

June 15, 2016

Ms. Jennifer Borski, Hydrogeologist
Remediation and Redevelopment (RR) Program
Wisconsin Department of Natural Resources
625 E County Road Y, Suite 700
Oshkosh WI 54901

Subject: Additional Site Investigation Report
Appleton Wire Former Albany International Chrome Plant
908 North Lawe Street
Appleton, Wisconsin
WDNR ERP# 02-45-000015

Dear Ms. Borski:

On behalf of Albany International, Badger Laboratories and Engineering, Inc. (BL&E) provides a report of additional site investigation activities conducted at the above referenced site on May 12 and 13, 2014.

1. Site Background

In 2009 Albany International met with WDNR to discuss the status of site delineation and site remediation progress. Subsequent to that meeting, groundwater monitoring wells MW-19 and MW-19A were constructed in the warehouse portion of the Luvata facility, some 80-feet west of the basement. MW-19 was constructed to a depth of 20 feet below the facility floor. MW-19A was installed to a depth of approximately 40 feet below the facility floor.

After several rounds of sampling of these devices, it was apparent that hexavalent chromium contamination of the groundwater in these wells was significant and that the plume of this contamination is father west under the floor of the warehouse building than was originally believed.

To further delineated the extent and severity of the hexavalent chromium contamination of the groundwater, and to evaluate subsurface soil conditions beneath the warehouse we to conducted an extensive additional subsurface investigation, within and beyond, the warehouse walls. Subsurface soil information gathered during this effort is provided in this report.

As part of additional site investigation process, Albany International staff completed a comprehensive research effort to find and review any historic documentation of the building's construction. This research did not yield any documents showing the building's construction or details of its sewers, sumps, walls or foundations.

2. Investigation Action

The additional investigation consisted of the construction of numerous soil borings (some equipped with temporary groundwater monitoring wells) and two groups of two additional NR-141 compliant groundwater monitoring wells. One group (MW-20 and MW-20A) are in the warehouse building. The other group of two groundwater monitoring wells MW-21 and MW-21A) were constructed in Luvata of Appleton LLC's manufacturing facility, which is located beyond the perimeter of the warehouse building walls. The locations of these devices are shown on Figure #1 of this report. The wells shown in the Luvata of Appleton LLC's manufacturing facility are located about 20-feet west of the warehouse building. The location of these wells in the manufacturing area was dictated and limited by Luvata's equipment and process space requirements.

The new monitoring wells are similar to the existing MW-19 and MW-19A in that one of the wells in each group (20 & 21) are shallow wells (approximately 20-feet deep), while the other to (designated 20-A and 21-A) are deeper (40-feet deep). The shallow wells were constructed with 10-foot long screens, and the two deep wells were constructed with 5-foot long screens

Soil borings #11 was installed on the west side of the basement's west wall, while soil boring #12 (shown on Figure #1) was installed on the east side of the basement's west wall. This was done to determine whether there are any significant differences in soil type or soil contamination outside of the basement area vs under it. A second boring beneath the level of the basement floor elevation, (shown as boring #13 on Figure #1) was constructed to compare soil conditions on the east side of the basement floor area with those found in borings #11 and #12

The remaining soil borings were arranged across the warehouse in an attempt to gather additional data about the potential variability of soil types, depths, and impacts from hexavalent chromium use in the building.

Following construction and development of the monitoring wells, the groundwater was sampled for total and hexavalent chromium.

2. Soil Boring, Well Installation, Development, and Sampling

Soil Sampling

A 2-inch diameter push sampler was be used obtain soil samples to depths ranging from 15-feet to 20-feet below the level of the warehouse floor. This represents a depth of approximately 3-feet to 8-feet below the level of the basement floor surface. Soil sampling was also conducted in advance of the drilling of the monitoring wells, to the total depth of the bottom of the well boreholes.

Soil samples were analyzed for total chromium analysis by Method SM3111B and hexavalent chromium analysis by Method SM3500Cr.

