<1.1	<1.2		0.009	0.003	0.007	0.002	1.77	<0.1	4.0	0.8	11.4	-13	6.0	6.87	
BDC-05-08	8/16/2009	292		<1.0	2.1	3.5	<1.0	<1.1	<1.2	<1.1	0.012	0.008	<0.002	<0.002	0.87	<0.1	2.8	5.3	13.2	-20	6.1	7.15	
BDC-05-08	11/13/2009	381		<1.0	1.2	3.1	<1.0	<1.1	<1.2	<1.1	0.011	0.008	0.007	<0.002	0.73	<0.1	2.8	3.3	17.4	0.8	8.4	6.44	
BDC-05-08	2/16/2010	476		<1.0	<1.0	2.3	<1.0	<1.1	<1.2	<1.1	0.024	0.009	0.024	<0.002	0.63	<0.1	3.0	0.8	13.1	841	8.3	6.76	
BDC-05-08	5/18/2010	567		<1.0	<1.0	2.4	<1.0	<1.1	<1.2	<1.1	0.031	0.011	0.027	<0.002	0.96	<0.1	3.0	0.8	14.9	451	7.3	6.92	
BDC-05-08	8/17/2010	658		<1.0	<1.0	2.3	<1.0	<1.1	<1.2	<1.1	0.014	0.009	0.013	<0.002	2.57	<0.1	3.2	0.5	10.1	-30	7.2	7.30	
BDC-05-08	11/9/2010	742		<1.0	<1.0	3.5	<1.0	<1.1	<1.2	<1.1	0.031	0.012	0.031	<0.002	2.74	<0.1	2.4	0.3	14.2	59	7.6	7.17	
BDC-05-08	2/15/2011	840		<1.0	<1.0	2.1	<1.0	<1.1	<1.2	<1.1	0.021	0.010	0.016	<0.002	2.36	<0.1	5.0	0.3	14.1	66	8.7	7.08	
BDC-05-08	5/2/2011	916	-108	<0.2	<0.2	2.2	<0.2	<1.1	<1.2	<1.1	0.029	0.010	0.024	<0.002	2.15	<0.1	2.4	0.7	7.8	-28	8.0	7.17	
BDC-05-08	11/2/2011	1100	76	<1.0	<1.0	2.4	<1.0				0.014	0.010	0.012	0.003	1.15	<0.1	1.2	0.8		-53	7.3	6.88	
BDC-05-08	5/6/2012	1286	262	<0.2	<0.2	2.7	<0.2				0.021	0.020	0.007	0.002	0.01		2.5	0.4		42	12.4	6.77	
BDC-05-08	11/16/2012	1480	456	<0.5	<0.5	1.3	<0.5				0.014	0.010	0.005	<0.002	0.01		1.0	<0.3		5	8.1	6.91	
BDC-05-09	7/31/2011		-18	30	20	22	<1.0	<1.1	<1.2	<1.1	0.007	0.007	<0.002	<0.002	1.37	<0.1	2.5	12.1	1.4	15	5.5	6.89	
(IW)	11/2/2011		76	37	56	44	1.3	<1.1	<1.2	<1.1	0.042	0.040	0.009	0.006	2.80	<0.1	3.0	7.6	4.3	80	4360	5.24	
	5/7/2012		263	3.0	1.1	250	3.9	<1.0	<1.0	<1.0	0.059	0.052	0.011	<0.002	0.69		2.2	0.5	18.0	85	531	6.33	
BDC-05-09	11/15/2012		455	<2.0	<2.0	24	20	69	<1.0	<1.0	0.074	0.070	0.006	<0.002	0.01		1.2	<0.3	27.0	-10	266	6.71	
BDC-05-10	7/31/2011		-18	39	26	12	<1.0	<1.1	<1.2	<1.1	0.002	0.002	<0.002	<0.002	1.41	<0.1	2.0	19.7	0.3	76	4.5	6.84	
(IW)	11/2/2011		76	22	27	1.0	<1.0	1.6	1.7	<1.1	0.038	0.037	0.008	0.004	2.43	<0.1	2.2	10.9	0.1	-38	2030	5.72	
	5/6/2012		262	<1.0	<1.0	120	5.4	1.1	<1.0	<1.0	0.052	0.048	0.012	<0.002	0.02		1.7	0.4	19.0	58	270	6.48	
BDC-05-10	11/15/2012		455	<1.0	<1.0	4.4	49	8.5	<1.0	<1.0	0.069	0.060	0.003	<0.002	0.02		1.0	<0.3	24.0	-11	122	6.63	
BDC-05-11	7/31/2011		-18	16	19	5.8	<1.0	<1.1	<1.2	<1.1	0.005	0.005	<0.002	<0.002	1.41	<0.1	2.0	4.0	1.4	65	3.9	6.93	
(IW)	11/2/2011		76	9.6	20	12	<1.0	<1.1	<1.2	<1.1	0.039	0.037	0.013	0.004	2.16	<0.1	1.8	<1.0	1.0	-38	1330	5.72	
	5/6/2012		262	0.2	0.5	44	7.2	1.6	<1.0	<1.0	0.038	0.034	0.009	0.002	0.01		1.4	0.5	18.0	70	284	6.42	
BDC-05-11	11/15/2012		455	<1.0	<1.0	6.1	5.7	7.6	<1.0	<1.0	0.043	0.038	0.003	<0.002	0.02		1.3	<0.3	26.0	-15	73.8	6.76	
BDC-05-12	7/31/2011		-18	15	18	16	<1.0	<1.1	<1.2	<1.1	0.002	0.002	0.002	<0.002	1.60	0.1	2.4	8.4	4.0	26	7.0	7.02	
(IW)	11/2/2011		76	11	17	11	<1.0	<1.1	<1.2	<1.1	0.041	0.031	0.012	0.009	2.60	<0.1	3.5	5.6	1.0	-77	2960	5.83	
	2/19/2012		185	<0.4	<0.4	53	1.8	<1.0	<1.0	<1.0					1.7	<0.5	2.0	<1.5	17.0	-2	279	6.59	
BDC-05-12	5/6/2012		262	<0.2	<0.2	39	3.4	<1.0	<1.0	<1.0	0.082	0.071	0.005	<0.002	0.03		2.5	0.8	21.0	65	83.2	6.45	
BDC-05-12	9/5/2012		384	<0.2	<0.2	6.5	3.3	1.0	<1.0	<1.0					0.13		1.8	<0.3	22.0	80	50.4	6.48	
BDC-05-12	11/15/2012		455	<1.0	<1.0	7.9	5.4	1.1	<1.0	<1.0	0.037	0.036	0.002	<0.002	0.03		1.3	<0.3	27.0	7	52.9	6.56	
BDC-05-13	7/31/2011		-18	5.2	6.6	2.6	<1.0	<1.1	<1.2	<1.1	0.003	0.002	0.002	<0.002	1.73	<0.1	2.0	2.3	5.0	-1	6.0	7.06	
(IW)	11/1/2011		75	<1.0	1.2	39	<1.0	<1.1	<1.2	<1.1	0.068	0.064	0.017	0.003	1.82	<1.0	1.5	<1.0	2.2	-70	550	6.65	
	5/6/2012		262	<0.2	<0.2	13	3.9	1.7	<1.0	<1.0	0.051	0.046	0.003	<0.002	0.03		3.0	0.4	19.0	78	34.2	6.40	
BDC-05-13	11/15/2012		455	<1.0	<1.0	<1.0	2.3	3.7	<1.0	<1.0	0.060	0.055	<0.002	<0.002	0.04		2.2	<0.3	22.0	-9	30.2	6.75	
BDC-05-14	7/31/2011		-18	2.8	6.8	2.8	<1.0	<1.1	<1.2	<1.1	0.004	0.004	0.004	<0.002	1.76	<0.1	2.0	10.1	6.5	-15	8.6	7.00	
(IW)	11/1/2011		75	2.5	6.7	13	<1.0	<1.1	<1.2	<1.1	0.083	0.074	0.022	0.002	1.87	<1.0	2.3	<1.0	4.0	-124	725	6.13	
	5/6/2012		262	<0.2	0.4	3.0	1.1	<1.0	<1.0	<1.0	0.012	0.009	<0.002	<0.002	0.08		1.7	0.6	23.0	99	41.5	6.33	
BDC-05-14	11/15/2012		455	<0.2	<0.2	1.1	2.0	1.4	<1.0	<1.0	0.022	0.019	<0.002	<0.002	0.11		2.2	<0.3	24.0	-1.4	39.9	6.66	

GROUNDWATER DATA SUMMARY
BOEING DEVELOPMENTAL CENTER SWMU-17

		Pilot Injection	Full Injection #1	Volatile Organic Compounds							Metals				Aquifer Redox Conditions						Donor Indicators		
		Elapsed Time From Injection (days)	Elapsed Time From Injection (days)	PCE (µg/L)	TCE (µg/L)	*c* DCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	Acetylene (µg/L)	As, Tot (mg/L)	As, Dis (mg/L)	Cu, Tot (mg/L)	Cu, Dis (mg/L)	DO (mg/L)	Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (mg/L)	ORP (mV)	TOC (mg/L)	pH	
Preliminary Screening Level (Fresh Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0034	0.0034									
Preliminary Screening Level (Marine Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0089 (a)	0.0089 (a)									
Well	Date																						Comments
BDC-05-15	7/31/2011		-18	9.6	28	58	<1.0	<1.1	<1.2	<1.1	0.019	0.019	<0.002	<0.002	1.91	<0.1	1.3	18.6	0.8	-0.9	10.3	7.00	
(IW)	11/1/2011		75	4.8	9.8	15	<1.0	<1.1	<1.2	<1.1	0.061	0.058	0.010	0.009	2.38	<0.1	3.0	11.3	3.5	-0.1	4420	5.67	
	5/6/2012		262	<2.0	<2.0	49	6.3	<1.0	<1.0	<1.0	0.057	0.047	0.009	0.004	0.07		1.8	<0.3	21.0	93	423	6.36	
BDC-05-15	11/15/2012		455	<1.0	<1.0	1.5	7.5	1.8	<1.0	<1.0	0.054	0.049	<0.002	<0.002	0.02		0.8	<0.3	27.0	8	71.2	6.61	
BDC-05-16	7/31/2011		-18	9.5	17	20	<1.0	<1.1	<1.2	<1.1	0.006	0.006	0.002	<0.002	1.91	<0.1	1.5	8.9	3.1	-8	7.8	7.06	
(IW)	11/1/2011		75	2.6	2.8	37	<1.0	<1.1	<1.2	<1.1	0.079	0.074	0.005	0.002	2.30	<1.0	2.5	2.8	3.1	7	2250	5.51	
	2/19/2012		185	<2.0	<2.0	46	7.4	<1.0	<1.0	<1.0					1.59	<0.5	2.2	<1.5	18.0	128	1270	5.12	
BDC-05-16	5/6/2012		262	<0.2	0.3	6.7	24	2.5	<1.0	<1.0	0.042	0.039	0.003	<0.002	0.06		2.5	<0.3	25.0	121	207	6.28	
BDC-05-16	9/5/2012		384	<0.4	<0.4	0.9	8.1	6.0	<1.0	<1.0					0.12		2.0	<0.3	22.0	64	40.6	6.67	
BDC-05-16	11/15/2012		455	<1.0	<1.0	<1.0	4.9	4.0	<1.0	<1.0	0.041	0.037	<0.002	<0.002	0.02		1.0	<0.3	28.0	7	32.3	6.68	
BDC-05-17	7/31/2011		-18	11	22	34	<1.0	<1.1	<1.2	<1.1	0.004	0.004	0.003	0.002	2.03	0.6	1.5	16.0	0.30	59	10.2	6.95	
(IW)	11/1/2011		75	3.2	4.8	5.1	<1.0	<1.1	<1.2	<1.1	0.053	0.047	0.005	<0.002	2.61	<1.0	2.4	23.9	2.8	-50	3500	5.74	
	5/6/2012		262	<2.0	<2.0	9.3	5.6	<1.0	<1.0	<1.0	0.058	0.026	0.003	<0.002	0.24		2.0	0.7	15.0	182	839	6.08	
BDC-05-17	11/15/2012		455	<5.0	<5.0	<5.0	5.4	2.0	<1.0	<1.0	0.081	0.062	<0.002	<0.002	0.02		1.0	<0.3	23.0	13	73.5	6.62	
BDC-05-18	7/31/2011		-18	3.6	5.0	6.6	<1.0	<1.1	<1.2	<1.1	0.019	0.020	<0.002	<0.002	1.57	<0.1	2.4	4.5	3.9	-19	3.2	7.13	
(MW 12 ft XG)	11/1/2011		75	2.8	4.0	7.6	<1.0	<1.1	<1.2	<1.1	0.019	0.020	0.003	0.003	1.37	<0.1	1.2	1.2	4.3	-106	21.7	6.88	
	2/19/2012		185	1.8	3.7	12	<0.2	<1.0	<1.0	<1.0					0.19	<0.5	2.2	<1.5	11.0	9	2.7	6.66	
BDC-05-18	5/6/2012		262	2.0	4.0	9.6	<0.2	<1.0	<1.0	<1.0	0.013	0.013	<0.002	<0.002	0.21		2.5	2.1	7.5	132	2.5	6.39	
BDC-05-18	9/5/2012		384	1.5	3.1	11	0.2	<1.0	<1.0	<1.0					0.13		1.5	2.0	7.9	58	1.8	6.91	
BDC-05-18	11/15/2012		455	1.0	4.3	16	<0.5	<1.0	<1.0	<1.0	0.015	0.014	<0.002	<0.002	0.48		1.4	2.4	8.3	25	1.7	6.62	
BDC-05-19	7/31/2011		-18	15	21	23	<1.0	<1.1	<1.2	<1.1	0.002	0.001	0.002	<0.002	1.81	0.2	2.6	5.2	4.7	34	7.3	6.97	
(MW 10 ft DG)	11/1/2011		75	9.1	13	36	4.1	<1.1	<1.2	<1.1	0.020	0.020	0.007	<0.002	1.53	<1.0	1.8	2.5	4.5	-142	170	6.82	
	2/19/2012		185	<1.0	1.7	68	14	1.4	<1.0	<1.0					0.85	<0.5	2.0	<1.5	22.0	36	296	6.40	
BDC-05-19	5/6/2012		262	0.7	1.4	52	23	1.8	<1.0	<1.0	0.058	0.052	0.032	0.008	0.02		2.0	1.4	25.0	69	244	6.39	
BDC-05-19	9/5/2012		384	<2.0	<2.0	13	15	3.9	<1.0	<1.0					0.19		1.8	1.4	19.0	73	68.0	6.43	
BDC-05-19	11/15/2012		455	<1.0	1.1	9.9	15	5.5	<1.0	<1.0	0.088	0.074	0.006	<0.002	0.21		1.6	1.8	24.0	3	68.1	6.58	
BDC-05-20	7/31/2011		-18	<1.0	7.0	45	<1.0	<1.1	<1.2	<1.1	0.011	0.011	<0.002	<0.002	2.33	<0.1	1.5	7.4	0.2	-42	10.8	7.12	
(MW 31 ft DG)	11/3/2011		77	<1.0	5.7	25	1.0	<1.1	<1.2	<1.1	0.010	0.011	<0.002	<0.002	1.54	<0.1	1.0	6.0	4.6	11	8.3	7.14	
	2/19/2012		185	<0.2	2.9	17	2.5	<1.0	<1.0	<1.0					0.35	<0.5	1.5	<1.5	16.0	31	8.2	6.69	
BDC-05-20	5/7/2012		263	<0.2	1.8	14	2.2	<1.0	<1.0	<1.0	0.011	0.011	<0.002	<0.002	0.69		1.8	2.3	20.0	20	11.1	6.66	
BDC-05-20	9/5/2012		384	<0.4	<0.4	12	2.0	<1.0	<1.0	<1.0					0.08		1.4	<0.3	14.0	67	12.1	6.75	
BDC-05-20	11/16/2012		456	<0.5	0.6	17	3.5	<1.0	<1.0	<1.0	0.012	0.013	<0.002	<0.002	0.07		2.0	<0.3	18.0	0.9	13.1	6.88	
BDC-05-21	7/31/2011		-18	<1.0	<1.0	1.3	14	2.6	<1.2	<1.1	0.006	0.006	<0.002	<0.002	2.98	<0.1	3.2	0.2	5.6	-31	6.4	7.33	
(MW 30 ft XG)	11/3/2011		77	<1.0	<1.0	1.0	4.7				0.005	0.005	<0.002	<0.002	1.95	<0.1	1.4	6.3		-12	5.2	7.29	
	2/19/2012		185	<0.2	0.3	0.7	5.9								0.40	<0.5	1.4	<1.5		47	7.2	6.65	
BDC-05-21	5/7/2012		263	<0.2	0.4	0.8	2.5				0.010	0.011	0.005	<0.002	0.86		1.5	1.9		-35	12.3	6.76	
BDC-05-21	9/5/2012		384	<0.2	0.3	0.6	2.9								0.08		2.5	1.4		62	9.5	6.78	
BDC-05-21	11/16/2012		456	<0.5	<0.5	0.6	2.9				0.020	0.020	<0.002	<0.002	0.02		1.5	0.6		-4	8.9	6.92	
BDC-05-22	7/31/2011		-18	<1.0	1.1	9.6	1.0	<1.1	<1.2	<1.1	0.025	0.024	<0.002	<0.002	2.02	<0.1	2.2	14.0	5.1	-59	7.9	7.21	
(MW 48 ft XG)	11/3/2011		77	<1.0	2.1	10	<1.0				0.020	0.020	<0.002	<0.002	1.46	<0.1	0.8	18.1		19	6.1	7.08	
	2/19/2012		185	<0.2	2.0	13	0.4								0.43	<0.5	1.2	17.0		110	6.2	6.73	
BDC-05-22	5/7/2012		263	<0.2	2.0	11	0.5				0.025	0.023	0.002	<0.002	0.81		1.6	19.4		32	8.4	6.68	
BDC-05-22	9/5/2012		384	<0.2	1.8	9.5	0.8								0.06		2.2	14.7		75	7.6	6.71	
BDC-05-22	11/16/2012		456	<0.5	1.6	10	0.7				0.033	0.031	<0.002	<0.002	0.02		0.8	17.8		5	7.7	6.93	
BDC-05-23	7/31/2011		-18	<1.0	<1.0	3.2	<1.0	<1.1	<1.2	<1.1	0.005	0.005	0.002	<0.002	2.72	<0.1	2.2	8.6	6.0	-101	9.1	7.47	
(MW 170ft DG)	11/3/2011		77	<1.0	<1.0	4.8	<1.0				0.005	0.006	<0.002	<0.002	1.45	<0.1	1.0	25.2		1	8.8	7.08	
	2/19/2012		185	<0.2	0.6	4.7	0.7								0.96	<0.5	1.2	8.9		162	8.1	6.33	
BDC-05-23	5/7/2012		263	<0.2	0.7	5.4	0.8				0.008	0.008	<0.002	<0.002	0.07		2.0	15.8		45	9.3	6.70	
BDC-05-23	9/5/2012		384	<0.2	0.7	6.2	0.9								0.08		1.9	8.8		78	11.3	6.84	
BDC-05-23	11/16/2012		456	<0.5	0.8	6.9	0.5				0.012	0.010	<0.002	<0.002	0.09		1.0	4.9		-6	11.6	7.06	

