PALL LIFE SCIENCES

HYDROGEOLOGICAL INVESTIGATION OF THE LITTLE LAKE AREA SYSTEM AND PORTIONS OF THE HONEY CREEK CORRIDOR

MARCH 4, 2015

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INTRODUCTION

This report summarizes recent investigations Pall Life Sciences (PLS) has completed in the Little Lake Area System and portions of the Honey Creek corridor. The purpose of the work was to advance the understanding of the hydrogeology of this area and further define the extent of 1,4-dioxane in the groundwater.

The activities performed for this investigation were proposed to the Michigan Department of Environmental Quality (MDEQ) in a work plan dated September 25, 2014. This work plan was provided to the MDEQ for their review and input. MDEQ provided input to the plan on September 29, 2014. MDEQ was also provided routine updates from PLS during the course of this project.

DATA COLLECTION

Boring and Monitoring Well Installation

Six test borings/nested monitoring wells were installed, including: MW-136s, MW-136i, M-136d, MW-137s, MW-137d, MW-138s, MW-138i, MW-138d, MW-139s, MW-139i, MW-139d, MW-140s, MW-140d, MW-141s and MW-141d. The locations of the wells are shown on Figure 1. The borings/wells were installed between November 3 and December 30, 2014.

Roto-sonic (RS) drilling methods were used at each boring/well location. Drilling services were provided by Cascade Drilling, LLC. Each boring/well was drilled to depths sufficient to encounter bedrock. Continuous core and vertical profiling with Cascades “push-ahead” sampling methods were utilized for collection of soil and groundwater, respectively. Continuous core samples were collected beginning at ground surface to total depth (TD) of the boring/well. Upon entering the uppermost water-bearing zone, vertical profiling groundwater samples were collected at roughly 10-foot intervals using push-ahead techniques and continued through the aquifer(s) to the TD. All drilling cutting samples were described/classified by an onsite Fleis & VandenBrink Engineering (F&V) geologist. Representative vertical profile groundwater samples were collected using a push-ahead technique and temporarily installing a submersible pump with PVC tubing . Vertical profile samples were transferred to PLS under chain-of-custody documentation. All groundwater samples were analyzed for 1,4-dioxane by PLS to a detection level of 1 microgram per liter (µg/L).

Upon reaching the total depth of each boring, geological and water quality data were used to select representative well screen completion depths. Wells are constructed of 2-inch PolyVinyl Chloride (PVC) casing, equipped with a 5-foot PVC (10-slot) well screen. Wells were gravel packed and grouted, completed as flush mounts, and equipped with locking caps and locks.

Boring/well completion logs are for each location are provided as Appendix 1. Analytical results for vertical samples during drilling are annotated on each boring/well log.

Groundwater Sampling

PLS staff collected groundwater samples from the new wells during December 2014 and January 2015. The samples were analyzed for 1,4-dioxane by PLS. These data are provided in Appendix 2.

In addition to groundwater samples collected by PLS, the Washtenaw County Environmental Health Division, working with the MDEQ, collected groundwater samples from 93 residential wells in the Little Lake/Honey Creek area. These samples were analyzed for 1,4-dioxane by the State of Michigan laboratory. Data from this sampling event are provided in Appendix 2.

Water Level Measurements/Survey

Geospatial data for the new wells were obtained by Atwell, LLC. Top-of-casing and ground elevations for the new wells were referenced to NAVD88 and x, y coordinates were referenced to Michigan State Plane Coordinate System, Michigan South (NAD83). These data, along with other data about the wells, are summarized in Table 1.

PLS staff collected two rounds of static water level measurements from the new wells and other selected wells in the Little Lake Area System. Water levels were collected on January 20, 2015 and February 24, 2015. The first round included all the new wells. Water level data collection for the February 24, 2015, event included both groundwater elevation and surface water elevations. Surface water elevations were surveyed at six locations along the Honey Creek and tributaries. All elevation and water level data collected for this investigation are provided in Table 1.

FINDINGS

Bedrock Elevation and Drift Thickness

The bedrock underlying the area is the Mississippian-Aged Coldwater Formation. Shale was encountered at all borings that penetrated into this formation. A bedrock surface topography map prepared using data from PLS borings is provided as Figure 2. Bedrock elevations in the area range from 717 (GSI 88-01) to 688 (MW-141) feet NAVD88. Bedrock lows are observed in the confluence area of the Honey Creek and the U of M Lake Drain (between Jackson and Park Roads).

The glacial drift is thickest in the Little Lake area (Borehole MW-92) where the drift is approximately 217 feet thick. The drift thins to approximately 160 feet in the Honey Creek corridor.

Hydrofacies

Four cross sections have been prepared to show possible correlations of the relevant hydrofacies in the investigation area. The selected lines of cross section, A-A', B-B', C-C' and D-D', are shown on Figure 1 and are provided in Appendix 3.

The cross sections reveal a relatively complex assemblage of unconsolidated materials. There appears to be two primary aquifers that are separated in some areas and interconnected in other areas. For the purpose of this report, the aquifers have been identified as the shallow aquifer zone and deep aquifer zone. The shallow aquifer zone is the primary aquifer associated with the transport of 1,4-dioxane from its source in the Little Lake area. The deep aquifer zone has trace levels of 1,4-dioxane.

Minor, less developed deposits are also present in the area investigated. The most significant is an unconfined aquifer present in the eastern portion of the area of investigation (depicted on Cross Section D-D')

Significant interpretations from the cross-sections are provided below:

A to A' – This cross section runs from west to east, viewing from the south. It connects MW-137s and MW-137d to the Honey Creek tributary and MW-141s and MW-141d, and terminates at MW-138s, MW-138i and MW-138d. This section depicts the shallow and deep aquifer zones.

B to B' – This cross section runs from the northwest to the southeast, viewing from the southwest. It connects the MW-136 well cluster on the north side of Honey Creek back to PLS 07-01. The shallow and deep aquifer zones are shown on this cross section. The shallower aquifer zone expands in thickness to the northwest toward the Honey Creek, where it also becomes unconfined.

C to C' – This cross section runs from northwest to southeast and connects the Honey Creek Area back to the source area for 1,4-dioxane in the Little Lake Area (the Ann Arbor Cleaning Supply area). This section shows the how there is no differentiation between the shallow and deep aquifers in the Ann Arbor Cleaning Supply area. The aquifers become separated in the area between MW-61 and MW-93. They merge again in the Honey Creek area.

D to D' – This cross section collects the Honey Creek near MW-140 south toward PLS 07-01. This section depicts the shallow and deep aquifer zones. Also shown is a more developed upper unconfined aquifer system. Wells MW-140s and MW-139s appear to be completed in this unconfined aquifer.

Groundwater Flow

Horizontal

Using the interpretations made from the cross sections, wells were grouped into two depth zones: shallow and deep. Potentiometric surface maps for the shallow and deep zones are provided as Figures 3 and 4, respectively. Surface water elevations recorded for this investigation are shown on the potentiometric surface maps.

The data indicate groundwater in both the shallow and deep zones discharge into Honey Creek, which is the primary hydraulic sink for the area. The shallow aquifer zone interacts with the Honey Creek Tributary (beginning in the area of the Huron Valley Swim Club (4601 Park) and eventually the Honey Creek, whereas the deeper aquifer zone appears to have less interaction with the Honey Creek Tributary and appears to underflow the U of M Lake Drain in the vicinity of MW-141s and MW-141d. Some degree of underflow of the Honey Creek Tributary occurs since 1,4-dioxane is known to migrate along this drainage system without entirely venting.

Relatively steep hydraulic gradients are observed in both the shallow and deep aquifer zones in the area between Little Lake Drive and the Honey Creek Tributary. In the shallower zone, the steepest gradients in the area are between Jackson Road and I-94.

MW-141d has a lower hydraulic head than expected. Inclusion of data from this well location into the deep potentiometric surface is debatable. This lower head may be related to the low elevation of this screen and the lower bedrock elevation in the region (MW-141 has the lowest bedrock elevation in the investigation area).

Vertical

Vertical hydraulic gradients in the area are generally upward. The upward hydraulic gradients are consistent with a groundwater discharge area. A notable exception is the MW-141 well cluster where a strong downward gradient is observed.

WATER QUALITY

Recently collected 1,4-dioxane data have been used to prepare an updated isoconcentation map for the Little Lake/Honey Creek area. This map is provided as Figure 5. The new wells installed for this investigation allowed for further refinement of previous interpretations regarding the extent of 1,4-dioxane. The extensive groundwater sampling of residential wells completed by the Washtenaw Department of Environmental Health and the MDEQ provided additional data to refine previous interpretations regarding the extent of 1,4-dioxane in the Little Lake/Honey Creek area.

1,4-Dioxane in both the shallow and deep aquifer zones generally follows along the Honey Creek Tributary corridor, eventually discharging into Honey Creek. The 1,4-dioxane impacted zone remains relatively narrow along this path, which is likely related to the artesian conditions (groundwater venting) along this corridor which limits the width of the 1,4-dioxane impacted zone. Considering only trace levels of 1,4-dioxane have been detected in the deeper zone, a separate isoconcentration map was not prepared for this zone.

None of the groundwater sampled from 93 residential well samples had detectable levels of 1,4-dioxane. These data were helpful to demonstrate the limited extent of 1,4-dioxane in the Little Lake/Honey Creek area.

SUMMARY

PLS installed six strategically located well clusters to further characterize the hydrogeology and water quality of the Little Lake/Honey Creek area. In addition, there were 93 groundwater samples collected from residential wells in the same area. These data have allowed further definition of the extent of 1,4-dioxane in this area and additional insight into the fate of the 1,4-dioxane.

1,4-Dioxane is transported from the Little Lake area toward the northwest as predicted by groundwater flow and geology. The 1,4-dioxane generally follows along the Honey Creek Tributary until it discharges into the

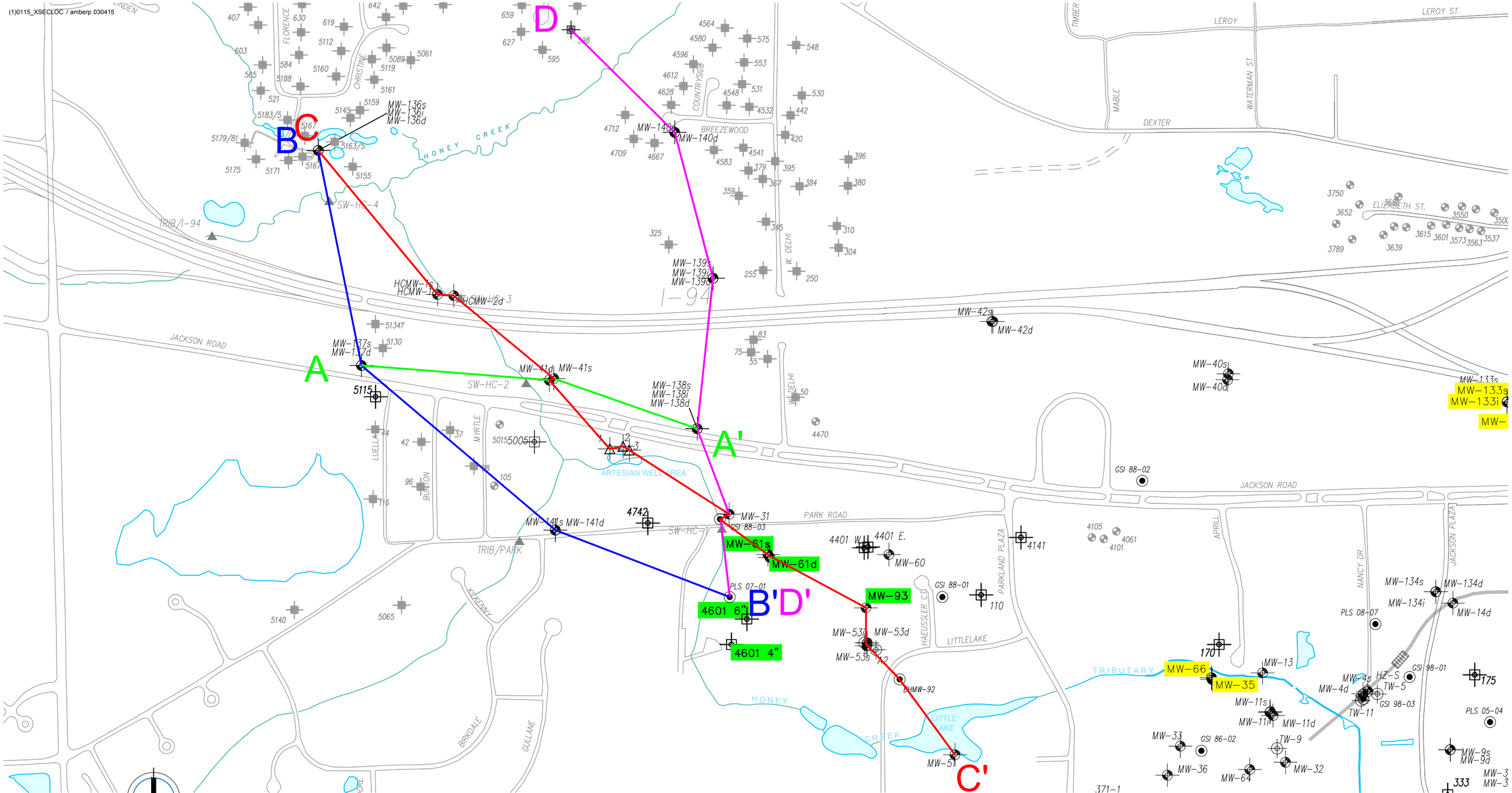
Honey Creek at levels well below the MDEQ Groundwater Surface Water Interface and Drinking Water Criteria.
Water level data support Honey Creek is a hydraulic sink and there is no indication of underflow of Honey Creek. The absence of 1,4-dioxane in monitoring well cluster MW-136, and the groundwater samples collected from numerous residential wells, supports this interpretation.

PLS has been monitoring water quality in the Little Lake Area System for nearly 30 years. The only wells that have had 1,4-dioxane above the drinking water criterion in recent years are the Ann Arbor Cleaning Supply well and MW-53i. These wells are next to each other in the Little Lake area. The most recent (February 2015) 1,4-dioxane data from each of these wells was below the drinking water criterion. Additionally, since monitoring began in this area nearly 30 years ago, 1,4-dioxane levels continue to decline, consistent with a decaying source area.

PLS believes the extent of 1,4-dioxane and the hydrogeological characteristic in the Little Lake System/Honey Creek corridor have been adequately defined from this investigation and has no plans for any additional monitoring wells in this area. PLS has proposed to collect additional water level and quality data from the newly installed wells on a quarterly and semi-annual frequency, respectively, for one year. After that time, PLS will reevaluate the monitoring frequency and will notify the MDEQ of any proposed modifications to the sampling frequency.