Groundwater Sampling

Following the completion of the soil sampling, monitoring well boreholes were re-drilled to the same depth as the soil boring for monitoring well construction. A 2-inch diameter, 10-foot long, PVC, well screen and an appropriate length of riser pipe was installed in the shallow wells. The 0.010" slot well screen was placed to intersect the apparent water table. The deeper wells were constructed with a 5-foot long screen extending up from approximately 5-feet above the bottom of the boring. The wells were terminated at floor level protected with a locking removable well plug beneath a traffic rated, flush mount, access top. Details of well construction are reported on Monitoring Well Construction Form (Form 4400-113A).

Drill cuttings and sample cores from the push sampler are stored on site until characterized for disposal. Soil types are noted on Soil Boring Logs (Form 4400-122).

Following construction, the monitoring wells were left undisturbed for approximately 7 days following installation. They will be developed using development/purging/sampling methods outlined in the WDNR "Groundwater Sampling Desk Reference" (Publ: DG-037-96). Pre and post development water levels were taken with a Solinst electronic water level meter. Well development activities are recorded on a Monitoring Well Development Form (Form 4400-113B). Well development and purge water was disposed of by running it through the onsite treatment system.

Temporary, 1-inch diameter, monitoring wells were installed in two of the soil borings (GP-7 and GP-13). The borings with the temporary wells were chosen based on soil conditions observed in the push samples. GP-7 was installed near the west wall of the warehouse and Boring GP-13 was installed in the basement.

Groundwater samples were collected and submitted for laboratory analysis for total and hexavalent chromium by Methods SM3111B and Method SM3500Cr, respectively. Samples will be tracked on WDNR compliant chain-of-custody forms.

3. Results Reporting

Soil and groundwater sample analysis reports are provided along with a summary table of data. BL&E will evaluate the laboratory analysis and review the field and laboratory data. Well and soil sampling construction documentation forms, and groundwater elevation contour maps are provided.

4. Project Scheduling

Soil sampling and well installation began on May 12 and concluded on May 14, 2014.

If you have questions, concerns or comments regarding this information, please contact our office at (920) 729-1100 or (800) 776-7196.

Sincerely,
Badger Laboratories & Engineering, Inc.

David J. Casper

David J. Casper
Project Manager

Cc: J.P. Hammerton, Albany International
File



Looking west on south side of warehouse at overhead door to manufacturing area. Chemical storage room on left. MW-21 & 21A installed just to lift of green machinery in background



Looking north along west wall of warehouse from overhead door at the north wall of the warehouse. Wall on left separates warehouse area from manufacturing



Looking west at wall that separates manufacturing area from warehouse. Wall at right is the south wall of chemical storage room. Door at left opens onto the parking lot area on the south of the warehouse



Looking east on south side of warehouse. Basement area fence is in background.