GROUNDWATER DATA SUMMARY
BOEING DEVELOPMENTAL CENTER SWMU-17

		Pilot Injection	Full Injection #1	Volatile Organic Compounds							Metals				Aquifer Redox Conditions						Donor Indicators		
		Elapsed Time From Injection (days)	Elapsed Time From Injection (days)	PCE (µg/L)	TCE (µg/L)	*c* DCE (µg/L)	VC (µg/L)	Ethene (µg/L)	Ethane (µg/L)	Acetylene (µg/L)	As, Tot (mg/L)	As, Dis (mg/L)	Cu, Tot (mg/L)	Cu, Dis (mg/L)	DO (mg/L)	Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (mg/L)	ORP (mV)	TOC (mg/L)	pH	
Preliminary Screening Level (Fresh Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0034	0.0034									
Preliminary Screening Level (Marine Surface Water)				9	81	NA	525	NA	NA	NA	0.005	0.005	0.0089 (a)	0.0089 (a)									
Well	Date																						Comments
BDC-05-24	7/31/2011		-18	<1.0	<1.0	1.6	1.6	<1.1	<1.2	<1.1	0.003	0.003	<0.002	<0.002	1.67	<0.1	2.0	1.1	7.6	-7	10.0	7.06	
(MW 18 ft XG)	11/1/2011		75	<1.0	2.0	4.0	2.2				0.002	0.002	<0.002	<0.002	1.50	<0.1	1.6	0.3		-2.6	8.1	7.06	
	2/19/2012		185	<0.2	0.2	0.7	0.8								0.31	<0.5	1.8	<1.5		63	9.8	6.55	
BDC-05-24	5/6/2012		262	<0.2	1.3	2.8	1.0				0.006	0.004	<0.002	<0.002	0.03			0.9		73	9.1	6.60	
BDC-05-24	9/5/2012		384	<0.2	1.2	4.0	0.9								0.08		2.0	<0.3		67	7.4	6.67	
BDC-05-24	11/15/2012		455	<0.5	<0.5	1.2	<0.5				0.002	0.003	<0.002	<0.002	0.13		1.0	<0.3		-1.7	10.7	6.94	

PCE = Tetrachloroethene
TCE = Trichloroethene
c DCE = cis-1,2-Dichloroethene
VC = Vinyl Chloride
As = Arsenic
Cu = Copper
Tot = Total

Dis = Dissolved
DO = Dissolved Oxygen
ORP = Oxidation Reduction Potential
TOC = Total Organic Carbon
NA = Not Applicable, not available
µg/L = micrograms pr liter
mg/L = milligrams per liter

IW = Injection Well
MW = Monitoring Well
DG = Downgradient; distance from nearest injection well
UG = Upgradient; distance from nearest injection well
XG = Crossgradient; distance from nearest injection well
not analyzed

(a) Hardness dependent; hardness assumed to be 75.4 mg/L.

Injection Dates:

10/28/2008 Pilot Injection: BDC-05-02 only

8/18/2011 Full Injection #1: BDC-05-02, BDC-05-07, and BDC-05-09 through BDC-05-17; performed 8/15/11-8/18/11

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 40 80
Scale in Feet

LANDAU ASSOCIATES

Boeing Developmental Center
Tukwila, Washington

Remedial Action
Injection and Monitoring Wells

Figure
7

DEVELOPMENTAL CENTER

GROUNDWATER MONITORING

NOVEMBER 2012

AOC-05 DATA

- **AOC-05 Cleanup Action Summary**
- **AOC-05 Cleanup Action Summary - Downgradient Monitoring**
- **AOC-05 TPH-G, BTEX, and Nitrate Concentration Trend Charts (June 2001 through Present)**
- **Site Plan**

AOC-05 CLEANUP ACTION SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

		ORC	Pilot	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale																	
		Injection	Injection	Injection 1	Injection 2	Injection 3	Injection 4	Injection 5	Injection 6	Injection 7	Injection 8	Volatile Organic Compounds (all units in ug/L)							Aquifer Redox Conditions							Donor Indicators	
		Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	TPH-G	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Total Xylenes	DO	Nitrate	Nitrite	Iron II	Sulfate	Methane	ORP	TOC	pH	
												(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg-N/L)	(mg-N/L)	(mg/L)	(mg/L)	(µg/L)	(mV)	(mg/L)		
Preliminary Groundwater Screening Levels (a)												**0.8**	**71**	**200,000**	**29,000**	**NA**	**NA**	**NA**										
Well	Date																											Comments
BDC-101	6/11/2001											3.0	11.9	<1.0	113.1			109.2										
BDC-101	9/4/2001											5.0	7.13	10.7	50.4			53.8										
BDC-101	12/3/2001											6.5	95	1.6	750			650										
BDC-101	3/13/2002											<0.25	1.4	<1.0	4.4			<1.0										
BDC-101	4/29/2002	-8										<0.25	<1.0	<1.0	2.2	<1.0	<1.0	<1.0										
BDC-101	6/3/2002	27										<0.25	1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-101	7/1/2002	55										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-101	8/1/2002	86										<0.25	3.1	<1.0	2.4	<1.0	<1.0	<1.0										
BDC-101	12/2/2002	209										0.61	4.3	<1.0	21	27	6.4	33.4										
BDC-101	3/10/2003	307										<0.25	1.0	<1.0	4.5	3.2	<1.0	3.2										
BDC-101	6/3/2003	392										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-101	11/19/2003	561										0.42	13	<1.0	15	35	<1.0	35	0.36	1.1	0.010	0.2	16	240	120.3			
BDC-101	4/28/2004	722										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-101	10/18/2004	895										0.64	10	<1.0	15	43	<1.0	43										
BDC-101	5/10/2005	1099										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-101	11/10/2005	1283										0.25	7.6	<1.0	2.6	42	<1.0	42	0.96	4.4			34.3		259	2.05		
BDC-101	5/15/2006	1469										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.78	17.8	0.059	0.0	64.1		80			
BDC-101	11/20/2006	1658	-59									1.1	10	<1.0	15	72.0	<1.0	72	0.92	0.122	0.016	2.4	8.7		174			
BDC-101	2/20/2007	1750	33									<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.39	15.0	0.047	0.2	50.0		277		6.63	
BDC-101	3/19/2007	1777	60									<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.97	8.83	0.037	0.5	38.5		213		6.60	
BDC-101	4/24/2007	1813	96									<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.09	9.59	0.041	0.5	34.1		136		6.46	
BDC-101	5/17/2007	1836	119									<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.35	9.95	0.046	0.4	35.7		297		6.55	
BDC-101	11/26/2007	2029	312									<0.25	<1.0	<1.0	2.1	6.5	<1.0	6.5	2.30	5.88	0.032	0.0	26.8		287			
BDC-101	2/18/2008	2113	396	-8								<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.55	8.10	0.040	0.0	31.5		341		6.29	
BDC-101	3/27/2008	2151	434	30								<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.19	9.3	<0.10	0.2	40.0		506			
BDC-101	5/15/2008	2200	483	79	-40							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.57	6.8	<0.10	0.0	24.6		176		6.44	
BDC-101	7/16/2008	2262	545	141	22							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.34	5.3	<0.10	0.0	21.8		-232		6.52	
BDC-101	9/15/2008	2323	606	202	83	-45						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.22	5.33	0.023	0.0	28.7		153			
BDC-101	11/20/2008	2389	672	268	149	21						0.44	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	1.45	2.9	0.1	0.8	17.1		-22		6.65	
BDC-101	1/16/2009	2446	729	325	206	78						<0.25	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	0	4.40	0.042	0.4	29.5		-245		6.50	
BDC-101	2/11/2009	2472	755	351	232	104						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.62	8.5	<0.1	0.4	39.6		-16		6.43	
BDC-101	3/9/2009	2498	781	377	258	130						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.93	9.4	<0.1	0.0	46.8		54		6.54	
BDC-101	4/16/2009	2536	819	415	296	168						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.69	9.0	<0.1	0.0	36.0		131		6.61	
BDC-101	5/14/2009	2564	847	443	324	196	-34					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.00	13.0	<0.1	0.0	44.4		68		6.81	
BDC-101	7/17/2009	2628	911	507	388	260	30					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.80	12.6	<0.1	0.0	49.0		19		7.17	
BDC-101	9/9/2009	2682	965	561	442	314	84	-49				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.25	6.2	<0.1	0.0	31.7		179		6.90	
BDC-101	11/12/2009	2746	1029	625	506	378	148	15				0.35	1.8	<1.0	6.6	16	<1.0	16	1.37	11.3	<0.1	0-0.2	36.7		124		6.53	Very faint iron measurement
BDC-101	2/17/2010	2843	1126	722	603	475	245	112				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.86	13.9	<0.1	0.0	48.7		640		6.55	
BDC-101	5/17/2010	2932	1215	811	692	564	334	201				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.20	20.7	<1.0	0.0	58.7		372		6.86	
BDC-101	8/16/2010	3023	1306	902	783	655	425	292	-37			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.21	15.6	<0.1	0.0	56.9		76		7.21	
BDC-101	11/8/2010	3107	1390	986	867	739	509	376	47			<0.25	2.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.02	2.2	<0.1	0.4	14.7		145		6.97	
BDC-101	2/16/2011	3207	1490	1086	967	839	609	476	147			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.46	23.9	<0.1	0.0	68.2		161		7.30	
BDC-101	5/3/2011	3283	1566	1162	1043	915	685	552	223			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.57	23.7	<0.1	0.0	66.2		208		6.99	
BDC-101	8/1/2011	3373	1656	1252	1133	1005	775	642	313			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.50	17.9	<0.1	0.0	48.1		150		7.07	
BDC-101	11/1/2011	3465	1748	1344	1225	1097	867	734	405	-105		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.69	6.1	<0.1	0.0	24.8		40		7.23	
BDC-101	2/19/2012	3575	1858	1454	1335	1207	977	844	515	5		<0.25	2.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.53	6.6		0.3	27.7		12		6.81	
BDC-101	5/3/2012	3649	1932	1528	1409	1281	1051	918	589	79		<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	3.75	15.9		0.0	51.2		263		6.60	
BDC-101	9/4/2012	3773	2056	1652	1533	1405	1175	1042	713	203	-49	<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.88	13.8	<0.10	0.0	36.0		154		6.97	
BDC-101	11/13/2012	3843	2126	1722	1603	1475	1245	1112	783	273	21	<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.41	10.3	<0.10	0.0	40.4		150		6.90	
BDC-102	6/11/2001											0.55	5.33	<1.0	<1.0			<1.0										
BDC-102	9/4/2001											0.38	1.61	1.89	<1.0			1.87										
BDC-102	12/3/2001											1.6	3.7	<1.0	<1.0			3.49										
BDC-102	3/13/2002											0.50	1.3	<1.0	<1.0			<1.0										
BDC-102	4/29/2002	-8										0.33	2.6	<1.0	<1.0	1.1	<1.0	1.1										
BDC-102	6/3/2002	27										<0.25	4.4	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-102	7/1/2002	55										0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-102	8/1/2002	86										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-102	12/2/2002	209										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-102	3/10/2003	307										0.26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										

