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GRAND RAPIDS DISTRICT

Golder Associates

November 17, 2011

Project No. 11388545

John A. Heer
Assistant General Counsel
Electrolux Home Products, Inc.
20445 Emerald Parkway, S.W.
Suite 250
Cleveland, OH 44135-0920

**RE: 2011 ANNUAL GROUNDWATER MONITORING REPORT
FORMER WHITE CONSOLIDATED INDUSTRIES – BELDING SITE
100 EAST MAIN STREET, BELDING, MICHIGAN**

Dear Mr. Heer:

As authorized by Electrolux, Golder Associates Inc. (Golder) completed the 2011 annual groundwater monitoring event for the former White Consolidated Industries (WCI) Belding Site (the "Site") on August 18, 2011. The former WCI Belding site is located at 100 East Main Street in Belding, Ionia County, Michigan (Figure 1). The 2011 annual groundwater monitoring event was conducted in general conformance with an approved monitoring plan for the Site and subsequent correspondence from the Michigan Department of Environmental Quality (MDEQ) regarding seasonal variation of annual monitoring events. The findings of the August 2011 annual groundwater sampling event are presented in this report.

BACKGROUND

An approved annual groundwater monitoring plan, prepared for the Site in December 1996, was appended to the *Limited Industrial Remedial Action Plan* (RAP) prepared by the Dragun Corporation of Berkley, Michigan (Dragun) in 1998. According to information in the *2009 Annual Groundwater Monitoring Report* (Soil and Materials Engineers, Inc., August 25, 2009), the MDEQ submitted a letter to Dragun summarizing their review of the Limited Industrial RAP and in that letter suggested that annual monitoring be performed during a different season each year. Annual groundwater monitoring has been conducted in accordance with the 1996 monitoring plan and the MDEQ's requested variation of sampling time since 1999. Soils and Materials Engineers, Inc. completed the 2009 monitoring event during May 2009 and Golder completed the 2010 monitoring event during October 2010. In the 2010 annual groundwater monitoring report (Golder, March 2011), Golder recommended that the 2010 sampling event be scheduled for summer 2011.

2011 ANNUAL GROUNDWATER SAMPLING EVENT

The monitoring network at the Site consists of 12 permanent monitoring wells: MW-1 through MW-11 with shallow (MW-4S) and deep (MW-4D) wells at MW-4. Two monitoring wells, MW-10 and MW-11, are located on the adjoining VFW property. Figure 2 shows the groundwater monitoring well locations. Golder measured static water levels in the wells during the August 18, 2011 sampling event. The flush-mount surface completion for monitoring well MW-5 is missing; this well is filled with sediment above the screened interval and therefore, did not provide reliable static water level data and could not be sampled. Groundwater samples were collected from the remaining 11 monitoring wells and grab samples of surface water were collected from the Flat River at two locations SW1 and SW2 (Figure 2). Golder collected the groundwater samples in accordance with the 1996 monitoring plan and the sampling procedure revisions that comply with MDEQ's Remediation and Redevelopment Division Operational Memorandum No. 2 (RRD OM2), Attachment 5. Golder collected QA/QC samples in accordance with RRD OM2.

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A total of 15 samples (including a field duplicate and trip blank) were submitted to TriMatrix Laboratories, Inc. located in Grand Rapids, Michigan for analysis of volatile organic compounds (VOCs). In addition, groundwater samples from monitoring wells MW-4S, MW-5, MW-6, MW-7, MW-10, MW-11 and surface water sample SW2 were analyzed for the following intrinsic bioremediation indicator parameters:

- Dissolved iron and manganese
- Nitrogen, ammonia
- Nitrogen, Kjeldahl
- Nitrogen, nitrate plus nitrite
- Sulfate and chloride
- Total organic carbon

RESULTS

Well construction details and the 2011 static water levels are summarized on Table 1. As shown on Figure 2, the majority of the wells comprising the monitoring network are located at the groundwater surface water interface (GSI) along the Flat River. The static water elevations on Table 1 were used to plot groundwater contours on Figure 2, which show that the direction of groundwater flow was northeast toward the Flat River on August 18, 2011. The water elevations at MW-4S and MW-4D were 88.09 and 90.16 feet, respectively indicating an upward vertical gradient at MW-4, further confirming groundwater flows toward the Flat River.

The 2011 groundwater analytical results are summarized on Table 2 along with available historical groundwater quality data. The results on Table 2 are color-coded according to the year in which samples were collected: blue for 2011 annual sampling event and yellow for the 2001 through 2010 annual sampling events. Results were compared with generic GSI criteria and industrial drinking water (IDW) criteria (RRD OM1, Attachment 1). As noted in the Table 2 footnotes, the GSI criteria for TCE and Vinyl Chloride are mixing zone-based GSI values presented in the October 27, 1998 RAP for the Site.

Based on our review of historical groundwater data, the 2011 analytical results are consistent with results for the 2001 through 2010 sampling events. The highest VOC concentrations remain at monitoring well MW-6, which is located adjacent to the historical source area (former Catch Basin No. 10). TCE was detected at a concentration of 4,200 µg/L, which is above the IDW criterion (5.0 µg/L) and equal to the mixing zone-based GSI criterion (4,200 µg/L). The *cis*-1,2-Dichloroethene concentration in this well was 210 µg/L which is above the IDW criterion (70 µg/L) but below to the generic GSI criterion (620 µg/L).

Lower concentrations of TCE are present in the groundwater downgradient from the source area and concentrations of TCE degradation by-products (e.g., *cis*-1,2-Dichloroethene and Vinyl Chloride) increase towards the Flat River. These observations are consistent with previous sampling results. TCE was not detected above the laboratory reporting limit (5.0 µg/L in MW-4S and 1.0 µg/L in the remaining wells) in any of the GSI wells during 2011. By contrast, Vinyl Chloride was detected at 160 µg/L in MW-1 and 390 µg/L in MW-4S. These results are above the IDW criterion for Vinyl Chloride (2.0 µg/L) but orders of magnitude below the mixing zone-based GSI criterion (8,000 µg/L) presented in the RAP for the Site.

Previous groundwater sampling events at the Site demonstrated that concentrations of electron receptors for anaerobic degradation (manganese and iron) and chloride increase downgradient from the historical source area suggesting that reduction of chlorinated hydrocarbons at the Site is due to intrinsic bioremediation. The 2011 analytical results for the intrinsic bioremediation indicator parameters are consistent with previous results, supporting the conclusion that anaerobic degradation is continuing.

Overall, groundwater quality at the Site has improved since 2001. Source area concentrations, as represented by groundwater quality at MW-6, have remained relatively stable since 2004. Vinyl Chloride concentrations in the GSI monitoring wells have remained relatively stable and are more than an order of magnitude below the mixing zone-based GSI criterion for Vinyl Chloride (8,000 µg/L).

Surface water samples were collected from the Flat River at two locations, SW1 and SW2 (Figure 2), during the 2011 monitoring event. No VOCs were detected in either sample during the 2011 sampling event.

CLOSING

The next annual groundwater sampling event is tentatively scheduled for spring 2012. Please contact Brad Johnson (517-318-3250) if you have any questions regarding this groundwater monitoring report for the former WCI site in Belding, Michigan.

Sincerely,
GOLDER ASSOCIATES INC.

Bradley S. Johnson, Ph.D.
Senior Scientist

Alistair Macdonald, CPG, LSP
Senior Consultant and Principal

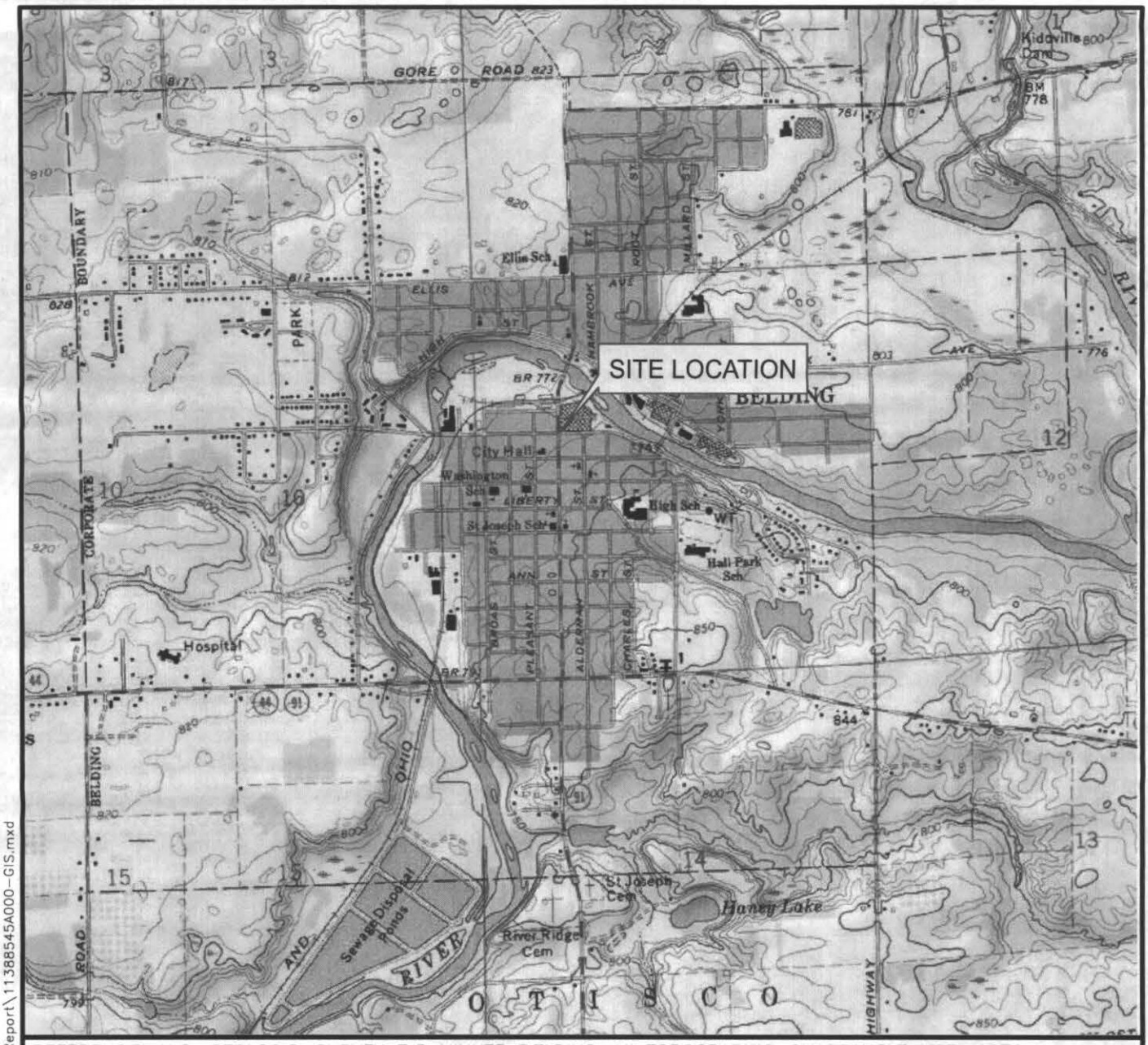
Attachments:

Figure 1	Site Location Map
Figure 2	Site Plan
Table 1	Well Construction Details and Static Water Elevations
Table 2	Summary of Groundwater and Surface Water Analytical Results
Attachment A	TriMatrix Laboratories, Inc. Analytical Report

cc: Douglas Ucci – Quantum Management Group, Inc. (w/ Attachments)

BSJ/APTM/DJU/bsj

FIGURES



REFERENCE: U.S. GEOLOGIC SURVEY 7.5 MINUTE BELDING, MI TOPOGRAPHIC QUADRANGLE MAP, 1972.