FIGURES

(1)0115_XSECLOC / amberp 030415



NORTH

0 650 1300

SCALE IN FEET

LEGEND

- MONITOR WELL
- EXTRACTION WELL
- SOIL BORING
- SURFACE WATER ELEVATION MEASURED FEB 2015
- MW-xx - LITTLE LAKE AREA COMPLIANCE MONITOR WELL
- MW-xx - COMPLIANCE MONITOR WELL
- FORMER RESIDENTIAL WELL ROUTINELY MONITORED BY PALL
- RESIDENTIAL WELL ROUTINELY MONITORED BY MDEQ
- RESIDENTIAL WELL SAMPLED BY WASHTENAW COUNTY/MDEQ OCTOBER-NOVEMBER 2014

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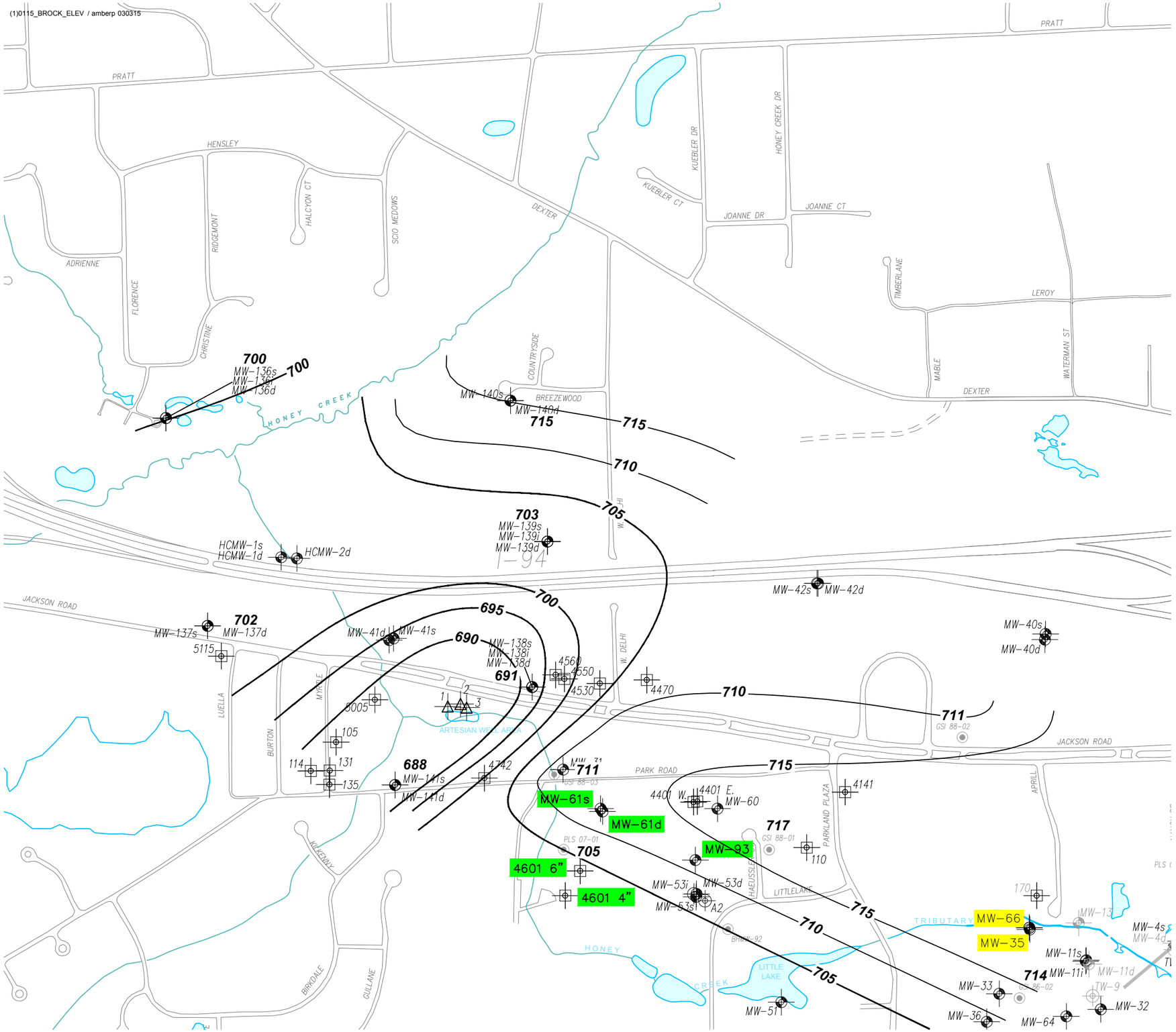
FIGURE 1: SITE MAP

F&V PROJECT NO. 806500

F&V

(1)0115_BROCK_ELEV / amberp 030315



0 750 1500

SCALE IN FEET

NORTH

LEGEND

- MONITOR WELL
- DOMESTIC WELL
- EXTRACTION WELL
- MW-xx - COMPLIANCE MONITOR WELL
- MW-xx - LITTLE LAKE AREA COMPLIANCE MONITOR WELL
- TOP OF BEDROCK ELEVATION CONTOUR
- 700 - TOP OF BEDROCK ELEVATION

NOTES:

INTERPRETATIONS ARE BASED ON PROFESSIONAL JUDGEMENT. OTHER INTERPRETATIONS ARE POSSIBLE AND SHOULD BE CONSIDERED.

TOP OF BEDROCK ELEVATION DATA ARE IN FEET NAVD88.

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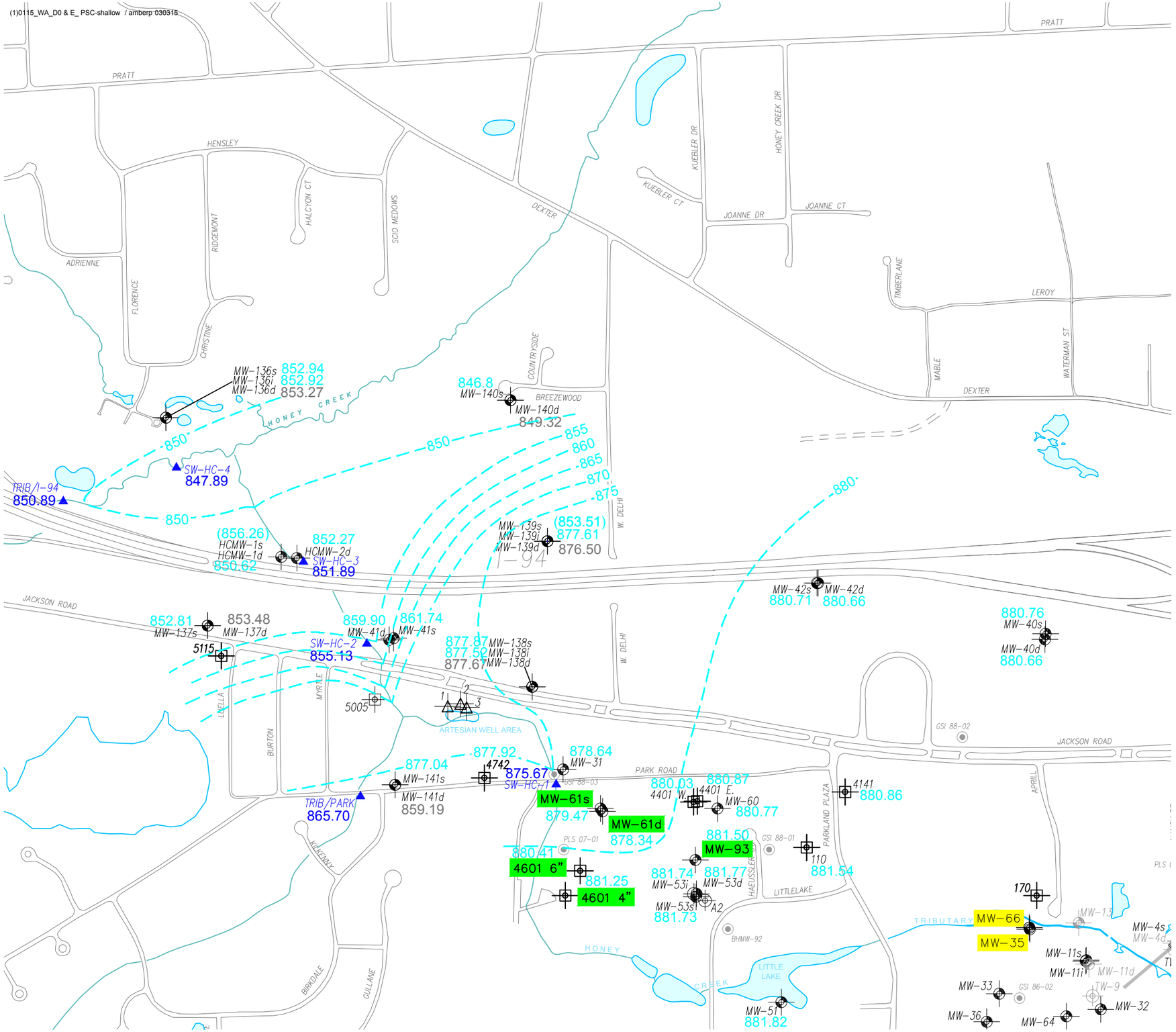
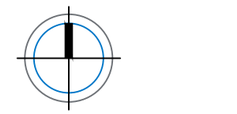
FIGURE 2: BEDROCK ELEVATION MAP

F&V PROJECT NO. 806900

F&V

(1)0115_WA_D0 & E_ PSC-shallow / amberp 030315





LEGEND

- MONITOR WELL
- FORMER RESIDENTIAL WELL ROUTINELY MONITORED BY PALL
- EXTRACTION WELL
- SOIL BORING
- MW-xx - COMPLIANCE MONITOR WELL
- MW-xx - LITTLE LAKE AREA COMPLIANCE MONITOR WELL
- SHALLOW POTENTIOMETRIC SURFACE CONTOUR
- 902.48 - SHALLOW POTENTIOMETRIC SURFACE ELEVATION
- 902.48 - DEEP POTENTIOMETRIC SURFACE ELEVATION
- 902.48 - SURFACE WATER ELEVATION
- SURFACE WATER ELEVATION LOCATION

NOTES:

MAP COMBINES WELLS COMPLETED AT MULTIPLE DEPTHS. INTERPRETATION OF THIS MAP REQUIRES FAMILIARITY WITH THE GEOLOGY AND THE GROUNDWATER FLOW REGIME. INTERPRETATIONS ARE BASED ON PROFESSIONAL JUDGEMENT. OTHER INTERPRETATIONS ARE POSSIBLE AND SHOULD BE CONSIDERED.

ELEVATION DATA ARE IN FEET NAVD88.

WATER LEVEL AND SURFACE ELEVATIONS MEASURED FEBRUARY 24, 2015.

MAP CONTOURED AT DIFFERENT INTERVALS.

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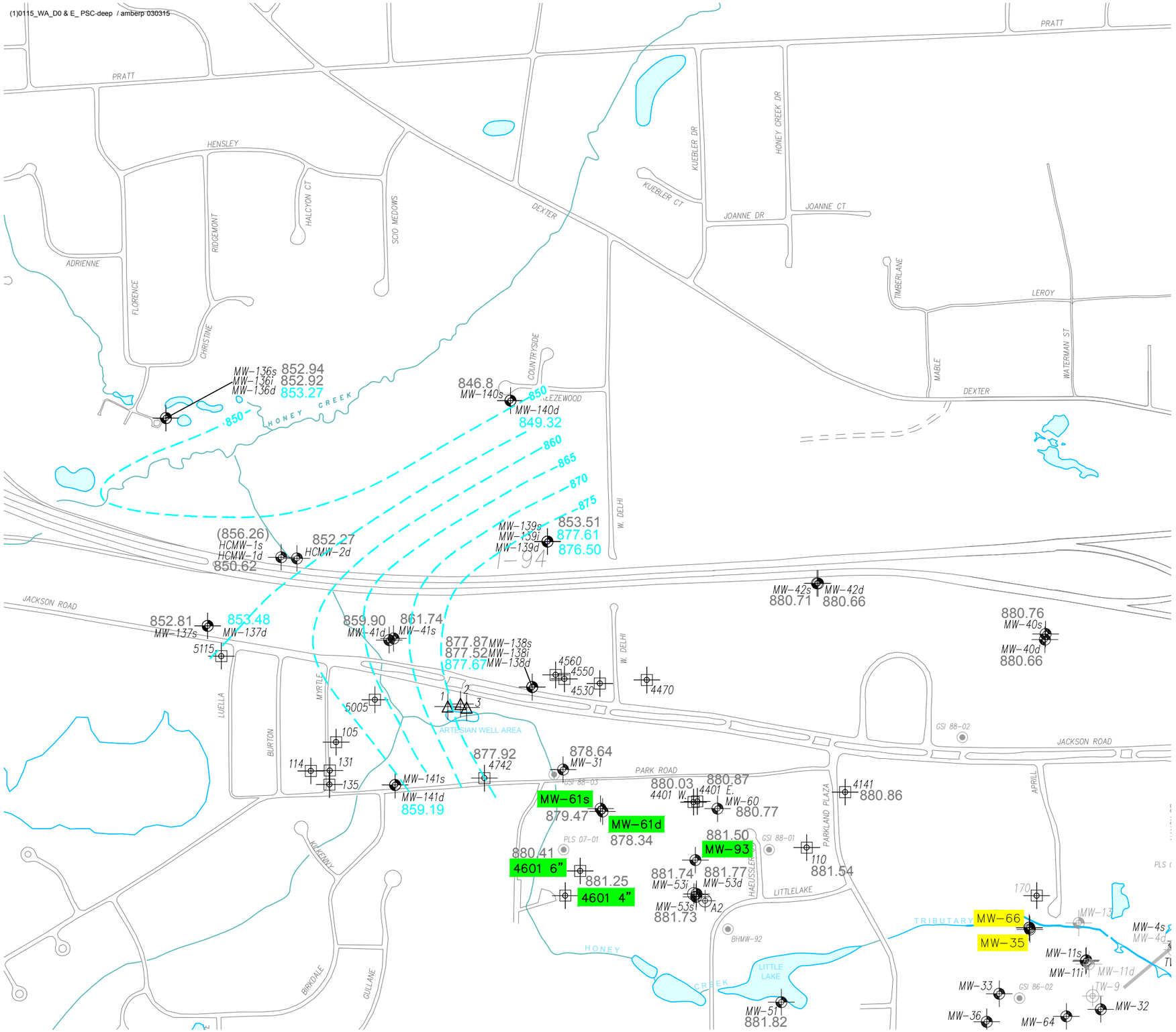
LITTLE LAKE AREA SYSTEM

FIGURE 3: POTENTIOMETRIC SURFACE MAP - SHALLOW (FEBRUARY 24, 2015)

F&V PROJECT NO. 806500

F&V

(1)0115_WA_D0 & E_ PSC-deep / amberp 030315



0 750 1500

SCALE IN FEET

NORTH

LEGEND

- ⊕ - MONITOR WELL
- ⊕ - DOMESTIC WELL
- ⊕ - EXTRACTION WELL
- MW-xx - COMPLIANCE MONITOR WELL
- MW-xx - LITTLE LAKE AREA COMPLIANCE MONITOR WELL
- - DEEP POTENTIOMETRIC SURFACE CONTOUR
- 902.48 - DEEP POTENTIOMETRIC SURFACE ELEVATION
- 902.48 - SHALLOW POTENTIOMETRIC SURFACE ELEVATION

NOTES:

MAP COMBINES WELLS COMPLETED AT MULTIPLE DEPTHS. INTERPRETATION OF THIS MAP REQUIRES FAMILIARITY WITH THE GEOLOGY AND THE GROUNDWATER FLOW REGIME. INTERPRETATIONS ARE BASED ON PROFESSIONAL JUDGEMENT. OTHER INTERPRETATIONS ARE POSSIBLE AND SHOULD BE CONSIDERED.

ELEVATION DATA ARE IN FEET NAVD88.

WATER LEVEL AND SURFACE ELEVATIONS MEASURED FEBRUARY 24, 2015.

MAP CONTOURED AT DIFFERENT INTERVALS.