AOC-05 CLEANUP ACTION SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

		ORC	Pilot	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale															
		Injection	Injection	Injection 1	Injection 2	Injection 3	Injection 4	Injection 5	Injection 6	Injection 7	Injection 8	Volatile Organic Compounds (all units in ug/L)							Aquifer Redox Conditions							Donor Indicators	
		Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	TPH-G	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Total Xylenes	DO	Nitrate	Nitrite	Iron II	Sulfate	Methane	ORP	TOC	pH	
												(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg-N/L)	(mg-N/L)	(mg/L)	(mg/L)	(µg/L)	(mV)	(mg/L)		
Preliminary Groundwater Screening Levels (a)												**0.8**	**71**	**200,000**	**29,000**	**NA**	**NA**	**NA**										
Well	Date																											Comments
BDC-102	6/3/2003	392										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-102	11/19/2003	561										0.99	120	<1.0	8.5	<1.0	<1.0	<1.0	0.38	0.19	0.011	5.5	46	1100	122.2			
BDC-102	4/28/2004	722										0.40	10	<1.0	<1.0	3.0	<1.0	3.0										
BDC-102	10/18/2004	895										0.33	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-102	5/10/2005	1099										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										
BDC-102	11/10/2005	1283										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.82	4.4			34.0		122	18.4		
BDC-102	5/15/2006	1469										<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.21	4.72	0.175	2.2	35.7		-11			
BDC-102	11/20/2006	1658	-59									<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.25	<0.250	<0.250	2.2	9.2		163			
BDC-102	2/20/2007	1750	33									<0.25	5.8	<1.0	<1.0	<1.0	<1.0	<1.0	0.47	0.749	0.027	3.0	25.3		-145		6.54	
BDC-102	3/19/2007	1777	60									<0.25	18	<1.0	<1.0	32	<1.0	32	0.88	0.938	0.072	3.0	31.0		-98		6.67	
BDC-102	4/24/2007	1813	96									0.53	6.1	<1.0	3.1	100	<1.0	100	1.20	1.94	0.051	2.8	40.4		-93		6.51	
BDC-102	5/17/2007	1836	119									<0.25	1.8	<1.0	<1.0	7.4	<1.0	7.4	0.84	2.78	0.108	2.6	33.9		286		6.52	
BDC-102	11/26/2007	2029	312									<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.29	1.03	0.247	3.0	55.7		46			
BDC-102	2/18/2008	2113	396	-8								<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.51	3.91	0.054	2.8	42.8		431		5.97	
BDC-102	3/27/2008	2151	434	30								<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.85	1.3	<0.10	2.5	17.9		233			
BDC-102	5/15/2008	2200	483	79	-40							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.40	3.0	<0.10	3.5	19.2		-115		6.56	
BDC-102	7/16/2008	2262	545	141	22							<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.46	2.5	<0.10	3.2	13.7		-312		6.67	
BDC-102	9/15/2008	2323	606	202	83	-45						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.22	4.28	0.056	3.0	31.6		191			
BDC-102	11/20/2008	2389	672	268	149	21						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.70	0.40	<0.10	2.0	5.6		-70		6.69	
BDC-102	1/16/2009	2446	729	325	206	78						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.00	<0.100	0.200	2.5	8.3		-235		6.70	
BDC-102	2/11/2009	2472	755	351	232	104						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.65	2.4	<0.1	3.0	20.4		-70		6.61	
BDC-102	3/9/2009	2498	781	377	258	130						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.00	0.9	<0.1	3.0	8.7		-46		6.65	
BDC-102	4/16/2009	2536	819	415	296	168						<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.30	0.6	<0.1	3.0	8.3		-7		6.66	
BDC-102	5/14/2009	2564	847	443	324	196	-34					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.29	0.9	<0.1	3.4	9.8		-35		6.78	
BDC-102	7/17/2009	2628	911	507	388	260	30					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.66	4.9	<0.1	2.2	28.6		-11		6.46	
BDC-102	9/9/2009	2682	965	561	442	314	84	-49				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.91	0.4	<0.1	2.7	5.5		2.8		6.66	
BDC-102	11/12/2009	2746	1029	625	506	378	148	15				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.93	0.2	<0.1	3.2	2.4		-42.0		6.49	
BDC-102	2/17/2010	2843	1126	722	603	475	245	112				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.90	3.4	0.2	2.8	17.2		892		6.56	
BDC-102	5/17/2010	2932	1215	811	692	564	334	201				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.35	8.4	<1.0	3.0	30.1		440		6.61	
BDC-102	8/16/2010	3023	1306	902	783	655	425	292	-37			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.61	8.9	<0.1	3.0	27.8		82		6.60	
BDC-102	11/8/2010	3107	1390	986	867	739	509	376	47			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.34	0.4	<0.1	2.0	6.9		45		7.09	
BDC-102	2/16/2011	3207	1490	1086	967	839	609	476	147			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.68	3.5	<0.1	2.2	43.3		399		6.88	
BDC-102	5/3/2011	3283	1566	1162	1043	915	685	552	223			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.60	12.1	<0.1	2.0	32.4		40		6.70	
BDC-102	8/1/2011	3373	1656	1252	1133	1005	775	642	313			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.01	13.6	<0.1	2.1	28.7		11		6.88	
BDC-102	11/1/2011	3465	1748	1344	1225	1097	867	734	405	-105		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.45	9.8	<0.1	1.5	30.9		-48		7.19	
BDC-102	2/19/2012	3575	1858	1454	1335	1207	977	844	515	5		<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.25	2.4		1.0	15.4		21		6.60	
BDC-102	5/3/2012	3649	1932	1528	1409	1281	1051	918	589	79		<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.22	11.3		2.5	40.2		248		6.44	
BDC-102	9/4/2012	3773	2056	1652	1533	1405	1175	1042	713	203	-49	<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.20	13.2	<5.0	1.5	39.2		130		6.63	
BDC-102	11/13/2012	3843	2126	1722	1603	1475	1245	1112	783	273	21	<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.10	1.7	<0.10	1.6	27.7		48		6.77	
BDC-103	6/11/2001											177	875	12,010	1,985			11,430										
BDC-103	9/4/2001											123	494	3,760	419			2,636										
BDC-103 (b)	12/3/2001											120	5,100	2,300,000	10,000			3,400,000										
BDC-103	3/13/2002											200	1,700	17,000	4,900			26,400										
BDC-103	4/29/2002	-8										200	980	16,000	5,400	20,000	7,000	27,000										
BDC-103	6/3/2002	27										200	960	17,000	5,100	20,000	7,100	27,100										
BDC-103	7/1/2002	55										240	1,300	16,000	5,200	20,000	6,800	26,800										
BDC-103	8/1/2002	86										270	4,600	18,000	5,200	19,000	6,600	25,600										
BDC-103	12/2/2002	209										250	1,400	15,000	5,000	22,000	6,900	28,900										
BDC-103	3/10/2003	307										180	780	13,000	5,200	20,000	6,700	26,700										
BDC-103	6/3/2003	392										220	900	10,000	5,000	20,000	6,600	26,600										
BDC-103	11/19/2003	561										180	850	8,300	4,500	18,000	5,500	23,500	0.38	0.012	0.011	5.5	53	630	-75.9			
BDC-103	4/28/2004	722										160	1,600	6,600	3,900	16,000	5,100	21,100										
BDC-103	10/18/2004	895										140	2,100	5,500	3,700	15,000	4,400	19,400										
BDC-103	5/10/2005	1099										110	2,200	5,500	3,800	14,000	3,200	17,200										
BDC-103	11/10/2005	1283										90	2,200	3,500	3,700	12,000	2,500	15,000	0.72	<1.0			11.9		147	15.4		
BDC-103	5/15/2006	1469										84	1,600	3,800	3,100	10,000	2,200	12,000	0.92	<0.010	0.054	3.5	15.2		106			
BDC-103	11/20/2006	1658	-59									51	2,000	730	2,200	3,900	1,000	4,900	1.23	<0.10	<0.10	2.4	28.3		202			
BDC-103	2/20/2007	1750	33									26	460	420	140	3,600	1,600	5,200	0.31	60.8	11.1	0.5	99.2		109		6.54	
BDC-103	3/19/2007	1777	60									30	490	88	130	3,500	1,700	5,200	0.63	27.9	8.28	0.4	141		4		6.79	
BDC-103	4/24/2007	1813	96									36	820	440	220	3500	1800	5300	0.84	7.54	3.56	2.4	59.2		-14		6.70	
BDC-103	5/17/2007	1836	119									77	1,400	4,300	1,100	8,300	3,200	11,500	0.61	0.138	0.079	3.6	169		244		6.82	

AOC-05 CLEANUP ACTION SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

		ORC	Pilot	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale															
		Injection	Injection	Injection 1	Injection 2	Injection 3	Injection 4	Injection 5	Injection 6	Injection 7	Injection 8	Volatile Organic Compounds (all units in ug/L)							Aquifer Redox Conditions						Donor Indicators	
		Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	TPH-G	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Total Xylenes	DO	Nitrate	Nitrite	Iron II	Sulfate	Methane	ORP	TOC	pH
												(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg-N/L)	(mg-N/L)	(mg/L)	(mg/L)	(µg/L)	(mV)	(mg/L)	
Preliminary Groundwater Screening Levels (a)												**0.8**	**71**	**200,000**	**29,000**	**NA**	**NA**	**NA**									
Well	Date																										Comments
BDC-103	11/26/2007	2029	312									190	3,300	21,000	4,000	11,000	4,900	15,900	3.37	0.063	0.049	3.6	49.1		-118		
BDC-103	2/18/2008	2113	396	-8								66	1,100	2,600	700	7,500	1,900	9,400	2.06	7.75	0.134	2.8	163		552		5.97
BDC-103	3/27/2008	2151	434	30								84	1,500	1,900	1,100	9,700	3,000	12,700	1.60	54.1	18	4.0	115.0		182		
BDC-103	5/15/2008	2200	483	79	-40							91	2,700	4,400	1,400	11,000	3,600	14,600	1.38	<0.10	<0.10	3.2	192		-138		7.11
BDC-103	7/16/2008	2262	545	141	22							79	1,800	440	490	10,000	3,100	13,100	1.61	56.1	16.6	2.8	149		-226		6.72
BDC-103	9/15/2008	2323	606	202	83	-45						110	2,300	7,600	1,500	10,000	3,600	13,600	0.48	0.330	0.218	3.2	218		189		
BDC-103	11/20/2008	2389	672	268	149	21						47	1,200	260	110	7,000	2,100	9,100	0.21	152	12.5	2.0	120		-1.2		6.66
BDC-103	1/16/2009	2446	729	325	206	78						11	190	220	12	1,000	480	1,480	0.24	193	2.32	0.6	62.5		-181		6.19
BDC-103	2/11/2009	2472	755	351	232	104						36	820	510	<100	2,900	1,500	4,400	1.66	82.0	6.7	0.8	178		-65		6.69
BDC-103	3/9/2009	2498	781	377	258	130						27	1100	440	18	2,400	1,200	3,600	0	47.3	2.4	0.4	192		17		6.80
BDC-103	4/16/2009	2536	819	415	296	168						30	710	310	<50	2,700	1,200	3,900	0.95	64.8	5.6	0.2-0.4	194		62		6.77
BDC-103	5/14/2009	2564	847	443	324	196	-34					30	680	320	20	2,400	1,500	3,900	0.48	49.8	4.8	0.8	222		20		6.85
BDC-103	7/17/2009	2628	911	507	388	260	30					19	410	280	32	630	1,000	1,630	2.60	26.6	2.0	1.0	104		29		6.98
BDC-103	9/9/2009	2682	965	561	442	314	84	-49				21	620	270	83	700	1200	1,900	0.88	<0.1	<0.1	2.5	134		2.8		7.01
BDC-103	11/12/2009	2746	1029	625	506	378	148	15				24	340	140	27	1,800	1,200	3,000	1.42	94.1	7.7	0.4	71.7		117		6.11
BDC-103	2/17/2010	2843	1126	722	603	475	245	112				0.73	10	<1.0	<1.0	3.1	22	25	1.45	123	1.1	0.0	60.3		939		6.22
BDC-103	5/17/2010	2932	1215	811	692	564	334	201				3.1	79	44	5.2	60	86	146	1.56	67.9	2.6	0.4	71.6		436		6.63
BDC-103	8/16/2010	3023	1306	902	783	655	425	292	-37			8.0	740	380	110	420	320	740	2.24	2.4	0.1	2.0	72.5		184		6.96
BDC-103	11/8/2010	3107	1390	986	867	739	509	376	47			6.3	240	11	1.7	180	540	720	7.46	55.8	1.5	0.0	123		199		7.05
BDC-103	2/16/2011	3207	1490	1086	967	839	609	476	147			0.28	4.6	<1.0	<1.0	<1.0	5.4	5.4	5.18	133	0.6		74.6		508		6.52
BDC-103	5/3/2011	3283	1566	1162	1043	915	685	552	223			<0.25	9.1	<1.0	<1.0	<1.0	2.2	2.2	2.15	140	0.2	0.0	74.4		393		6.35
BDC-103	8/1/2011	3373	1656	1252	1133	1005	775	642	313			0.30	76	<1.0	1.8	7.8	2.5	10.3	5.67	57.6	<0.1	0.2	63.2		168		7.09
BDC-103	11/1/2011	3465	1748	1344	1225	1097	867	734	405	-105		33	1300	2200	780	2300	1300	3,600	1.72	<0.1	<0.1	1.2	8.1		-226		7.38
BDC-103	2/19/2012	3575	1858	1454	1335	1207	977	844	515	5		2.2	5.1	31	19	260	69	329	0.21	143		0.3	57.1		36		6.41
BDC-103	5/3/2012	3649	1932	1528	1409	1281	1051	918	589	79		<0.25	16	1.4	<1.0	3.6	14	17.6	0.11	149	0.83	0.0	56.2		239		6.49
BDC-103	9/4/2012	3773	2056	1652	1533	1405	1175	1042	713	203	-49	0.72	530	24.0	9.4	40	42	82	0.45	7.2	<0.10	0.4	66.9		146		6.80
BDC-103	11/13/2012	3843	2126	1722	1603	1475	1245	1112	783	273	21	4.5	120	9.5	3.7	210	380	590	1.02	165	2.8	0.4	93.6		108		6.50
BDC-104	2/18/2008	2113	396	-8								2.9	<1.0	<1.0	47	180	28	208	2.09	1.63	0.072	3.0	18.7		598		
BDC-104	3/27/2008	2151	434	30								3.2	<1.0	<1.0	22	220	52	272	1.34	161	0.1	0.5	52.2		259		
BDC-104	5/15/2008	2200	483	79	-40							1.0	<1.0	<1.0	7.0	26	22	48	1.24	28.7	0.7	0.4	26.6		94		6.69
BDC-104	7/16/2008	2262	545	141	22							2.3	<1.0	2.9	3.3	110	50	160	1.56	196	0.4	0.0	74.7		-221		7.17
BDC-104	9/15/2008	2323	606	202	83	-45						0.64	<1.0	2.6	<1.0	20	16	36	0.06	122	0.729	0.0	38.4		191		
BDC-104	11/20/2008	2389	672	268	149	21						<0.25	<1.0	<1.0	<1.0	1.4	4.1	5.5	0.96	67.2	<0.10	0.2	24.3		-27		7.46
BDC-104	1/16/2009	2446	729	325	206	78						0.26	<1.0	<1.0	<1.0	<1.0	5.5	5.5	0.05	71.4	0.204	0.6	34.6		-164		6.86
BDC-104	2/11/2009	2472	755	351	232	104						<0.25	<1.0	<1.0	<1.0	1.3	1.1	2.4	1.78	95.4 J	0.1	0.2	20.1		-75		6.68
BDC-104	3/9/2009	2498	781	377	258	130						<0.25	<1.0	<1.0	<1.0	1.3	1.1	2.4	0	91.5	<0.1	0.0	19.2		20		6.67
BDC-104	4/16/2009	2536	819	415	296	168						<0.25	<1.0	<1.0	<1.0	<1.0	1.6	1.6	0.34	67.2	<0.1	0.0	21.6		67		6.63
BDC-104	5/14/2009	2564	847	443	324	196	-34					<0.25	<1.0	<1.0	<1.0	<1.0	1.4	1.4	0.51	63.4	<0.1	0.0	20.1		6		6.70
BDC-104	7/17/2009	2628	911	507	388	260	30					<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.41	21.0	0.5	1.0	30.8		-3		7.30
BDC-104	9/9/2009	2682	965	561	442	314	84	-49				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.63	39.8	0.1	0.8	41.6		61		7.20
BDC-104	11/12/2009	2746	1029	625	506	378	148	15				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.99	115	1.4	0.0	24.1		68		6.49
BDC-104	2/17/2010	2843	1126	722	603	475	245	112				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.73	119	0.1	0.0	111		868		6.93
BDC-104	5/17/2010	2932	1215	811	692	564	334	201				<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.98	47.4	<1.0	0.6	30.5		482		6.74
BDC-104	8/16/2010	3023	1306	902	783	655	425	292	-37			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.59	38.4	0.2	2.5	23.6		76		6.92
BDC-104	11/8/2010	3107	1390	986	867	739	509	376	47			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.87	32.5	<0.1	0.0	18.6		115		7.23
BDC-104	2/16/2011	3207	1490	1086	967	839	609	476	147			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.48	40.0	<0.1	0.4	24.1		423		6.71
BDC-104	5/3/2011	3283	1566	1162	1043	915	685	552	223			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.19	31.3	<0.1	1.2	26.8		231		6.63
BDC-104	8/1/2011	3373	1656	1252	1133	1005	775	642	313			<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.10	11.7	<0.1	0.0	21.2		121		7.20
BDC-104	11/1/2011	3465	1748	1344	1225	1097	867	734	405	-105		<0.25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.43	14.6	<0.1	0.0	18.7		-53		7.40
BDC-104	2/19/2012	3575	1858	1454	1335	1207	977	844	515	5		<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.26	21.6		0.0	29.2		66		6.23
BDC-104	5/3/2012	3649	1932	1528	1409	1281	1051	918	589	79		<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.06	19.4		1.5	26.5		207		6.78
BDC-104	9/4/2012	3773	2056	1652	1533	1405	1175	1042	713	203	-49	<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.68	12.3	<0.10	0.5	22.1		130		7.11
BDC-104	11/13/2012	3843	2126	1722	1603	1475	1245	1112	783	273	21	<0.25	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	0.24	0.80	<0.10		5.1		64		7.19

AOC-05 CLEANUP ACTION SUMMARY
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

		ORC	Pilot	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale	Full Scale																	
		Injection	Injection	Injection 1	Injection 2	Injection 3	Injection 4	Injection 5	Injection 6	Injection 7	Injection 8	Volatile Organic Compounds (all units in ug/L)							Aquifer Redox Conditions							Donor Indicators	
		Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	Elapsed Time from Injection (days)	TPH-G	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Total Xylenes	DO	Nitrate	Nitrite	Iron II	Sulfate	Methane	ORP	TOC	pH	
												(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(mg-N/L)	(mg-N/L)	(mg/L)	(mg/L)	(µg/L)	(mV)	(mg/L)		
Preliminary Groundwater Screening Levels (a)												**0.8**	**71**	**200,000**	**29,000**	**NA**	**NA**	**NA**										
Well	Date																											Comments

TPH-G = Total Petroleum Hydrocarbon-Gasoline		Injection dates	
DO = Dissolved Oxygen		5/7/2002	ORC
ORP = Oxidation Reduction Potential		1/18/2007	Pilot -scale nitrate
TOC = Total Organic Carbon		2/26/2008	1st full scale injection
NA = Not Applicable, not available		6/24/2008	2nd full scale injection
µg/L = micrograms pr liter		10/30/2008	3rd full scale injection
mg/L = milligrams per liter		6/17/2009	4th full scale injection (start ammonium phosphate, 1/3 ammonium nitrate dose to both wells)
mV = millivolts		10/28/2009	5th full scale injection (103 full dose, 104 half dose)
NA = Not Analyzed		9/22/2010	6th full scale injection (103 only full dose)
= No sample collected or sample not analyzed for specified constituent.		2/14/2012	7th full scale injection (103 only full dose)
		10/23/2012	8th full scale injection (103 only 1.5x volume dose)

(a) Landau Associates 2002a.