2000 1000 0 2000
Feet

Golder Associates
Michigan

SCALE	AS SHOWN
DATE	11/17/11
DESIGN	BJ
GIS	DJC
CHECK	
REVIEW	
FILE No.	11388545A000-GIS
PROJECT No.	113-88545 REV. 0

SITE LOCATION MAP

FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE
100 E. MAIN STREET
BELDING, IONIA COUNTY, MICHIGAN

2011 ANNUAL GROUNDWATER MONITORING REPORT

FIGURE 1

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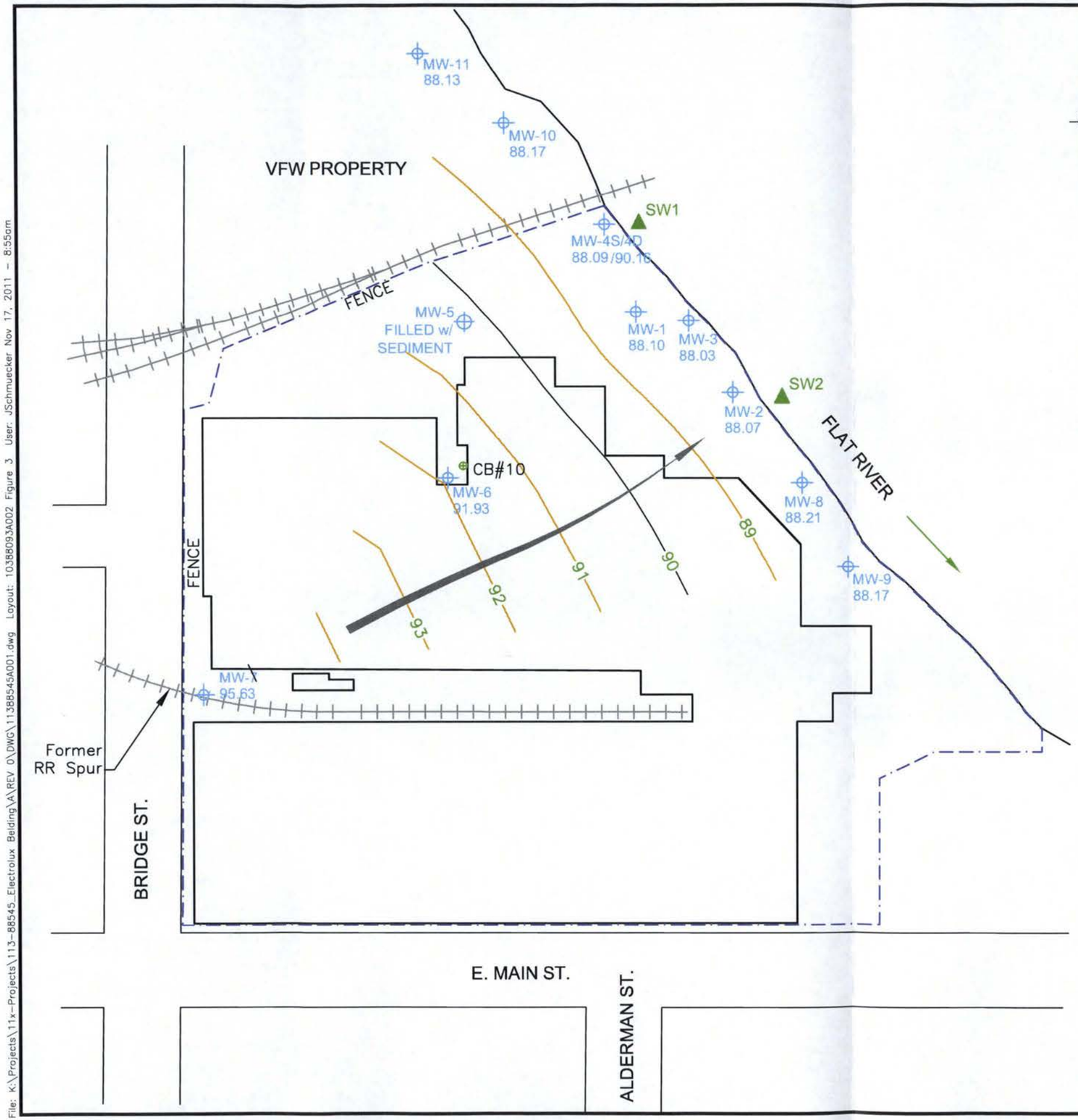

LEGEND

- PROPERTY BOUNDARY (NOTE 1)
- RAILROAD TRACK (NOTE 1)
- MW-1 — MONITOR WELL AND STATIC WATER ELEVATION ON 08/18/11 (NOTE 2)
- CATCH BASIN
- SW1 — SURFACE WATER SAMPLE LOCATION
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES

1. BASE DRAWING ADAPTED FROM "BELDING PRODUCTS PLANT LAYOUT," PREPARED BY FACTORY MUTUAL ENGINEERING ASSOCIATION, DATED 8-16-69.
2. SOME FEATURES ADAPTED FROM "FIGURE 12; DISTRIBUTION OF VOCs IN GROUNDWATER," FROM A LIMITED INDUSTRIAL RAP, PREPARED BY THE DRAGUN CORPORATION, DATED 10-27-98.

80 0 80
SCALE FEET

Golder Associates
Great Lakes

PROJECT
ELECTROLUX 2011 ANNUAL GROUNDWATER MONITORING REPORT
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE
100 E. MAIN STREET
BELDING, IONIA COUNTY, MICHIGAN

TITLE
SITE PLAN

PROJECT No. 113-88545		
FILE No. 113B8545A001		
REV. 0	SCALE AS SHOWN	
DESIGN	JJS	08/18/10
CADD	JJS	11/04/11
CHECK		
REVIEW		

FIGURE 2

File: K:\Projects\11x-Projects\113-88545_Electrolux Belding\A\REV 0\DWG\113B8545A001.dwg Layout: 103B0093A002 Figure 3 User: JSchmuecker Nov 17, 2011 - 8:55am

TABLES

TABLE 1: WELL CONSTRUCTION DETAILS AND STATIC WATER ELEVATIONS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE
BELDING, IONIA COUNTY, MICHIGAN

Monitoring Well	Ground Surface (ft)	Top of Casing (ft)	Top of Screen (ft BGS)	Bottom of Screen (ft BGS)	Screened Interval Elevation (ft)	Measured 8/18/2011		
						Depth to Water (ft BTOC)	Depth to Water (ft BGS)	Water Elev. (ft)
MW1	92.21	91.85	7.0	12.0	85.21 - 80.21	3.70	4.06	88.15
MW2	92.40	94.47	8.0	13.0	84.40 - 79.40	6.40	4.33	88.07
MW3	92.30	94.38	7.0	12.0	85.30 - 80.30	6.35	4.27	88.03
MW4S	93.40	95.70	9.0	14.0	84.40 - 79.40	7.61	5.31	88.09
MW4D	93.00	95.30	17.0	22.0	76.00 - 71.00	5.14	2.84	90.16
MW5	94.65	94.32	9.0	14.0	85.65 - 80.65	cover missing - filled in w/ sediment		
MW6	97.08	96.68	6.0	11.0	91.08 - 86.08	4.75	5.15	91.93
MW7	100.22	99.94	7.0	12.0	93.22 - 88.22	4.31	4.59	95.63
MW8	93.75	93.29	9.0	14.0	84.75 - 79.75	5.08	5.54	88.21
MW9	96.90	96.60	14.0	19.0	82.90 - 77.90	8.43	8.73	88.17
MW10	95.60	97.82	11.0	16.0	84.60 - 79.60	9.65	7.43	88.17
MW11	95.20	97.88	10.0	15.0	85.20 - 80.20	9.75	7.07	88.13

Notes & Abbreviations:

ft - Elevation in feet relative to an arbitray on-site reference elevation (100 ft)
ft BGS - Indicates feet below ground surface
ft BTOC - Indicates feet below Top-of-Casing

TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW1 4/30/01	MW1 10/10/02	MW1 2/25/03	MW1 7/14/04	MW1 4/28/05	MW1 10/26/06	MW1 2/28/07	MW1 7/15/08	MW1 5/6/09	MW1 10/25/10	MW1 8/18/11	MW2 4/30/01	MW2 10/10/02	MW2 2/24/03
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND
Toluene	140	790	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	ND	ND	ND
Chloroethane	ID	1,700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	8.9	ND	1.3
Chloromethane	ID	1,100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND
1,1-Dichloroethane	740	2,500	µg/L	ND	ND	ND	ND	2.3	ND	ND	ND	ND	1.8	2.1	ND	ND	ND
1,1-Dichloroethene	65	7	µg/L	ND	ND	ND	1.6	ND	1.1	ND	ND	ND	<1.0	<1.0	ND	ND	ND
cis-1,2-Dichloroethene	620	70	µg/L	3.4	5.0	2.1	4.2	4.5	4.3	6.0	4.1	3.7	6.0	14	1.9	ND	ND
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND
Tetrachloroethene	45	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND
1,1,1-Trichloroethane	200	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND
Trichloroethene [2]	4,200	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND
Vinyl Chloride [2]	8,000	2	µg/L	**22**	**40**	**28**	**34**	**49**	**71**	**110**	**160**	**96**	**140**	**160**	**10**	ND	ND
Metals and General Chemistry																	
Iron	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity (total)	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Ammonia	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate plus Nitrite	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	1.04	0.88	15.20	2.35	1.70	2.24	1.53	2.10	0.29	0.21	0.00	1.18	1.48	6.20
Eh	NA	NA	mV	-85.0	-98.0	-86.9	-130	-98.0	-96.0	-108	-71.2	-93.0	-65	-56	-96	-118	-100
Conductivity	NA	NA	mS/cm	0.802	0.908	1.065	0.600	0.619	0.935	0.896	0.820	0.677	0.759	0.634	0.809	0.635	0.738
pH	NA	NA	s.u.	7.09	6.86	6.99	7.00	7.16	9.11	8.94	7.07	7.27	7.03	6.82	6.98	6.96	6.92
Temperature	NA	NA	C	10.7	19.8	5.75	18.8	7.94	15.8	6.40	18.0	11.5	18.1	22.26	10.7	17.7	4.15

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW2 7/14/04	MW2 4/28/05	MW2 10/26/06	MW2 2/27/07	MW2 7/16/08	MW2 5/6/09	MW2 10/25/10	MW2 8/18/11	MW3 4/30/01	MW3 10/10/02	MW3 2/24/03	MW3 7/14/04	MW3 4/28/05	MW3 10/26/06
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
Toluene	140	790	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	ND	ND	ND	ND	<5.0	<5.0	ND	ND	ND	ND	ND	ND
Chloroethane	ID	1,700	µg/L	7.0	6.1	ND	ND	ND	ND	<1.0	3.1	110	ND	110	110	240	130
Chloromethane	ID	1,100	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	740	2,500	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	65	7	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	620	70	µg/L	1.1	1.8	ND	ND	ND	1.3	<1.0	1.7	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
Tetrachloroethene	45	5	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	200	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
Trichloroethene [2]	4,200	5	µg/L	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND
Vinyl Chloride [2]	8,000	2	µg/L	**3.3**	**8.1**	ND	ND	ND	**8.9**	<1.0	**9.4**	ND	ND	ND	ND	ND	ND
Metals and General Chemistry																	
Iron	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Alkalinity (total)	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Ammonia	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrate plus Nitrite	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sulfate	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total Organic Carbon	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	3.21	1.46	2.73	8.58	2.40	0.30	0.34	0.00	2.29	0.92	8.84	2.22	1.29	1.35
Eh	NA	NA	mV	-133	-110	-104	-109	-93.6	-100	-113	-68	-98.0	-112	-96.0	-133	-110.1	-168.1
Conductivity	NA	NA	mS/cm	0.463	0.959	0.803	0.782	0.686	0.719	0.681	0.610	0.702	0.560	0.670	0.382	0.654	0.641
pH	NA	NA	s.u.	7.11	6.86	9.27	9.96	6.98	7.05	7.03	6.82	6.90	6.85	6.88	7.07	6.95	10.2
Temperature	NA	NA	C	16.1	7.77	13.9	5.69	16.6	11.9	16.1	17.8	12.6	17.3	5.43	15.3	8.28	15.0