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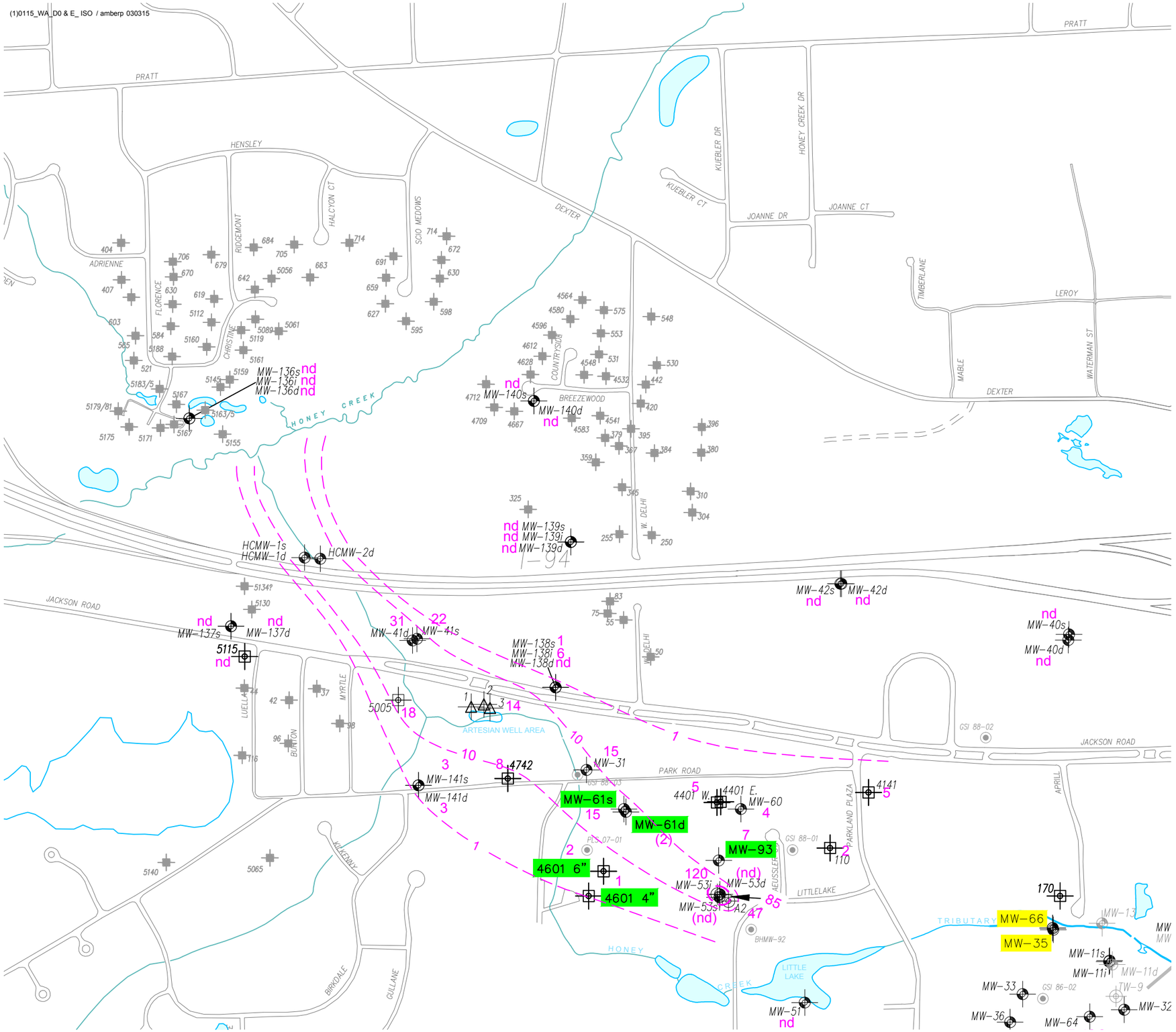
LITTLE LAKE AREA SYSTEM

FIGURE 4: POTENTIOMETRIC SURFACE MAP - DEEP (FEBRUARY 24, 2015)

F&V PROJECT NO. 806500

F&V

(1)0115_WA_D0 & E_ ISO / amberp 030315



NORTH

0 750 1500

SCALE IN FEET

LEGEND

nd = NON DETECT

- MONITOR WELL
- FORMER RESIDENTIAL WELL ROUTINELY MONITORED BY PALL
- EXTRACTION WELL
- SOIL BORING

MW-xx - COMPLIANCE MONITOR WELL

MW-xx - LITTLE LAKE AREA COMPLIANCE MONITORING WELL

18 - 1,4-DIOXANE CONCENTRATION (ug/L)

(18) - DATA NOT USED

- - - 1,4-DIOXANE ISOCONCENTRATION CONTOUR (ug/L)

- RESIDENTIAL WELL SAMPLED BY WASHTENAW COUNTY/ MDEQ OCT-NOV 2014. (ALL SAMPLES nd FOR 1,4-DIOXANE).

NOTES:

THE DATA SHOWN ARE FROM SAMPLE PERIOD 08/2014 - 01/2015.

MAP COMBINES DATA FROM WELLS COMPLETED AT MULTIPLE DEPTHS. INTERPRETATIONS OF THIS MAP REQUIRES FAMILIARITY WITH THE GEOLOGY AND THE GROUNDWATER FLOW REGIME. INTERPRETATIONS ARE BASED ON PROFESSIONAL JUDGEMENT. OTHER INTERPRETATIONS ARE POSSIBLE AND SHOULD BE CONSIDERED.

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LITTLE LAKE AREA SYSTEM

FIGURE 5: ISOCONCENTRATION MAP

F&V PROJECT NO. 806500

F&V

TABLES

Table 1 - Survey and Water Level Elevation Data

		Date:	1/20/2015	Date:	2/24/2015	
Well ID	Top of Casing Elev.	Depth to Water	Water Level Elevation	Depth to Water	Water Level Elevation	Notes
110 Parkland Plaza	881.68	54.50	827.18	54.64	827.04	
4141 Jackson	880.98	56.97	824.01	57.09	823.89	
4401 Park East	881.00	55.44	825.56	55.57	825.43	
4401 Park West	881.18	54.84	826.34	54.99	826.19	
4601 Park 4"	899.91	18.53	881.38	18.66	881.25	
4601 Park 6"	896.26	15.71	880.55	15.85	880.41	
4742 Park	878.05	10.70	867.35	10.83	867.22	
HCMW-1d	859.66	8.84	850.82	9.04	850.62	
HCMW-1s	864.31	7.84	856.47	8.05	856.26	
HCMW-2d	857.46	5.00	852.46	5.19	852.27	
MW-136d	856.32	2.81	853.51	3.05	853.27	
MW-136i	856.33	3.18	853.15	3.41	852.92	
MW-136s	856.31	3.15	853.16	3.37	852.94	
MW-137d	874.11	20.45	853.66	20.63	853.48	
MW-137s	874.15	21.17	852.98	21.34	852.81	
MW-138d	893.94	16.37	877.57	16.27	877.67	
MW-138i	894.01	16.14	877.87	16.49	877.52	
MW-138s	893.94	15.94	878.00	16.07	877.87	
MW-139d	877.92	1.28	876.64	1.42	876.50	
Mw-139i	877.93	0.32	877.61	0.45	877.48	
MW-139s	877.93	23.77	854.16	24.42	853.51	
MW-140d	871.27	21.28	849.99	21.95	849.32	
MW-140s	871.24	24.26	846.98	24.44	846.80	
MW-141d	872.07	12.68	859.39	12.88	859.19	
MW-141s	871.93	5.15	866.78	5.11	877.04	(Artesian)
MW-31	878.78	8.27	870.51	8.41	870.37	
MW-40d	880.84	49.06	831.78	49.24	831.60	
MW-40s	880.94	48.96	831.98	49.14	831.80	
MW-41d	866.73	6.92	859.81	6.83	873.56	(Artesian)
MW-41s	864.46	2.79	861.67	2.72	867.18	(Artesian)
MW-42d	880.87	35.15	845.72	35.36	845.51	
MW-42s	880.89	35.08	845.81	35.26	845.63	
MW-51	881.92	16.32	865.60	16.42	865.50	
MW-53d	881.90	43.83	838.07	43.96	837.94	
Mw-53i	881.87	44.21	837.66	44.34	837.53	
MW-53s	881.88	44.00	837.88	44.15	837.73	
MW-60	880.91	54.35	826.56	54.49	826.42	
MW-61d	878.34	44.03	834.31	44.17	834.17	
MW-61s	879.61	42.90	836.71	43.04	836.57	
MW-93	881.64	38.25	843.39	38.39	843.25	
Surface Water Elevations						
HCS1					875.67	
HCS2					865.70	
HCS3					855.13	
HCS4					851.89	
HCS5					850.89	
HCS6					847.89	

New Wells

Well ID	Top of Casing Elev.	Northing (Y)	Easting (X)	Appx. Screen Interval Elevation	Ground Elevation	Bedrock Elevation
MW-136d	856.32	289075.76	13268104.60	714 - 719	856.85	699.85
MW-136i	856.33	289075.65	13268104.76	791 - 796		
MW-136s	856.31	289075.83	13268104.86	836 - 841		
MW-137d	874.11	287543.10	13268412.21	759 - 764	874.57	701.57
MW-137s	874.15	287542.86	13268412.20	809 - 814		
MW-138d	893.94	287092.04	13270804.97	749 - 754	894.33	691.33
MW-138i	894.01	287091.86	13270804.83	794 - 799		
MW-138s	893.94	287091.73	13270805.00	843 - 848		
MW-139d	877.92	288164.65	13270917.71	743 - 748	878.22	702.72
Mw-139i	877.93	288164.82	13270917.59	806 - 811		
MW-139s	877.93	288164.84	13270917.87	845 - 850		
MW-140d	871.27	289204.52	13270644.73	732 - 737	871.58	715.08
MW-140s	871.24	289204.73	13270644.82	826 - 831		
MW-141d	872.07	286369.76	13269794.41	712 - 717	872.52	687.52
MW-141s	871.93	286369.54	13269794.50	747 - 752		

Elevations in Feet NAVD88
Northing/Easting in Michigan State Plane Corrdinates
Depth Measurements in Feet

APPENDIX 1

LOG OF BORING / WELL: MW-136

Project: Pall Life Sciences

Location: 5167 Christine Crt, Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11-3-2014

End Date: 11-10-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 164'

Static Water Levl. (ft.):

TOC Elev.: s:856.31; i:856.33; d:856.32

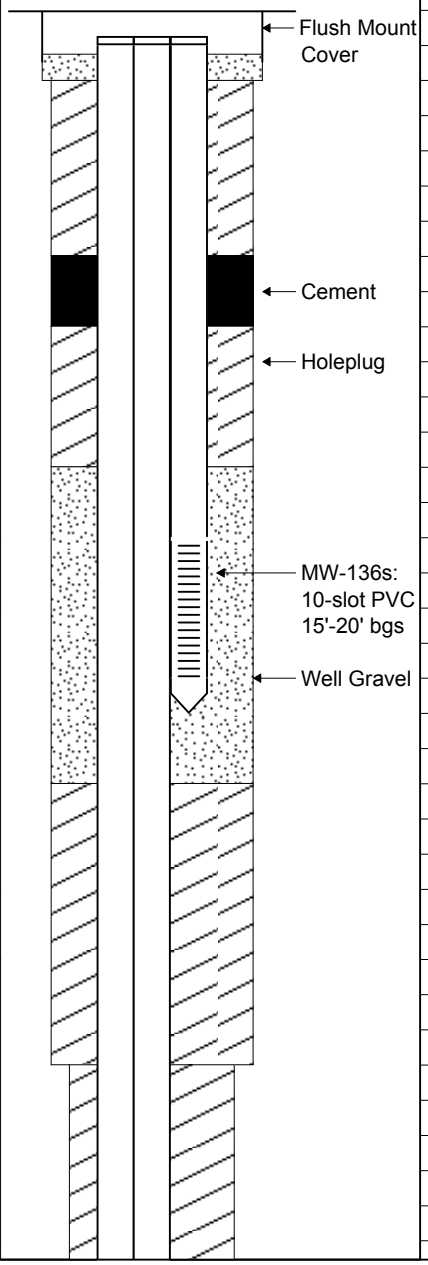
Ground Elev.: 856.85 (ft. NAVD88)

X: 13268104.79 **Y:** 289075.28

ND = Non Detect (<1 ug/L).

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	LITHOLOGY Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
0			Ground Surface			0
	0-4' (hand-dug)		TOPSOIL: organic, black.			
			As above, light brown and trace organic material. Moist from 3 to 4' and saturated 4' bgl.			
5	4' - 7' / 1' 6" recov.		SAND: light brown, medium grained with some granuals and some subrounded fine to coarse cobbles, saturated.			5
			Pea-stone subangular granuals with fine gravel.			
10	7' - 17' / 7' 7" recov.		SAND: light brown, fine to medium grained sand with some subangular granuals and gravel up to 2" diameter, saturated.			10
15				ND 1,4 Dioxane		15
	17' - 27' / 7' 7" recov.		SAND: light brown, fine to medium grained sand with trace subrounded granuals and gravel up to 2" diameter, saturated.			
20						20
25			SILTY SAND: light brown, fine grained sand with silt, some medium grained sand, saturated.	ND 1,4 Dioxane		25
	27' - 37' / 10' 4" recov.		SAND: light brown, fine to medium grained saturated.			
30						30
			SAND: light brown, medium to coarse grained grained sand with trace granuals, saturated.			
35						35



FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-136

Project: Pall Life Sciences

Location: 5167 Christine Crt, Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11-3-2014

End Date: 11-10-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 164'

Static Water Levl. (ft.):

TOC Elev.: s:856.31; i:856.33; d:856.32

Ground Elev.: 856.85 (ft. NAVD88)

X: 13268104.79 **Y:** 289075.28

SUBSURFACE PROFILE

LITHOLOGY

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
				ND 1,4 Dioxane		
40	37' - 47' / 10' 1" recov.		SAND: light brown, medium to coarse grained sand with subangular to subrounded granuals and trace gravel up to 1" diameter.			40
45			SILTY SAND: light brown fine sand with silt.	ND 1,4 Dioxane	← Holeplug	45
			SAND: light brown, medium to coarse grained sand with subangular to subrounded granuals and trace gravel up to 1" diameter, saturated.			
50	47' - 57' / 9' 9" recov.		SAND: greenish gray, fine grained sand with some silt, saturated.			50
			SAND: greenish gray, medium to coarse grained sand with subangular to subrounded granuals and a few gravel up to 2" diameter, saturated.			
55				ND 1,4 Dioxane		55
			SILTY SAND: greenish gray, fine sand with silt.			
60	57' - 67' / 7' 5" recov.		SAND: greenish gray, medium to coarse grained sand with subrounded granuals and trace gravel up to 1/2" diameter, saturated.		← MW-136i: 10-slot PVC 60'-65' bgs	60
65				ND 1,4 Dioxane	← Well Gravel	65
			SAND and GRAVEL: some silt, greenish gray, fine to coarse sand with fine subrounded gravel and some silt, saturated.			
70						70

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-136

Project: Pall Life Sciences

Location: 5167 Christine Crt, Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11-3-2014

End Date: 11-10-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 164'

Static Water Levl. (ft.):

TOC Elev.: s:856.31; i:856.33; d:856.32

Ground Elev.: 856.85 (ft. NAVD88)

X: 13268104.79 **Y:** 289075.28

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
75	67' - 77' / 9' 10" recov.		DIAMICTON: significant clay and silt matrix, gray to greenish gray, some thin intermittent layers of fine sand and silt and clay with gravel, saturated. Increasing amount of clay with depth.Very clay-rich approximately 77 feet below grade. Difficult drilling and minor refusal initially.			75
80	77' - 87' / 9' 10" recov.		DIAMICTON: as above with less clay/silt.		Holeplug	80
85				ND 1,4 Dioxane		85
90	87' - 97' / 9' 2" recov.		SAND: gray, fine to coarse grained poorly sorted sand with some gravel and trace silt and clay.			90
95				ND 1,4 Dioxane		95
			DIAMICTON: clay and silt matrix, gray to greenish gray, saturated.			
100	97' - 107' / 10' 1" recov.		SILTY CLAY: some sand and gravel, gray, stiff to very stiff, low plasticity, significant silt, saturated.			100
105						105

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-136

Project: Pall Life Sciences

Location: 5167 Christine Crt, Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11-3-2014

End Date: 11-10-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 164'

Static Water Levl. (ft.):

TOC Elev.: s:856.31; i:856.33; d:856.32

Ground Elev.: 856.85 (ft. NAVD88)

X: 13268104.79 **Y:** 289075.28

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
110	107' - 117' / 13' 1" recov.		SILTY CLAY: some sand, gray, stiff to very stiff, moderate plasticity, saturated.			110
115						115
120	117' - 127' / 11' 4" recov.		SILT and CLAY: gray, stiff to very stiff, low plasticity, saturated.			120
125						125
130	127' - 137' / 12' 11" recov.		INTERBEDDED: layers of Clayey Sandy SILT; fine SAND with silt; CLAYEY SILT; SILTY CLAY; and SAND with silt and clay.			130
135			SAND: light brown, medium to coarse grained sand with granuals, saturated.	ND 1,4 Dioxane	MW-136d: 10-slot PVC 137'-142'	135
140						140

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-136

Project: Pall Life Sciences

Location: 5167 Christine Crt, Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11-3-2014

End Date: 11-10-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 164'

Static Water Levl. (ft.):

TOC Elev.: s:856.31; i:856.33; d:856.32

Ground Elev.: 856.85 (ft. NAVD88)

X: 13268104.79 **Y:** 289075.28

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
145	137' - 147' / 11' recpv/		CLAYEY SILT: some sand, gray, with fine to very fine sand, saturated.		Well Gravel	145
			SAND: gray, fine grained with some silt, saturated.			
			CLAYEY SILT: some sand, gray, with fine sand, saturated.			
150			SAND: light brown, fine to coarse grained with granuals and fine gravel, trace silt.		Holeplug	150
	147' - 157' / 9' 9" recov.		SILTY SAND: gray, fine grained sand with silt, saturated.			
155			CLAY: transitional, greenish gray, some silt, sand and gravel, very stiff, partially shale bedrock with sand and gravel interbedded.			155
160	157' - 164' / 7' 5" recov.		SHALE: very dense, platy, greenish gray to bluish in color.			160
			EOB 164' bgl.			
165						165
170						170
175						175

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-137

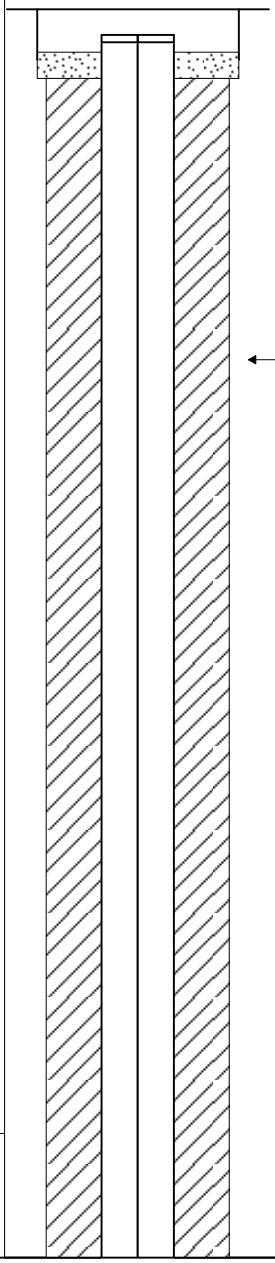
Project: Pall Life Sciences
Location: ROW 5204 Jackson Rd., Scio Twp
Project No.: 806500
Logged By: Amber Jane Pontius, Geologist

Start Date: 11-11-2014
End Date: 11-14-2014
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 187'
Static Water Levl. (ft.):
TOC Elev.: s: 874.15; d: 874.11
Ground Elev.: 874.57 (ft NAVD 88)
X: 13268412.18 **Y:** 287543.53

ND = Non Detect (<1 ug/L).