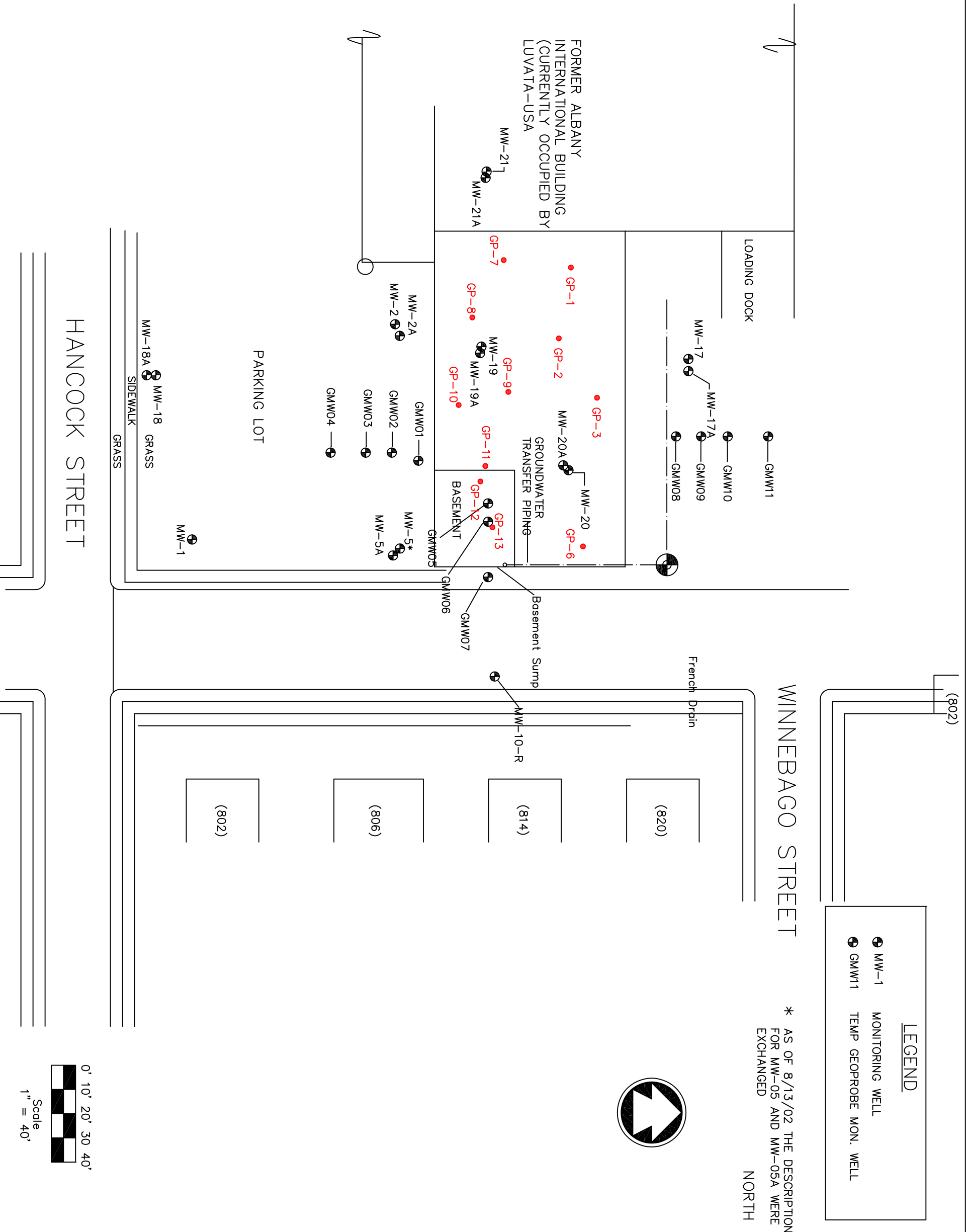
Looking east on north side of warehouse.



Geoprobe rig positioned on groundfloor above basement



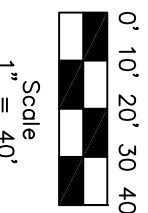
Basement floor penetrations were performed from above by passing push sampler through the opening in the floor



LEGEND

MW-1 MONITORING WELL
 GMW11 TEMP GEOPROBE MON. WELL

* AS OF 8/13/02 THE DESCRIPTION FOR MW-05 AND MW-05A WERE EXCHANGED



NO.	DATE	REVISION
	8/20/09	Overlay 2005 Aerial Photo

Badger Laboratories & Engineering Co. Inc.
 501 W. Bell St., Neenah WI 54956
 TEL: (920) 729-1100 FAX: (920) 729-4945

DESIGNED BY
 DRAWN BY
 D.J.C.
 CHECKED BY
 K.D.C.

This drawing developed from base drawing provided by McMahon Associates Inc. by Badger Laboratories and Engineering Co. Inc.

Geoprobes and Monitoring Wells
 MW-20, MW-20A, MW-21, MW-21A

SCALE
NO SCALE
DATE 5/20/14
PROJECT NO. Albany Int. Cr02

FIGURE NO.
1

FILE NO.

(802)