(b) BTEX data questionable for this event. Concentrations inconsistent with TPH-G data for indicated event and BTEX data from other events.

AOC-05 DOWNGRADIENT MONITORING
AOC-05 ANAEROBIC BIOREMEDIATION REMEDIAL ACTION
DEVELOPMENTAL CENTER GROUNDWATER MONITORING

SWMU-17

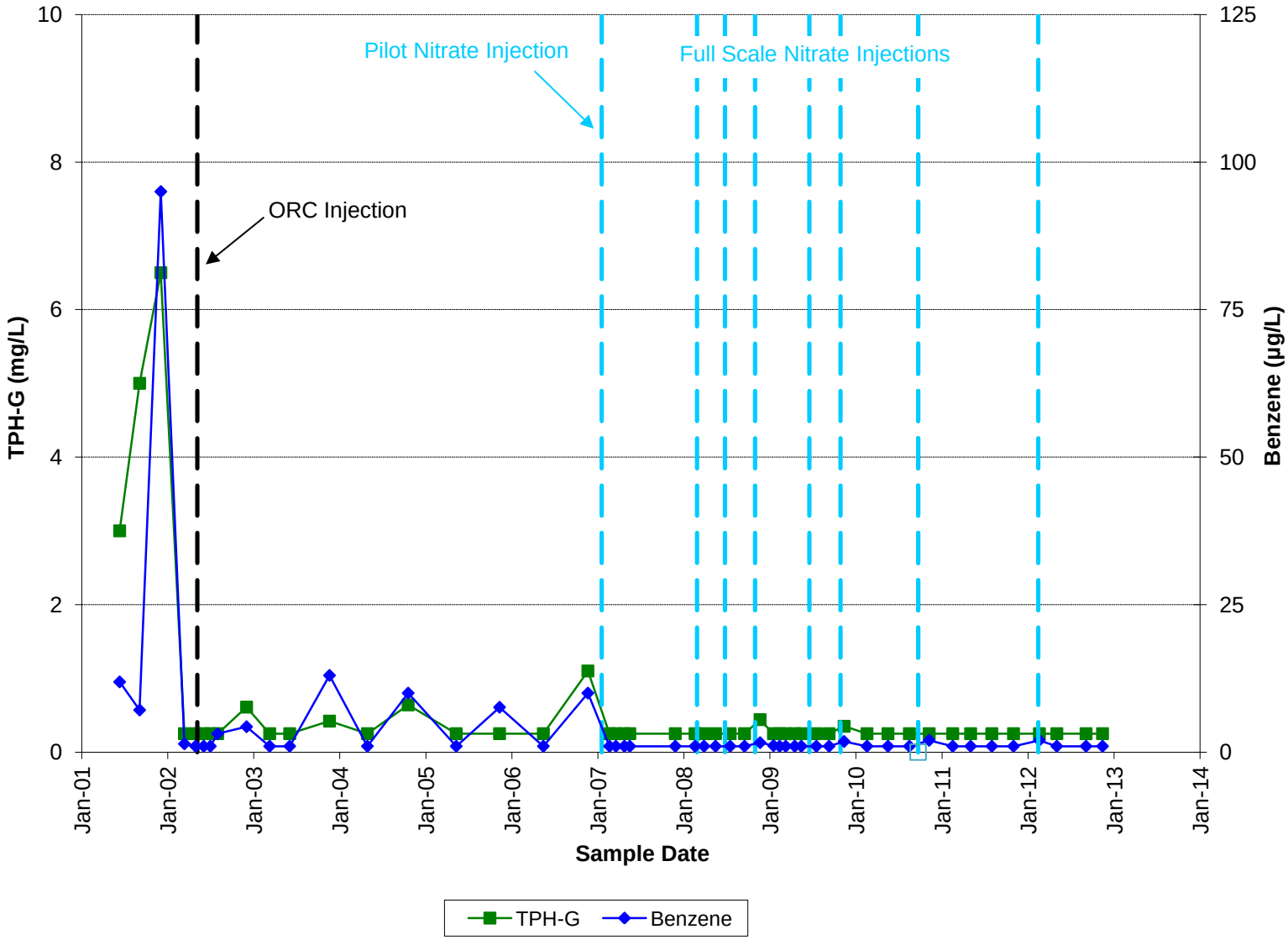
			Aquifer Redox Conditions					
Well	Date		DO (mg/L)	Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)	Methane (mg/L)	ORP (mV)
BDC-05-04	5/15/2006	Natural Redox Baseline		12.3	2.6	33.4		
BDC-05-04	10/23/2008		2.45	7.6	0.1	31.0	0.29	73.5
BDC-05-04	11/2/2008		0.59	4.5	0.8	25,2	0.05	-16
BDC-05-04	12/16/2008		0.55	5.5	1.0	30.4	1.61	-98
BDC-05-04	1/16/2009		0.06	4.3	1.0	21.8	1.48	-192
BDC-05-04	2/11/2009		2.45	5.9	1.0	31.8	1.06	-54
BDC-05-04	3/9/2009		0.27	4.8	1.5	30.1	0.20	35
BDC-05-04	4/16/2009		1.48	5.9	1.4	33.6	<0.0007	68
BDC-05-04	5/13/2009		0.33	4.5	1.6	26.6	0.37	49
BDC-05-04	8/16/2009		0.86	5.4	2.2	30.6	<0.0007	93
BDC-05-04	11/13/2009		0.56	2.2	3.0	18.4	2.44	109
BDC-05-04	2/16/2010		0.88	<0.1	3.3	24.6	1.49	899
BDC-05-04	5/18/2010		0.75	<0.1	3.0	25.4	1.32	473
BDC-05-04	8/17/2010		1.00	<0.1	2.8	17.1	3.53	108
BDC-05-04	11/9/2010		2.21	<0.1	2.2	21.3	3.00	101
BDC-05-04	2/15/2011		2.50	<0.1	2.4	19.4	4.46	93
BDC-05-04	5/2/2011		1.69	<0.1	2.2	18.0	1.75	49
BDC-05-04	11/2/2011		1.52	<1.0	1.2	<1.0		-3
BDC-05-04	5/7/2012		0.16		2.0	21.5		98
BDC-05-04	9/4/2012		0.21	<0.10		16.6		96
BDC-05-04	11/13/2012		0.03	<0.10	1.8	16.9		64

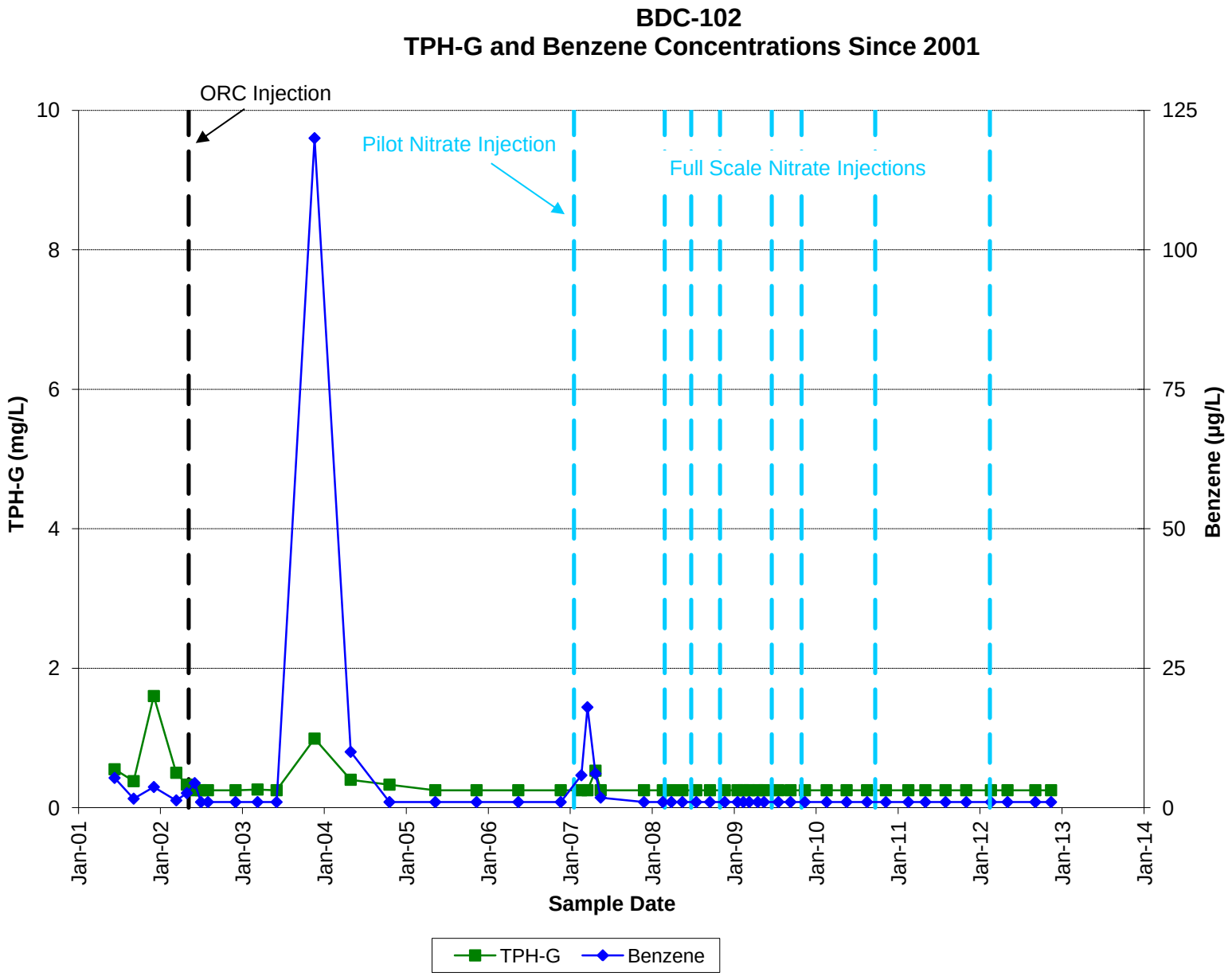
SWMU-20

			Aquifer Redox Conditions		
Well	Date		Nitrate (mg-N/L)	Iron II (mg/L)	Sulfate (mg/L)
MW-17A	05/15/2006	Natural Redox Baseline	1.37	0.0	27.0
MW-17A	11/12/2009	Downgradient Monitoring Triggered	0.9		
MW-17A	5/17/2010		1.6	0.2	21.0
MW-17A	11/8/2010		0.1	2.1	15.7
MW-17A	5/3/2011		1.6	0.0	19.8
MW-17A	8/1/2011		0.5	0.0	20.5
MW-17A	11/1/2011		0.3	0.0	23.2
MW-17A	5/3/2012		4.4	0.0	
MW-17A	9/4/2012		2.0		26.8
MW-17A	11/13/2012		0.59	0.0	22.9
MW-18A	05/15/2006	Natural Redox Baseline	0.154	0.4	64.8
MW-18A	11/12/2009	Downgradient Monitoring Triggered	0.8		
MW-18A	5/17/2010		1.0	0.4	32.2
MW-18A	11/8/2010		0.1	0.0	14.2
MW-18A	5/3/2011		<0.1	0.0	31.5
MW-18A	8/1/2011		1.1	0.0	42.2
MW-18A	11/1/2011		0.7	0.0	93.3
MW-18A	5/3/2012		<0.10	0.0	
MW-18A	9/4/2012		<0.10		19.5
MW-18A	11/13/2012		<0.10	0.0	21.5
MW-21A	05/15/2006	Natural Redox Baseline	0.136	0.4	54.9
MW-21A	11/12/2009	Downgradient Monitoring Triggered	<0.1		
MW-21A	5/17/2010		0.2	0.0	11.9
MW-21A	11/8/2010		<0.1	0.0	5.9
MW-21A	5/3/2011		0.2	0.0	52.1
MW-21A	8/1/2011		0.1	0.0	26.7
MW-21A	11/1/2011		<0.1	0.0	9.3
MW-21A	5/3/2012		0.17	0.0	
MW-21A	9/4/2012		<0.10		6.7
MW-21A	11/13/2012		0.16	0.0	18.5