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.
0			Ground Surface	
	0'-7' 1' 1" recov.		TOPSOIL: organic, black.	
			FILL: sand and gravel, dry.	
5			SAND: well sorted fine to medium sand, light brown to yellowish, trace subangular fine gravel and granuals, dry.	
10	7' - 17' / 6' " recov.			
15				
20			SAND: as above, yellow, more fine, dry.	
	17' - 27' / recov.		SAND: well sorted fine to medium sand, light brown, trace subangular fine gravel and granuals, dry.	
25				
30			SAND: as above, moist.	
	27' - 37' / recov.		SAND: as above, saturated.	ND 1,4 Dioxane
35				



LOG OF BORING / WELL: MW-137

Project: Pall Life Sciences

Location: ROW 5204 Jackson Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11-11-2014

End Date: 11-14-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 187'

Static Water Levl. (ft.):

TOC Elev.: s: 874.15; d: 874.11

Ground Elev.: 874.57 (ft NAVD 88)

X: 13268412.18 **Y:** 287543.53

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
			SAND and GRAVEL : poor to moderately sorted fine to coarse sand, light brown, subangular granuals and fine gravel up to 1" diameter, minor redox at 36.5', saturated.			
40			SAND: moderately to well sorted medium grained with some coarse sand, very loose, coarsening downward, saturated.			40
	37' - 47' / recov.		SAND: medium to coarse grained, very loose, dark brown to black, coarsening downward to moderate to well sorted coarse sand with granuals, saturated.			
45				ND 1,4 Dioxane		45
			SAND: medium to coarse grained, very loose, brown to gray, coarsening downward, saturated.			
50	47' - 57' / recov.					50
55				ND 1,4 Dioxane	Holeplug	55
60	57' - 67' / recov.				MW-137s 10-slot PVC 60'-65' bgs	60
65			SAND and GRAVEL: fine to coarse grained sand with subangular to subrounded gravel up to 3" diameter, very loose, larger gravel expected at depth.	ND 1,4 Dioxane	Well Gravel	65
70						70

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-137

Project: Pall Life Sciences
Location: ROW 5204 Jackson Rd., Scio Twp
Project No.: 806500
Logged By: Amber Jane Pontius, Geologist

Start Date: 11-11-2014
End Date: 11-14-2014
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 187'
Static Water Levl. (ft.):
TOC Elev.: s: 874.15; d: 874.11
Ground Elev.: 874.57 (ft NAVD 88)
X: 13268412.18 **Y:** 287543.53

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
75	67' - 77' / recov.			ND 1,4 Dioxane		75
			DIAMICTON: sand and gravel with significant silt and clay matrix, saturated.			
80	77' - 87' / recov.		CLAY: gray, soft, moderate plasticity, notable amounts of sand, gravel and silt, saturated to moist.		Holeplug	80
			CLAY: gray, very dense/stiff, cannot penetrate without significant force, notable amounts of sand, gravel and silt, dry.			
85						85
90	87' - 97' / recov.		CLAY: gray, moderately stiff, some sand, gravel and silt, moist.			90
95			SAND: gray, moderately sorted fine to medium grained with trace subrounded gravel up to 2" diameter, saturated.	ND 1,4 Dioxane		95
100	97' - 107' / " recov.		SAND: gray, coarse grained sand with fine gravel and some silt and clay coating, saturated.			100
			SILTY SAND: gray, highly compacted fine sand with significant silt and some clay, saturated.			
105						105

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-137

Project: Pall Life Sciences
Location: ROW 5204 Jackson Rd., Scio Twp
Project No.: 806500
Logged By: Amber Jane Pontius, Geologist

Start Date: 11-11-2014
End Date: 11-14-2014
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 187'
Static Water Levl. (ft.):
TOC Elev.: s: 874.15; d: 874.11
Ground Elev.: 874.57 (ft NAVD 88)
X: 13268412.18 **Y:** 287543.53

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
110			SAND and GRAVEL: gray, fine to coarse grained sand with subangular to subrounded granuals and fine gravel, mostly 1" diameter up to 2" diameter, thin clay and silt coating,saturated.	ND 1,4 Dioxane	MW-137d 10-slot PVC 110'-115'	110
	107' - 117' / " recov.		SAND: gray, fine to coarse grained, some subangular granuals and fine gravel and thin clay and silt coating, saturated.		Well Gravel	
115				ND 1,4 Dioxane		115
120			SAND and GRAVEL: gray, fine to coarse grained sand with subangular fine gravel up to 1" diameter with thin clay and silt coating, saturated.			120
	117' - 127' / recov.		SAND and GRAVEL: as above with increased fine sand and silt, saturated.			
125			SAND and GRAVEL: as above with increasing amounts of clay coating (becoming diamicton), saturated.	ND 1,4 Dioxane		125
130			DIAMICTON: Sand and Gravel (as above) with significant clay and silt matrix.			130
	127' - 137' / recov.		CLAY: gray, increasingly hard/stiff, with sand, gravel and silt, low plasticiity, moist to dry.			
135			CLAY: bluish gray to dark gray, very hard/stiff, with sand, gravel and silt, low plasticity, dry.			135
			DIAMICTON: Sand/Gravel/Clay/Silt, saturated.			
140			CLAY: gray, low plasticity, with sand, gravel and silt, saturated.			140

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-137

Project: Pall Life Sciences
Location: ROW 5204 Jackson Rd., Scio Twp
Project No.: 806500
Logged By: Amber Jane Pontius, Geologist

Start Date: 11-11-2014
End Date: 11-14-2014
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 187'
Static Water Levl. (ft.):
TOC Elev.: s: 874.15; d: 874.11
Ground Elev.: 874.57 (ft NAVD 88)
X: 13268412.18 **Y:** 287543.53

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
145	137' - 147' / recov.		CLAY: as above, dry.			145
			CLAY: as above, moist to saturated.			
150	147' - 157' / r		INTERBEDDED: Alternating beds of SILT and SAND (fine, gray) SILTY SAND (mottled gray and brown, well sorted, lightly compacted) SILT and CLAY (gray, moderate to low plasticity with fine sand) SANDY SILT (fine, gray); SAND (mottled gray and brown, fine sand with some silt and clay, slightly compacted); and SILTY CLAY (gray with fine sand and significant silt), saturated.		← Holeplug	150
155				ND 1,4 Dioxane		155
160	157' - 167' /					160
165				ND 1,4 Dioxane		165
170	167' - 177' /		SAND: well sorted medium grained with trace coarse grained sand, saturated, light brown. Black from 166.5 to 167 feet below grade. CLAY: gray, medium stiff to stiff with moderate to low plasticity with silt and some sand and gravel, saturated to dry.			170
175						175

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-137

Project: Pall Life Sciences

Location: ROW 5204 Jackson Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11-11-2014

End Date: 11-14-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 187'

Static Water Levl. (ft.):

TOC Elev.: s: 874.15; d: 874.11

Ground Elev.: 874.57 (ft NAVD 88)

X: 13268412.18 **Y:** 287543.53

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
180	177' - 187' /		SHALE, very dense, platy, greenish gray to bluish in color, dry.			180
185			EOB 187' bgl.			185
190						190
195						195
200						200
205						205
210						210

LOG OF BORING / WELL: MW-138

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

Project: Pall Life Sciences
Location: ROW 4600 Jackson Rd., Scio Twp
Project No.: 806500
Logged By: Amber Jane Pontius, Geologist

Start Date: 11/17/14
End Date: 11/21/14
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 207'
Static Water Levl. (ft.):
TOC Elev.: s: 893.94; i: 894.01; d: 893.94
Ground Elev.: 894.33 (ft NAVD88)
X: 13269794.45 **Y:** 286370.13

ND = Non Detect (<1 ug/L).

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
0			Ground Surface			0
			Topsoil			
	0' - 5' (hand-dug)		FILL: sand and gravel, some silt and hard clay, petrol odor in borehole but not noticed in soils, dry.		Flush Mount Cover	
5			CLAY: little sand, fine to coarse, cohesive, mod. to low plasticity, dry to moist, red gradational to gray at 9 feet, firm.			5
	5' - 7' / 3' 6" recov.					
10	7' - 17' / 11' 8" recov.				Holeplug	10
15			CLAY: some gravel, subrounded fine to coarse, moderate plasticity, moist, gray, soft.			15
			CLAY: little sand, fine to medium grained, moderate to low plasticity, dry, gray, soft.			
			SILT: some sand, fine, saturated, compacted.			
20	17' - 27' / 10' 9.5" recov.		CLAY: some silt, little sand and gravel, fine to medium sand, subrounded fine to coarse gravel, mod. plasticity, saturated, gray, soft.			20
			CLAY: little gravel, mostly subangular granules with trace subrounded coarse gravel, moderate to low plasticity, dry, gray, hard.			
25						25
			CLAY: some sand and gravel, fine to coarse sand and subangular to subrounded fine to coarse gravel, moderate to high plasticity, saturated, gray, soft.			
30	27' - 37' / 10' recov.					30
35			CLAY: high to very high plasticity, saturated, gray, very soft.			35

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-138

Project: Pall Life Sciences
Location: ROW 4600 Jackson Rd., Scio Twp
Project No.: 806500
Logged By: Amber Jane Pontius, Geologist

Start Date: 11/17/14
End Date: 11/21/14
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 207'
Static Water Levl. (ft.):
TOC Elev.: s: 893.94; i: 894.01; d: 893.94
Ground Elev.: 894.33 (ft NAVD88)
X: 13269794.45 **Y:** 286370.13

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
40	37' - 47' / 8' 6" recov.		CLAY: high plasticity, saturated, gray, soft to moderately firm.			40
45			SAND and GRAVEL: trace silt and clay, well graded fine to coarse sand and subangular fine to very coarse gravel, broken cobble pieces, saturated, light brown, very loose.	ND 1,4-Dioxane	MW-138s 10-slot PVC 46'-51' bgs Well Gravel	45
50	47' - 57' / 7' 8" recov.		SAND: trace gravel, fine/medium sand, subangular fine to medium gravel, saturated, light brown, loose.			50
55				ND 1,4-Dioxane		55
60	57' - 67' / 8' 8" recov.		DIAMICTON: very fine to coarse sand, soupy silt and clay coating, trace subangular granules and pebbles, saturated, organic odor, gray with dark brown organic film, very loose.			60
			DIAMICTON: mostly coarse sand with few sub-angular to subrounded granules, thin silt and clay matrix, saturated, gray, loose.			
65			DIAMICTON: fine to coarse sand, subrounded fine to coarse granules and cobbles, silt/clay matrix fines downward to a clay/silt matrix, saturated, gray, loose.	ND 1,4-Dioxane		65
70			DIAMICTON: fine to coarse sand, subrounded to subangular granules to cobbles and broken large cobble pieces, soupy silt/clay matrix, saturated, gray, very loose.			70

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-138

Project: Pall Life Sciences

Location: ROW 4600 Jackson Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11/17/14

End Date: 11/21/14

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 207'

Static Water Levl. (ft.):

TOC Elev.: s: 893.94; i: 894.01; d: 893.94

Ground Elev.: 894.33 (ft NAVD88)

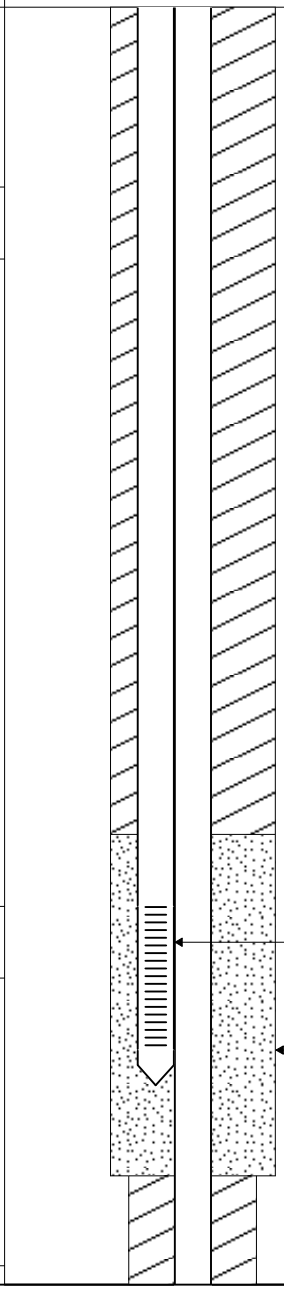
X: 13269794.45 **Y:** 286370.13

SUBSURFACE PROFILE

LITHOLOGY

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.
75	67' - 77' / 8' 10" recov.		SAND and GRAVEL: few silt and trace clay, fine to coarse sand, subrounded to subangular fine to coarse granules and cobbles, saturated, light brown, loose.	
			DIAMICTON: fine to coarse sand, subangular to subrounded fine to coarse granules and cobbles, silt/clay matrix and some clay chunks, saturated, gray, loose. Coarser sand and gravel with depth, increased clay with depth. Interbedded thin seams of fine to coarse sand and clay approximately 75-76 feet bgl.	ND 1,4-Dioxane
80	77' - 87' / 10' 8" recov.		CLAY: some silt, few to trace gravel, subrounded granules and small cobbles, moderate plasticity, saturated, gray, soft.	
			CLAY: as above, dry, firm.	
85				
90	87' - 92' / 9' 5" recov.			
95	92' - 97' / 3' 9" recov.		SAND: few silt, trace gravel, poorly sorted very fine to coarse sand, subrounded granules, saturated, yellowish orange to light brown, loose.	ND 1,4-Dioxane
			SAND: few silt and clay, medium to coarse sand, saturated, light brown to gray, loose.	
100	97' - 107' / 9' 9" recov.		SAND and SILT: fine sand, saturated, grayish brown, loose to medium dense. Upper - more sand; lower - more silt.	
			SAND: some silt, moderately to well sorted, very fine to medium sand, saturated, light brown, very loose. Increasing silt with depth. Trace clay approximately 110 feet bgl.	
105				

Well Construction Detail



Depth (ft.)