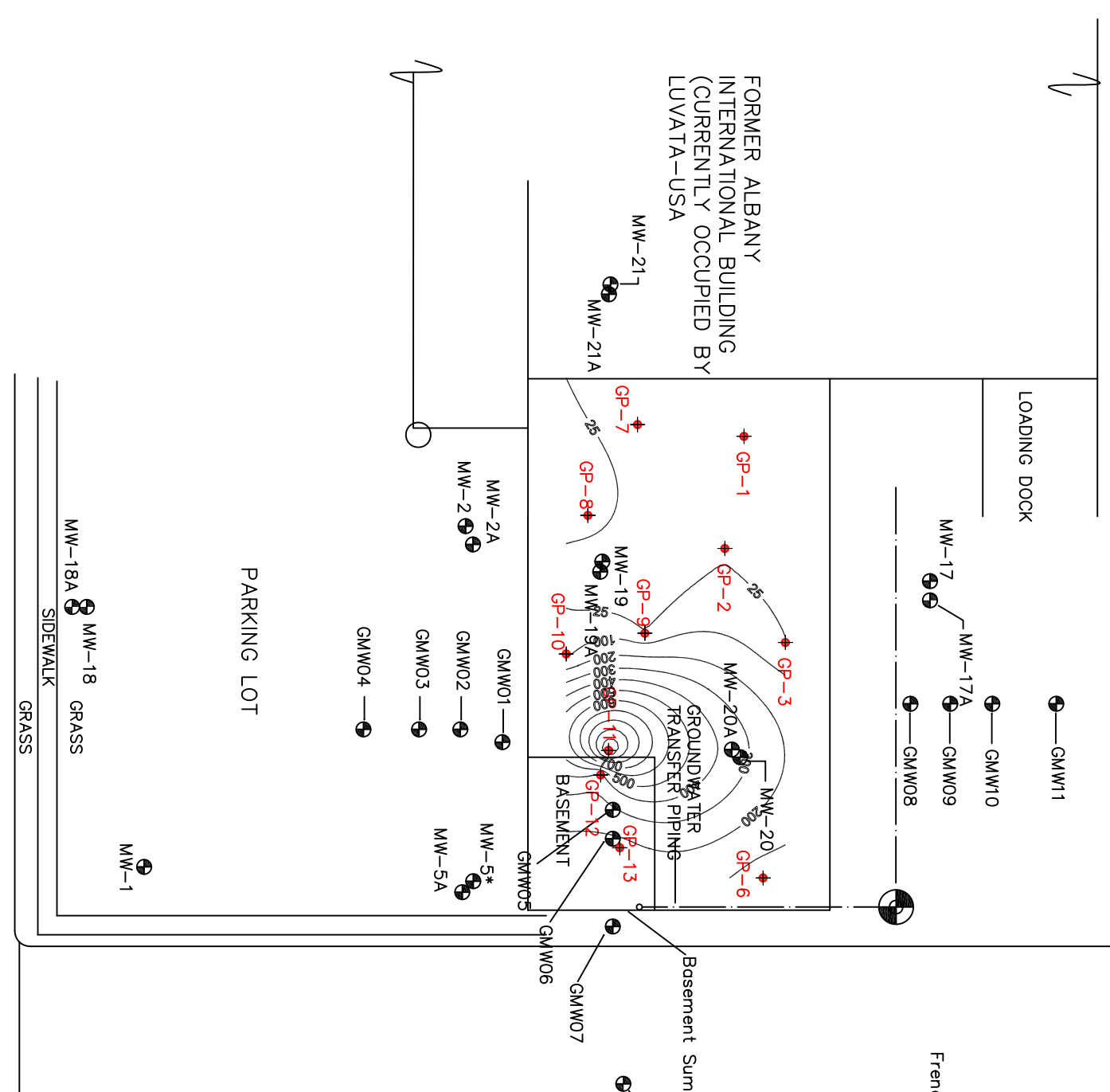
LEGEND

MW-1 MONITORING WELL
 GMW11 TEMP GEOPROBE MON. WELL

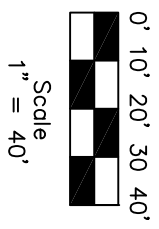
WINNEBAGO STREET

* AS OF 8/13/02 THE DESCRIPTION FOR MW-05 AND MW-05A WERE EXCHANGED

NORTH



HANCOCK STREET



NO.	DATE	REVISION
	8/20/09	Overlay 2005 Aerial Photo

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Appleton Wire
 Former Albany International Chrome Plant
 Total Chrome 0-5' Contours May 2014

SCALE
NO SCALE
DATE 5/20/14
PROJECT NO. Albany Int. CrO2

FIGURE NO.
2

FILE NO.