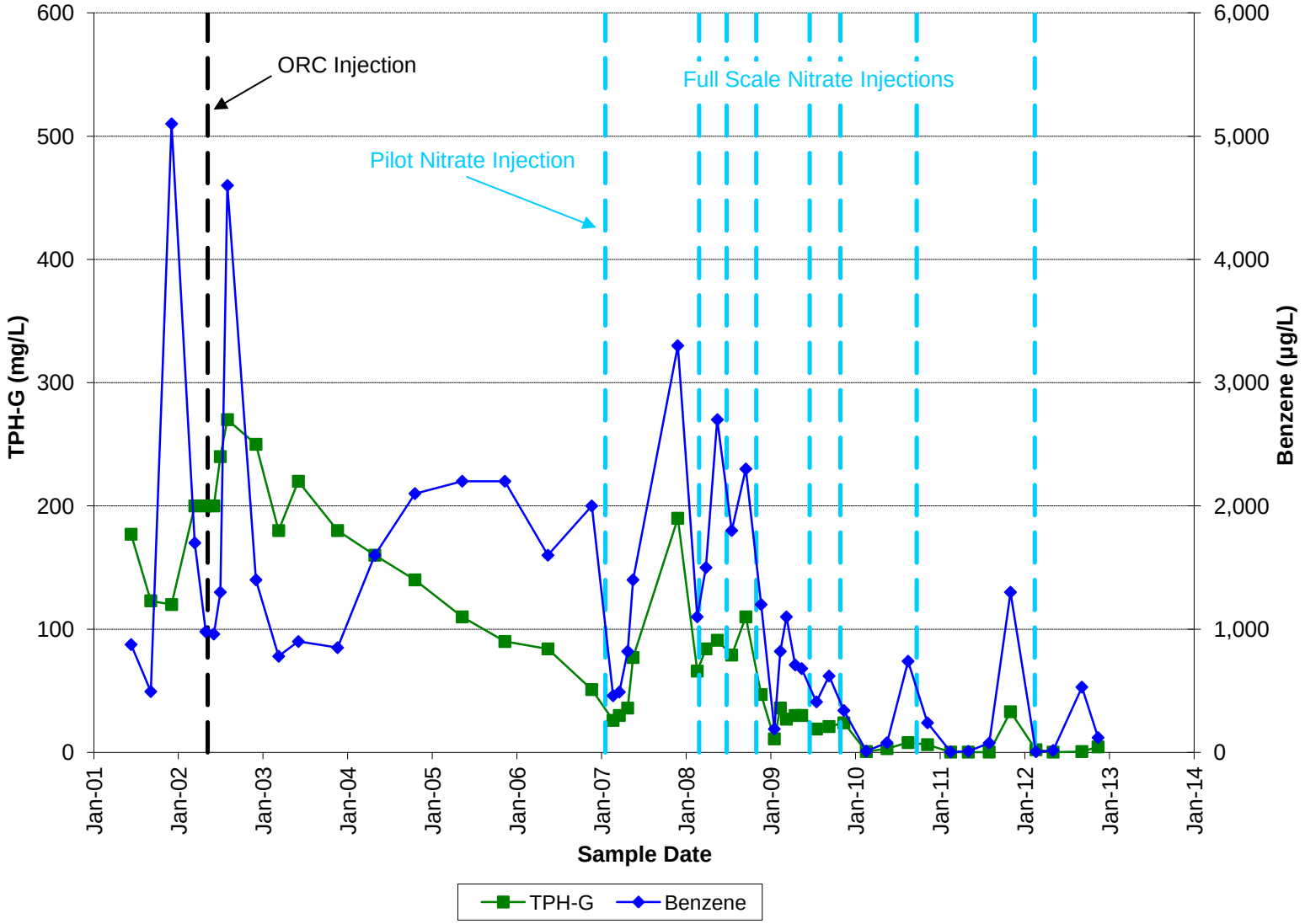
= Not Analyzed

BDC-101
TPH-G and Benzene Concentrations Since 2001

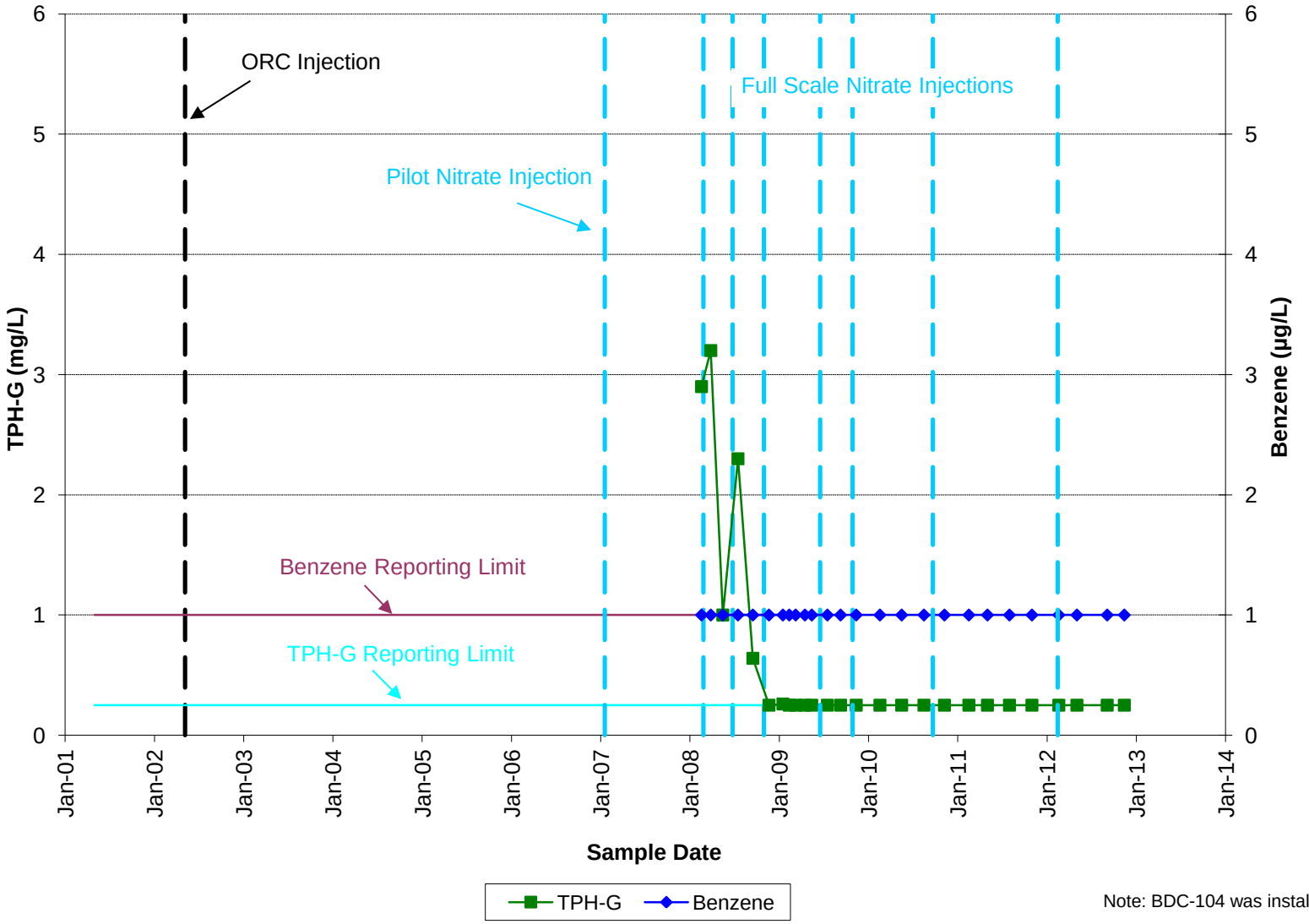



BDC-102
TPH-G and Benzene Concentrations Since 2001
ORC Injection
Pilot Nitrate Injection
Full Scale Nitrate Injections
TPH-G (mg/L)
Benzene (µg/L)
Sample Date
TPH-G
Benzene
0
2
4
6
8
10
0
25
50
75
100
125
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14