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-138

Project: Pall Life Sciences

Location: ROW 4600 Jackson Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11/17/14

End Date: 11/21/14

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 207'

Static Water Levl. (ft.):

TOC Elev.: s: 893.94; i: 894.01; d: 893.94

Ground Elev.: 894.33 (ft NAVD88)

X: 13269794.45 **Y:** 286370.13

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
				ND 1,4-Dioxane		
110	107' - 117' / 10' 11.5" recov.		SAND and SILT: trace clay, fine to medium sand, saturated, brown to gray, medium dense.			110
115			CLAY: some sand, llittle silt, fine to medium sand, medium plasticity, saturated, gray, medium stiff to stiff.			115
			CLAY: some silt, high plasticity, saturated to moist, gray, hard. Interbedded silt/fine sand seams, very compacted and dense.			
120	117' - 127' / 10' 11.5" recov.		CLAY: nonplastic, dry, gray, hard.			120
125					← Holeplug	125
			CLAY: moderate to high plasticity, saturated, gray, medium stiff.			
130	127' - 137' / 9' 7" recov.		SAND: moderately sorted fine to medium with some coarse sand, saturated, light brown, loose to medium dense.	ND 1,4-Dioxane		130
135			SILT: some clay, little sand, fine, saturated, gray/brown, highly compacted dense to very dense.			135
140			CLAY: low to medium plasticity, saturated, gray, fine to coarse, subrounded fine to coarse granules and large cobbles, very thin silt/clay coating, saturated, grayish to light brown, very loose. Thin (3") Clay seam approximatley 138.5			140

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-138

Project: Pall Life Sciences
Location: ROW 4600 Jackson Rd., Scio Twp
Project No.: 806500
Logged By: Amber Jane Pontius, Geologist

Start Date: 11/17/14
End Date: 11/21/14
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 207'
Static Water Levl. (ft.):
TOC Elev.: s: 893.94; i: 894.01; d: 893.94
Ground Elev.: 894.33 (ft NAVD88)
X: 13269794.45 **Y:** 286370.13

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
145	137' - 147' / 8' 4.5" recov.			ND 1,4-Dioxane	MW-138d 10-slot PVC 140'-145' bgs; Well Gravel	145
			CLAY: low to medium plasticity, saturated, gray, hard.			
150			SAND and GRAVEL: some silt/clay, fine to coarse sand, subangular to subrounded fine to coarse granules and cobbles, saturated, light brown to gray, loose to very loose.		Holeplug	150
	147' - 157' / 9' 1.5" recov.		DIAMICTON: sand and gravel with silt/clay matrix,fine to coarse sand, subangular to subrounded fine to coarse granules and cobbles, saturated, gray, loose.			
155			SAND and GRAVEL: trace silt/clay, fine to coarse sand, subrounded granules and fine gravel, saturated, grayish brown, loose.	ND 1,4-Dioxane		155
			DIAMICTON: silt and clay with sand and gravel, fine to coarse sand, subrounded to subangular granules and fine to medium gravel, coarsest gravel approximately 157 feet bgl., saturated, gray, loose.			
160	157' - 167' / 9' 11" recov.					160
			SAND: some clay, moderately to well sorted fine to medium sand, light brown, with gray clay chunks/stringers, saturated, medium dense.			
165				ND 1,4-Dioxane		165
			SAND: some gravel, moderately sorted fine to medium sand, subrounded granules and fine gravel, saturated, light brown, loose.			
170	167' - 176' / 9' 10" recov.		SAND: some gravel and clay, moderately sorted fine to medium sand, subrounded granules, light brown, with gray clay chunks/stringers, saturated, medium dense.			170
			CLAY and GRAVEL: few sand and silt, subangular to subrounded fine to coarse gravel and broken cobble pieces, high plasticity, saturated, gray, medium stiff.			
175						175

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-138

Project: Pall Life Sciences

Location: ROW 4600 Jackson Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 11/17/14

End Date: 11/21/14

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 207'

Static Water Levl. (ft.):

TOC Elev.: s: 893.94; i: 894.01; d: 893.94

Ground Elev.: 894.33 (ft NAVD88)

X: 13269794.45 **Y:** 286370.13

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	LITHOLOGY Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
			CLAY and GRAVEL: as above, dry, very firm.			
180	176' - 185' / 9' 5" recov.		CLAY: some sand and gravel, fine to coarse sand and subangular to subrounded fine to medium gravel, non plastic, dry to moist, gray, medium firm.			180
			CLAY: little sand and gravel, fine to coarse sand and subangular to subrounded fine to medium gravel, non plastic, dry, gray, hard.			
			SAND: significant silt and clay, trace granules, fine sand, subrounded granules, moist, gray, very dense heavily compacted.			
185			CLAY: some sand and gravel, fine to coarse sand and subangular to subrounded fine to medium gravel, non plastic, dry, gray, very hard.			185
	185' - 192' / 6' 10" recov.		DIAMICTON: clay with gravel, silt and sand, fine to coarse sand, subangular to subrounded granules, fine to coarse gravel and broken cobble pieces, dry, gray, very hard. Pulverized.			
190						190
195	192' - 197' / refusal		DIAMICTON: pulverized, expected as above. Only recovery was pulverized diamicton in the shoe.			195
200	197' - 203' / 4' 2" recov.		DIAMICTON: clay with significant silt and gravel, subangular to subrounded granules, and cobbles, broken cobble pieces, dry, gray, very hard.			200
205	203' - 207' / ?? recov.		SHALE: platy, dry, greenish gray to bluish, very dense / hard. EOB 207' bgl.			205
210						210

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-139

Project: Pall Life Sciences

Location: 255 W. Delhi Rd., Scio Twp

Project No.: 806500

Logged By: AJP / SMK

Start Date: 12-1-2014

End Date: 12-8-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 187'

Static Water Levl. (ft.):

TOC Elev.: s: 877.93; i: 877.93; d: 877.92

Ground Elev.: 878.22 (ft. NAVD88)

X: 13270917.59 **Y:** 288164.65

ND = Non Detect (<1 ug/L). Logged by Amber Jane Pontius, Geologist (AJP) and Steve Kimm, CPG (SMK).

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	LITHOLOGY Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
0			Ground Surface		Flush Mount Cover	0
	0' - 7' / 2' 9" recov.		SAND: fine to medium, dry, orange/brown, loose.			
5						5
	7' - 17' / 7' 10" recov.		SAND: trace granules, moderately sorted fine to medium, dry, light brown to yellow mottled darker brown, loose.		Holeplug	
10						10
15						15
20	17' - 27' / 3' 11" recov.		SAND: as above, coarsening downward to medium and coarse sand with granules and trace fine gravel, subangular, dry.			20
			SAND: as above, color change to darker brown, moist.			
25			SAND: as above, saturated.			25
			SAND and GRAVEL: fine to coarse sand, fine gravel and cobbles, subrounded to subangular and broken cobble pieces, saturated, light brown, loose to very loose.		MW-139s: 10-slot PVC 28'-33' bgs	
30	27' - 37' / 11' 8" recov.		SAND and GRAVEL: as above, orange, saturated.	ND 1,4-Dioxane		30
			SAND and GRAVEL: as above, yellowish brown, saturated.		Well Gravel	
35			CLAY: trace sand and gravel, fine to coarse sand and fine to coarse subangular gravel, low plasticity, dry, gray, very firm. Increasing cohesion with depth.			35
40						40

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-139

Project: Pall Life Sciences

Location: 255 W. Delhi Rd., Scio Twp

Project No.: 806500

Logged By: AJP / SMK

Start Date: 12-1-2014

End Date: 12-8-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 187'

Static Water Levl. (ft.):

TOC Elev.: s: 877.93; i: 877.93; d: 877.92

Ground Elev.: 878.22 (ft. NAVD88)

X: 13270917.59 **Y:** 288164.65

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
45	37' - 47' / 2' 6" recov.					45
50	47' - 57' / 10' 8" recov.		CLAY: little sand, trace gravel, fine to coarse sand, fine to medium subangular gravel, low plasticity, dry, gray, firm.		Holeplug	50
			CLAY: some silt, non-plastic, dry, gray, hard.			
55						55
60	57' - 67' / 10' 9" recov.		CLAY: little sand, fine to coarse, non-plastic, moist, medium stiff.			60
			CLAY: few sand, trace gravel, fine to coarse sand, fine to medium subangular gravel, non-plastic, moist to dry, gray, stiff. Interbedded very thin (1-2") sand seams, fine to medium grained, moist, gray, medium dense.			
65			SAND: some silt and clay, poorly sorted fine to coarse sand, saturated, gray, loose to medium dense.	ND 1,4-Dioxane		65
70	67' - 77' / 7' 11" recov.		SAND and GRAVEL: moderately to poorly sorted, fine to coarse sand, fine to medium subrounded gravel, saturated, light brown to gray, loose.		MW-139i: 10-slot PVC 67'-72' bgs; Well Gravel	70
75				ND 1,4-Dioxane		75
80			SAND and GRAVEL: some silt, some clay chunks, moderately to poorly sorted, fine to coarse sand, fine to medium subrounded to subangular gravel and broken cobble pieces,			80

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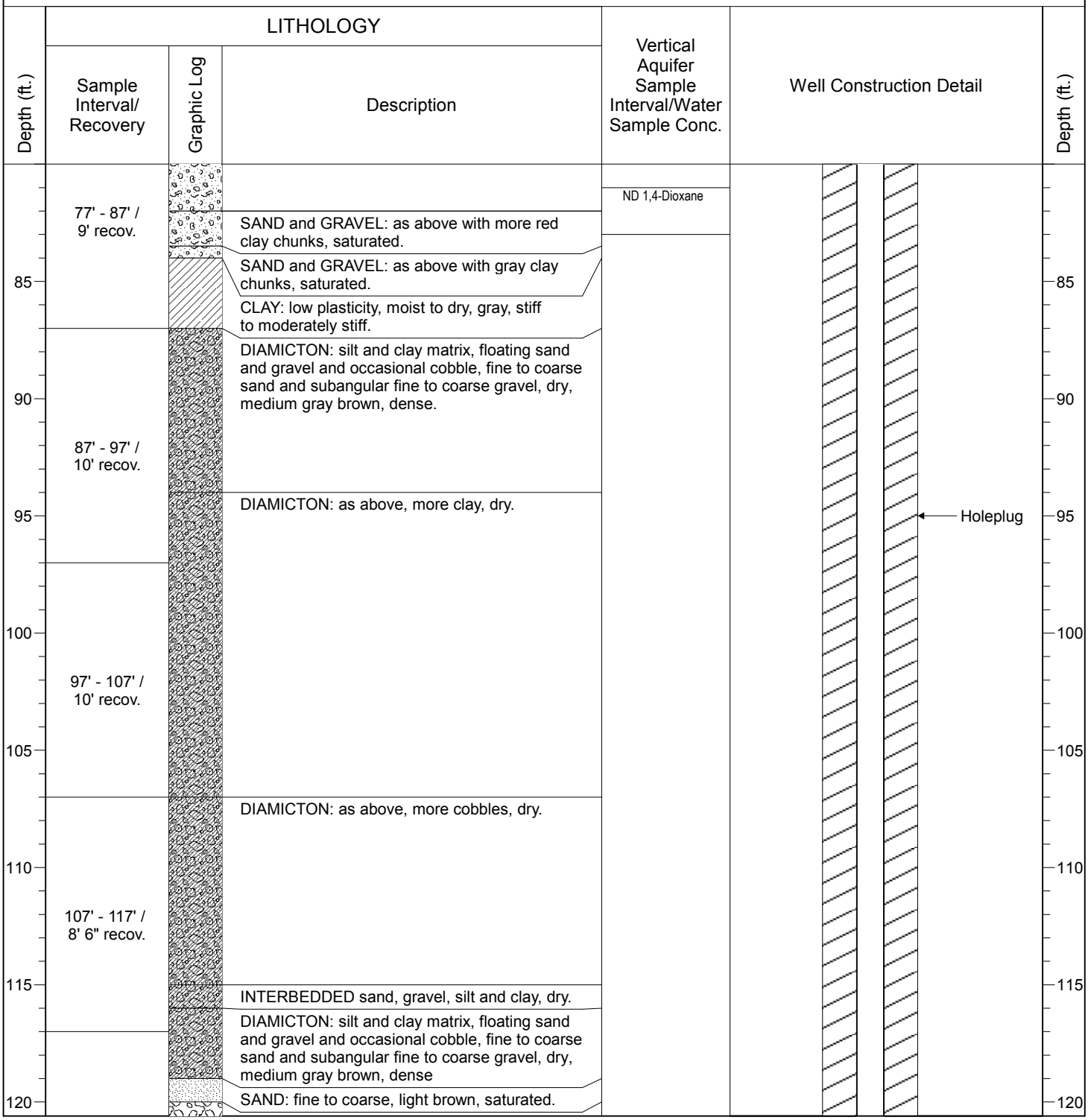
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-139

Project: Pall Life Sciences
Location: 255 W. Delhi Rd., Scio Twp
Project No.: 806500
Logged By: AJP / SMK

Start Date: 12-1-2014
End Date: 12-8-2014
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 187'
Static Water Levl. (ft.):
TOC Elev.: s: 877.93; i: 877.93; d: 877.92
Ground Elev.: 878.22 (ft. NAVD88)
X: 13270917.59 **Y:** 288164.65

SUBSURFACE PROFILE



FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-139

Project: Pall Life Sciences
Location: 255 W. Delhi Rd., Scio Twp
Project No.: 806500
Logged By: AJP / SMK

Start Date: 12-1-2014
End Date: 12-8-2014
Drilling Co.: Cascade Drilling, L.P.
Drilling Method: Rotosonic
Sampling Methods: Continuous core / Push Ahead
Total Depth (ft.): 187'
Static Water Levl. (ft.):
TOC Elev.: s: 877.93; i: 877.93; d: 877.92
Ground Elev.: 878.22 (ft. NAVD88)
X: 13270917.59 **Y:** 288164.65

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
125	117' - 127' / 6' recov.		GRAVEL: granule to cobble size, very coarse, saturated.	ND 1,4-Dioxane	MW-139d: 10-slot PVC 130'-135' bgs	125
			SAND and GRAVEL: few silt, trace clay, fine to coarse sand, granule to cobble size gravel, saturated.			
130	127' - 137' / 8' recov.		GRAVEL: some sand and trace silt, very coarse, granule to small cobble size, saturated.	ND 1,4-Dioxane	Well Gravel	130
135			DIAMICTON: saturated.			135
			GRAVEL: with some sand and trace silt, very coarse, granule to small cobble size, saturated.			
140	137' - 147' / 9' recov.		GRAVEL: few sand, well sorted, granule and pebble size, saturated.			140
			GRAVEL: little sand, granule to pebble size with some cobbles, saturated.	ND 1,4-Dioxane		
			GRAVEL: pebble to cobble size, saturated.			
145			GRAVEL: trace sand, granule to pebble size, saturated.			145
			DIAMICTON: clay and silt matrix with floating sand and gravel, large cobbles, saturated.			
150	147' - 157' / 9' 4" recov.		DIAMICTON: as above, cored large boulder.			150
			DIAMICTON: clay and silt matrix with sand and gravel, fine to coarse sand, subangular fine to coarse granules and small cobbles, moist to dry, gray, firm.			
155						155
160						160

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DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-139

Project: Pall Life Sciences

Location: 255 W. Delhi Rd., Scio Twp

Project No.: 806500

Logged By: AJP / SMK

Start Date: 12-1-2014

End Date: 12-8-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 187'

Static Water Levl. (ft.):

TOC Elev.: s: 877.93; i: 877.93; d: 877.92

Ground Elev.: 878.22 (ft. NAVD88)

X: 13270917.59 **Y:** 288164.65

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
165	157' - 167' / 10' 8" recov.		DIAMICTON: clay and silt matrix with sand and gravel, fine to coarse sand, subrounded to subangular fine to coarse granules and pebbles, trace cobbles, dry, gray, hard.			165
170	167' - 177' / ?? recov.				Holeplug	170
175			SHALE: platy, dry greenish gray to bluish, very dense/hard.			175
180	177' - 187' / ?? recov.					180
185			EOB 187' bgl.			185
190						190
195						195
200						200

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-140

Project: Pall Life Sciences

Location: 4625 Breezewood Ct., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12-8-2014

End Date: 12-12-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 161'

Static Water Levl. (ft.):

TOC Elev.: s: 871.24; d: 871.27

Ground Elev.: 871.58 (ft NAVD88)

X: 13270644.73 **Y:** 289204.61

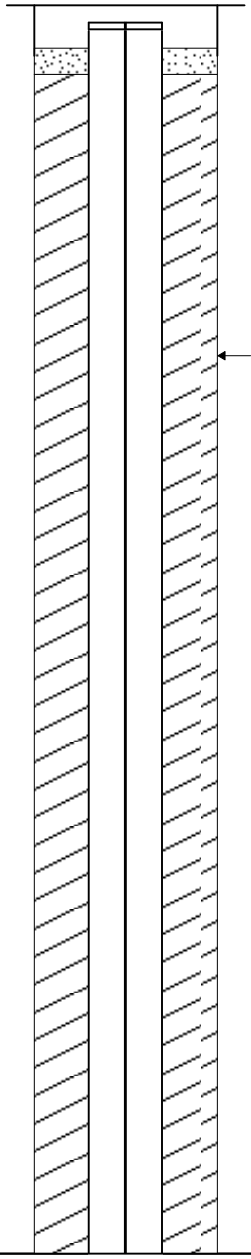
ND = Non Detect (<1 ug/L).

SUBSURFACE PROFILE

LITHOLOGY

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.
0			Ground Surface	
	0-7 cleared utilities		TOPSOIL	
			FILL: sand and gravel, dry.	
5			SAND and GRAVEL: fine to coarse sand, fine subangular gravel, dry, light brown, loose.	
10	7' - 17' / 5' 3" recov.		SAND: trace granule, moderately sorted, fine to medium grained sand, subangular to subrounded granule, dry, yellow/ brown, loose.	
15				
20	17' - 27' / 4' 5" recov.			
25				
30	27' - 37' / 8' 7" recov.		SAND: as above, saturated.	ND 1,4-Dioxane
35				

Well Construction Detail



Depth (ft.)