Golder Associates

TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW3 2/27/07	MW3 7/15/08	DUP 7/15/08	MW3 5/6/09	MW3 10/25/10	MW3 8/18/11	MW4S 4/30/01	MW4S 10/10/02	MW4S 2/25/03	MW4S 7/14/04	MW4S 4/28/05	DUP 4/28/05	MW4S 10/26/06	MW4S 2/27/07
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	ND	ND	ND	<1.0	<1.0	1.8	1.9	1.3	ND	ND	ND	1.5	1.3
Toluene	140	790	µg/L	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	ND	ND	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ID	1,700	µg/L	150	60	58	66	41	50	4.5	ND	ND	ND	ND	ND	ND	5.7
Chloromethane	ID	1,100	µg/L	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	740	2,500	µg/L	ND	ND	ND	ND	<1.0	<1.0	5.7	1.5	3.2	7.9	3.8	3.9	2.0	1.6
1,1-Dichloroethene	65	7	µg/L	ND	ND	ND	ND	<1.0	<1.0	**23**	5.2	**11**	**11**	**11**	**11**	3.7	5.1
cis-1,2-Dichloroethene	620	70	µg/L	ND	ND	ND	ND	<1.0	<1.0	**780**	**560**	**380**	**360**	**420**	**400**	**280**	**230**
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	ND	ND	ND	<1.0	<1.0	2.0	1.4	1.5	1.4	19	14	1.8	ND
Tetrachloroethene	45	5	µg/L	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	200	µg/L	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene [2]	4,200	5	µg/L	ND	ND	ND	ND	<1.0	<1.0	1.2	ND	ND	ND	1.1	1.0	ND	ND
Vinyl Chloride [2]	8,000	2	µg/L	ND	ND	ND	ND	<1.0	<1.0	**1,000**	**1,400**	**680**	**580**	**340**	**370**	**99**	**780**
Metals and General Chemistry																	
Iron	NA	NA	µg/L	--	--	--	--	--	--	9,100	9,800	8,500	7,700	6,700	--	8,700	8,300
Manganese	NA	NA	µg/L	--	--	--	--	--	--	930	1,000	1,300	890	700	--	970	920
Alkalinity (total)	NA	NA	µg/L	--	--	--	--	--	--	290	360	330	330	250	--	380	380
Chloride	NA	NA	mg/L	--	--	--	--	--	--	170	130	120	98	98	--	100	72
Nitrogen, Ammonia	NA	NA	mg/L	--	--	--	--	--	--	1.20	1.20	0.86	1.10	0.85	--	0.94	0.74
Nitrate plus Nitrite	NA	NA	mg/L	--	--	--	--	--	--	ND	ND	ND	ND	ND	--	0.027	ND
Nitrogen, Kjeldahl	NA	NA	mg/L	--	--	--	--	--	--	1.50	0.70	1.20	1.20	0.67	--	1.30	1.10
Sulfate	NA	NA	mg/L	--	--	--	--	--	--	22	15	18	20	20	--	16	10
Total Organic Carbon	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	5.48	1.70	1.70	0.67	0.36	0.00	2.29	0.95	9.54	2.48	2.69	--	7.02	3.58
Eh	NA	NA	mV	-108.8	-86.7	-86.7	-99.0	-110	-128	-57.0	-86.0	-77.5	-97.5	-68.6	--	-71.4	-73.2
Conductivity	NA	NA	mS/cm	0.616	0.588	0.588	0.646	0.556	0.479	1.05	0.902	1.05	0.545	0.771	--	1.06	0.985
pH	NA	NA	s.u.	9.73	6.94	6.94	7.12	7.11	6.98	6.96	6.78	6.83	6.97	7.16	--	8.10	9.39
Temperature	NA	NA	C	6.5	16.9	16.9	11.6	16.8	17.6	11.4	17.1	7.19	14.2	8.12	--	15.6	6.94

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW4S 7/15/08	MW4S 5/7/09	MW4S 10/25/10	DUP 10/25/10	MW4S 8/18/11	MW4D 4/30/01	MW4D 10/10/02	MW4D 2/24/03	MW4D 7/14/04	MW4D 4/28/05	MW4D 10/26/06	DUP 10/26/06	MW4D 2/27/07	MW4D 7/15/08
Volatile Organic Compounds																	
Benzene	200	5	µg/L	1.1	ND	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	140	790	µg/L	ND	ND	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	<25	<25	<25	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ID	1,700	µg/L	ND	ND	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ID	1,100	µg/L	ND	ND	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	740	2,500	µg/L	1.9	4.5	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	65	7	µg/L	5.5	12	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	620	70	µg/L	**290**	**330**	**160**	**160**	**260**	ND	ND	ND	ND	ND	15	ND	ND	ND
trans-1,2-Dichloroethene	1,500	100	µg/L	11	ND	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	45	5	µg/L	ND	ND	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	200	µg/L	ND	ND	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene [2]	4,200	5	µg/L	ND	3.5	<5.0	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride [2]	8,000	2	µg/L	**740**	**380**	**590**	**580**	**390**	ND	ND	ND	ND	ND	**34**	ND	ND	ND
Metals and General Chemistry																	
Iron	NA	NA	µg/L	6,600	5,600	7,800	7,800	8,200	--	--	--	--	--	--	--	--	--
Manganese	NA	NA	µg/L	770	750	800	830	590	--	--	--	--	--	--	--	--	--
Alkalinity (total)	NA	NA	µg/L	220	220	--	--	--	--	--	--	--	--	--	--	--	--
Chloride	NA	NA	mg/L	110	78	84	85	56	--	--	--	--	--	--	--	--	--
Nitrogen, Ammonia	NA	NA	mg/L	0.78	0.49	0.63	0.64	0.49	--	--	--	--	--	--	--	--	--
Nitrate plus Nitrite	NA	NA	mg/L	ND	ND	<0.050	<0.050	0.49	--	--	--	--	--	--	--	--	--
Nitrogen, Kjeldahl	NA	NA	mg/L	0.90	0.60	0.76	0.81	0.71	--	--	--	--	--	--	--	--	--
Sulfate	NA	NA	mg/L	21	17	14	14	18	--	--	--	--	--	--	--	--	--
Total Organic Carbon	NA	NA	mg/L	--	--	5.0	4.9	4.8	--	--	--	--	--	--	--	--	--
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	2.80	0.13	0.50	0.50	0.00	2.27	1.68	6.87	2.17	1.52	4.90	4.90	6.51	5.20
Eh	NA	NA	*mV*	*-46.5*	*-30.0*	*-91*	*-91*	*-69*	*-71.0*	*-122.0*	*-25.0*	*-129.9*	*-93.5*	*-80.1*	*-80.1*	*-47.8*	*-41.2*
Conductivity	NA	NA	mS/cm	0.860	0.788	0.861	0.861	0.748	0.389	0.355	0.386	0.250	0.396	0.407	0.407	0.404	0.367
pH	NA	NA	s.u.	6.91	6.96	6.87	6.87	6.76	7.47	7.48	7.50	7.73	7.49	9.69	9.69	9.27	7.65
Temperature	NA	NA	C	16.3	11.0	17.5	17.5	17.7	11.7	16.1	6.42	13.3	8.96	14.0	14.0	9.12	14.5

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW4D 5/6/09	MW4D 10/25/10	MW4D 8/18/11	MW5 4/30/01	MW5 10/10/02	MW5 2/25/03	MW5 7/14/04	MW5 4/28/05	MW5 10/25/06	MW5 2/27/07	MW5 7/15/08	MW5 5/7/09	MW5 10/25/10	MW5 8/18/11
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	Well purged dry -could not sample	ND	ND	Well filled w/ sediment above screened interval, could not sample	Well filled w/ sediment above screened interval, could not sample
Toluene	140	790	µg/L	ND	<1.0	<1.0	ND	ND	ND	18	ND	ND		ND	ND		
2-Butanone (MEK)	2,200	38,000	µg/L	ND	<5.0	<5.0	ND	ND	ND	ND	ND	ND		ND	ND		
Chloroethane	ID	1,700	µg/L	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND	ND		
Chloromethane	ID	1,100	µg/L	ND	<1.0	<1.0	6.0	ND	ND	ND	ND	ND		ND	ND		
1,1-Dichloroethane	740	2,500	µg/L	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND	ND		
1,1-Dichloroethene	65	7	µg/L	ND	<1.0	<1.0	1.3	ND	ND	ND	ND	ND		ND	ND		
cis-1,2-Dichloroethene	620	70	µg/L	ND	<1.0	<1.0	52	4.9	ND	ND	ND	ND		ND	1.0		
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND	ND		
Tetrachloroethene	45	5	µg/L	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND	ND		
1,1,1-Trichloroethane	200	200	µg/L	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND	ND		
1,1,2-Trichloroethane	330	5	µg/L	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND	ND		
Trichloroethene [2]	4,200	5	µg/L	ND	<1.0	<1.0	**76**	**5.9**	ND	ND	ND	**12**		ND	ND		
Vinyl Chloride [2]	8,000	2	µg/L	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND	ND		
Metals and General Chemistry																	
Iron	NA	NA	µg/L	--	--	--	3,100	17,000	540	7,200	2,000	ND		2,000	2,500	No sample as noted above	No sample as noted above
Manganese	NA	NA	µg/L	--	--	--	76	47	69	180	120	50		110	280		
Alkalinity (total)	NA	NA	µg/L	--	--	--	320	300	300	86	180	48		41	160		
Chloride	NA	NA	mg/L	--	--	--	1,500	68	710	160	410	ND		ND	320		
Nitrogen, Ammonia	NA	NA	mg/L	--	--	--	0.68	0.24	0.12	1.50	0.47	0.13		1.00	0.82		
Nitrate plus Nitrite	NA	NA	mg/L	--	--	--	ND	0.12	0.33	0.48	ND	0.13		ND	ND		
Nitrogen, Kjeldahl	NA	NA	mg/L	--	--	--	0.42	0.41	0.15	2.0	0.50	0.40		2.0	0.90		
Sulfate	NA	NA	mg/L	--	--	--	57	51	53	11	33	4.3		3.9	24		
Total Organic Carbon	NA	NA	mg/L	--	--	--	1.6	69	5.6	11	3.0	1.6		13	2.1		
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	0.80	1.23	0.06	1.40	1.29	7.01	1.59	2.83	4.76	13.3	--	--	No sample	No sample
Eh	NA	NA	mV	-45.0	-79	-103	-43	-61	16.2	-102.7	-16.7	18.8	-9.5	--	--		
Conductivity	NA	NA	mS/cm	0.404	0.388	0.390	0.003	2.302	2.797	0.363	1.424	0.103	0.649	--	--		
pH	NA	NA	s.u.	7.72	7.73	7.56	7.10	6.91	6.01	7.00	6.96	8.96	9.81	--	--		
Temperature	NA	NA	C	13.3	16.8	16.6	12.7	19	5.68	18.7	9.33	14.2	5.31	--	--		