(802)

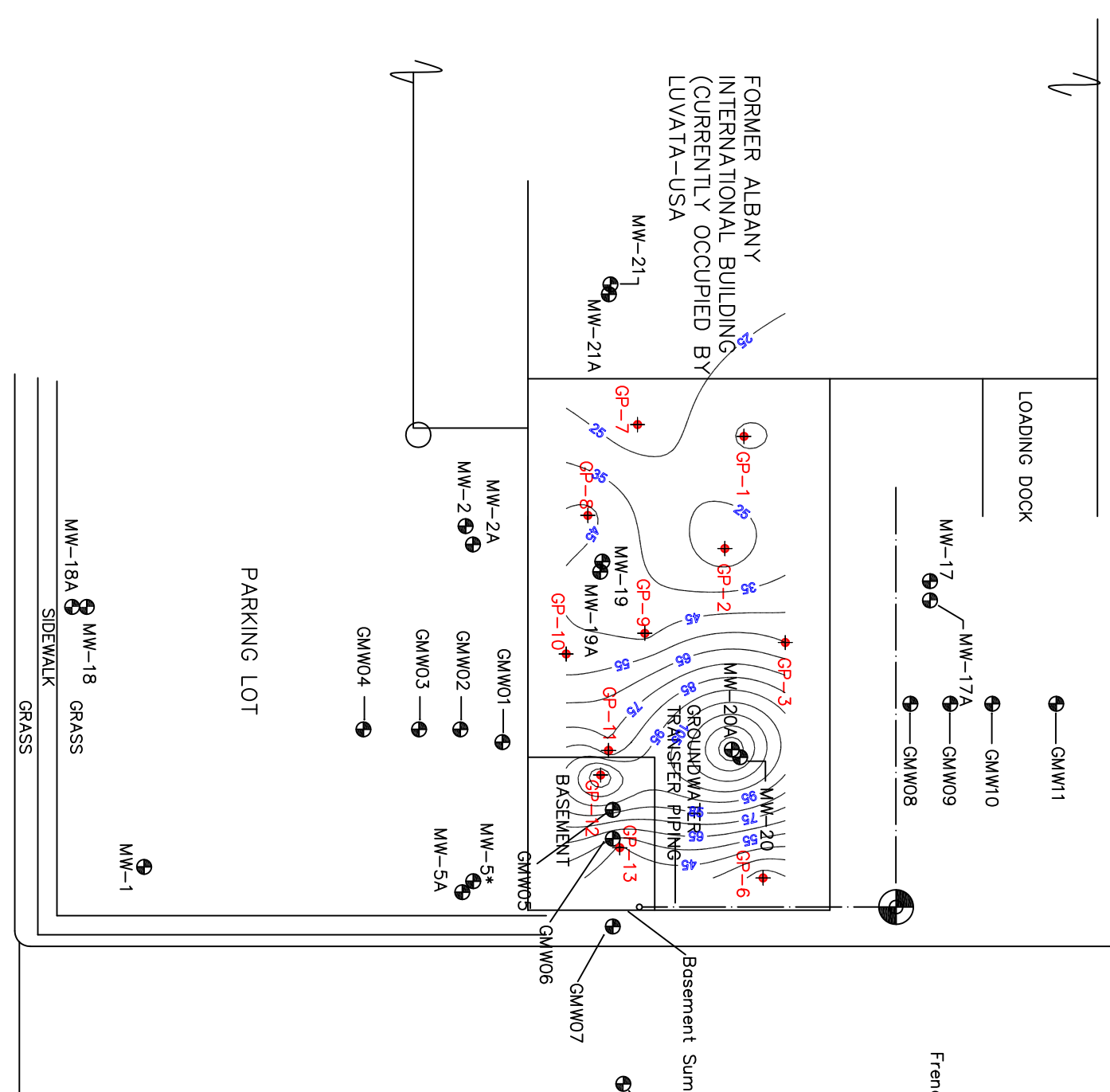
LEGEND

MW-1 MONITORING WELL
 GMW11 TEMP GEOPROBE MON. WELL

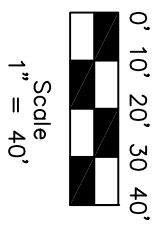
WINNEBAGO STREET

* AS OF 8/13/02 THE DESCRIPTION FOR MW-05 AND MW-05A WERE EXCHANGED

NORTH



HANCOCK STREET



FILE NO.	3	FIGURE NO.	SCALE		Appleton Wire Former Albany International Chrome Plant Total Chrome in Soil 5'-10' Contours May 2014	DESIGNED BY	This drawing developed from base drawing provided by McMahon Associates Inc. by Badger Laboratories and Engineering Co. Inc.	Badger Laboratories & Engineering Co. Inc. 501 W. Bell St., Neenah WI 54956 TEL: (920) 729-1100 FAX: (920) 729-4945	NO.	DATE	REVISION
			NO SCALE	DATE		8/20/09			Overlay 2005 Aerial Photo		
			PROJECT NO.	5/20/14		DRAWN BY					
			PROJECT NO.	Albany Int. Cr02		CHECKED BY	DJC				
						KDC					