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-140

Project: Pall Life Sciences

Location: 4625 Breezewood Ct., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12-8-2014

End Date: 12-12-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 161'

Static Water Levl. (ft.):

TOC Elev.: s: 871.24; d: 871.27

Ground Elev.: 871.58 (ft NAVD88)

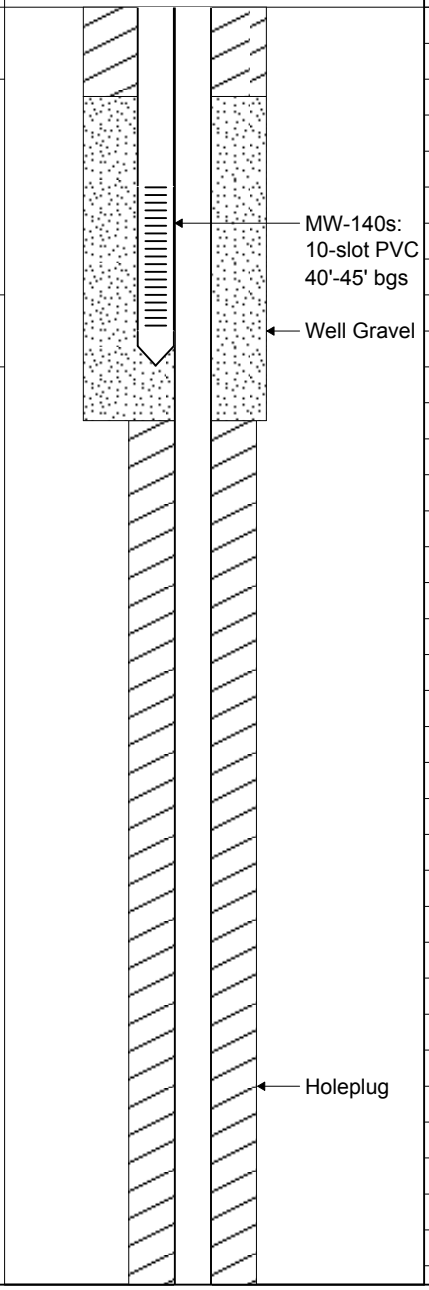
X: 13270644.73 **Y:** 289204.61

SUBSURFACE PROFILE

LITHOLOGY

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.
40	37' - 47' / 5' 8" recov.		SAND: as above, coarsening downward to poorly sorted, fine to coarse sand, saturated, light brown, loose. Darker brown coloring approximately 37 feet below grade.	ND 1,4-Dioxane
45			SILT: some sand, few gravel, trace clay, fine sand, subangular granule and fine gravel, saturated to moist, gray to brownish gray, compacted/dense.	
			SAND and SILT: moderately well sorted, fine to medium sand, saturated, gray/brown, compacted/dense.	
50	47' - 57' / 8' 7" recov.		DIAMICTON: mostly clay and silt matrix, some sand, few gravel, fine to coarse sand, subangular fine gravel, saturated, gray, firm.	
55			DIAMICTON: mostly clay and silt matrix, little sand and gravel, fine to coarse sand, subangular fine gravel, dry, gray, hard.	
			DIAMICTON: clay and silt matrix with sand, fine to coarse, saturated, gray, firm.	
60	57' - 67' / 10' 9" recov.		DIAMICTON: clay and silt matrix with sand and gravel, fine to medium sand, some coarse sand, subrounded granule and subrounded to subangular fine gravel and cobbles, dry, gray, hard to very hard.	
65				
			DIAMICTON: as above, saturated.	
70				

Well Construction Detail



FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-140

Project: Pall Life Sciences

Location: 4625 Breezewood Ct., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12-8-2014

End Date: 12-12-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 161'

Static Water Levl. (ft.):

TOC Elev.: s: 871.24; d: 871.27

Ground Elev.: 871.58 (ft NAVD88)

X: 13270644.73 **Y:** 289204.61

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
75	67' - 77' / 9' 4" recov.					75
			DIAMICTON: as above, dry.			
80	77' - 87' / 11' 3" recov.					80
85						85
90	87' - 97' / 10' 11" recov.		SILT: some sand and clay, fine to medium sand, dry, gray, very compacted.			90
95						95
100	97' - 107' / 10' 3" recov.		SAND: some silt, well sorted, fine grained, dry, gray, dense.			100
105						105

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-140

Project: Pall Life Sciences

Location: 4625 Breezewood Ct., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12-8-2014

End Date: 12-12-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 161'

Static Water Levl. (ft.):

TOC Elev.: s: 871.24; d: 871.27

Ground Elev.: 871.58 (ft NAVD88)

X: 13270644.73 **Y:** 289204.61

SUBSURFACE PROFILE

LITHOLOGY

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
110	107' - 117' / 10' 8" recov.		DIAMICTON: clay and silt matrix with sand and gravel, fine to coarse grained, subrounded fine gravel, subangular and subrounded gravel and cobbles, broken larger cobble and boulder pieces, dry, greenish gray, hard.			110
115						115
120	117' - 127' / 10' 11" recov.		122-124 feet below grade transitioning to clay below.			120
125			CLAY: trace gravel, subangular cobbles, dry, moderate to high plasticity, dry, dark gray, very hard, very waxy.			125
130	127' - 137' / 7' 4" recov.		SAND and GRAVEL: silt and clay coating, fine to coarse sand, subrounded to subangular gravel and cobbles, broken cobble and boulder pieces, saturated, mustard-yellow, very loose. Less silt and clay coating with depth.			130
135				ND 1,4-Dioxane	MW-140d: 10-slot PVC 134'-139' bgs	135
140			SAND and GRAVEL: fine to coarse sand, subrounded gravel and cobbles, broken cobble and boulder pieces, saturated, light brown, loose.		Well Gravel	140

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-140

Project: Pall Life Sciences

Location: 4625 Breezewood Ct., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12-8-2014

End Date: 12-12-2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 161'

Static Water Levl. (ft.):

TOC Elev.: s: 871.24; d: 871.27

Ground Elev.: 871.58 (ft NAVD88)

X: 13270644.73 **Y:** 289204.61

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
	137' - 147' / 9' 6" recov.		SAND: trace granule, well sorted, fine grained, saturated, light brown, medium dense.			
145			Intermittent DIAMICTON and CLAY, dry, gray, very hard, clay is very waxy.			145
			SHALE: platy, greenish gray to bluish, dense.			
	147' - 155' / 8' 8" recov.		CLAY: transitional, intermittent layers of hard/firm and soft/very soft clay and some shale pieces, intermittent hard drilling, gray.			
150					← Holeplug	150
155						155
	155' - 161' / 9' 5.5" recov.		SHALE: platy, dry, greenish gray to bluish, very dense, very hard.			
160			EOB 161' bgl.			160
165						165
170						170
175						175

LOG OF BORING / WELL: MW-141

Project: Pall Life Sciences

Location: 4810 Park Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12/15/2014

End Date: 12/31/2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 192'

Static Water Levl. (ft.):

TOC Elev.: s: 871.93; d: 872.07

Ground Elev.: 872.52 (ft. NAVD88)

X: 13269794.45 **Y:** 286369.76

Shallow well is artesian. ND = Non Detect (<1 ug/L).

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
0			Ground Surface			0
	0' - 5' / cleared utilities		TOPSOIL: clay-rich, organic, dry.		Flush Mount Cover	
5	5' - 7' / 11" recov.		CLAY: significant sand, yellow brown, very soft, saturated.			5
10	7' - 17' / 9' 1" recov.		CLAY: some silt, some to few gravel, subangular fine gravel, trace larger cobbles, gray, dry.		Holeplug	10
15						15
20	17' - 27' / 9' 4" recov.					20
25						25
30	27' - 37' / 10' 8" recov.					30
35						35

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-141

Project: Pall Life Sciences

Location: 4810 Park Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12/15/2014

End Date: 12/31/2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 192'

Static Water Levl. (ft.):

TOC Elev.: s: 871.93; d: 872.07

Ground Elev.: 872.52 (ft. NAVD88)

X: 13269794.45 **Y:** 286369.76

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
			CLAY: gray, very soft, noncohesive, saturated.			
			CLAY: gray, some silt, some to few gravel, subangular fine to medium gravel, trace larger cobbles, dry.			
40	37' - 47' / 10' 4" recov.		CLAY: gray, very soft, noncohesive, saturated.			40
			CLAY: gray, some silt, some to few gravel, subangular fine to medium gravel, trace larger cobbles, dry.			
45						45
50	47' - 57' / 11' 9" recov.					50
55						55
60	57' - 67' / 11' 1" recov.		CLAY: as above, softer, saturated.			60
			CLAY: as above, dry.			
65						65
70			Assumed as above with larger cobbles Limited recovery. Pushing a boulder. Bore stayed open to 72 feet indicating clay-rich.			70

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-141

Project: Pall Life Sciences

Location: 4810 Park Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12/15/2014

End Date: 12/31/2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 192'

Static Water Levl. (ft.):

TOC Elev.: s: 871.93; d: 872.07

Ground Elev.: 872.52 (ft. NAVD88)

X: 13269794.45 **Y:** 286369.76

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
75	67' - 77' / 4" recov. Pushing a rock		DIAMICTON: sand, gravel, silt and clay coating, matrix, soupy coating, subangular and subrounded cobbles, broken cobble/boulder pieces, saturated, gray, loose.	ND 1,4-Dioxane		75
80	67' - 87' / 2' 4" recov.					80
85				ND 1,4-Dioxane		85
90	87' - 97' / 8' 6" recov.		SAND: some silt and clay, fine to coarse, light brown to gray, saturated, loose.			90
			SAND: significant clay, as above with clay chuncks at 96 feet.			
95				ND 1,4-Dioxane		95
100	97' - 107' / 10' 5" recov.		SAND: fine to coarse, light brown, trace subangular fine to medium gravel, saturated.			100
			DIAMICTON: sand and gravel with silt and clay matrix, soupy coating, subangular and subrounded cobbles, broken cobble and boulder pieces, saturated, gray, loose.			
105						105

LOG OF BORING / WELL: MW-141

Project: Pall Life Sciences

Location: 4810 Park Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12/15/2014

End Date: 12/31/2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 192'

Static Water Levl. (ft.):

TOC Elev.: s: 871.93; d: 872.07

Ground Elev.: 872.52 (ft. NAVD88)

X: 13269794.45 **Y:** 286369.76

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
				ND 1,4-Dioxane		
110	107' - 117' / 6' 6" recov.		SAND and GRAVEL: fine to coarse, subangular fine to coarse gravel with larger cobbles expected at depth, saturated, very loose.			110
115				ND 1,4-Dioxane		115
120	117' - 127' / 5' 5" recov.			3 ug/L 1,4-Dioxane	MW-141s: 10-slot PVC 120'-125' bg Well Gravel	120
125			DIAMICTON: significant sand and gravel with silt and clay matrix, soupy coating, subangular and subrounded cobbles, broken cobble pices and a couple boulder cores, saturated, gray, loose.			125
130	127' - 137' / 6' 7" recov.			ND 1,4-Dioxane		130
135			GRAVEL: subangular fine to very coarse, broken cobble/boulder pieces, saturated, very loose.			135
			CLAY: some sand, gravel and silt, almost like diamicton, fine to medium sand, subrounded to subangular cobbles, dry, brownish gray, very hard.			
140	137' - 143' /					140

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-141

Project: Pall Life Sciences

Location: 4810 Park Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12/15/2014

End Date: 12/31/2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 192'

Static Water Levl. (ft.):

TOC Elev.: s: 871.93; d: 872.07

Ground Elev.: 872.52 (ft. NAVD88)

X: 13269794.45 **Y:** 286369.76

SUBSURFACE PROFILE

Depth (ft.)	Sample Interval/ Recovery	Graphic Log	Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail
	137' - 143' / 10' 2" recov.		CLAY: medium plasticity, dry, brown/gray very hard, very waxy.		
			CLAY: some silt, non plastic, dry, greenish/ brownish gray, hard.		
145	143' - 147' / 4' 3" recov.		SILT: some sand, little clay, saturated, gray, firm.		Holeplug
150					
	147' - 157' / 10' 4" recov.		SAND: well sorted fine/medium grained, coarsening downward to fine/coarse, light brown, saturated.	3 ug/L 1,4-Dioxane	
155					MW-141d: 10-slot PVC 155'-160' bgs
					Well Gravel
160	157' - 167' / 9' 7" recov.		DIAMICTON: mostly sand and gravel with silt coating matrix, fine to coarse sand, subrounded to subangular granule and cobbles, and broken gravel pieces, saturated, yellow gray, very loose.		
165			DIAMICTON: as above with clay chunks	ND 1,4-Dioxane	
			DIAMICTON: as above with less clay.		
			SAND: trace silt and clay, well sorted fine/medium grained coarsening downward to fine/coarse, light brown, saturated.		
170	167' - 177' / 10' 4" recov.				Holeplug
175					

FLEIS&VANDENBRINK
DESIGN. BUILD. OPERATE.

LOG OF BORING / WELL: MW-141

Project: Pall Life Sciences

Location: 4810 Park Rd., Scio Twp

Project No.: 806500

Logged By: Amber Jane Pontius, Geologist

Start Date: 12/15/2014

End Date: 12/31/2014

Drilling Co.: Cascade Drilling, L.P.

Drilling Method: Rotosonic

Sampling Methods: Continuous core / Push Ahead

Total Depth (ft.): 192'

Static Water Levl. (ft.):

TOC Elev.: s: 871.93; d: 872.07

Ground Elev.: 872.52 (ft. NAVD88)

X: 13269794.45 **Y:** 286369.76

SUBSURFACE PROFILE

Depth (ft.)	LITHOLOGY: Sample Interval/ Recovery	LITHOLOGY: Graphic Log	LITHOLOGY: Description	Vertical Aquifer Sample Interval/Water Sample Conc.	Well Construction Detail	Depth (ft.)
			DIAMICTON: mostly sand and gravel with silt and clay coating matrix, fine to coarse sand, subrounded to subangular granule and cobbles, saturated, brown/gray, loose.	ND 1,4-Dioxane		
			Increasing amounts of clay with depth.			
180	177' - 187' 9' 2" recov.		DIAMICTON: clay matrix with some silt, little sand and gravel, fine to coarse, subanuglar granule and cobbles, saturated, gray, moderate cohesion.			180
			CLAY: medium plasticity, dry, brown/gray very hard, very waxy, transitioning to shale.			
185			SHALE: platy, dry, greenish gray to bluish, very dense/hard.			185
190	187' - 192' / 6' recov.		EOB 192' bgl.			190
195						195
200						200
205						205
210						210

APPENDIX 2

Department of Environmental Quality
Resource Management Division
Drinking Water & Environmental Health Section -
Environmental Health Unit

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc*

****

Location: *404 ADRIENNE LANE ANN ARBOR 48103* **Occupant:** *RESIDENT - 106ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45022 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

LLF44718 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *407 ADRIENNE LANE ANN ARBOR 48103* **Occupant:** *RESIDENT - 98ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45024 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4532 BREEZEWOOD ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44708 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4541 BREEZEWOOD ANN ARBOR 48103* **Occupant:** *RESIDENT - 136ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44866 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4548 BREEZEWOOD ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44710 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4583 BREEZEWOOD ANN ARBOR 48103* **Occupant:** *RESIDENT - 133ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44707 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4628 BREEZEWOOD ANN ARBOR 48103* **Occupant:** *RESIDENT - 154ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44714 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *4667 BREEZEWOOD ANN ARBOR 48103* **Occupant:** *RESIDENT - 92ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44711 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4670 BREEZEWOOD ANN ARBOR 48103* **Occupant:** *RESIDENT - 52ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45833 **Collect Date:** *11/07/2014* **Arrival Date:** *11/10/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4712 BREEZEWOOD ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44719 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *37 BURTON ANN ARBOR 48103* **Occupant:** *RESIDENT - 57ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44282 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *42 BURTON ANN ARBOR 48103* **Occupant:** *RESIDENT - 58ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44284 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *96 BURTON ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44285 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5155 CHRISTINE COURT ANN ARBOR 48103* **Occupant:** *RESIDENT - 70ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44862 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5167 CHRISTINE COURT ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44859 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *5171 CHRISTINE COURT ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44869 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated. Sample did not meet method pH requirements. Results might not be accepted for compliance purposes.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

CXVOX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5175 CHRISTINE COURT ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44871 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

CXVOX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5179/5181 CHRISTINE COURT ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44870 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated. Sample did not meet method pH requirements. Results might not be accepted for compliance purposes.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

CXVOX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5056 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 96ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44848 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5061 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44856 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5089 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 75ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45020 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5112 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 93ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44854 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *5119 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44852 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5145 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44850 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5159 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 96ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44855 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5160 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 91ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44851 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5161 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 96ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44858 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5163/5165 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44853 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5183/5185 CHRISTINE DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 85ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44865 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *5188 CHRISTINE DRIVE ANN ARBOR 49103* **Occupant:** *RESIDENT - 90ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44857 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4564 COUNTRYSIDE COURT ANN ARBOR 48103* **Occupant:** *RESIDENT - 119ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44712 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4580 COUNTRYSIDE COURT ANN ARBOR 49103* **Occupant:** *RESIDENT - 143ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44706 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4596 COUNTRYSIDE COURT ANN ARBOR 49103* **Occupant:** *RESIDENT - 162ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44709 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *4612 COUNTRYSIDE COURT ANN ARBOR 49103* **Occupant:** *RESIDENT - 135ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44717 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *521 FLORENCE ANN ARBOR 49103* **Occupant:** *RESIDENCE - 99ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44868 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated. Sample did not meet method pH requirements. Results might not be accepted for compliance purposes.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

CXVOX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *565 FLORENCE ANN ARBOR 48103* **Occupant:** *RESIDENT - 102ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44867 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

Compounds reported as TRACE were detected at levels above the detection limits, but at levels too low to quantitate. This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated. Sample did not meet method pH requirements. Results might not be accepted for compliance purposes.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

CXVOX	75-34-3	DICHLOROETHANE,1,1-	TRACE	0.0005	mg/L	EPA 524.2

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *584 FLORENCE ANN ARBOR 48103* **Occupant:** *RESIDENT - 96ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44860 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *603 FLORENCE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45023 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

LLF45026 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

Compounds reported as TRACE were detected at levels above the detection limits, but at levels too low to quantitate. A trip blank was not available for analysis with this sample. Sample did not meet method pH requirements. Results might not be accepted for compliance purposes.