BDC-103
TPH-G and Benzene Concentrations Since 2001

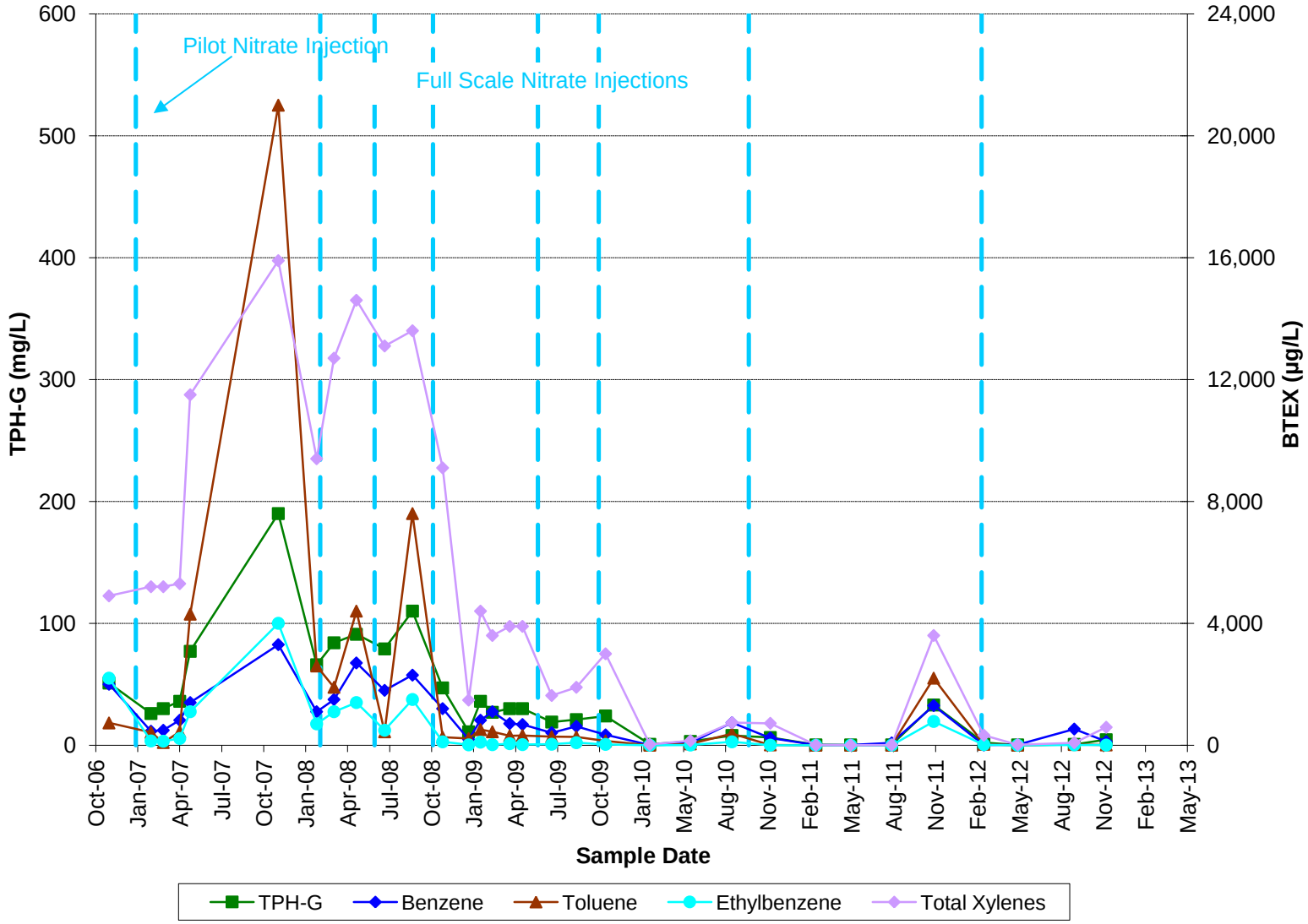


BDC-104
TPH-G and Benzene Concentrations Since 2001

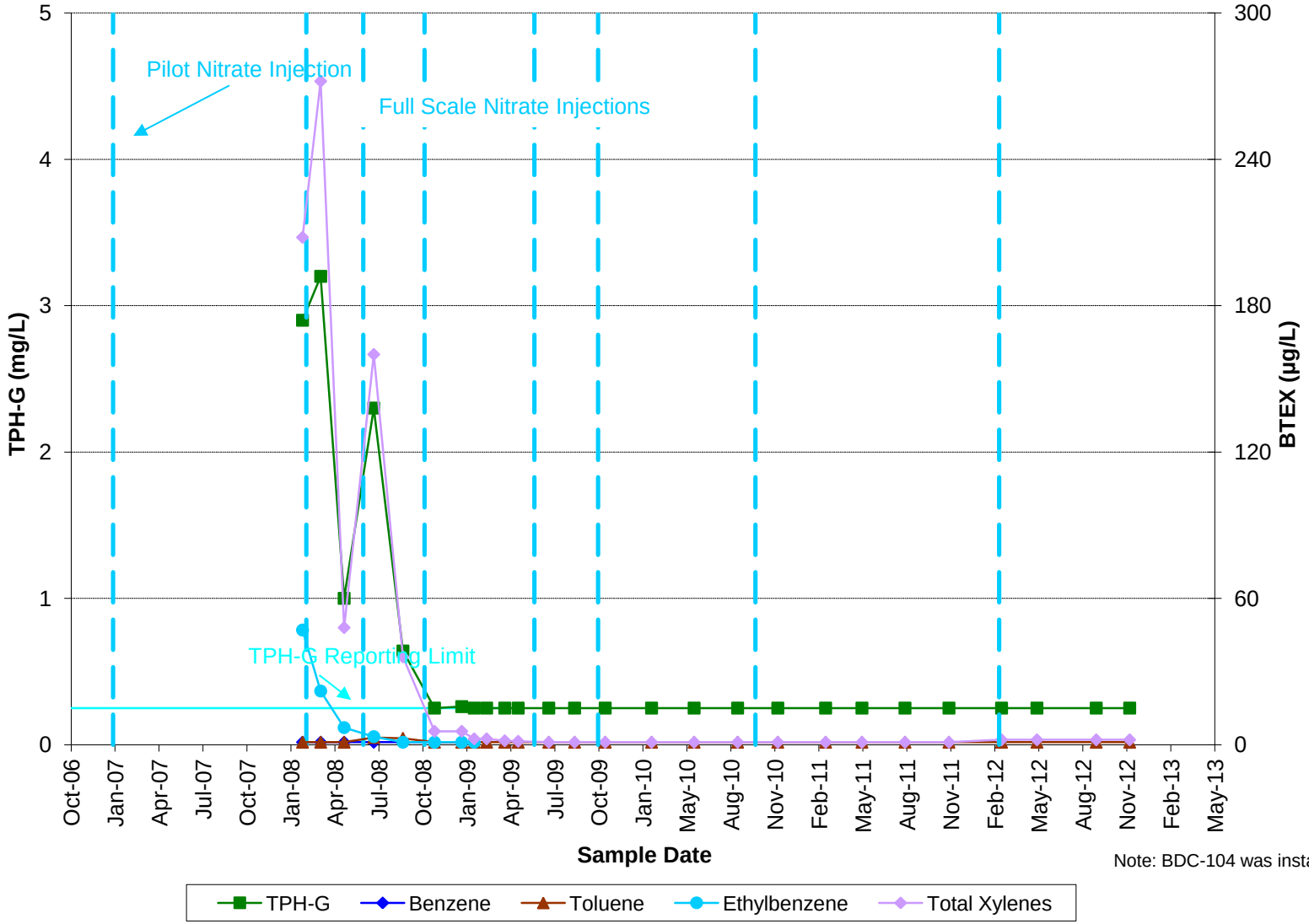


Note: BDC-104 was installed February 2008

BDC-103
TPH-G and BTEX Concentrations Beginning with 2007 Pilot Testing

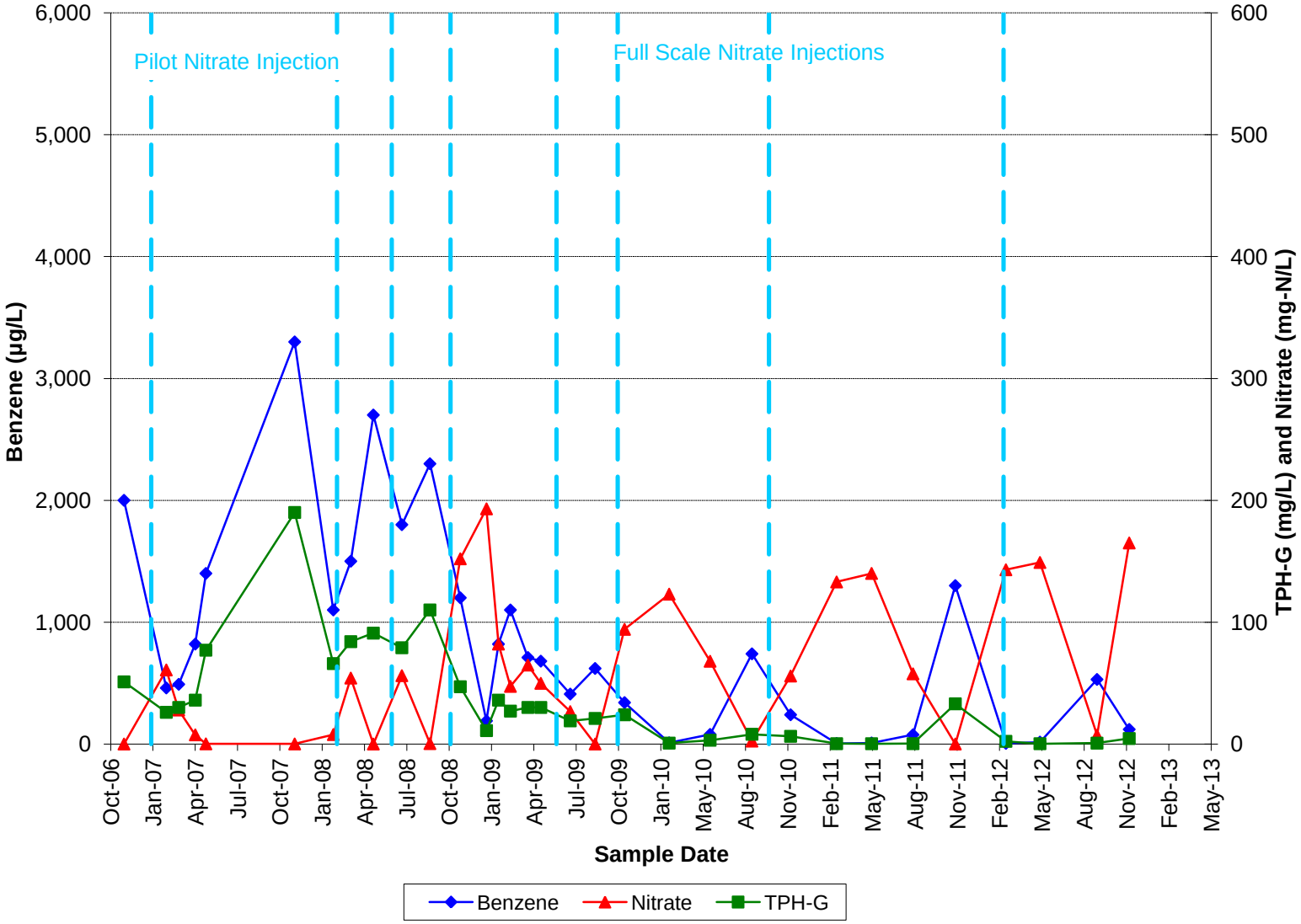


BDC-104
TPH-G and BTEX Concentrations Beginning with 2007 Pilot Testing

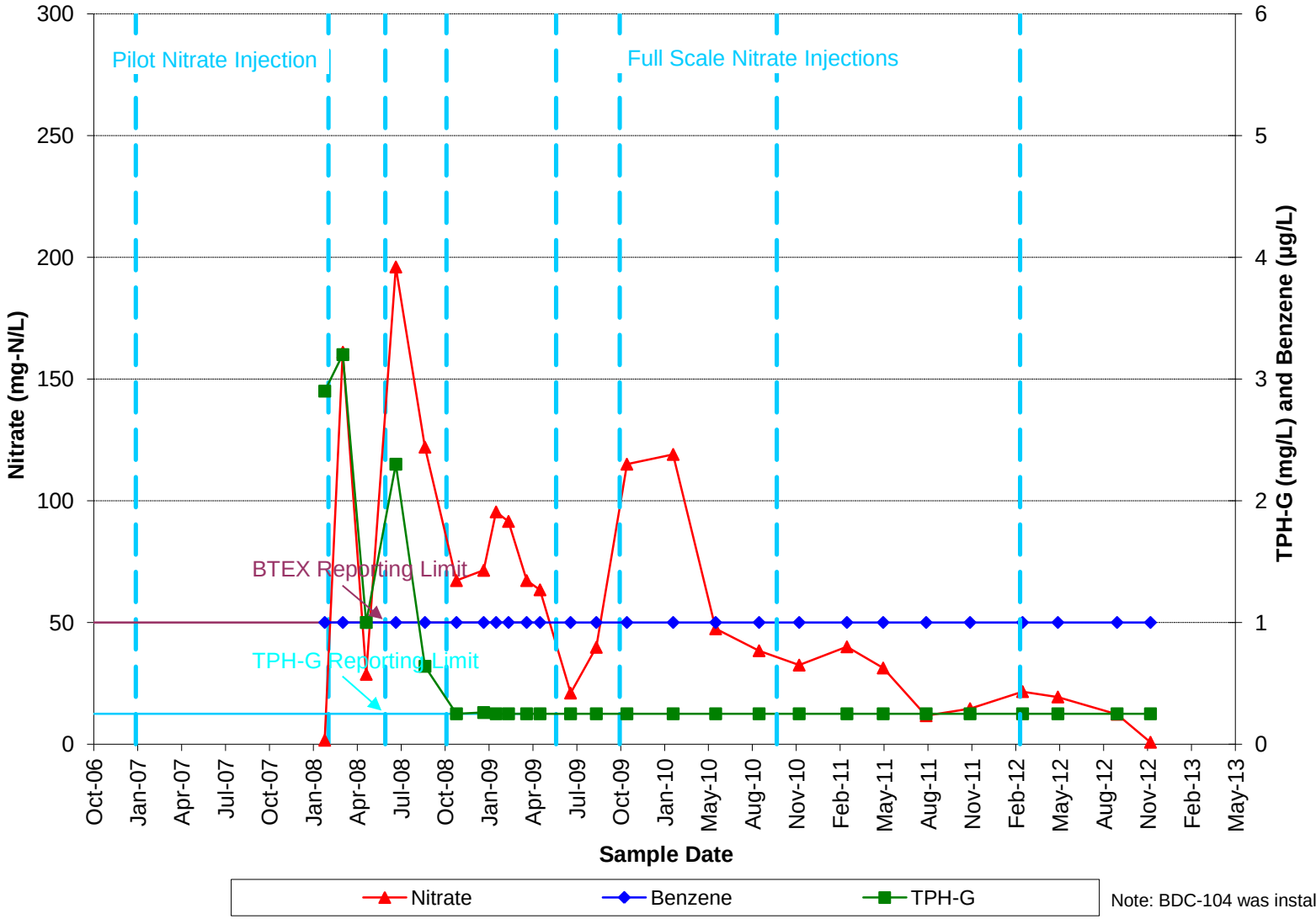


Note: BDC-104 was installed February 2008

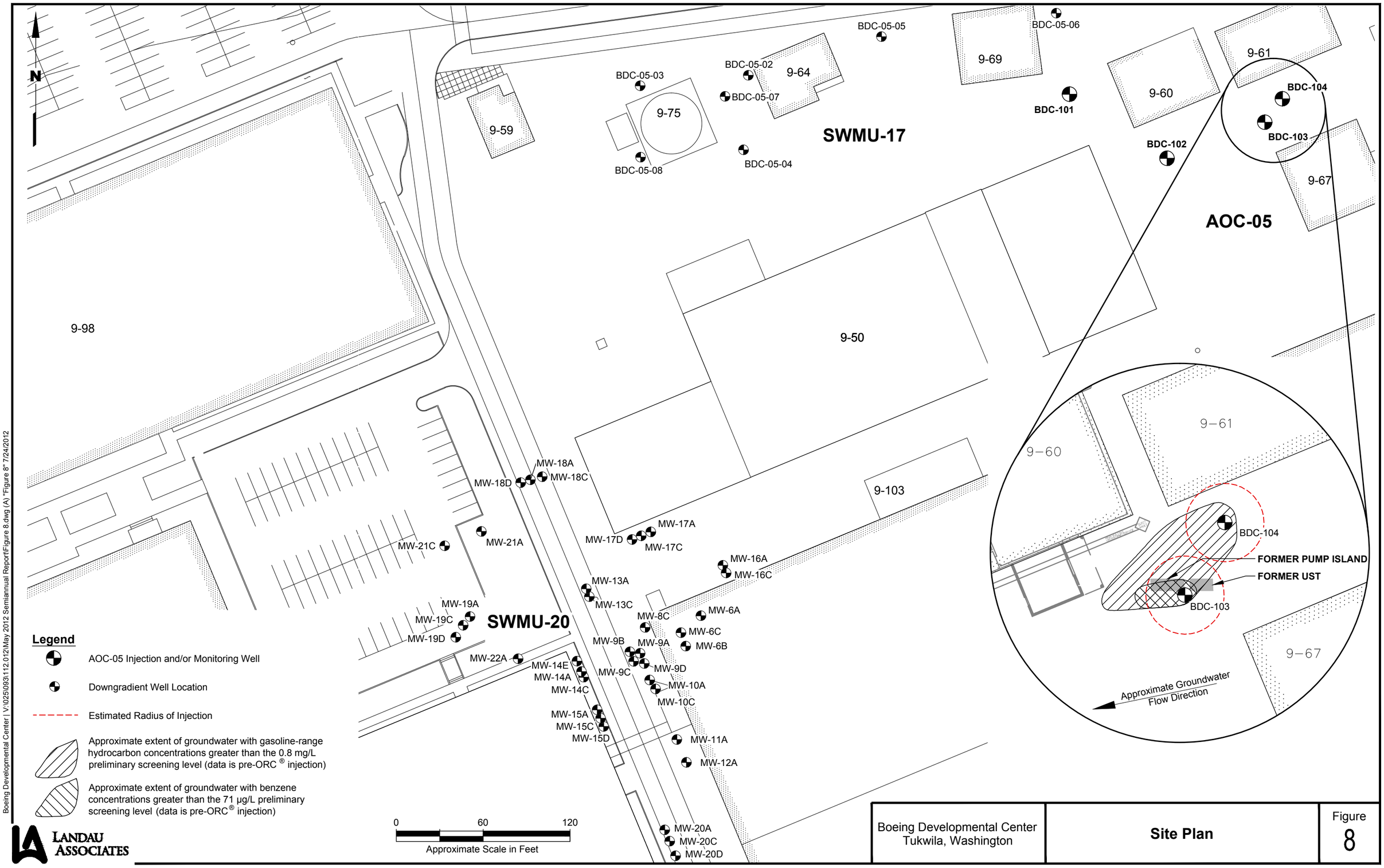
BDC-103
Nitrate, TPH-G, and Benzene Concentrations



BDC-104
Nitrate, TPH-G, and Benzene Concentrations



Note: BDC-104 was installed February 2008



Boeing Developmental Center | V:\025093\112.012\May 2012 Semiannual Report\Figure 8.dwg (A) "Figure 8" 7/24/2012

LANDAU ASSOCIATES

Boeing Developmental Center Tukwila, Washington	**Site Plan**	Figure 8

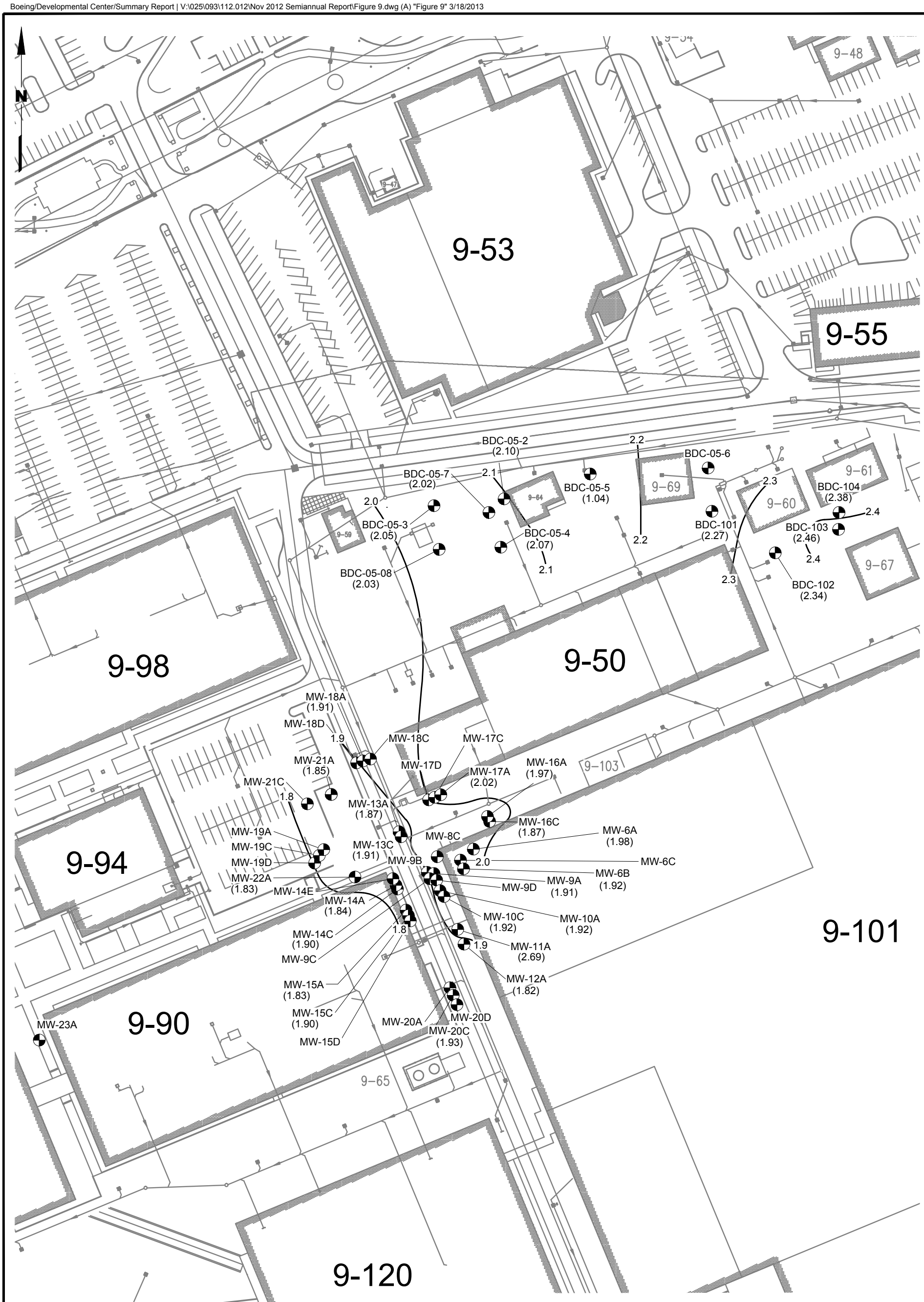
DEVELOPMENTAL CENTER

GROUNDWATER MONITORING

NOVEMBER 2012

GROUNDWATER ELEVATION INFORMATION

- **CONTOUR MAP**
- **CUMULATIVE WATER LEVEL MEASUREMENTS (November 1999 to Present)**



Notes:

1. Contours based primarily on A-Zone wells.

Legend

MW-20D Monitoring Well Location and Designation

LANDAU ASSOCIATES

Boeing Developmental Center Tukwila, Washington	**Facility-Wide Groundwater Elevation Contours- November 2012**	Figure 9