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW6 4/30/01	MW6 10/10/02	MW6 2/25/03	MW6 7/14/04	MW6 4/28/05	MW6 10/25/06	MW6 2/27/07	MW6 7/16/08	DUP 7/16/08	MW6 5/7/09	MW6 10/25/10	MW6 8/18/11	MW7 4/30/01	MW7 10/10/02
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<25	<25	ND	ND
Toluene	140	790	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<25	<25	ND	ND
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<120	<120	ND	ND
Chloroethane	ID	1,700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<25	<25	ND	ND
Chloromethane	ID	1,100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<25	<25	ND	ND
1,1-Dichloroethane	740	2,500	µg/L	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	<25	<25	ND	ND
1,1-Dichloroethene	65	7	µg/L	ND	ND	2.6	1.2	ND	1.9	ND	ND	ND	ND	<25	<25	ND	ND
cis-1,2-Dichloroethene	620	70	µg/L	ND	16	**85**	41	9.7	26	25	62	64	54	**230**	**210**	ND	ND
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	ND	5.2	2.6	ND	ND	1.1	6.0	5.3	ND	<25	<25	ND	ND
Tetrachloroethene	45	5	µg/L	ND	**15**	**22**	**18**	**8.3**	7.2	**7.6**	4.9	5.6	**7.0**	<25	<25	ND	ND
1,1,1-Trichloroethane	200	200	µg/L	ND	24	49	25	7.6	5.8	5.6	6.5	6.5	4.6	<25	<25	ND	ND
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<25	<25	ND	ND
Trichloroethene [2]	4,200	5	µg/L	**11,000**	**6,800**	**8,900**	**2,000**	**2,500**	**2,900**	**2,500**	**2,000**	**2,000**	**960**	**3,800**	**4,200**	ND	ND
Vinyl Chloride [2]	8,000	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<25	<25	ND	ND
Metals and General Chemistry																	
Iron	NA	NA	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<10	21	--	--
Manganese	NA	NA	µg/L	ND	46	ND	ND	ND	ND	ND	ND	ND	ND	<10	<10	--	--
Alkalinity (total)	NA	NA	µg/L	150	120	140	130	120	130	110	110	120	110	--	--	170	150
Chloride	NA	NA	mg/L	37	17	12	14	19	15	35	17	16	ND	3.5	4.8	15	ND
Nitrogen, Ammonia	NA	NA	mg/L	0.130	0.073	ND	0.075	0.067	ND	ND	ND	ND	ND	<0.050	<0.050	ND	ND
Nitrate plus Nitrite	NA	NA	mg/L	4.3	2.6	2.6	4.4	6.8	3.8	4.8	3.7	3.7	5.3	3.9	4.7	2.9	1.3
Nitrogen, Kjeldahl	NA	NA	mg/L	ND	ND	ND	0.2	ND	0.3	0.2	0.3	0.3	0.2	<0.50	<0.50	ND	ND
Sulfate	NA	NA	mg/L	20	18	16	29	33	20	23	37	37	32	17	27	18	8.8
Total Organic Carbon	NA	NA	mg/L	1.4	34	4.6	2.6	3.1	2.2	1.8	2.2	2.1	2.1	1.8	1.9	ND	27
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	3.61	1.27	9.31	2.74	6.30	1.75	21.7	8.90	8.90	8.81	1.08	0.38	5.46	4.16
Eh	NA	NA	mV	-27	-17.3	40.6	30.8	-16.7	133	215	60.4	60.4	233	57.9	69.9	209	38.2
Conductivity	NA	NA	mS/cm	0.445	0.418	0.400	0.314	0.471	0.374	0.437	0.389	0.389	0.374	0.373	0.363	0.368	0.266
pH	NA	NA	s.u.	7.45	7.02	6.15	7.35	7.35	8.95	9.94	6.74	6.74	6.44	6.87	6.68	8.33	7.75
Temperature	NA	NA	C	13.2	17	4.63	15.3	8.55	11.1	5.51	24.3	24.3	12.0	14.3	18.2	9.1	17.5

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW7 2/25/03	MW7 7/14/04	MW7 4/28/05	MW7 10/25/06	MW7 2/28/07	MW7 7/16/08	MW7 5/7/09	MW7 10/26/10	MW7 8/18/11	MW8 4/30/01	MW8 10/10/02	MW8 2/24/03	MW8 7/14/04	MW8 4/28/05
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
Toluene	140	790	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	ND	ND	ND	ND	ND
Chloroethane	ID	1,700	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
Chloromethane	ID	1,100	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
1,1-Dichloroethane	740	2,500	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	4.0
1,1-Dichloroethene	65	7	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	620	70	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	3.1	3.3	3.3	3.1	5.7
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
Tetrachloroethene	45	5	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	200	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND
Trichloroethene [2]	4,200	5	µg/L	ND	ND	ND	ND	ND	2.1	ND	<1.0	<1.0	ND	ND	ND	ND	ND
Vinyl Chloride [2]	8,000	2	µg/L	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	**33**	**42**	**44**	**35**	**16**
Metals and General Chemistry																	
Iron	NA	NA	µg/L	–	–	–	–	–	–	160	<10	<10	–	–	–	–	–
Manganese	NA	NA	µg/L	–	–	–	–	–	–	–	<10	<10	–	–	–	–	–
Alkalinity (total)	NA	NA	µg/L	190	170	130	180	190	210	210	–	–	–	–	–	–	–
Chloride	NA	NA	mg/L	ND	12	21	ND	ND	31	11	17	9.0	–	–	–	–	–
Nitrogen, Ammonia	NA	NA	mg/L	ND	0.61	0.68	0.03	0.03	ND	ND	<0.050	<0.050	–	–	–	–	–
Nitrate plus Nitrite	NA	NA	mg/L	2.7	0.90	4.2	0.97	0.69	1.3	2.1	0.66	0.98	–	–	–	–	–
Nitrogen, Kjeldahl	NA	NA	mg/L	ND	ND	ND	0.30	0.20	0.20	0.20	<0.50	<0.50	–	–	–	–	–
Sulfate	NA	NA	mg/L	16	10	9.2	8.4	7.1	10	9.0	10	12	–	–	–	–	–
Total Organic Carbon	NA	NA	mg/L	5.7	2.0	2.2	1.7	1.5	1.3	1.3	0.95	1.3	–	–	–	–	–
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	12.5	5.31	9.13	9.09	5.92	5.80	9.87	5.12	4.85	1.36	0.87	6.18	2.63	3.05
Eh	NA	NA	mV	-16.8	21.5	24.2	48.3	32.9	23.8	197	44.6	106	-82	-79	-52.4	-100	-55.8
Conductivity	NA	NA	mS/cm	0.428	0.273	0.362	0.365	0.371	0.498	0.470	0.539	0.487	0.775	0.697	0.787	0.514	0.713
pH	NA	NA	s.u.	7.60	7.83	7.96	9.88	9.14	7.69	7.52	7.53	7.37	7.12	6.99	6.90	7.11	7.03
Temperature	NA	NA	C	5.05	15.8	8.09	2.92	6.19	16.3	9.62	15.7	20.5	11.7	16	6.18	15	7.56

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW8 10/26/06	MW8 2/28/07	MW8 7/15/08	MW8 5/6/09	MW8 10/25/10	MW8 8/18/11	MW9 4/30/01	MW9 10/10/02	MW9 2/24/03	MW9 7/14/04	MW9 4/28/05	MW9 10/25/06	MW9 2/28/07	MW9 7/15/08
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	Was not sampled due to access limitation	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	Was not sampled due to access limitation	ND
Toluene	140	790	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
2-Butanone (MEK)	2,200	38,000	µg/L	ND		ND	ND	<5.0	<5.0	ND	ND	ND	ND	ND	ND		ND
Chloroethane	ID	1,700	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
Chloromethane	ID	1,100	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
1,1-Dichloroethane	740	2,500	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
1,1-Dichloroethene	65	7	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
cis-1,2-Dichloroethene	620	70	µg/L	3.6		2.8	2.6	1.8	3.7	ND	1.2	ND	ND	ND	ND		ND
trans-1,2-Dichloroethene	1,500	100	µg/L	ND		1.3	1.1	1.1	1.2	ND	ND	ND	ND	ND	ND		ND
Tetrachloroethene	45	5	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
1,1,1-Trichloroethane	200	200	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
1,1,2-Trichloroethane	330	5	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
Trichloroethene [2]	4,200	5	µg/L	ND		ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND		ND
Vinyl Chloride [2]	8,000	2	µg/L	**30**		**37**	**26**	**31**	**23**	ND	1.5	ND	ND	ND	ND		ND
Metals and General Chemistry																	
Iron	NA	NA	µg/L	--		--	--	--	--	--	--	--	--	--	--		--
Manganese	NA	NA	µg/L	--		--	--	--	--	--	--	--	--	--	--		--
Alkalinity (total)	NA	NA	µg/L	--		--	--	--	--	--	--	--	--	--	--		--
Chloride	NA	NA	mg/L	--		--	--	--	--	--	--	--	--	--	--		--
Nitrogen, Ammonia	NA	NA	mg/L	--		--	--	--	--	--	--	--	--	--	--		--
Nitrate plus Nitrite	NA	NA	mg/L	--		--	--	--	--	--	--	--	--	--	--		--
Nitrogen, Kjeldahl	NA	NA	mg/L	--		--	--	--	--	--	--	--	--	--	--		--
Sulfate	NA	NA	mg/L	--		--	--	--	--	--	--	--	--	--	--		--
Total Organic Carbon	NA	NA	mg/L	--		--	--	--	--	--	--	--	--	--	--		--
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	2.02		2.80	0.24	0.49	0.00	2.87	1.45	5.52	1.92	1.89	0.75		4.60
Eh	NA	NA	mV	-44		-47.3	-42	-103	-60.2	-112	-90.0	21.6	-113.5	-74.7	-88.2		-112.9
Conductivity	NA	NA	mS/cm	0.885		0.771	0.804	0.801	0.756	0.623	0.516	0.655	0.413	0.599	0.375		0.533
pH	NA	NA	s.u.	10.0		6.91	7.09	6.98	6.92	7.23	7.07	7.11	7.12	7.12	10.2		7.35
Temperature	NA	NA	C	13.5		15.7	10.3	14.7	16.8	14.7	16.5	8.35	14.6	8.23	14.8		14.4

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW9 5/6/09	DUP 5/6/09	MW9 10/25/10	MW9 8/18/11	MW10 4/30/01	MW10 10/10/02	MW10 2/25/03	MW10 7/14/04	MW10 4/28/05	MW10 10/26/06	MW10 2/28/07	MW10 7/16/08	MW10 5/7/09	MW10 10/26/10
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
Toluene	140	790	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0
Chloroethane	ID	1,700	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
Chloromethane	ID	1,100	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
1,1-Dichloroethane	740	2,500	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
1,1-Dichloroethene	65	7	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
cis-1,2-Dichloroethene	620	70	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
Tetrachloroethene	45	5	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
1,1,1-Trichloroethane	200	200	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
Trichloroethene [2]	4,200	5	µg/L	ND	ND	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0
Vinyl Chloride [2]	8,000	2	µg/L	ND	ND	<1.0	1.2	ND	ND	ND	1.7	ND	ND	ND	ND	ND	<1.0
Metals and General Chemistry																	
Iron	NA	NA	µg/L	--	--	--	--	1,700	1,900	1,600	1,900	2,200	1,600	3,200	1,900	2,500	2,400
Manganese	NA	NA	µg/L	--	--	--	--	410	500	610	560	430	410	440	530	570	500
Alkalinity (total)	NA	NA	µg/L	--	--	--	--	410	470	510	430	420	1,000	480	420	400	--
Chloride	NA	NA	mg/L	--	--	--	--	99	200	150	300	150	210	300	390	380	300
Nitrogen, Ammonia	NA	NA	mg/L	--	--	--	--	0.98	0.76	0.98	1.1	0.89	0.67	0.79	1.1	0.69	0.68
Nitrate plus Nitrite	NA	NA	mg/L	--	--	--	--	ND	ND	0.024	ND	ND	0.200	ND	ND	ND	<0.050
Nitrogen, Kjeldahl	NA	NA	mg/L	--	--	--	--	0.98	0.87	1.2	1.1	0.56	0.90	0.90	3.40	0.90	0.74
Sulfate	NA	NA	mg/L	--	--	--	--	3.0	1.0	ND	17	1.9	1.3	4.5	2.0	10	<1.0
Total Organic Carbon	NA	NA	mg/L	--	--	--	--	3.9	86	8.2	5.8	3.8	3.3	3.5	4.2	5.0	2.7
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	0.28	0.28	0.96	0.75	0.86	1.73	10.04	2.07	2.10	0.32	1.26	3.10	0.53	0.45
Eh	NA	NA	mV	-64.0	-64.0	-96.7	-70.9	-76.0	-81.0	-48.3	-95.5	-89.4	-79.8	-82.9	-63.1	-42.0	-71.1
Conductivity	NA	NA	mS/cm	0.570	0.570	0.467	0.720	0.998	1.21	1.35	0.886	1.28	1.57	1.44	1.71	1.95	1.65
pH	NA	NA	s.u.	7.37	7.37	7.20	7.06	7.07	6.97	6.83	7.02	7.05	8.11	8.33	7.06	7.01	7.00
Temperature	NA	NA	C	11.8	11.8	15.5	15.2	11.9	15.5	9.04	14.2	9.43	13.2	9.08	13.9	14.3	14.4