CXVOX	75-34-3	DICHLOROETHANE,1,1-	TRACE	0.0005	mg/L	EPA 524.2

****

Location: *630 FLORENCE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45021 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *670 FLORENCE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45017 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *706 FLORENCE ANN ARBOR 49103* **Occupant:** *RESIDENT - 106ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45016 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *663 HALCYON COURT ANN ARBOR 49103* **Occupant:** *RESIDENT- 82ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45018 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *672 HALCYON COURT ANN ARBOR 49103* **Occupant:** *RESIDENT - 83ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45019 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *705 HALCYON COURT ANN ARBOR 48103* **Occupant:** *RESIDENT -79ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45015 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *714 HALCYON COURT ANN ARBOR 48103* **Occupant:** *RESIDENT - 75ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45025 **Collect Date:** *10/31/2014* **Arrival Date:** *11/01/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5130/5134 JACKSON ANN ARBOR 48103* **Occupant:** *Rental/RESIDENT - 54ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44283 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

LLF44272 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *116 LUELLA ANN ARBOR 48103* **Occupant:** *RESIDENT - 54ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44274 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *44 LUELLA ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44275 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *98 MYRTLE ANN ARBOR 48103* **Occupant:** *RESIDENT - 56ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44278 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5065 PARK ANN ARBOR 48103* **Occupant:** *RESIDENT - 65ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44286 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *5140 PARK ANN ARBOR 48103* **Occupant:** *RESIDENT - 56ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44273 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *619 RIDGEMONT LANE ANN ARBOR 48103* **Occupant:** *RESIDENT - 61ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44864 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *642 RIDGEMONT LANE ANN ARBOR 48103* **Occupant:** *RESIDENT - 94ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44849 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *679 RIDGEMONT LANE ANN ARBOR 48103* **Occupant:** *RESIDENT - 76ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44863 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *684 RIDGEMONT LANE ANN ARBOR 48103* **Occupant:** *RESIDENT - 65ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44861 **Collect Date:** *10/29/2014* **Arrival Date:** *10/30/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *595 SCIOMEADOW DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 80ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44702 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *598 SCIOMEADOW DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 93ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44699 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *627 SCIOMEADOW DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 96ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44705 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *630 SCIOMEADOW DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 76ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44701 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *659 SCIOMEADOW DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 97ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44698 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *672 SCIOMEADOW DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT - 77ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44697 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *691 SCIOMEADOW DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44703 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *714 SCIOMEADOW DRIVE ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44700 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *250 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44319 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *255 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44323 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *304 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44321 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *310 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44316 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

****

Location: *325 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 156ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44308 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

****

Location: *345 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 152ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44322 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

****

Location: *359 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 52ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44317 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

****

Location: *360 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 160ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44320 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

****

Location: *367 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44309 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

****

Location: *379 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44312 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

****

Location: *380 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44314 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

****

Location: *384 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method
LLF44310 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*						
CXPDX	**++ All Analytes for this Test Code are Non Detect (ND) ++**					

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *395 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 157ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44313 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *396/398 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44311 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *420 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 123ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44318 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *442 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44696 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *50 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44280 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *530 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENET - 93ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44716 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *531 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 145ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44715 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *548 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 92ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF45832 **Collect Date:** *11/07/2014* **Arrival Date:** *11/10/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Selection criteria for this report is as follows:
Site code= 'GELSC ' and Arrival Date is >= '10/1/2014' and Arrival Date is '11/17/2014'
*** Non Detect (ND) Results Are Suppressed ***

Site Code : *GELSC* Site Name: *Gelman Sciences Inc* (cont.)

****

Location: *55 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44276 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *553 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 109ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44704 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *575 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT - 63ft* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44713 **Collect Date:** *10/28/2014* **Arrival Date:** *10/29/2014*

This analysis is performed using selected ion monitoring (SIM). Due to the nature of 1,4-dioxane, results reported below 0.005 mg/L should be considered estimated.

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *75 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44277 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *79 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44281 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *83 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44279 **Collect Date:** *10/23/2014* **Arrival Date:** *10/24/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

****

Location: *85 W DELHI ANN ARBOR 48103* **Occupant:** *RESIDENT* **County:** *Washtenaw*

Test	CasNo	Analyte	Result	Detect	Units	Method

LLF44315 **Collect Date:** *10/24/2014* **Arrival Date:** *10/25/2014*

CXPDX **++ All Analytes for this Test Code are Non Detect (ND) ++**

Analytical Data Report: MW-136d

Aquifer: E	**Date Installed:** 11/10/2014	**Boring Depth:** 164 Feet bgl	**Screen 1:** 142 to 137 Feet
Map Location: D1	**Well Driller:** Cascade Drilling	**Ground Elevation:** 856.85 Feet	**Screen 1 Length:** 5
X Coordinate: 13268104.60	**Well Type:** Monitoring Wells	**TOC Elevation:** 856.32 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 289075.76	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	08:40							08:40	3.05	
01/20/2015	10:53							10:53	2.81	
12/09/2014	11:45	nd	1.0					11:04	2.87	

Analytical Data Report: MW-136i

Aquifer: D0	**Date Installed:** 11/10/2014	**Boring Depth:** 164 Feet bgl	**Screen 1:** 65 to 60 Feet
Map Location: D1	**Well Driller:** Cascade Drilling	**Ground Elevation:** 856.85 Feet	**Screen 1 Length:** 5
X Coordinate: 13268104.76	**Well Type:** Monitoring Wells	**TOC Elevation:** 856.33 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 289075.65	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	08:39							08:39	3.41	
01/20/2015	10:52							10:52	3.18	
12/09/2014	12:20	nd	1.0					11:08	3.17	

Analytical Data Report: MW-136s

Aquifer: D0	**Date Installed:**	**Boring Depth:** 164 Feet bgl	**Screen 1:** 20 to 15 Feet
Map Location: D1	**Well Driller:** Cascade Drilling	**Ground Elevation:** 856.85 Feet	**Screen 1 Length:** N/A
X Coordinate: 13268104.86	**Well Type:** Monitoring Wells	**TOC Elevation:** 856.31 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 289075.83	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	08:37							08:37	3.37	
01/20/2015	10:51							10:51	3.15	
12/09/2014	12:43	nd	1.0					11:09	3.14	

Analytical Data Report: MW-137d

Aquifer: E	**Date Installed:** 11/14/2014	**Boring Depth:** 187 Feet bgl	**Screen 1:** 115 to 110 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 874.57 Feet	**Screen 1 Length:** N/A
X Coordinate: 13268412.21	**Well Type:** Monitoring Wells	**TOC Elevation:** 874.11 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 287543.10	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	09:51							09:51	20.63	
01/26/2015	10:58	nd	1.0					10:21	20.48	
01/20/2015	11:15							11:15	20.45	
12/09/2014	10:06	nd	1.0					09:15	20.44	

Analytical Data Report: MW-137s

Aquifer: D0	**Date Installed:** 11/14/2014	**Boring Depth:** 187 Feet bgl	**Screen 1:** 65 to 60 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 874.57 Feet	**Screen 1 Length:** N/A
X Coordinate: 13268412.20	**Well Type:** Monitoring Wells	**TOC Elevation:** 874.15 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 287542.86	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	09:52							09:52	21.34	
01/26/2015	11:16	nd	1.0					10:29	21.21	
01/20/2015	11:13							11:13	21.17	
12/09/2014	10:34	nd	1.0					09:23	21.15	

Analytical Data Report: MW-138d

Aquifer: E	**Date Installed:** 11/21/2014	**Boring Depth:** 207 Feet bgl	**Screen 1:** 145 to 140 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 894.33 Feet	**Screen 1 Length:** 5
X Coordinate: 13270804.97	**Well Type:** Monitoring Wells	**TOC Elevation:** 893.94 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 287092.04	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	10:24							10:24	16.27	
01/26/2015	12:40	nd	1.0					11:51	16.38	
01/20/2015	11:33							11:33	16.37	
12/08/2014	10:11	nd	1.0					09:36	16.26	

Analytical Data Report: MW-138i

Aquifer: D0	**Date Installed:** 11/21/2014	**Boring Depth:** 207 Feet bgl	**Screen 1:** 100 to 95 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 894.33 Feet	**Screen 1 Length:** 5
X Coordinate: 13270804.83	**Well Type:** Monitoring Wells	**TOC Elevation:** 894.01 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 287091.86	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	10:26							10:26	16.49	
01/26/2015	13:25	6	1.0					12:03	16.15	
01/20/2015	11:31							11:31	16.14	
12/18/2014	11:37	6	1.0					11:03	16.1	
12/08/2014	10:34	7	1.0					09:43	16.06	

Analytical Data Report: MW-138s

Aquifer: D0	**Date Installed:** 11/21/2014	**Boring Depth:** 207 Feet bgl	**Screen 1:** 51 to 46 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 894.33 Feet	**Screen 1 Length:** 5
X Coordinate: 13270805.00	**Well Type:** Monitoring Wells	**TOC Elevation:** 893.94 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 287091.73	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	10:22							10:22	16.07	
01/26/2015	12:54	1	1.0					12:02	15.94	
01/20/2015	11:29							11:29	15.94	
12/08/2014	10:59	nd	1.0					09:44	15.84	

Analytical Data Report: MW-139d

Aquifer: E	**Date Installed:** 12/05/2014	**Boring Depth:** 187 Feet bgl	**Screen 1:** 135 to 130 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 878.22 Feet	**Screen 1 Length:** 5
X Coordinate: 13270917.71	**Well Type:** Monitoring Wells	**TOC Elevation:** 877.92 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 288164.65	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Monthly	**Notes:** Homeowner has separate drinking water well	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	11:06							11:06	1.42	
01/20/2015	10:25							10:25	1.28	
12/22/2014	09:35	nd	1.0					08:46	1.2	

Analytical Data Report: MW-139i

Aquifer: D0	**Date Installed:** 12/05/2014	**Boring Depth:** 187 Feet bgl	**Screen 1:** 72 to 67 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 878.22 Feet	**Screen 1 Length:** 5
X Coordinate: 13270917.59	**Well Type:** Monitoring Wells	**TOC Elevation:** 877.93 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 288164.82	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:** Homeowner has separate drinking water well	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	11:03							11:03	0.45	
01/20/2015	10:27							10:27	0.32	
12/22/2014	10:06	nd	1.0					09:01	0.26	

Analytical Data Report: MW-139s

Aquifer: D0	**Date Installed:** 12/05/2014	**Boring Depth:** 187 Feet bgl	**Screen 1:** 33 to 28 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 878.22 Feet	**Screen 1 Length:** 5
X Coordinate: 13270917.87	**Well Type:** Monitoring Wells	**TOC Elevation:** 877.93 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 288164.84	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:** Homeowner has separate drinking water well	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	11:00							11:00	24.42	
01/20/2015	10:24							10:24	23.77	
12/22/2014	10:22	nd	1.0					09:19	23.76	

Analytical Data Report: MW-140d

Aquifer: E	**Date Installed:** 12/12/2014	**Boring Depth:** 161 Feet bgl	**Screen 1:** 139 to 134 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 871.58 Feet	**Screen 1 Length:** 5
X Coordinate: 13270644.73	**Well Type:** Monitoring Wells	**TOC Elevation:** 871.27 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 289204.52	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	09:15							09:15	21.95	
01/20/2015	10:02							10:02	21.28	
12/22/2014	14:05	nd	1.0					13:07	21.33	

Analytical Data Report: MW-140s

Aquifer: D0	**Date Installed:** 12/12/2014	**Boring Depth:** 161 Feet bgl	**Screen 1:** 45 to 40 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 871.58 Feet	**Screen 1 Length:** 5
X Coordinate: 13270644.82	**Well Type:** Monitoring Wells	**TOC Elevation:** 871.24 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 289204.73	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	09:13							09:13	24.44	
01/20/2015	10:00							10:00	24.26	
12/22/2014	14:27	nd	1.0					13:16	24.23	

Analytical Data Report: MW-141d

Aquifer: E	**Date Installed:** 12/31/2014	**Boring Depth:** 192 Feet bgl	**Screen 1:** 160 to 155 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 872.52 Feet	**Screen 1 Length:** 5
X Coordinate: 13269794.41	**Well Type:** Monitoring Wells	**TOC Elevation:** 872.07 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 286368.76	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:**	

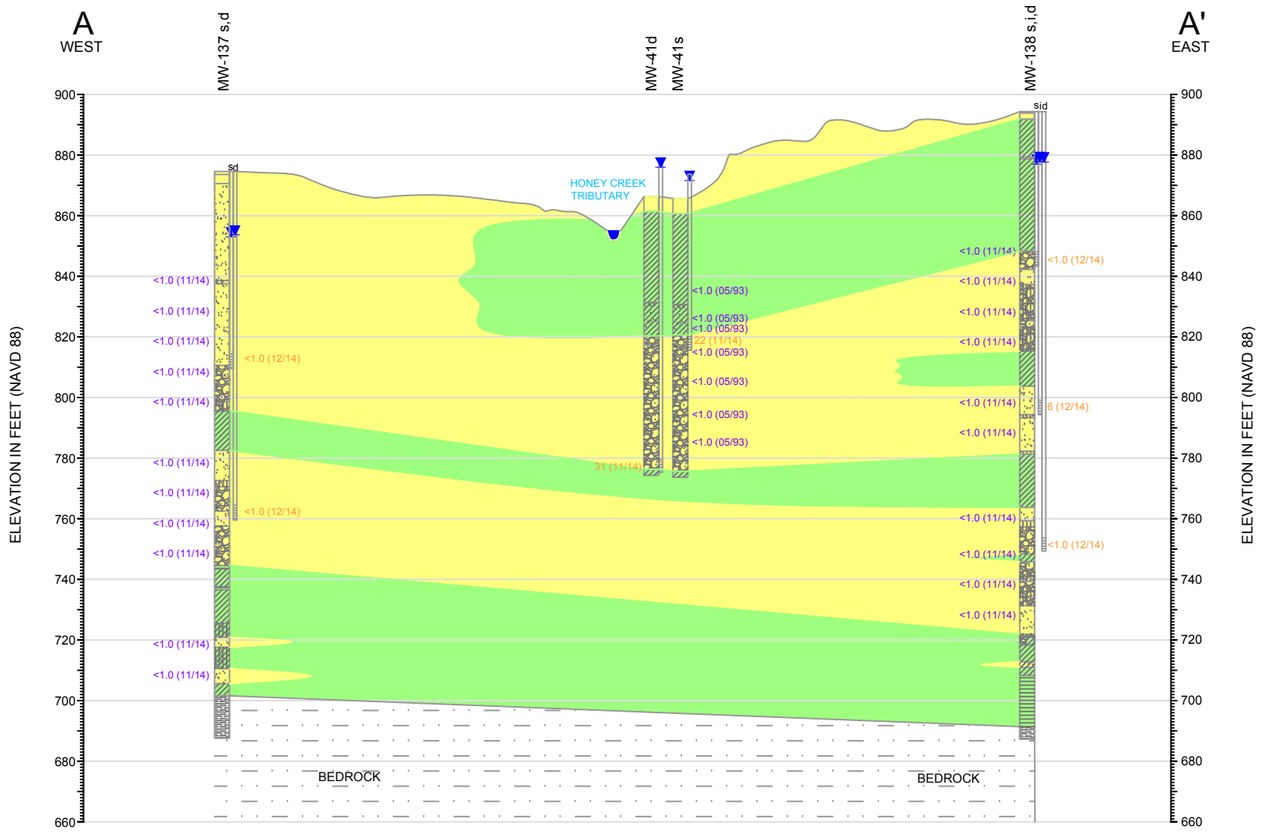
Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	13:57							13:57	12.88	
01/20/2015	13:21							13:21	12.68	
01/16/2015	10:01	3	1.0					09:16	12.67	

Analytical Data Report: MW-141s

Aquifer: D0	**Date Installed:** 12/31/2014	**Boring Depth:** 192 Feet bgl	**Screen 1:** 125 to 120 Feet
Map Location: N/A	**Well Driller:** Cascade Drilling	**Ground Elevation:** 872.52 Feet	**Screen 1 Length:** 5
X Coordinate: 13269794.50	**Well Type:** Monitoring Wells	**TOC Elevation:** 871.93 Feet	**Screen 2:** N/A to N/A Feet
Y Coordinate: 286369.54	**Sampling Interval:** Semi-Annual	**TOC to screen bottom:** N/A Feet	
	Static Interval: Quarterly	**Notes:** Artesian	

Date Collected	Time Collected	1,4-Dioxane Results (ppb)	R.L.	Bromate Results	R.L.	Bromide Results	R.L.	Static Time	Static Reading	Comments
02/24/2015	14:32							14:32	5.11	above the well casing
01/20/2015	13:39							13:39	5.15	above the well casing
01/16/2015	10:41	3	1.0							

APPENDIX 3



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SCALE IN FEET

VERTICAL EXAGGERATION = 10X

NOTES:
- BORINGS, WELLS, AND CREEK CHANNEL WIDTHS ARE EXAGGERATED TO SHOW DETAIL.