DEVELOPMENTAL CENTER
CUMULATIVE WATER LEVEL MEASUREMENTS

			Nov 2012		May 2012		Nov 2011		July 2011		May 2011		Nov 2010		May 2010		Nov 2009		May 2009		Nov 2008		May 2008		Nov 2007	
Well Location / Bldg.	Well ID No.	Well Depth	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation
9-101-bldg.	MW-6A	24.25	12.82	1.98	12.61	2.19	12.99	1.81			12.50	2.30	12.70	2.10	12.69	2.11	12.42	2.38	12.73	2.07	12.79	2.01	12.87	1.93	13.08	1.72
9-101-bldg.	MW-6B	27.20	13.17	1.92	12.96	2.13	13.29	1.80			12.81	2.28	13.06	2.03	13.04	2.05	12.73	2.36	13.08	2.01	13.12	1.97	13.21	1.88	13.46	1.63
9-101-bldg.	MW-6C	40.55															12.72	2.35	13.05	2.02	13.06	2.01	13.13	1.94	13.41	1.66
9-101-bldg.	MW-8C	40.20															12.70	2.22	13.01	1.91	12.88	2.04	13.16	1.76	13.28	1.64
9-101-bldg.	MW-9A	21.30	12.83	1.91	12.54	2.20	13.03	1.71			12.53	2.21	12.65	2.09	12.65	2.09	12.43	2.31	12.77	1.97	12.69	2.05	12.93	1.81	13.07	1.67
9-101-bldg.	MW-9B	26.90															12.30	2.29	12.64	1.95	12.68	1.91	12.75	1.84	12.91	1.68
9-101-bldg.	MW-9C	38.80															12.40	2.26	12.67	1.99	12.66	2.00	12.82	1.84	13.02	1.64
9-101-bldg.	MW-9D	56.00															12.43	2.23	12.79	1.87	12.78	1.88	12.90	1.76	13.56	1.10
9-101-bldg.	MW-10A	20.20	12.77	1.92	12.55	2.14	12.97	1.72			12.47	2.22	12.64	2.05	12.62	2.07	12.46	2.23	12.65	2.04	12.68	2.01	12.89	1.80	13.05	1.64
9-101-bldg.	MW-10C	40.40	12.70	1.92	12.49	2.13	12.90	1.72			12.38	2.24	12.55	2.07	12.53	2.09	12.41	2.21	12.60	2.02	12.62	2.00	12.78	1.84	12.96	1.66
9-101-bldg.	MW-11A	19.90	12.19	2.69	12.65	2.23	13.03	1.85			12.62	2.26	12.59	2.29	12.69	2.19	12.52	2.36	12.81	2.07	12.81	2.07	13.16	1.72	13.16	1.72
9-101-bldg.	MW-12A	20.20	13.01	1.82	12.70	2.13	13.23	1.60			12.71	2.12	12.68	2.15	12.73	2.10	12.56	2.27	12.96	1.87	12.91	1.92	13.22	1.61	13.24	1.59
9-101-bldg.	MW-13A	19.37	12.27	1.87	12.20	1.94	12.66	1.48			12.11	2.03	12.08	2.06	12.14	2.00	11.89	2.25	12.29	1.85	12.25	1.89	12.62	1.52	12.42	1.72
9-101-bldg.	MW-13C	35.62	12.11	1.91	12.06	1.96	12.52	1.50			11.94	2.08	11.92	2.10	12.02	2.00	11.71	2.31	12.14	1.88	12.12	1.90	12.46	1.56	12.29	1.73
9-101-bldg.	MW-14A	19.00	12.53	1.84	12.46	1.91	12.71	1.66			12.16	2.21	12.22	2.15	12.39	1.98	12.10	2.27	12.50	1.87	12.50	1.87	12.64	1.73	12.55	1.82
9-101-bldg.	MW-14C	33.30	12.07	1.90	12.09	1.88	12.20	1.77			12.78	1.19	11.82	2.15	12.00	1.97	11.65	2.32	12.20	1.77	12.08	1.89	12.14	1.83	12.00	1.97
9-101-bldg.	MW-14E	82.10															7.20	6.98	7.55	6.63	7.51	6.67	8.07	6.11	6.83	7.35
9-101-bldg.	MW-15A	20.70	12.34	1.83	12.16	2.01	12.51	1.66			11.87	2.30	12.12	2.05	12.22	1.95	11.89	2.28	12.44	1.73	12.31	1.86	12.35	1.82	12.24	1.93
9-101-bldg.	MW-15C	34.35	12.27	1.90	12.36	1.81	12.44	1.73			11.49	2.68	12.00	2.17	12.17	2.00	11.85	2.32	12.46	1.71	12.23	1.94	12.50	1.67	12.30	1.87
9-101-bldg.	MW-15D	51.80															12.02	2.39	12.78	1.63	12.47	1.94	12.68	1.73	12.53	1.88
9-101-bldg.	MW-16A	20.55	13.02	1.97	12.81	2.18	13.19	1.80			12.67	2.32	12.84	2.15	12.88	2.11	12.68	2.31	12.98	2.01	12.95	2.04	13.17	1.82	12.53	2.46
9-101-bldg.	MW-16C	38.30	13.17	1.87	13.01	2.03	13.33	1.71			12.84	2.20	13.02	2.02	13.04	2.00	12.63	2.41	13.12	1.92	13.13	1.91	13.34	1.70	13.33	1.71
9-101-bldg.	MW-17A	19.00	12.78	2.02	12.26	2.54	12.73	2.07	12.84	1.96	12.45	2.35	12.65	2.15	12.63	2.17	12.55	2.25	12.75	2.05	12.80	2.00	13.07	1.73	13.00	1.80
9-101-bldg.	MW-17C	35.00																								
9-101-bldg.	MW-17D	52.50																								
9-101-bldg.	MW-18A	20.02	12.39	1.91	11.90	2.40	12.84	1.46	12.43	1.87	12.14	2.16	12.22	2.08	12.25	2.05	12.21	2.09	12.42	1.88	12.37	1.93	12.72	1.58	12.46	1.84
9-101-bldg.	MW-18C	34.55															12.36	2.27	12.66	1.97	12.67	1.96	12.98	1.65	12.88	1.75
9-101-bldg.	MW-18D	52.85																								
9-101-bldg.	MW-19A	16.86															10.11	2.12	10.49	1.74	10.47	1.76	10.49	1.74	10.68	1.55
9-101-bldg.	MW-19C	33.92															9.98	2.25	10.44	1.79	10.33	1.90	10.41	1.82	10.59	1.64
9-101-bldg.	MW-19D	51.86																								
9-101-bldg.	MW-20A	19.34															12.37	1.94	12.56	1.75	12.69	1.62	12.60	1.71	12.76	1.55
9-101-bldg.	MW-20C	35.32	12.22	1.93	12.18	1.97	12.76	1.39			12.27	1.88	11.87	2.28	12.06	2.09	11.70	2.45	12.15	2.00	12.13	2.02	12.50	1.65	12.39	1.76
9-101-bldg.	MW-20D	50.15																								
9-101-bldg.	MW-22A	19.20	12.42	1.83	12.35	1.90	12.52	1.73			12.14	2.11	12.40	1.85	12.30	1.95	12.04	2.21	12.57	1.68	12.35	1.90	12.50	1.75	12.25	2.00
9-101-bldg.	MW-23A	19.50															11.86	2.41	13.27	1.00	12.67	1.60	12.67	1.60	12.83	1.44
9-101/9-50 bldg.	MW-21A	19.90	12.60	1.85	12.13	2.32	13.05	1.40	12.67	1.78	12.41	2.04	12.43	2.02	12.45	2.00	12.37	2.08								
9-101/9-50 bldg.	MW-21C	34.00																								
9-64-bldg.	BDC-05-02	25.35	12.31	2.10	11.81	2.60	12.63	1.78	12.35	2.06	11.81	2.60	12.10	2.31	12.14	2.27	12.05	2.36	12.19	2.22	12.20	2.21	12.28	2.09	12.31	2.06
9-64-bldg.	BDC-05-03	25.47	12.36	2.05	11.95	2.46	12.77	1.64			11.94	2.47	12.21	2.20	12.24	2.17	12.11	2.30	12.29	2.12	12.28	2.13	12.47	1.94	12.51	1.90
9-64-bldg.	BDC-05-04	25.36	12.52	2.07	12.05	2.54	12.82	1.77			12.03	2.56	12.30	2.29	12.33	2.26	12.22	2.37	12.40	2.19	12.35	2.24	12.58	2.01	12.57	2.02
9-64-bldg.	BDC-05-05	24.18	13.40	1.04	11.65	2.79	12.50	1.94			11.61	2.83	11.95	2.49	11.97	2.47	11.89	2.55	12.02	2.42	12.00	2.44	12.18	2.26	12.30	2.14
9-64-bldg.	BDC-05-07	25.30	11.97	2.02	11.40	2.59	12.23	1.76			11.42	2.57	11.95	2.04	11.75	2.24	11.95	2.04	11.82	2.17	11.80	2.19	12.02	1.97	12.03	1.96
9-64-bldg.	BDC-05-08	27.00	12.64	2.03	12.28	2.39	13.02	1.65			12.20	2.47	12.49	2.18	12.51	2.16	12.39	2.28	12.79	1.88	12.57	2.10				
9-64-bldg.	BDC-05-09	24.55	12.36	2.05	11.90	2.51	12.68	1.73	12.27	2.13																
9-64-bldg.	BDC-05-10	24.57	12.30	2.11	11.95	2.46	12.74	1.67	12.27	2.14																
9-64-bldg.	BDC-05-11	24.85	12.55	2.10	12.13	2.52	12.92	1.73	12.60	2.05																
9-64-bldg.	BDC-05-12	24.87	12.66	2.06	12.24	2.48	13.00	1.72	12.57	2.15																
9-64-bldg.	BDC-05-13	24.78	12.44	1.99	12.02	2.41	12.78	1.65	12.35	2.08																
9-64-bldg.	BDC-05-14	24.85	12.29	1.93	11.83	2.39	12.55	1.67	12.23	1.99																
9-64-bldg.	BDC-05-15	24.48	11.97	2.00	11.63	2.34	12.34	1.63	11.95	2.02																
9-64-bldg.	BDC-05-16	24.89	12.09	1.98	11.78	2.29	12.44	1.63	12.05	2.02																
9-64-bldg.	BDC-05-17	24.82	12.27	1.98	11.65	2.60	12.60	1.65	12.27	1.98																
9-64-bldg.	BDC-05-18	24.69	11.75	2.04	11.34	2.45	12.10	1.69	11.84	1.95																
9-64-bldg.	BDC-05-19	24.85	12.60	1.96	12.15	2.41	12.90	1.66	12.59	1.97																
9-64-bldg.	BDC-05-20	24.80	12.44	1.90	12.08	2.26	12.75	1.59	12.47	1.87																
9-64-bldg.	BDC-05-21	24.86	12.30	1.89	11.94	2.25	12.59	1.60	12.34	1.85																
9-64-bldg.	BDC-05-22	25.01	12.24	1.92	11.87	2.29	12.54	1.62	12.27	1.89																
9-64-bldg.	BDC-05-23	25.10	12.74	1.72	12.39	2.07	13.08	1.38	12.79	1.67																
9-64-bldg.	BDC-05-24	24.73	12.20	1.99	11.82	2.37	12.59	1.60	12.28	1.91																
9-60 bldg.	BDC-101	18.42	12.20	2.27	11.32	3.15	12.46	2.01	12.16	2.31	11.48	2.99	11.92	2.55	11.82	2.65	11.82	2.65	11.89	2.58	11.95	2.52	12.29	2.18	12.22	2.25
9-60 bldg.	BDC-102	18.83	11.93	2.34	11.13	3.14	12.16	2.11	11.92	2.35	11.20	3.07	11.67	2.60	11.57	2.70	11.58	2.69	11.64	2.63	11.67	2.60	12.08	2.19	11.86	2.41
9-60 bldg.	BDC-103	18.51	11.88	2.46	11.09	3.25	12.20	2.14	11.90	2.44	10.96	3.38	11.63	2.71	11.54	2.80	11.55	2.79	11.61	2.73	11.68	2.66	12.02	2.32	11.93	2.41
9-60 bldg.	BDC-104	18.90	11.78	2.38	10.93	3.23	12.00	2.16	11.72	2.44	10.97	3.19	11.45	2.71	11.32	2.84	11.36	2.80	11.40	2.76	11.51	2.65	11.84	2.32		
9-52-bldg.	952MW-1	17.40																								
9-52-bldg.	952MW-2	17.54																								
9-52-bldg.	952MW-3	17.95																								
9-52-bldg. (west)	MW-5	27.43																								
9-04-bldg. (north)	MW-2	26.98																								
9-04-bldg. (north)	MW-7	18.50																								
9-04-bldg. (north)	MW-8	18.50																								
9-04-bldg. (north)	MW-9	18.50																								

DEVELOPMENTAL CENTER
CUMULATIVE WATER LEVEL MEASUREMENTS

			May 2007		February 2007		Nov 2006		Aug 2006		May 2006		February 2006		November 2005		August 2005		May 2005		February 2005		October 2004		August 2004		May 2004	
Well Location / Bldg.	Well ID No.	Well Depth	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation	Depth to Water	Water Elevation
9-101-bldg.	MW-6A	24.25	12.97	1.83	12.42	2.38	12.30	2.50	13.16	1.64	12.77	2.03	12.42	2.38	12.80	2.00	13.02	1.78	12.52	2.28	12.68	2.12	12.90	1.90	13.06	1.74		
9-101-bldg.	MW-6B	27.20	13.32	1.77	12.75	2.34	12.67	2.42	13.50	1.59	13.09	2.00	12.75	2.34	13.15	1.94	13.35	1.74	12.88	2.21	12.97	2.12	13.25	1.84	13.40	1.69	13.00	1.83
9-101-bldg.	MW-6C	40.55	13.27	1.80	12.69	2.38	12.65	2.42	13.41	1.66	13.07	2.00	12.71	2.36	13.14	1.93	13.32	1.75	12.87	2.20	12.90	2.17	13.18	1.89	13.37	1.70	13.14	1.85
9-101-bldg.	MW-8C	40.20	13.00	1.92			12.21	2.71			13.18	1.74			13.00	1.92			12.64	2.28			12.91	2.01			13.11	1.81
9-101-bldg.	MW-9A	21.30	12.90	1.84	12.36	2.38	12.12	2.62	13.05	1.69	13.00	1.74	12.37	2.37	12.73	2.01	13.08	1.66	12.53	2.21	12.51	2.23	12.92	1.82	13.05	1.69	12.82	1.82
9-101-bldg.	MW-9B	26.90	12.71	1.88	12.19	2.40	11.95	2.64	12.87	1.72	13.81	0.78	12.19	2.40	12.69	1.90	12.90	1.69	12.17	2.42	10.80	3.79	12.76	1.83	12.90	1.69	12.77	1.95
9-101-bldg.	MW-9C	38.80	12.81	1.85	12.20	2.46	12.05	2.61	13.01	1.65	12.91	1.75	12.26	2.40	12.69	1.97	12.93	1.73	12.55	2.11	12.46	2.20	12.87	1.79	13.01	1.65	12.85	1.83
9-101-bldg.	MW-9D	56.00	12.88	1.78			12.30	2.36			13.15	1.51			12.90	1.76			12.90	1.76			13.92	0.74			12.92	1.74
9-101-bldg.	MW-10A	20.20	12.72	1.97	12.35	2.34	12.06	2.63	12.88	1.81	12.98	1.71	11.93	2.76	12.73	1.96	12.85	1.84	12.52	2.17	12.58	2.11	12.95	1.74	13.05	1.64	12.93	1.76
9-101-bldg.	MW-10C	40.40	12.77	1.85			11.99	2.63			12.88	1.74			12.63	1.99			12.45	2.17			12.74	1.88			12.80	1.82
9-101-bldg.	MW-11A	19.90	12.96	1.92			11.85	3.03			12.80	2.08			12.92	1.96			12.42	2.46			12.78	2.10			13.12	1.76
9-101-bldg.	MW-12A	20.20	13.00	1.83			11.89	2.94			12.97	1.86			12.98	1.85			12.58	2.25			12.86	1.97			13.21	1.62
9-101-bldg.	MW-13A	19.37	12.33	1.81			11.50	2.64			12.48	1.66			12.26	1.88			11.97	2.17			12.35	1.79			12.47	1.67
9-101-bldg.	MW-13C	35.62	12.20	1.82			11.35	2.67			12.33	1.69			12.10	1.92			11.78	2.24			12.19	1.83			12.35	1.67
9-101-bldg.	MW-14A	19.00	12.73	1.64	12.03	2.34	11.46	2.91	12.83	1.54	12.59	1.78	11.95	2.42	12.39	1.98	12.56	1.81	12.35	2.02	12.38	2.09	12.60	1.87	12.94	1.53	12.71	1.76
9-101-bldg.	MW-14C	33.30	12.32	1.65			11.72	2.25			12.26	1.71			12.13	1.84			11.84	2.13			12.09	1.88			12.16	1.81
9-101-bldg.	MW-14E	82.10	7.59	6.59			6.71	7.47			8.78	5.40			7.87	6.31			7.29	6.89			7.58	6.60			6.94	7.24
9-101-bldg.	MW-15A	20.70	12.52	1.65			11.93	2.24			12.05	2.12			12.42	1.75			11.74	2.43			12.17	2.00			12.67	1.50
9-101-bldg.	MW-15C	34.35	12.55	1.62			11.91	2.26			12.37	1.80			12.50	1.67			12.02	2.15			12.31	1.86			12.72	1.45
9-101-bldg.	MW-15D	51.80	12.76	1.65			12.14	2.27			12.52	1.89			12.63	1.78			12.20	2.21			12.56	1.85			12.88	1.53
9-101-bldg.	MW-16A	20.55	13.11	1.88			12.05	2.94			13.04	1.95			13.05	1.94			12.67	2.32			12.97	2.02			13.19	1.80
9-101-bldg.	MW-16C	38.30	13.23	1.81			12.22	2.82			13.23	1.81			13.22	1.82			12.83	2.21			13.15	1.89			13.38	1.66
9-101-bldg.	MW-17A	19.00	12.80	2.00			12.04	2.76			12.85	1.95			12.74	2.30							12.81	1.99			13.05	1.75
9-101-bldg.	MW-17C	35.00													12.83	2.21							12.80	2.05			13.11	1.74
9-101-bldg.	MW-17D	52.50													12.82	2.22							12.97	1.90			13.20	1.67
9-101-bldg.	MW-18A	20.02	12.45	1.85			11.57	2.73			12.43	1.87			12.44	1.86			12.11	2.19			12.43	1.87			12.57	1.73
9-101-bldg.	MW-18C	34.55	12.74	1.89			11.85	2.78			12.70	1.93			12.72	1.91			12.36	2.27			12.75	1.88			12.84	1.79
9-101-bldg.	MW-18D	52.85													12.42	2.21							12.42	1.84			12.60	1.66
9-101-bldg.	MW-19A	16.86	10.55	1.68	9.92	2.31	9.59	2.64	10.77	1.46	10.44	1.79	10.22	2.01	10.43	1.80	10.70	1.53	10.22	2.01	10.19	2.04	10.54	1.69			10.85	1.38
9-101-bldg.	MW-19C	33.92	10.50	1.73			9.50	2.73			10.32	1.91			10.36	1.87			10.22	2.01			10.43	1.80			10.22	2.01
9-101-bldg.	MW-19D	51.86													10.69	1.54							10.67	1.56			10.86	1.37
9-101-bldg.	MW-20A	19.34	12.30	2.01			12.10	2.21			12.09	2.22			12.68	1.63			12.33	1.98			12.75	1.56			12.73	1.58
9-101-bldg.	MW-20C	35.32	12.28	1.87			11.67	2.48			12.05	2.10			12.30	1.85			11.90	2.25			12.39	1.76			12.66	1.49
9-101-bldg.	MW-20D	50.15													12.66	1.49							12.80	1.63			13.17	1.26
9-101-bldg.	MW-22A	19.20	12.64	1.61	11.90	2.35	12.11	2.14	12.77	1.48	12.41	1.84	12.25	2.00	12.55	1.70	12.81	1.44	12.38	1.87								
9-101-bldg.	MW-23A	19.50	12.90	1.37	12.03	2.24	13.02	1.25	12.94	1.33	12.49	1.78	12.44	1.83	12.78	1.49	13.73	0.54	13.55	0.72								
9-101/9-50 bldg.	MW-21A	19.90									12.68	1.77																
9-101/9-50 bldg.	MW-21C	34.00																										
9-64-bldg.	BDC-05-02	25.35	12.23	2.14			11.53	2.84			12.21	2.16			12.21	2.16			11.86	2.51			12.40	1.97			12.24	2.13
9-64-bldg.	BDC-05-03	25.47	12.45	1.96			11.75	2.66			12.40	2.01			12.43	1.98			12.07	2.34			12.60	1.81			12.46	1.95
9-64-bldg.	BDC-05-04	25.36	12.54	2.05			11.85	2.74			12.54	2.05			12.52	2.07			12.17	2.42			12.72	1.87			12.55	2.04
9-64-bldg.	BDC-05-05	24.18	12.07	2.37			11.51	2.93			12.16	2.28			12.16	2.28			11.87	2.57			12.41	2.03			12.12	2.32
9-64-bldg.	BDC-05-07	25.30	11.96	2.03			11.27	2.72			11.94	2.05			11.96	2.03			11.59	2.40			12.14	1.85			11.97	2.02
9-64-bldg.	BDC-05-08	27.00																										
9-64-bldg.	BDC-05-09	24.55																										
9-64-bldg.	BDC-05-10	24.57																										
9-64-bldg.	BDC-05-11	24.85																										
9-64-bldg.	BDC-05-12	24.87																										
9-64-bldg.	BDC-05-13	24.78																										
9-64-bldg.	BDC-05-14	24.85																										
9-64-bldg.	BDC-05-15	24.48																										
9-64-bldg.	BDC-05-16	24.89																										
9-64-bldg.	BDC-05-17	24.82																										
9-64-bldg.	BDC-05-18	24.69																										
9-64-bldg.	BDC-05-19	24.85																										
9-64-bldg.	BDC-05-20	24.80																										
9-64-bldg.	BDC-05-21	24.86																										
9-64-bldg.	BDC-05-22	25.01																										
9-64-bldg.	BDC-05-23	25.10																										
9-64-bldg.	BDC-05-24	24.73																										
9-60 bldg.	BDC-101	18.42	12.13	2.34			11.42	3.05			12.07	2.40			11.91	2.56			11.73	2.74			12.31	2.16			12.04	2.43
9-60 bldg.	BDC-102	18.83	11.89	2.38			11.13	3.14			11.85	2.42			11.79	2.48			11.53	2.74			11.97	2.30			11.84	2.43
9-60 bldg.	BDC-103	18.51	11.87	2.47			11.10	3.24			11.78	2.56			11.81	2.53			11.50	2.84			12.08	2.26			11.79	2.55
9-60 bldg.	BDC-104	18.90																										
9-52-bldg.	952MW-1	17.40																										
9-52-bldg.	952MW-2	17.54																										
9-52-bldg.	952MW-3	17.95																										
9-52-bldg. (west)	MW-5	27.43																										
9-04-bldg. (north)	MW-2	26.98																									9.96	2.71
9-04-bldg. (north)	MW-7	18.50																									10.90	2.79
9-04-bldg. (north)	MW-8	18.50																									11.10	2.82
9-04-bldg. (north)	MW-9	18.50																									11.03	