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	MW10 8/18/11	DUP1 8/18/11	MW11 4/30/01	MW11 10/10/02	MW11 2/25/03	MW11 7/14/04	MW11 4/28/05	MW11 10/26/06	MW11 2/28/07	MW11 7/16/08	MW11 5/7/09	MW11 10/26/10	MW11 8/18/11	SW1 4/30/01
Volatile Organic Compounds																	
Benzene	200	5	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
Toluene	140	790	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
2-Butanone (MEK)	2,200	38,000	µg/L	<5.0	<5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	ND
Chloroethane	ID	1,700	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
Chloromethane	ID	1,100	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
1,1-Dichloroethane	740	2,500	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
1,1-Dichloroethene	65	7	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
cis-1,2-Dichloroethene	620	70	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
trans-1,2-Dichloroethene	1,500	100	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
Tetrachloroethene	45	5	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
1,1,1-Trichloroethane	200	200	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
1,1,2-Trichloroethane	330	5	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
Trichloroethene [2]	4,200	5	µg/L	<1.0	<1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
Vinyl Chloride [2]	8,000	2	µg/L	1.0	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND
Metals and General Chemistry																	
Iron	NA	NA	µg/L	1,500	1,500	20,000	17,000	1,900	23,000	26,000	26,000	22,000	25,000	29,000	23,000	23,000	--
Manganese	NA	NA	µg/L	370	380	2,300	2,500	3,500	3,100	2,800	3,200	2,800	3,200	3,200	3,100	2,500	--
Alkalinity (total)	NA	NA	µg/L	--	--	680	770	620	780	650	3,600	670	670	740	--	--	--
Chloride	NA	NA	mg/L	260	260	310	250	260	260	260	330	470	310	330	340	320	--
Nitrogen, Ammonia	NA	NA	mg/L	0.67	0.68	10	8.2	9.7	26	22	18	11	13	21	12	15	--
Nitrate plus Nitrite	NA	NA	mg/L	<0.050	<0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.050	<0.050	--
Nitrogen, Kjeldahl	NA	NA	mg/L	0.82	0.79	12	9.5	8.9	22	21	18	13	15	19	14	17	--
Sulfate	NA	NA	mg/L	8.3	8.5	4.0	ND	ND	1.0	ND	ND	ND	ND	ND	<1.0	<1.0	--
Total Organic Carbon	NA	NA	mg/L	2.5	2.6	10	140	20	13	11	11	9.5	9.5	9.3	7.3	11.0	--
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	0.00	--	1.54	1.00	8.03	2.10	1.39	0.45	1.41	2.20	0.39	0.55	0.00	--
Eh	NA	NA	mV	-54.1	--	-88	-86	-72	-120.7	-98	-112.6	-90.3	-74.2	-84	-91	-70.6	--
Conductivity	NA	NA	mS/cm	1.71	--	2.03	1.65	1.91	1.15	2.07	2.30	2.11	1.92	2.41	2.04	2.31	--
pH	NA	NA	s.u.	6.92	--	6.33	6.68	6.63	6.81	6.59	7.73	8.68	6.70	6.73	6.76	6.62	--
Temperature	NA	NA	C	14.7	--	11.2	18.7	9.52	16.78	9.42	13.32	6.25	16.8	11.32	16.0	16.8	--

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	SW1 10/10/02	SW1 2/24/03	SW1 7/14/04	SW1 4/28/05	SW1 10/25/06	SW1 2/27/07	SW1 7/16/08	SW1 5/6/09	SW1 10/25/10	SW1 8/18/11	SW2 4/30/01	SW2 10/10/02	SW2 2/24/03	SW2 7/14/04
Volatile Organic Compounds																	
Benzene	200	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
Toluene	140	790	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<5.0	<5.0	ND	ND	ND	ND
Chloroethane	ID	1,700	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
Chloromethane	ID	1,100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
1,1-Dichloroethane	740	2,500	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
1,1-Dichloroethene	65	7	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
cis-1,2-Dichloroethene	620	70	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
Tetrachloroethene	45	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
1,1,1-Trichloroethane	200	200	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
Trichloroethene [2]	4,200	5	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
Vinyl Chloride [2]	8,000	2	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	<1.0	<1.0	ND	ND	ND	ND
Metals and General Chemistry																	
Iron	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	ND	ND	190	ND
Manganese	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	26	26	40	25
Alkalinity (total)	NA	NA	µg/L	--	--	--	--	--	--	--	--	--	--	200	200	220	180
Chloride	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	19	21	22	18
Nitrogen, Ammonia	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	0.053	ND	0.150	0.880
Nitrate plus Nitrite	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	ND	0.840	1.73	0.790
Nitrogen, Kjeldahl	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	0.680	0.760	0.570	0.900
Sulfate	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	24	28	33	24
Total Organic Carbon	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	6.6	34.0	6.9	9.1
Field Parameters																	
Dissolved Oxygen	NA	NA	mg/L	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Eh	NA	NA	mV	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Conductivity	NA	NA	mS/cm	--	--	--	--	--	--	--	--	--	--	--	--	--	--
pH	NA	NA	s.u.	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Temperature	NA	NA	C	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS
FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

Parameter	GSI[1]	IDW[3]	units	SW2 4/28/05	SW2 10/25/06	SW2 2/27/07	SW2 7/16/08	SW2 5/6/09	SW2 10/25/10	SW2 8/18/11
Volatile Organic Compounds										
Benzene	200	5	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
Toluene	140	790	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
2-Butanone (MEK)	2,200	38,000	µg/L	ND	ND	ND	ND	ND	<5.0	<5.0
Chloroethane	ID	1,700	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
Chloromethane	ID	1,100	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
1,1-Dichloroethane	740	2,500	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
1,1-Dichloroethene	65	7	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
cis-1,2-Dichloroethene	620	70	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
trans-1,2-Dichloroethene	1,500	100	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
Tetrachloroethene	45	5	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
1,1,1-Trichloroethane	200	200	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
1,1,2-Trichloroethane	330	5	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
Trichloroethene [2]	4,200	5	µg/L	ND	ND	ND	ND	ND	3.5	<1.0
Vinyl Chloride [2]	8,000	2	µg/L	ND	ND	ND	ND	ND	<1.0	<1.0
Metals and General Chemistry										
Iron	NA	NA	µg/L	ND	ND	ND	ND	ND	130	160
Manganese	NA	NA	µg/L	ND	24	23	ND	ND	30	33
Alkalinity (total)	NA	NA	µg/L	190	190	210	210	180	--	--
Chloride	NA	NA	mg/L	18	20	24	28	15	25	24
Nitrogen, Ammonia	NA	NA	mg/L	1.30	0.029	0.073	0.058	0.036	<0.050	<0.050
Nitrate plus Nitrite	NA	NA	mg/L	1.10	0.766	1.50	0.880	0.440	0.850	0.74
Nitrogen, Kjeldahl	NA	NA	mg/L	0.470	1.00	0.700	0.700	0.800	0.630	0.65
Sulfate	NA	NA	mg/L	23	23	24	29	14	28	26
Total Organic Carbon	NA	NA	mg/L	7.3	8.8	5.0	4.9	8.5	5.3	6.2
Field Parameters										
Dissolved Oxygen	NA	NA	mg/L	--	--	--	--	--	--	--
Eh	NA	NA	mV	--	--	--	--	--	--	--
Conductivity	NA	NA	mS/cm	--	--	--	--	--	--	--
pH	NA	NA	s.u.	--	--	--	--	--	--	--
Temperature	NA	NA	C	--	--	--	--	--	--	--

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TABLE 2: SUMMARY OF GROUNDWATER AND SURFACE WATER ANALYTICAL RESULTS FORMER WHITE CONSOLIDATED INDUSTRIES - BELDING SITE

NOTES:

[1] GSI = Groundwater surface water interface criteria (RRD Op Memo No. 1, Attachment 1, January 23, 2006).
[2] For Trichloroethene and Vinyl Chloride, the GSI criteria are mixing zone-based GSI values presented in the October 27, 1998 RAP for the site.
[3] IDW - Industrial drinking water criteria (RRD Op Memo No. 1, Attachment 1, January 23, 2006).
[4] For both the GSI and IDW criteria, "NA" indicates criterion not avialable and "ID" indicates inadequate data to develop a criterion.
[5] ND = Non detect (laboratory reporting limits unknown for pre-2010 monitoring events).
[6] "--" indicates no sample collected for the designated analysis.
[7] Bold data exceed GSI and/or IDW criteria.

ATTACHMENT A

TRIMATRIX LABORATORIES

September 02, 2011

Golder Associates, Inc. - MI
Attn: Mr. Brad Johnson
15851 S. US 27, Suite 50
Lansing, MI 48906

Project: Belding Groundwater Monitoring

Dear Mr. Brad Johnson,

Enclosed is a copy of the laboratory report, comprised of the following work order(s), for test samples received by TriMatrix Laboratories:

Work Order	Received	Description
1108342	08/19/2011	Laboratory Services

This report relates only to the sample(s), as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC). Any qualifications of results, including sample acceptance requirements, are explained in the Statement of Data Qualifications.

Estimates of analytical uncertainties for the test results contained within this report are available upon request.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Lisa M. Harvey
Project Chemist

Enclosures(s)

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-1**	Sampled:	08/18/11 09:50
Lab Sample ID:	**1108342-01**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	**2.1**	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**14**	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	**160**	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	102	*87-123*
Toluene-d8	101	*91-107*
4-Bromofluorobenzene	99	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-2**	Sampled:	08/18/11 09:15
Lab Sample ID:	**1108342-02**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	**3.1**	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**1.7**	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	**9.4**	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	104	*88-116*
1,2-Dichloroethane-d4	103	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	99	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-3**	Sampled:	08/18/11 09:05
Lab Sample ID:	**1108342-03**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	**50**	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	102	*87-123*
Toluene-d8	101	*91-107*
4-Bromofluorobenzene	100	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-4S**	Sampled:	08/18/11 10:15
Lab Sample ID:	**1108342-04**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	5	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<5.0	5.0
75-00-3	Chloroethane	<5.0	5.0
74-87-3	Chloromethane	<5.0	5.0
75-34-3	1,1-Dichloroethane	<5.0	5.0
75-35-4	1,1-Dichloroethene	<5.0	5.0
156-59-2	cis-1,2-Dichloroethene	**260**	5.0
156-60-5	trans-1,2-Dichloroethene	<5.0	5.0
78-93-3	2-Butanone (MEK)	<25	25
127-18-4	Tetrachloroethene	<5.0	5.0
108-88-3	Toluene	<5.0	5.0
71-55-6	1,1,1-Trichloroethane	<5.0	5.0
79-00-5	1,1,2-Trichloroethane	<5.0	5.0
79-01-6	Trichloroethene	<5.0	5.0
75-01-4	Vinyl Chloride	**390**	5.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	102	*87-123*
Toluene-d8	101	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-4S**	Sampled:	08/18/11 10:15
Lab Sample ID:	**1108342-04**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Iron	**8200**	10	ug/L	1	USEPA-6010C	08/29/11 13:00	KLV	1108916
Manganese	**590**	10	ug/L	1	USEPA-6010C	08/29/11 13:00	KLV	1108916

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-4S**	Sampled:	08/18/11 10:15
Lab Sample ID:	**1108342-04**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Nitrogen, Inorganic	**0.49**	0.050	mg/L	1	SM 4500 NH3F+NO3G	08/26/11 11:58	CAM	[CALC]
Nitrogen, Ammonia	**0.49**	0.050	mg/L	1	SM 4500-NH3 G 20th	08/25/11 11:24	LMA	1109100
Nitrogen, Nitrate+Nitrite	<0.050	0.050	mg/L	1	SM 4500-NO3 F 20th	08/26/11 11:58	CAM	1109324
Nitrogen, Total Kjeldahl	**0.71**	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	08/26/11 09:22	LMA	1109083
Nitrogen, Organic	<0.50	0.50	mg/L	1	EPA-351.2/4500-NH3G	08/30/11 10:20	CKD	1109307
Chloride	**56**	1.0	mg/L	1	SM 4500-Cl E 20th	08/23/11 13:03	LMA	1108985
Sulfate	**18**	1.0	mg/L	1	ASTM D516-90 (02)	08/23/11 13:12	LMA	1108978
Carbon, Total Organic	**4.8**	0.50	mg/L	1	SM 5310 C 20th	08/25/11 12:43	KRK	1109063