-THE CORRELATIONS SHOWN ARE BASED ON PROFESSIONAL JUDGEMENT. OTHER INTERPRETATIONS ARE POSSIBLE AND SHOULD BE CONSIDERED.

LEGEND

67 - SAMPLE INTERVAL AND 1,4-DIOXANE CONCENTRATION µ/L (Samples Collected By Vertical Aquifer Profiling During Installation)

130 - 1,4-DIOXANE CONCENTRATION (µ/L) AND COLLECTION DATE (Samples Collected From Well)

SAND GRAVEL SHALE CLAY SILT DIAMICTON

WELL

WATER LEVEL ELEVATION

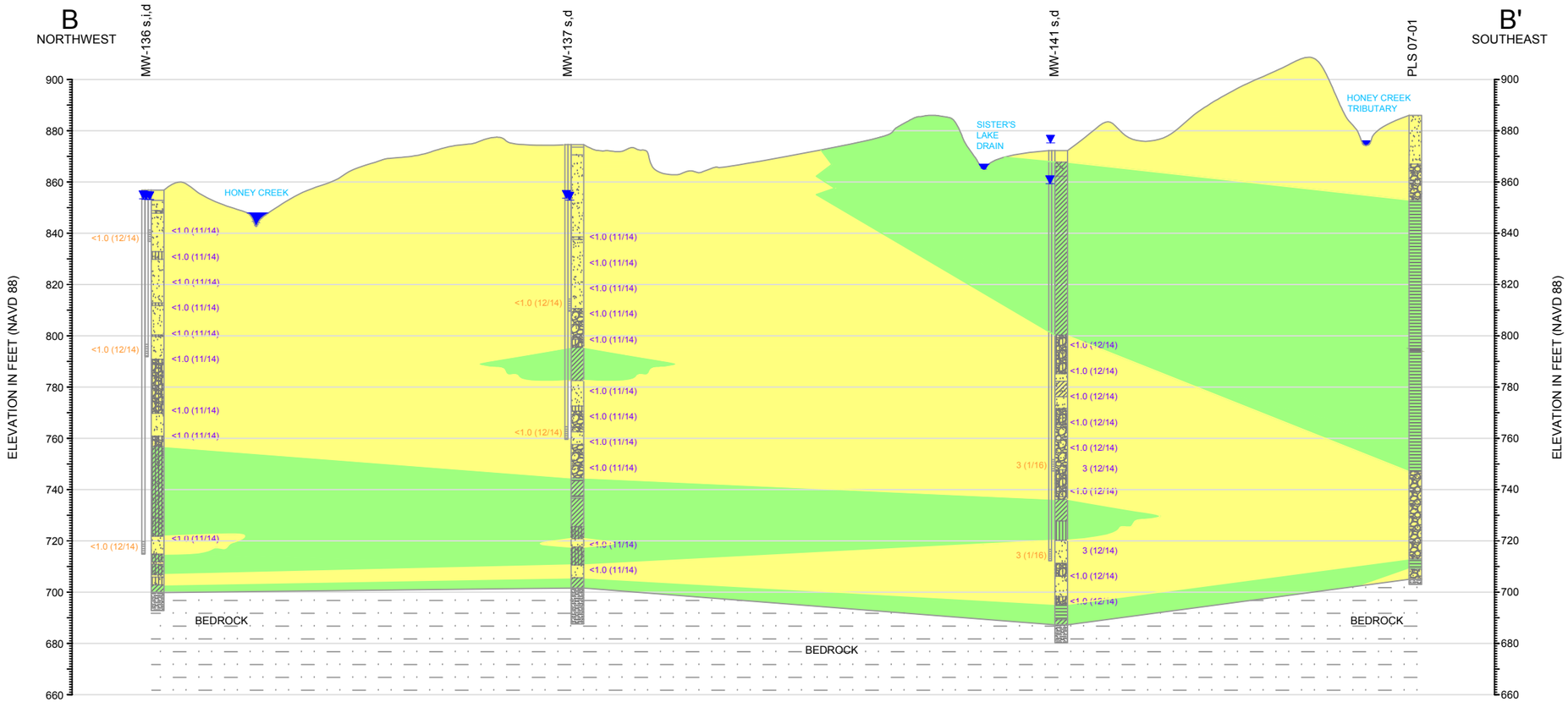
SCREENED INTERVAL

PALL LIFE SCIENCES
ANN ARBOR, MICHIGAN
LITTLE LAKE AREA SYSTEM

CROSS SECTION A-A'

F&V PROJECT NO. 806500

F&V



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SCALE IN FEET

VERTICAL EXAGGERATION = 10X

NOTES:
- BORINGS, WELLS, AND CREEK CHANNEL WIDTHS ARE EXAGGERATED TO SHOW DETAIL.

-THE CORRELATIONS SHOWN ARE BASED ON PROFESSIONAL JUDGEMENT. OTHER INTERPRETATIONS ARE POSSIBLE AND SHOULD BE CONSIDERED.

LEGEND

67 - SAMPLE INTERVAL AND 1,4-DIOXANE CONCENTRATION µ/L (Samples Collected By Vertical Aquifer Profiling During Installation)

130 - 1,4-DIOXANE CONCENTRATION (µ/L) AND COLLECTION DATE (Samples Collected From Well)

SAND GRAVEL SHALE CLAY SILT DIAMICTON

WELL

WATER LEVEL ELEVATION

SCREENED INTERVAL

PALL LIFE SCIENCES
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LITTLE LAKE AREA SYSTEM

CROSS SECTION B-B'

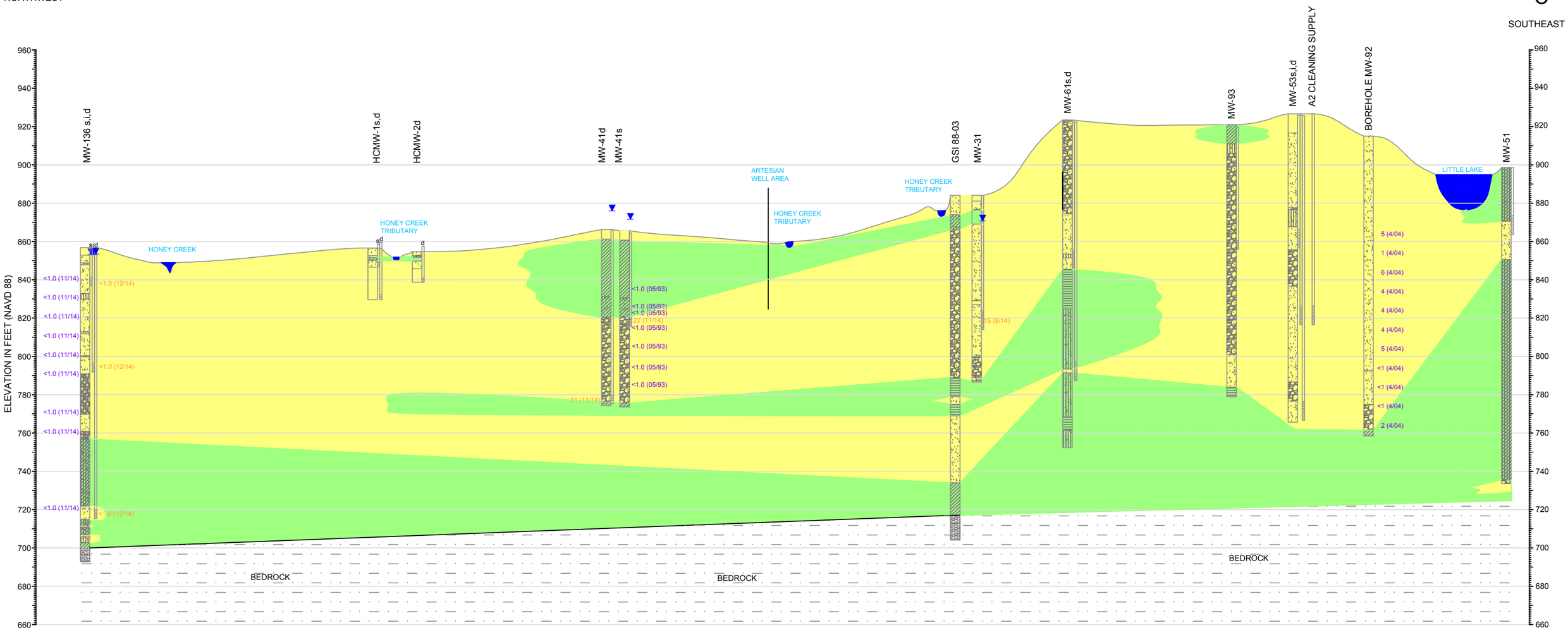
F&V PROJECT NO. 806900

F&V

01-2015 XSEC / amberp 080715

C
NORTHWEST

C'
SOUTHEAST



0 500 1000
SCALE IN FEET
VERTICAL EXAGGERATION = 10X

NOTES:
-BORINGS, WELLS, AND CREEK CHANNEL WIDTHS ARE EXAGGERATED TO SHOW DETAIL.

-THE CORRELATIONS SHOWN ARE BASED ON PROFESSIONAL JUDGEMENT. OTHER INTERPRETATIONS ARE POSSIBLE AND SHOULD BE CONSIDERED.

LEGEND

67 - SAMPLE INTERVAL AND 1,4-DIOXANE CONCENTRATION µ/L (Samples Collected By Vertical Aquifer Profiling During Installation)

130 - 1,4-DIOXANE CONCENTRATION (µ/L) AND COLLECTION DATE (Samples Collected From Well)

SAND GRAVEL SHALE CLAY SILT DIAMICTON

WELL

WATER LEVEL ELEVATION

SCREENED INTERVAL

PALL LIFE SCIENCES
ANN ARBOR, MICHIGAN

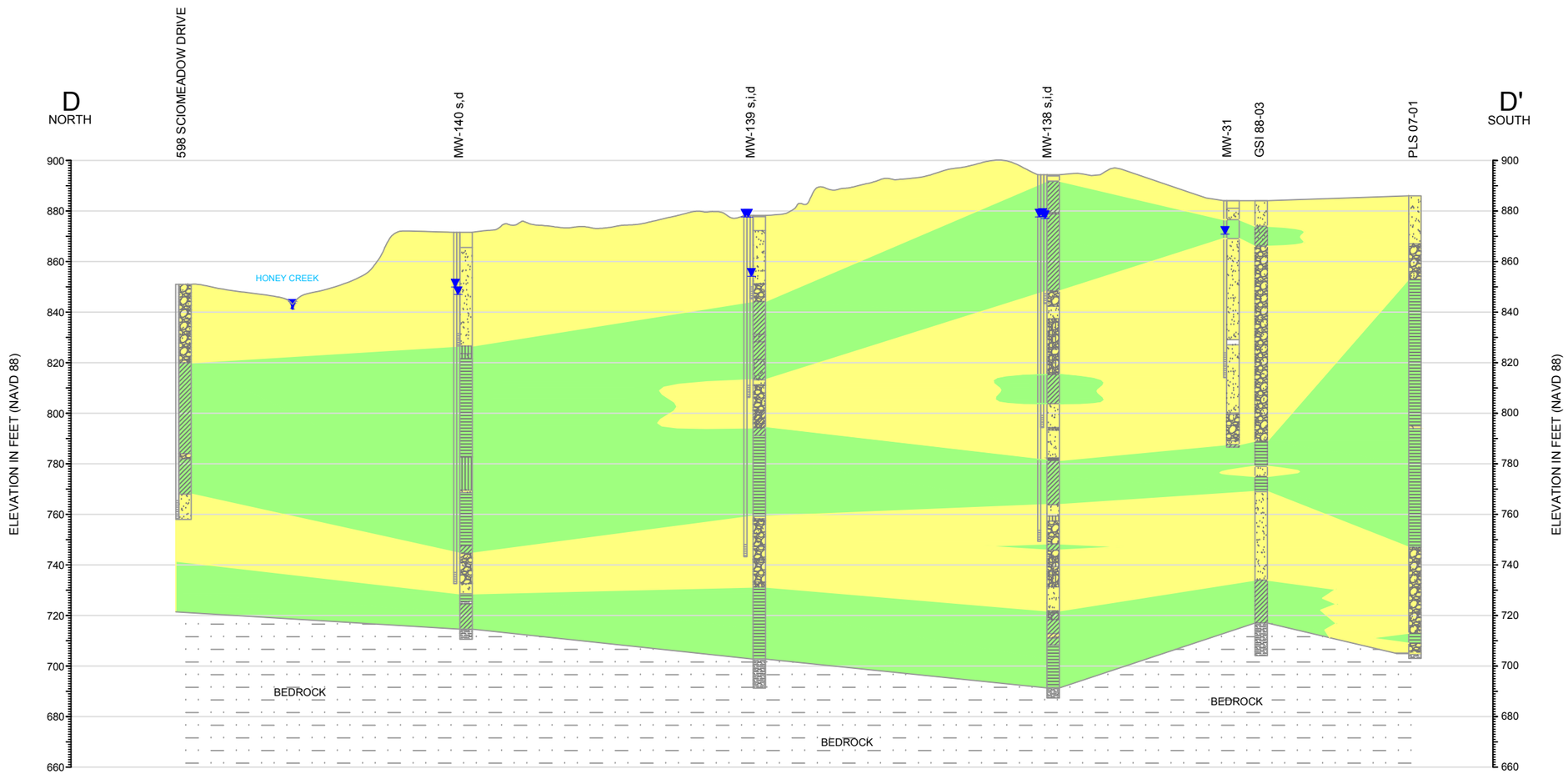
LITTLE LAKE AREA INVESTIGATION

FIGURE x: CROSS SECTION C-C'

F&V PROJECT NO. 806500

F&V

01-2015 XSEC / amberp 030215



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SCALE IN FEET

VERTICAL EXAGGERATION = 10X

NOTES:
-BORINGS, WELLS, AND CREEK CHANNEL WIDTHS ARE EXAGGERATED TO SHOW DETAIL.

-THE CORRELATIONS SHOWN ARE BASED ON PROFESSIONAL JUDGEMENT. OTHER INTERPRETATIONS ARE POSSIBLE AND SHOULD BE CONSIDERED.

LEGEND

67 - SAMPLE INTERVAL AND 1,4-DIOXANE CONCENTRATION µ/L (Samples Collected By Vertical Aquifer Profiling During Installation)

130 - 1,4-DIOXANE CONCENTRATION (µ/L) AND COLLECTION DATE (Samples Collected From Well)

SAND GRAVEL SHALE CLAY SILT DIAMICTON

WELL

WATER LEVEL ELEVATION

SCREENED INTERVAL

PALL LIFE SCIENCES
ANN ARBOR, MICHIGAN
LITTLE LAKE AREA SYSTEM

CROSS SECTION D-D'

F&V PROJECT NO. 806500

F&V