(802)

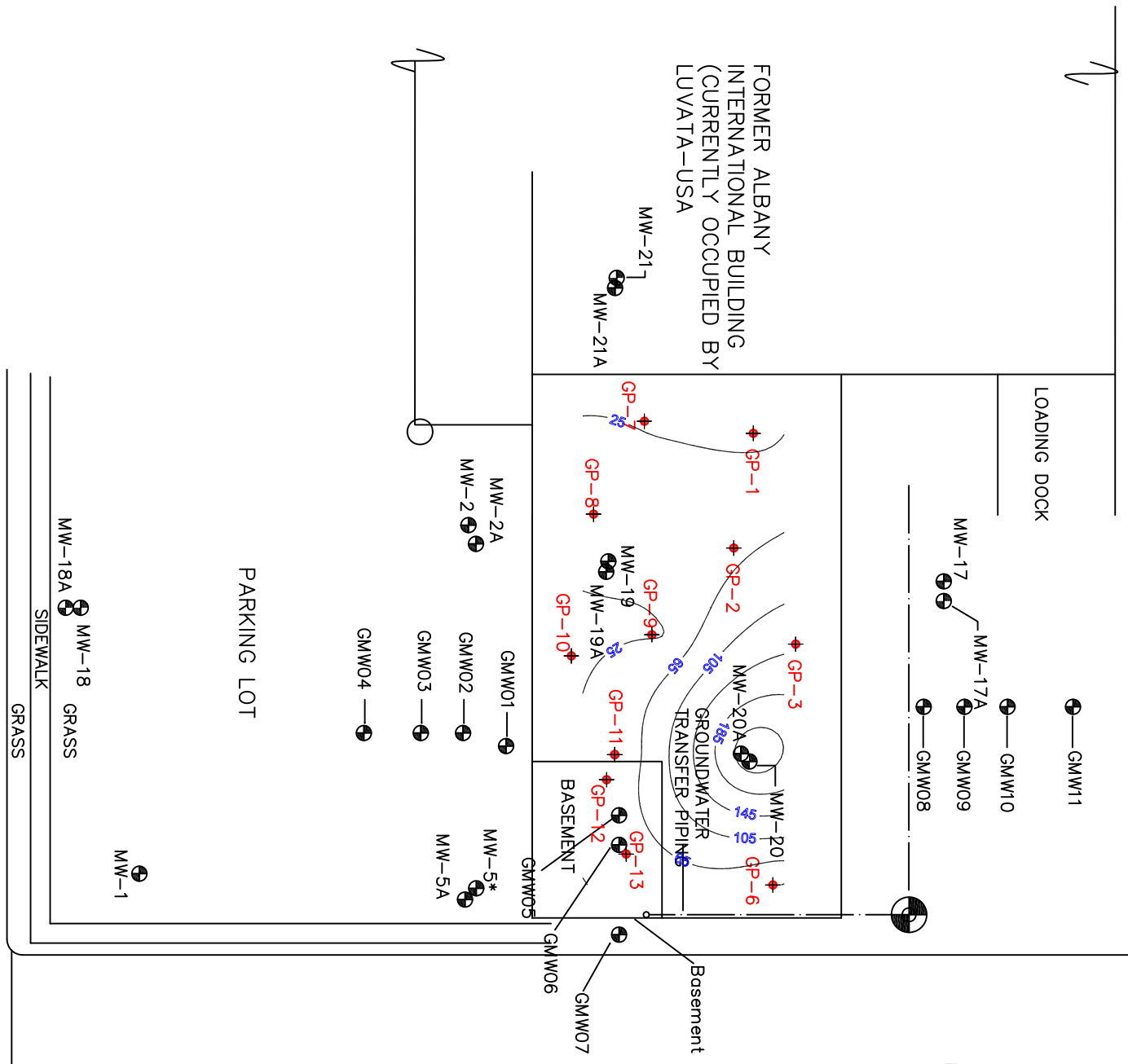
LEGEND

MW-1 MONITORING WELL
 GMW11 TEMP GEOPROBE MON. WELL

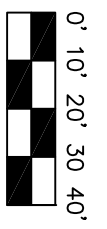
WINNEBAGO STREET

* AS OF 8/13/02 THE DESCRIPTION FOR MW-05 AND MW-05A WERE EXCHANGED

NORTH



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NO.	DATE	REVISION
	8/20/09	Overlay 2005 Aerial Photo

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DESIGNED BY
 DRAWN BY
 D.J.C.
 CHECKED BY
 K.D.C.

This drawing developed from base drawing provided by McMahon Associates Inc. by Badger Laboratories and Engineering Co. Inc.

Appleton Wire
 Former Albany International Chrome Plant
 Total Chrome 10'-15' Contours May 2014

SCALE
 NO SCALE
 DATE
 5/20/14
 PROJECT NO.
 Albany Int. Cr02

FIGURE NO.
 4

FILE NO.