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-4D**	Sampled:	08/18/11 09:43
Lab Sample ID:	**1108342-05**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	105	*88-116*
1,2-Dichloroethane-d4	104	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	99	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-6**	Sampled:	08/18/11 11:05
Lab Sample ID:	**1108342-06**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	25	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<25	25
75-00-3	Chloroethane	<25	25
74-87-3	Chloromethane	<25	25
75-34-3	1,1-Dichloroethane	<25	25
75-35-4	1,1-Dichloroethene	<25	25
156-59-2	cis-1,2-Dichloroethene	**210**	25
156-60-5	trans-1,2-Dichloroethene	<25	25
78-93-3	2-Butanone (MEK)	<120	120
127-18-4	Tetrachloroethene	<25	25
108-88-3	Toluene	<25	25
71-55-6	1,1,1-Trichloroethane	<25	25
79-00-5	1,1,2-Trichloroethane	<25	25
79-01-6	Trichloroethene	**4200**	25
75-01-4	Vinyl Chloride	<25	25

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	104	*88-116*
1,2-Dichloroethane-d4	104	*87-123*
Toluene-d8	101	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-6**	Sampled:	08/18/11 11:05
Lab Sample ID:	**1108342-06**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Iron	**21**	10	ug/L	1	USEPA-6010C	08/29/11 13:04	KLV	1108916
Manganese	<10	10	ug/L	1	USEPA-6010C	08/29/11 13:04	KLV	1108916

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-6**	Sampled:	08/18/11 11:05
Lab Sample ID:	**1108342-06**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Nitrogen, Inorganic	**4.7**	0.50	mg/L	10	SM 4500 NH3F+NO3G	08/26/11 12:38	CAM	[CALC]
Nitrogen, Ammonia	<0.050	0.050	mg/L	1	SM 4500-NH3 G 20th	08/25/11 11:24	LMA	1109100
Nitrogen, Nitrate+Nitrite	**4.7**	0.50	mg/L	10	SM 4500-NO3 F 20th	08/26/11 12:38	CAM	1109324
*Nitrogen, Total Kjeldahl	<0.50	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	08/26/11 09:22	LMA	1109083
Nitrogen, Organic	<0.50	0.50	mg/L	1	EPA-351.2/4500-NH3G	08/30/11 10:20	CKD	1109307
Chloride	**4.8**	1.0	mg/L	1	SM 4500-Cl E 20th	08/23/11 13:04	LMA	1108985
Sulfate	**27**	1.0	mg/L	1	ASTM D516-90 (02)	08/23/11 13:12	LMA	1108978
Carbon, Total Organic	**1.9**	0.50	mg/L	1	SM 5310 C 20th	08/25/11 12:51	KRK	1109063

*See Statement of Data Qualifications

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-7**	Sampled:	08/18/11 14:20
Lab Sample ID:	**1108342-07**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	104	*88-116*
1,2-Dichloroethane-d4	103	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	100	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-7**	Sampled:	08/18/11 14:20
Lab Sample ID:	**1108342-07**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Iron	<10	10	ug/L	1	USEPA-6010C	08/29/11 13:08	KLV	1108916
Manganese	<10	10	ug/L	1	USEPA-6010C	08/29/11 13:08	KLV	1108916

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-7**	Sampled:	08/18/11 14:20
Lab Sample ID:	**1108342-07**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Nitrogen, Inorganic	**0.98**	0.050	mg/L	1	SM 4500 NH3F+NO3G	08/26/11 12:01	CAM	[CALC]
Nitrogen, Ammonia	<0.050	0.050	mg/L	1	SM 4500-NH3 G 20th	08/25/11 11:24	LMA	1109100
Nitrogen, Nitrate+Nitrite	**0.98**	0.050	mg/L	1	SM 4500-NO3 F 20th	08/26/11 12:01	CAM	1109324
Nitrogen, Total Kjeldahl	<0.50	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	08/26/11 09:22	LMA	1109083
Nitrogen, Organic	<0.50	0.50	mg/L	1	EPA-351.2/4500-NH3G	08/30/11 10:20	CKD	1109307
Chloride	**9.0**	1.0	mg/L	1	SM 4500-Cl E 20th	08/23/11 13:04	LMA	1108985
Carbon, Total Organic	**1.3**	0.50	mg/L	1	SM 5310 C 20th	08/25/11 13:26	KRK	1109063
Sulfate	**12**	1.0	mg/L	1	ASTM D516-90 (02)	08/23/11 13:12	LMA	1108978

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ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-8**	Sampled:	08/18/11 12:25
Lab Sample ID:	**1108342-08**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**3.7**	1.0
156-60-5	trans-1,2-Dichloroethene	**1.2**	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	**23**	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	102	*88-116*
1,2-Dichloroethane-d4	103	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-9**	Sampled:	08/18/11 11:45
Lab Sample ID:	**1108342-09**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	**1.2**	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	103	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-10**	Sampled:	08/18/11 12:45
Lab Sample ID:	**1108342-10**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	**1.0**	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	104	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-10**	Sampled:	08/18/11 12:45
Lab Sample ID:	**1108342-10**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Iron	**1500**	10	ug/L	1	USEPA-6010C	08/29/11 13:12	KLV	1108916
Manganese	**370**	10	ug/L	1	USEPA-6010C	08/29/11 13:12	KLV	1108916

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-10**	Sampled:	08/18/11 12:45
Lab Sample ID:	**1108342-10**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Nitrogen, Inorganic	**0.67**	0.050	mg/L	1	SM 4500 NH3F+NO3G	08/26/11 12:02	CAM	[CALC]
Nitrogen, Ammonia	**0.67**	0.050	mg/L	1	SM 4500-NH3 G 20th	08/25/11 11:24	LMA	1109100
Nitrogen, Nitrate+Nitrite	<0.050	0.050	mg/L	1	SM 4500-NO3 F 20th	08/26/11 12:02	CAM	1109324
Nitrogen, Total Kjeldahl	**0.82**	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	08/26/11 09:22	LMA	1109083
Nitrogen, Organic	<0.50	0.50	mg/L	1	EPA-351.2/4500-NH3G	08/30/11 10:20	CKD	1109307
Chloride	**260**	5.0	mg/L	5	SM 4500-Cl E 20th	08/23/11 13:29	LMA	1108985
Sulfate	**8.3**	1.0	mg/L	1	ASTM D516-90 (02)	08/23/11 13:12	LMA	1108978
Carbon, Total Organic	**2.5**	0.50	mg/L	1	SM 5310 C 20th	08/25/11 13:32	KRK	1109063

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-11**	Sampled:	08/18/11 13:55
Lab Sample ID:	**1108342-11**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	104	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-11**	Sampled:	08/18/11 13:55
Lab Sample ID:	**1108342-11**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
***Iron**	**23000**	500	ug/L	50	USEPA-6010C	08/29/11 16:32	KLV	1108916
***Manganese**	**2500**	50	ug/L	5	USEPA-6010C	08/29/11 16:20	KLV	1108916

*See Statement of Data Qualifications

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**MW-11**	Sampled:	08/18/11 13:55
Lab Sample ID:	**1108342-11**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Nitrogen, Inorganic	**15**	0.50	mg/L	10	SM 4500 NH3F+NO3G	08/26/11 12:03	CAM	[CALC]
***Nitrogen, Ammonia**	**15**	0.50	mg/L	10	SM 4500-NH3 G 20th	08/25/11 12:12	LMA	1109100
*Nitrogen, Nitrate+Nitrite	<0.050	0.050	mg/L	1	SM 4500-NO3 F 20th	08/26/11 12:03	CAM	1109324
Nitrogen, Total Kjeldahl	**17**	2.5	mg/L	5	USEPA-351.2 Rev. 2.0	08/26/11 10:16	LMA	1109083
Nitrogen, Organic	<2.5	2.5	mg/L	1	EPA-351.2/4500-NH3G	08/30/11 10:20	CKD	1109307
Chloride	**320**	5.0	mg/L	5	SM 4500-Cl E 20th	08/23/11 13:26	LMA	1108985
Carbon, Total Organic	**11**	1.0	mg/L	2	SM 5310 C 20th	08/25/11 13:40	KRK	1109063
Sulfate	<1.0	1.0	mg/L	1	ASTM D516-90 (02)	08/23/11 13:30	LMA	1108975

*See Statement of Data Qualifications

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**Duplicate**	Sampled:	08/18/11 00:00
Lab Sample ID:	**1108342-12**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	**1.0**	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	104	*88-116*
1,2-Dichloroethane-d4	102	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**Duplicate**	Sampled:	08/18/11 00:00
Lab Sample ID:	**1108342-12**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Iron	**1500**	10	ug/L	1	USEPA-6010C	08/29/11 13:41	KLV	1108916
Manganese	**380**	10	ug/L	1	USEPA-6010C	08/29/11 13:41	KLV	1108916

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**Duplicate**	Sampled:	08/18/11 00:00
Lab Sample ID:	**1108342-12**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Nitrogen, Inorganic	**0.68**	0.050	mg/L	1	SM 4500 NH3F+NO3G	08/26/11 12:07	CAM	[CALC]
Nitrogen, Ammonia	**0.68**	0.050	mg/L	1	SM 4500-NH3 G 20th	08/25/11 11:24	LMA	1109100
Nitrogen, Nitrate+Nitrite	<0.050	0.050	mg/L	1	SM 4500-NO3 F 20th	08/26/11 12:07	CAM	1109324
Nitrogen, Total Kjeldahl	**0.79**	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	08/26/11 09:22	LMA	1109083
Nitrogen, Organic	<0.50	0.50	mg/L	1	EPA-351.2/4500-NH3G	08/30/11 10:20	CKD	1109307
Chloride	**260**	5.0	mg/L	5	SM 4500-Cl E 20th	08/23/11 13:29	LMA	1108985
Sulfate	**8.5**	1.0	mg/L	1	ASTM D516-90 (02)	08/23/11 13:15	LMA	1108978
Carbon, Total Organic	**2.6**	0.50	mg/L	1	SM 5310 C 20th	08/25/11 14:04	KRK	1109063

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**SW-1**	Sampled:	08/18/11 13:30
Lab Sample ID:	**1108342-13**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	104	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	99	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**SW-2**	Sampled:	08/18/11 12:50
Lab Sample ID:	**1108342-14**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	103	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**SW-2**	Sampled:	08/18/11 12:50
Lab Sample ID:	**1108342-14**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Total Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Iron	**160**	10	ug/L	1	USEPA-6010C	08/29/11 13:53	KLV	1108916
Manganese	**33**	10	ug/L	1	USEPA-6010C	08/29/11 13:53	KLV	1108916

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**SW-2**	Sampled:	08/18/11 12:50
Lab Sample ID:	**1108342-14**	Sampled By:	R. Heslop
Matrix:	Water	Received:	08/19/11 18:15

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Nitrogen, Inorganic	**0.74**	0.050	mg/L	1	SM 4500 NH3F+NO3G	08/26/11 12:10	CAM	[CALC]
Nitrogen, Ammonia	<0.050	0.050	mg/L	1	SM 4500-NH3 G 20th	08/25/11 11:24	LMA	1109100
Nitrogen, Nitrate+Nitrite	**0.74**	0.050	mg/L	1	SM 4500-NO3 F 20th	08/26/11 12:10	CAM	1109324
Nitrogen, Total Kjeldahl	**0.65**	0.50	mg/L	1	USEPA-351.2 Rev. 2.0	08/26/11 09:22	LMA	1109083
Nitrogen, Organic	**0.60**	0.50	mg/L	1	EPA-351.2/4500-NH3G	08/30/11 10:20	CKD	1109307
Chloride	**24**	1.0	mg/L	1	SM 4500-Cl E 20th	08/23/11 13:04	LMA	1108985
Sulfate	**26**	1.0	mg/L	1	ASTM D516-90 (02)	08/23/11 13:17	LMA	1108978
Carbon, Total Organic	**6.2**	0.50	mg/L	1	SM 5310 C 20th	08/25/11 14:12	KRK	1109063