DEVELOPMENTAL CENTER
CUMULATIVE WATER LEVEL MEASUREMENTS

			November 2003		June 2003		December 2002		June 2002		December 2001		June 2001		December 2000		June 2000		November 1999	
Well Location / Bldg.	*Well ID No.*	*Well Depth*	*Depth to Water*	*Water Elevation*	*Depth to Water*	*Water Elevation*	*Depth to Water*	*Water Elevation*	*Depth to Water*	*Water Elevation*	*Depth to Water*	*Water Elevation*	*Depth to Water*	*Water Elevation*	*Depth to Water*	*Water Elevation*	*Depth to Water*	*Water Elevation*	*Depth to Water*	*Water Elevation*
9-101-bldg.	MW-6A	24.25																		
9-101-bldg.	MW-6B	27.20	12.88	1.95	13.30	1.53	13.01	1.82	13.21	1.62	12.45	2.38	13.50	1.33	13.55	1.28	13.01	1.82	13.33	1.50
9-101-bldg.	MW-6C	40.55	13.03	1.96	13.44	1.55	13.16	1.83	13.36	1.63	12.60	2.39	13.67	1.32	13.70	1.29	13.15	1.84	13.50	1.49
9-101-bldg.	MW-8C	40.20	13.11	1.81	13.39	1.53	13.19	1.73	13.27	1.65	12.89	2.03	13.85	1.07	13.71	1.21	13.13	1.79	13.79	1.13
9-101-bldg.	MW-9A	21.30	12.78	1.86	13.00	1.64	12.90	1.74	12.94	1.70	12.69	1.95	13.76	0.88	13.72	0.92	12.78	1.86	13.67	0.97
9-101-bldg.	MW-9B	26.90	12.82	1.90	13.08	1.64	12.96	1.76	13.00	1.72	12.82	1.90	13.90	0.82	13.82	0.90	12.81	1.91	13.90	0.82
9-101-bldg.	MW-9C	38.80	12.77	1.91	13.09	1.59	12.90	1.78	12.94	1.74	12.61	2.07	13.64	1.04	13.57	1.11	12.75	1.93	13.60	1.08
9-101-bldg.	MW-9D	56.00	13.04	1.62	13.39	1.27	13.17	1.49	13.20	1.46	12.25	2.41	13.15	1.51	13.03	1.63	12.74	1.92	13.00	1.66
9-101-bldg.	MW-10A	20.20	12.83	1.86	13.08	1.61	13.03	1.66	12.94	1.75	12.52	2.17	13.52	1.17	13.62	1.07	12.84	1.85	13.50	1.19
9-101-bldg.	MW-10C	40.40	12.71	1.91	12.97	1.65	12.90	1.72	12.84	1.78	12.32	2.30	13.37	1.25	13.40	1.22	12.74	1.88	13.29	1.33
9-101-bldg.	MW-11A	19.90	12.91	1.97	13.14	1.74	13.13	1.75	12.97	1.91	12.28	2.60	13.35	1.53	13.52	1.36	12.91	1.97	13.20	1.68
9-101-bldg.	MW-12A	20.20	13.00	1.83	13.23	1.60	13.20	1.63	13.03	1.80	12.33	2.50	13.35	1.48	13.50	1.33	13.02	1.81	13.21	1.62
9-101-bldg.	MW-13A	19.37	12.18	1.96	12.49	1.65	12.38	1.76	12.50	1.64	11.92	2.22	12.59	1.55	12.76	1.38	12.50	1.64	12.33	1.81
9-101-bldg.	MW-13C	35.62	12.02	2.00	12.30	1.72	12.22	1.80	12.31	1.71	11.45	2.57	12.43	1.59	12.69	1.33	12.37	1.65	12.21	1.81
9-101-bldg.	MW-14A	19.00	12.57	1.90	12.91	1.56	12.70	1.77	12.85	1.62	12.16	2.31	13.00	1.47	12.98	1.49	12.70	1.77	12.78	1.69
9-101-bldg.	MW-14C	33.30	12.07	1.90	12.43	1.54	12.18	1.79	12.33	1.64	11.60	2.37	12.59	1.38	12.49	1.48	12.17	1.80	12.35	1.62
9-101-bldg.	MW-14E	82.10	7.26	6.92	8.56	5.62	7.69	6.49	7.64	6.54	6.10	8.08	7.83	6.35	7.44	6.74	7.45	6.73	7.90	6.28
9-101-bldg.	MW-15A	20.70	12.36	1.81	12.57	1.60	12.55	1.62	12.52	1.65	11.82	2.35	12.66	1.51	12.82	1.35	12.40	1.77	12.35	1.82
9-101-bldg.	MW-15C	34.35	12.37	1.80	12.56	1.61	12.47	1.70	12.50	1.67	11.73	2.44	12.80	1.37	12.77	1.40	12.36	1.81	12.49	1.68
9-101-bldg.	MW-15D	51.80	12.64	1.77	12.41	2.00	12.80	1.61	13.02	1.39	11.90	2.51	12.88	1.53	12.90	1.51	12.59	1.82	12.44	1.97
9-101-bldg.	MW-16A	20.55	12.96	2.03	13.35	1.64	13.03	1.96	13.02	1.97	12.45	2.54	13.55	1.44	13.50	1.49	13.19	1.80	13.34	1.65
9-101-bldg.	MW-16C	38.30	13.15	1.89	13.51	1.53	13.33	1.71	13.29	1.75	12.62	2.42	13.77	1.27	13.67	1.37	13.36	1.68	13.52	1.52
9-101-bldg.	MW-17A	19.00	12.83	1.97	13.10	1.70	12.99	1.81	13.07	1.73	12.34	2.46			13.32	1.48	13.05	1.75	13.03	1.77
9-101-bldg.	MW-17C	35.00											13.25	1.60			13.10	1.75	13.05	1.80
9-101-bldg.	MW-17D	52.50											13.20	1.67			13.25	1.62	12.82	2.05
9-101-bldg.	MW-18A	20.02	12.36	1.94							11.82	2.48	12.61	1.69	12.84	1.46	12.55	1.75	12.38	1.92
9-101-bldg.	MW-18C	34.55	12.62	2.01	12.89	1.74	12.82	1.81	12.92	1.71			12.87	1.76	13.12	1.51	12.83	1.80	12.61	2.02
9-101-bldg.	MW-18D	52.85											12.58	1.68	12.85	1.41	12.52	1.74	12.33	1.93
9-101-bldg.	MW-19A	16.86	10.39	1.84							9.93	2.30	10.62	1.61	10.93	1.30	10.68	1.55	10.42	1.81
9-101-bldg.	MW-19C	33.92	10.31	1.92	10.55	1.68	10.41	1.82	10.71	1.52			10.55	1.68	10.89	1.34	10.65	1.58	10.35	1.88
9-101-bldg.	MW-19D	51.86											11.00	1.23	10.90	1.33	10.71	1.52	11.05	1.18
9-101-bldg.	MW-20A	19.34	12.58	1.73							12.20	2.11	12.60	1.71	12.89	1.42	12.44	1.87	12.75	1.56
9-101-bldg.	MW-20C	35.32	12.24	1.91	12.48	1.67	12.26	1.89	12.55	1.60			12.50	1.65	12.69	1.46	12.16	1.99	12.44	1.71
9-101-bldg.	MW-20D	50.15											12.83	1.60	12.87	1.56	12.41	2.02	12.66	1.77
9-101-bldg.	MW-22A	19.20																		
9-101-bldg.	MW-23A	19.50																		
9-101/9-50 bldg.	MW-21A	19.90					12.79	1.66	12.74	1.71	12.05	2.40	12.77	1.68	13.04	1.41	12.93	1.52	12.50	1.95
9-101/9-50 bldg.	MW-21C	34.00					10.53	1.67	10.52	1.68	9.87	2.33	10.50	1.70						
9-64-bldg.	BDC-05-02	25.35	12.08	2.29	12.47	1.90	12.40	1.97	12.25	2.12	11.45	2.92	12.38	1.99	12.56	1.81	12.37	2.00	12.03	2.34
9-64-bldg.	BDC-05-03	25.47	12.28	2.13	12.66	1.75	12.60	1.81	12.47	1.94	11.70	2.71	12.56	1.85	12.82	1.59	12.56	1.85	12.33	2.08
9-64-bldg.	BDC-05-04	25.36	12.40	2.19	12.80	1.79	12.71	1.88	12.57	2.02	11.78	2.81	12.69	1.90	12.86	1.73	12.65	1.94	12.33	2.26
9-64-bldg.	BDC-05-05	24.18	12.13	2.31	12.51	1.93	12.42	2.02	12.22	2.22	11.38	3.06	12.37	2.07	12.53	1.91	12.36	2.08	11.96	2.48
9-64-bldg.	BDC-05-07	25.30	11.81	2.18	12.18	1.81	12.11	1.88	12.02	1.97	11.18	2.81	12.10	1.89	12.28	1.71	12.08	1.91	11.72	2.27
9-64-bldg.	BDC-05-08	27.00																		
9-64-bldg.	BDC-05-09	24.55																		
9-64-bldg.	BDC-05-10	24.57																		
9-64-bldg.	BDC-05-11	24.85																		
9-64-bldg.	BDC-05-12	24.87																		
9-64-bldg.	BDC-05-13	24.78																		
9-64-bldg.	BDC-05-14	24.85																		
9-64-bldg.	BDC-05-15	24.48																		
9-64-bldg.	BDC-05-16	24.89																		
9-64-bldg.	BDC-05-17	24.82																		
9-64-bldg.	BDC-05-18	24.69																		
9-64-bldg.	BDC-05-19	24.85																		
9-64-bldg.	BDC-05-20	24.80																		
9-64-bldg.	BDC-05-21	24.86																		
9-64-bldg.	BDC-05-22	25.01																		
9-64-bldg.	BDC-05-23	25.10																		
9-64-bldg.	BDC-05-24	24.73																		
9-60 bldg.	BDC-101	18.42	12.08	2.39	12.43	2.04	12.34	2.13	12.07	2.40	11.29	3.18	12.30	2.17						
9-60 bldg.	BDC-102	18.83	11.82	2.45	12.24	2.03	12.14	2.13	11.82	2.45	11.05	3.22	12.06	2.21						
9-60 bldg.	BDC-103	18.51	11.72	2.62	12.27	2.07	12.15	2.19	11.81	2.53	11.03	3.31	12.04	2.30						
9-60 bldg.	BDC-104	18.90																		
9-52-bldg.	952MW-1	17.40							11.10	2.38	10.21	3.27	11.25	2.23	11.50	1.98			10.97	2.51
9-52-bldg.	952MW-2	17.54							11.37	2.63	10.46	3.54	11.48	2.52	11.76	2.24			11.25	2.75
9-52-bldg.	952MW-3	17.95							11.40	2.36	10.52	3.24	11.55	2.21	11.85	1.91			11.28	2.48
9-52-bldg. (west)	MW-5	27.43																	10.53	2.42
9-04-bldg. (north)	MW-2	26.98	9.78	2.89									10.03	2.64			10.19	2.48	9.53	3.14
9-04-bldg. (north)	MW-7	18.50	10.72	2.97							9.96	3.73	11.05	2.64						
9-04-bldg. (north)	MW-8	18.50	10.88	3.04							10.08	3.84	11.23	2.69						
9-04-bldg. (north)	MW-9	18.50	10.84								10.08		11.23	-11.23						

Notes:
Depth to Water measurements taken from top of well casing
Top of casing elevation altered in wells MW-6B, MW-6C, MW-9A, MW-9B, and MW-9C by installation of threaded fitting on 6/19/2004.
Top of casing elevation was lowered in well MW-14A by 0.10 ft on 3/17/2005; resurveyed 9/9/05.
Top of casing elevation at wells MS-22A and MW-23A measured 9/9/05.
BDC05-02 was modifed in October 2008 for utilization as an injection well. Elevation changed from 14.37 to 14.41 ft; total depth changed from 25.35 to 25.27.

DEVELOPMENTAL CENTER

GROUNDWATER MONITORING

NOVEMBER 2012

GROUNDWATER SAMPLE COLLECTION FORMS

ANALYTICAL DATA

(DVD)