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Golder Associates, Inc. - MI**	Work Order:	**1108342**
Project:	Belding Groundwater Monitoring	Description:	Laboratory Services
Client Sample ID:	**Trip Blank**	Sampled:	08/18/11 00:00
Lab Sample ID:	**1108342-15**	Sampled By:	TML
Matrix:	Water	Received:	08/19/11 18:15
Unit:	ug/L	Prepared:	08/25/11 By: DLV
Dilution Factor:	1	Analyzed:	08/25/11 By: DLV
QC Batch:	1109142	Analytical Batch:	1H26011

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
71-43-2	Benzene	<1.0	1.0
75-00-3	Chloroethane	<1.0	1.0
74-87-3	Chloromethane	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	103	*88-116*
1,2-Dichloroethane-d4	103	*87-123*
Toluene-d8	100	*91-107*
4-Bromofluorobenzene	98	*84-106*

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 8260B

QC Batch: 1109142 5030B Aqueous Purge & Trap/USEPA-8260B

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Method Blank					Analyzed:		08/25/2011	By: DLV
Unit: ug/L					Analytical Batch:		1H26011	
Benzene			<1.0					1.0
Chloroethane			<1.0					1.0
Chloromethane			<1.0					1.0
1,1-Dichloroethane			<1.0					1.0
1,1-Dichloroethene			<1.0					1.0
cis-1,2-Dichloroethene			<1.0					1.0
trans-1,2-Dichloroethene			<1.0					1.0
2-Butanone (MEK)			<5.0					5.0
Tetrachloroethene			<1.0					1.0
Toluene			<1.0					1.0
1,1,1-Trichloroethane			<1.0					1.0
1,1,2-Trichloroethane			<1.0					1.0
Trichloroethene			<1.0					1.0
Vinyl Chloride			<1.0					1.0
Surrogates:								
Dibromofluoromethane				*101*	*88-116*			
1,2-Dichloroethane-d4				*101*	*87-123*			
Toluene-d8				*99*	*91-107*			
4-Bromofluorobenzene				*99*	*84-106*			
Laboratory Control Sample					Analyzed:		08/25/2011	By: DLV
Unit: ug/L					Analytical Batch:		1H26011	
Benzene		40.0	**41.4**	104	84-119	--	20	1.0
1,1-Dichloroethene		40.0	**40.7**	102	77-123	--	20	1.0
Toluene		40.0	**41.8**	105	85-118	--	20	1.0
Trichloroethene		40.0	**42.2**	105	82-119	--	20	1.0
Surrogates:								
Dibromofluoromethane				*101*	*88-116*			
1,2-Dichloroethane-d4				*101*	*87-123*			
Toluene-d8				*103*	*91-107*			
4-Bromofluorobenzene				*99*	*84-106*			
Matrix Spike 1108342-11 MW-11					Analyzed:		08/25/2011	By: DLV
Unit: ug/L					Analytical Batch:		1H26011	
Benzene	<1.0	40.0	**43.7**	109	80-129	--	9	1.0
1,1-Dichloroethene	<1.0	40.0	**40.5**	101	74-134	--	11	1.0

Continued on next page

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
QC Batch: 1109142 (Continued) 5030B Aqueous Purge & Trap/USEPA-8260B								
Matrix Spike (Continued) 1108342-11 MW-11					Analyzed:		08/25/2011	By: DLV
Unit: ug/L					Analytical Batch:		1H26011	
Toluene	<1.0	40.0	**43.8**	110	79-129	--	9	1.0
Trichloroethene	<1.0	40.0	**43.8**	109	75-127	--	10	1.0
Surrogates:								
Dibromofluoromethane				*103*	*88-116*			
1,2-Dichloroethane-d4				*103*	*87-123*			
Toluene-d8				*104*	*91-107*			
4-Bromofluorobenzene				*100*	*84-106*			
Matrix Spike Duplicate 1108342-11 MW-11					Analyzed:		08/25/2011	By: DLV
Unit: ug/L					Analytical Batch:		1H26011	
Benzene	<1.0	40.0	**45.1**	113	80-129	3	9	1.0
1,1-Dichloroethene	<1.0	40.0	**41.6**	104	74-134	3	11	1.0
Toluene	<1.0	40.0	**45.5**	114	79-129	4	9	1.0
Trichloroethene	<1.0	40.0	**45.5**	114	75-127	4	10	1.0
Surrogates:								
Dibromofluoromethane				*103*	*88-116*			
1,2-Dichloroethane-d4				*102*	*87-123*			
Toluene-d8				*103*	*91-107*			
4-Bromofluorobenzene				*99*	*84-106*			

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Total Metals by EPA 6000/7000 Series Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: Iron/USEPA-6010C									
QC Batch: 1108916 (3010A Digestion)						Analyzed: 08/29/2011			By: KLV
Method Blank			<10	ug/L					10
Laboratory Control Sample		400	**375**	ug/L	94	80-120			10
1108342-11 [MW-11]									
Matrix Spike	23200	400	**20300**	ug/L	**0**	75-125			10
Matrix Spike Duplicate	23200	400	**20500**	ug/L	**0**	75-125	0.8	20	10
Analyte: Manganese/USEPA-6010C									
QC Batch: 1108916 (3010A Digestion)						Analyzed: 08/29/2011			By: KLV
Method Blank			<10	ug/L					10
Laboratory Control Sample		400	**364**	ug/L	91	80-120			10
1108342-11 [MW-11]									
Matrix Spike	2530	400	**2800**	ug/L	**67**	75-125			10
Matrix Spike Duplicate	2530	400	**2860**	ug/L	82	75-125	2	20	10

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: Carbon, Total Organic/SM 5310 C 20th									
QC Batch: 1109063 (General Inorganic Prep)							Analyzed: 08/25/2011		By: KRK
Method Blank			<0.50	mg/L					0.50
Laboratory Control Sample		2.00	**2.12**	mg/L	106	84-118		20	0.50
Laboratory Control Sample Duplicate			**2.12**	mg/L			0.2	20	0.50
1108342-11 [MW-11]									
Matrix Spike	11.3	4.00	**16.1**	mg/L	121	75-124		20	1.0
Matrix Spike Duplicate	11.3	4.00	**15.0**	mg/L	94	75-124	7	20	1.0
Analyte: Chloride/SM 4500-Cl E 20th									
QC Batch: 1108985 (General Inorganic Prep)							Analyzed: 08/23/2011		By: LMA
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		50.0	**47.8**	mg/L	96	90-106		20	1.0
1108342-11 [MW-11]									
Matrix Spike	315	50.0	**373**	mg/L	115	72-123		20	5.0
Matrix Spike Duplicate	315	50.0	**374**	mg/L	116	72-123	0.2	20	5.0
Analyte: Nitrogen, Ammonia/SM 4500-NH3 G 20th									
QC Batch: 1109100 (General Inorganic Prep)							Analyzed: 08/25/2011		By: LMA
Method Blank			<0.050	mg/L					0.050
Laboratory Control Sample		0.500	**0.481**	mg/L	96	90-110		20	0.050
1108342-11 [MW-11]									
Matrix Spike	15.1	0.500	**15.8**	mg/L	**144**	90-110		20	0.50
Matrix Spike Duplicate	15.1	0.500	**15.5**	mg/L	**87**	90-110	2	20	0.50
Analyte: Nitrogen, Nitrate+Nitrite/SM 4500-NO3 F 20th									
QC Batch: 1109324 (General Inorganic Prep)							Analyzed: 08/26/2011		By: CAM
Method Blank			<0.050	mg/L					0.050
Laboratory Control Sample		0.500	**0.494**	mg/L	99	90-110		20	0.050
1108342-11 [MW-11]									
Matrix Spike	<0.050	0.500	**0.320**	mg/L	**64**	90-110		20	0.050
Matrix Spike Duplicate	<0.050	0.500	**0.311**	mg/L	**62**	90-110	3	20	0.050
Analyte: Nitrogen, Total Kjeldahl/USEPA-351.2 Rev. 2.0									
QC Batch: 1109083 (General Inorganic Prep)							Analyzed: 08/26/2011		By: LMA
Method Blank			<0.50	mg/L					0.50

Continued on next page

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QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Analyte: Nitrogen, Total Kjeldahl/USEPA-351.2 Rev. 2.0 (Continued)									
QC Batch: 1109083 (Continued) (General Inorganic Prep)							Analyzed: 08/26/2011		By: LMA
Laboratory Control Sample		2.00	**2.12**	mg/L	106	90-110		20	0.50
Laboratory Control Sample Duplicate			**2.11**	mg/L			0.08	20	0.50
1108342-06 [MW-6]									
Matrix Spike	0.259	2.00	**2.54**	mg/L	**114**	90-110		20	0.50
Matrix Spike Duplicate	0.259	2.00	**2.62**	mg/L	**118**	90-110	3	20	0.50
Analyte: Sulfate/ASTM D516-90 (02)									
QC Batch: 1108975 (General Inorganic Prep)							Analyzed: 08/23/2011		By: LMA
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		20.0	**19.1**	mg/L	96	88-116		20	2.0
1108342-11 [MW-11]									
Matrix Spike	<2.0	20.0	**19.0**	mg/L	95	55-151		20	2.0
Matrix Spike Duplicate	<2.0	20.0	**18.9**	mg/L	94	55-151	1	20	2.0
QC Batch: 1108978 (General Inorganic Prep)							Analyzed: 08/23/2011		By: LMA
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		20.0	**19.9**	mg/L	100	88-116		20	1.0

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TRIMATRIX LABORATORIES

STATEMENT OF DATA QUALIFICATIONS

Total Metals by EPA 6000/7000 Series Methods

Qualification: The % difference in results between the sample and a serial dilution of the sample exceeded the control limit. Sample matrix interference is suspected and the reported result is considered estimated.

Analysis: USEPA-6010C

Sample/Analyte: 1108342-11 MW-11 Manganese

Qualification: The MS and/or MSD recovery was outside the control limit. The non-spiked sample concentration for the same analyte was greater than or equal to 4 times the spiked amount; the non-spiked sample result is not qualified.

Analysis: USEPA-6010C

Sample/Analyte: 1108342-11 MW-11 Iron
1108342-11 MW-11 Manganese

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TRIMATRIX LABORATORIES

STATEMENT OF DATA QUALIFICATIONS

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Qualification: The MS and/or MSD recovery was outside the control limit. The non-spiked sample result is considered estimated.

Analysis: SM 4500-NO3 F 20th

Sample/Analyte: 1108342-11 MW-11 Nitrogen, Nitrate+Nitrite

Analysis: USEPA-351.2 Rev. 2.0

Sample/Analyte: 1108342-06 MW-6 Nitrogen, Total Kjeldahl

Qualification: The MS and/or MSD recovery was outside the control limit. The non-spiked sample concentration for the same analyte was greater than or equal to 4 times the spiked amount; the non-spiked sample result is not qualified.

Analysis: SM 4500-NH3 G 20th

Sample/Analyte: 1108342-11 MW-11 Nitrogen, Ammonia

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Chain of Custody Record

COC No. 09062

Pg. 1 of 2

For Lab Use Only
Cart: 5
VOA Rack/Tray: 371, 576 Green
Receipt Log No.: 17-19
Project Chemist: Lisa Harvey
Work Order No.: 1108342

Client Name: Golder Associates, Inc., MI
Address: 15851S. US 27, Suite 50
City, State Zip: Lansing, MI 48906
Phone/Fax: D: 517-318-3250, F: 517-482-2460
Email: Brad Johnson (brad_johnson@golder.com)

Project Name: Belding Groundwater Monitoring
Client Project No. / P.O. No.:
Invoice To: (●) Client ( ) Other (comments)
Contact/Report To: Brad Johnson

Analyses Requested

Container Type (corresponds to Container Packing List): D, A, C, B, C
Number of Containers Submitted: 1p, 3, 4, 6, 11

Schedule	Matrix Code	Sample Number	Field Sample ID	Cooler ID	Sample Date	Sample Time	COMP	GRAB	Matrix	1p: Volatiles (8260)	3: sulfate, chloride	4: NH3, TKN, NO3+NO2	6: Fe, Mn	11: TOC	Total	Sample Comments
A		01	1 MW-1		8/18/11	0950		x	WTR	3						
		02	2 MW-2		8/18/11	0915		x	WTR	3						
		03	3 MW-3		8/18/11	0905		x	WTR	3						
B		04	4 MW-4s		8/18/11	1015		x	WTR	3	1	1	1	3		
A		05	5 MW-4d		8/18/11	0943		x	WTR	3						
B		06	6 MW-6		8/18/11	1105		x	WTR	3	1	1	1	3		
B		07	7 MW-7		8/18/11	1420		x	WTR	3	1	1	1	3		
A		08	8 MW-8		8/18/11	1225		x	WTR	3						
A		09	9 MW-9		8/18/11	1145		x	WTR	3						
B		10	10 MW-10		8/18/11	1245		x	WTR	3	1	1	1	3		

PRESERVATIVES
A NONE pH~7
B HNO_3 pH<2
C H_2SO_4 pH<2
D 1+1 HCl pH<2
E NaOH pH>12
F ZnAc/NaOH pH>9
G MeOH
H Other (note below)

Sampled By (print): Ryan Heslop / Arthur Rose
Sampler's Signature: [signature]
Company: Golder

How Shipped? Hand ___ Carrier ___
Tracking No.

Comments: 3RL for VOCs (2RL for inorganics/metals). List of VOCs: Site specific list. Report Total inorganic and Total organic nitrogen on report. Email and Hard copy inv/report to Brad Johnson. Cc: email inv to Golder AP.

	Relinquished By	Date	Time	Received By	Date	Time
1.	[signature]	8-18-11	1630	[signature]	8/18/11	4:30
2.				[signature]	8/19/11	1305
3.	[signature]	8/19/11	18:15	[signature]	8/19/11	18:15

ORIGINAL - LABORATORY COPY - FIELD/SAMPLER

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Chain of Custody Record

COC No. 09063

Pg. 2 of 2

For Lab Use Only
Cart: 5
VOA Rack/Tray: 371, 576 Green
Receipt Log No.: 17-15
Project Chemist: Lisa Harvey
Work Order No.: 1108342

Client Name: Golder Associates, Inc., MI
Address: 15851S. US 27, Suite 50
City, State Zip: Lansing, MI 48906
Phone/Fax: D: 517-318-3250, F: 517-482-2460
Email: Brad Johnson (brad_johnson@golder.com)

Project Name: Belding Groundwater Monitoring
Client Project No. / P.O. No.:
Invoice To: (●) Client ( ) Other (comments)
Contact/Report To: Brad Johnson

Analyses Requested

Container Type (corresponds to Container Packing List): D, A, C, B, C
Number of Containers Submitted: 1p, 3, 4, 6, 11

PRESERVATIVES
A NONE pH~7
B HNO_3 pH<2
C. H_2SO_4 pH<2
D 1+1 HCl pH<2
E NaOH pH>12
F ZnAc/NaOH pH>9
G MeOH
H Other (note below)

Schedule	Matrix Code	Sample Number		Field Sample ID	Cooler ID	Sample Date	Sample Time	COMP	GRAB	Matrix	Volatiles (8260)	sulfate, chloride	NH3, TKN, NO3+NO2	Fe, Mn	TOC	Total	Sample Comments
BB		11	1	MW-11		8/18/11	1355		X	WTR	5	1	1	1	3		MS/MSD
B		12	2	Duplicate		8/18/11	—		X	WTR	3	1	1	1	3		
A		13	3	SW-1		8/18/11	1330		X	WTR	3						
B		14	4	SW-2		8/18/11	1250		X	WTR	3	1	1	1	3		
T		15	5	Trip Blank		—	—		X	WTR	1						
			6														
			7														
			8														
			9														
			10														

Sampled By (print): Ryan Heslop / Arthur Rose
Sampler's Signature:
Company: Golder

How Shipped? Hand ___ Carrier ___
Tracking No.

Comments: 3RL for VOCs (2RL for inorganics/metals). List of VOCs: Site specific list. Report Total inorganic and Total organic nitrogen on report. Email and Hard copy inv/report to Brad Johnson. Cc: email inv to Golder AP.

	Relinquished By	Date	Time	Received By	Date	Time
1	[signature]	8-18-11	1630	[signature]	8/18/11	4:30
2	[signature]	8/18/11	13:15	[signature]	8/19/11	13:15
3	[signature]	8/19/11	18:15	[signature]	8/19/11	18:15

ORIGINAL - LABORATORY

COPY - FIELD/SAMPLER

SAMPLE RECEIVING / LOG-IN CHECKLIST

TRIMATRIX LABORATORIES

Client: Golder
Work Order #: 1108342
New / Add To
Receipt Record Page/Line #: 17-15
Project Chemist: MH
Sample #s: 01-15

Recorded by (initials/date): CF 8/19/11

☑ Cooler ☐ Box ☐ Other _____ | Qty Received: CF 2 8/19/11

Thermometer Used: ☑ IR Gun (#202) ☐ Digital Thermometer (#54) ☐ Other (#_____) ☐ See Additional Cooler Information Form

Cooler #	Time	Custody Seals	Coolant Location	Coolant/Temperature Taken Via	Alternate Temperature Taken Via
2441	2208	☑ None; ☐ Present / Intact; ☐ Present / Not Intact	Dispersed / (Top) / Middle / Bottom	☐ Loose Ice / Avg 2-3 containers; ☑ Bagged Ice / Avg 2-3 containers; ☐ Blue Ice / Avg 2-3 containers; ■ None / Avg 2-3 containers	☑ Temperature Blank (TB); ☐ 1 Container
2101	2216	☑ None; ☐ Present / Intact; ☐ Present / Not Intact	Dispersed / Top / (Middle) / Bottom	☐ Loose Ice / Avg 2-3 containers; ☑ Bagged Ice / Avg 2-3 containers; ☐ Blue Ice / Avg 2-3 containers; ■ None / Avg 2-3 containers	☑ Temperature Blank (TB); ☐ 1 Container
		☐ None; ☐ Present / Intact; ☐ Present / Not Intact	Dispersed / Top / Middle / Bottom	☐ Loose Ice / Avg 2-3 containers; ☐ Bagged Ice / Avg 2-3 containers; ☐ Blue Ice / Avg 2-3 containers; ■ None / Avg 2-3 containers	☐ Temperature Blank (TB); ☐ 1 Container
		☐ None; ☐ Present / Intact; ☐ Present / Not Intact	Dispersed / Top / Middle / Bottom	☐ Loose Ice / Avg 2-3 containers; ☐ Bagged Ice / Avg 2-3 containers; ☐ Blue Ice / Avg 2-3 containers; ■ None / Avg 2-3 containers	☐ Temperature Blank (TB); ☐ 1 Container

Cooler #	Recorded °C	Correction Factor °C	Actual °C
2441 Temp Blank	0		15.1
TB location (Representative) / Not Representative			
1	14.7	0	14.7
2	14.6	0	14.6
3	14.6	0	14.6
Average °C			14.6
2101 Temp Blank	0		7.4
TB location (Representative) / Not Representative			
1	6.8	0	6.8
2	7.3	0	7.3
3	7.2	0	7.2
Average °C			7.1
Cooler # / Temp Blank			
TB location Representative / Not Representative			
1			
2			
3			
Average °C			
Cooler # / Temp Blank			
TB location Representative / Not Representative			
1			
2			
3			
Average °C			

Cooler #	Cooler ID on COC?	VOC Trip Blank received?
2441	☑	☑
2101	☐	☐
	☐	☐
	☐	☐

If any shaded areas checked, complete Sample Receiving Non-Conformance Form

Paperwork Received

☐ No COC Received

N/A	Yes	No	
	☑	☐	Chain of Custody record(s)?
	☐		If No, COC Initiated By _____
	☑		Rec'd for Lab Signed/Date/Time?
☑	☐		Shipping document?
☑	☐		Other _____

COC ID #s

☑ TriMatrix 09062, 09063

☐ Other (Name or ID#) _____

Check COC for Accuracy

☐ No analysis requested

Yes	No	
☑	■	Sample ID matches COC?
☑	■	Sample Date and Time matches COC?
☑		Container type completed on COC?
☑	■	All container types indicated are received?

Sample Condition Summary

☐ Non-TriMatrix containers, see Notes

N/A	Yes	No	
	■	☑	Broken containers/lids?
	■	☑	Missing or Incomplete labels?
	■	☑	Illegible information on labels?
	■	☑	Low volume received?
	■	☑	Inappropriate containers received?
☑	■	☑	VOC vials / TOX containers have headspace?
☑	■	☐	Extra sample locations / containers not listed on COC?

Check Sample Preservation

N/A	Yes	No	
	☐	■	Average sample temperature ≤6° C?
☐	☑		Completed Sample Preservation Verification Form?
☐	☑	■	Samples preserved correctly?
☑	☐		If "No", added orange tag?
☑	☐		Received pre-preserved VOC soils?

☐ MeOH ☐ Na_2SO_4

Check for Short Hold-Time Prep/Analyses

☐ Bacteriological
☐ Air Bags
☐ EnCores / Methanol Pre-Preserved
☐ Formaldehyde/Aldehyde
☑ Green-tagged containers
☐ Yellow/White-tagged 1L ambers (SV Prep-Lab)

AFTER HOURS ONLY:
COPIES OF COC TO LAB AREA(S)
☐ NONE RECEIVED
☑ RECEIVED, COCs TO LAB(S)

Notes

☑ Trip Blank received ☐ Trip Blank not listed on COC
☐ No COC received, Proj. Chemist reviewed (Init/Date) _____
☐ No analysis requested, Proj. Chemist completed (Init/Date) _____

Cooler Received (Date/Time)	Paperwork Delivered (Date/Time)	≤1 Hour Goal Met?
8/19/11 18:15	8/19/11 2245	Yes / No

TRIMATRIX LABORATORIES

SAMPLE PRESERVATION VERIFICATION FORM

Sent Colder		Work Order # 1108342
Receipt Log # 17-15	Completed By (initials/date) CF 8/14/11	Project Chemist CMH

COC ID # 09062	Adjusted by: ____ Date: ____	DO NOT ADJUST pH FOR THESE CONTAINER TYPES						
Container Type	5	4	13		3	6	15	
Tag Color	Lt. Blue	Blue	Brown		Green	Red	Red Stripe	
Preservative	NaOH	H_2SO_4	H_2SO_4		None	HNO_3	HNO_3	
Expected pH	>12	<2	<2		6-8	<2	<2	
COC Line #1								
COC Line #2								
COC Line #3								
COC Line #4		✓			✓	✓		
COC Line #5								
COC Line #6		✓			✓	✓		
COC Line #7		✓			✓	✓		
COC Line #8								
COC Line #9								
COC Line #10		✓			✓	✓		

Comments

Ph Strip Lot # HC003104

Aqueous Samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container, record pH in box, and note on Sample Receiving Checklist and on Sample Receiving Non-Conformance Form. If approved by Project Chemist, add acid or base to the sample to achieve the correct pH. Add up to, but do not exceed 2x the volume initially added at container prep (see table below for initial volumes used). Add orange pH tag to sample container and record information requested. Record adjusted pH on this form. Do not adjust pH for container types 3, 6, and 15.

COC ID # 09063	Adjusted by: ____ Date: ____	DO NOT ADJUST pH FOR THESE CONTAINER TYPES						
Container Type	5	4	13		3	6	15	
Tag Color	Lt. Blue	Blue	Brown		Green	Red	Red Stripe	
Preservative	NaOH	H_2SO_4	H_2SO_4		None	HNO_3	HNO_3	
Expected pH	>12	<2	<2		~7	<2	<2	
COC Line #1		✓			✓	✓		
COC Line #2		✓			✓	✓		
COC Line #3								
COC Line #4		✓			✓	✓		
COC Line #5								
COC Line #6								
COC Line #7								
COC Line #8								
COC Line #9								
COC Line #10								

Comments

Container Size (mL)	Original Vol. of Preservative (mL)
Container Type 5	NaOH
500	2.5
1000	5.0
Container Type 4	H_2SO_4
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H_2SO_4
500	2.5