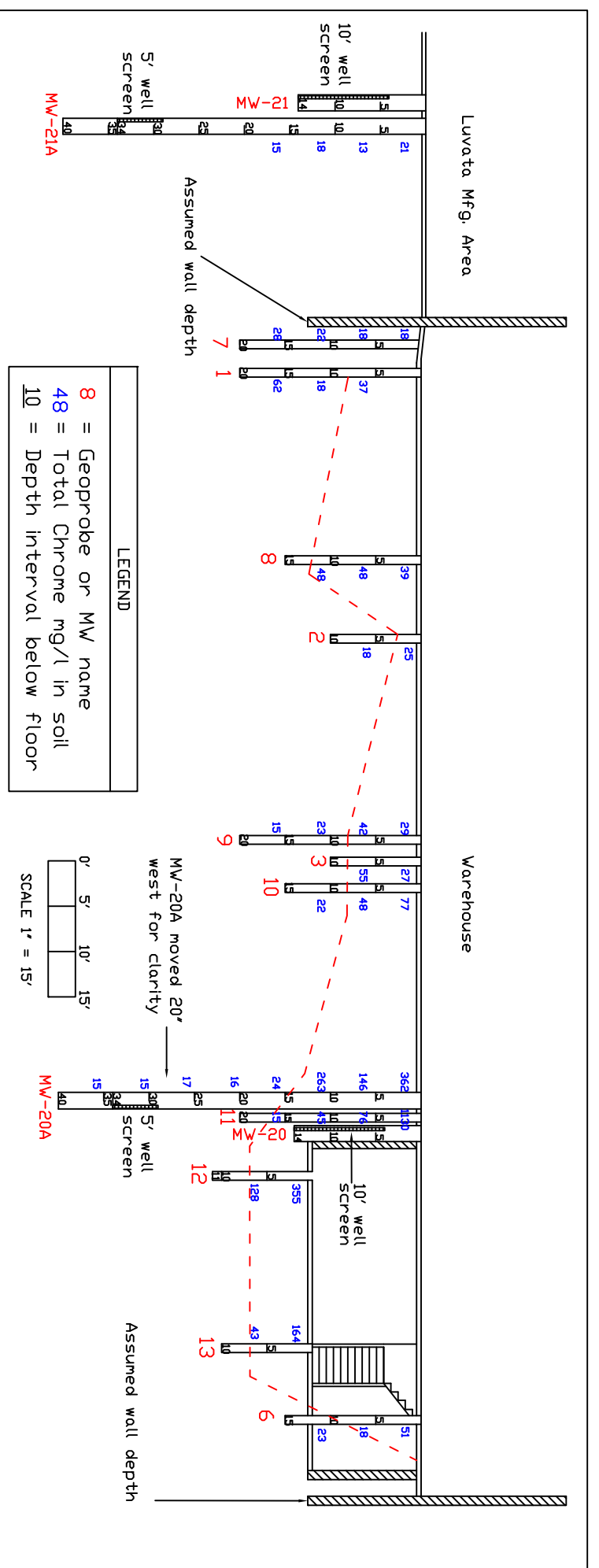
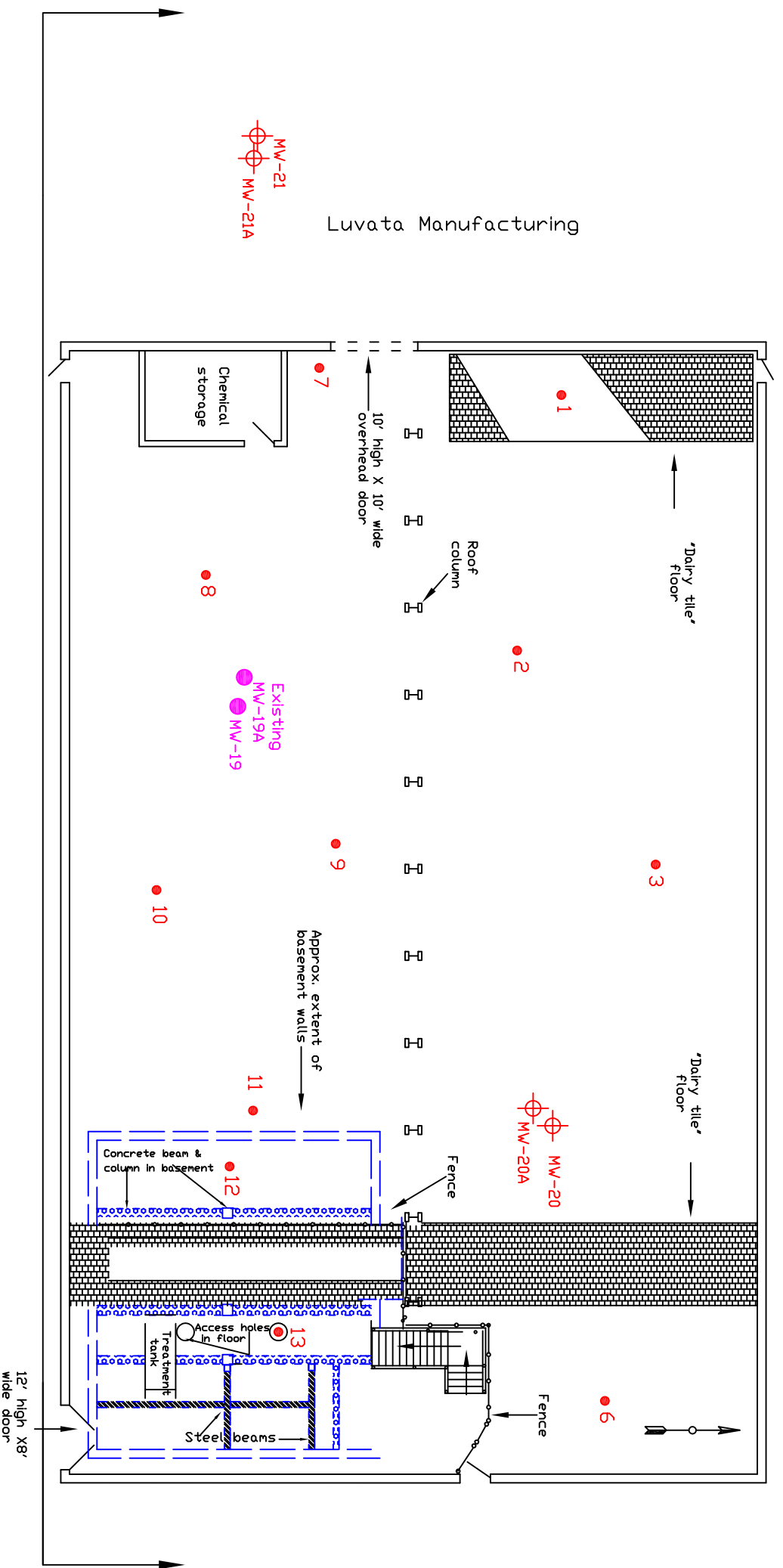


Fig. #5 Cross-section looking south to north through building at soil borings and groundwater monitoring wells with total Chrome concentrations in soil shown with depth.

Drawn by Badger Laboratories & Engineering Co. Inc. 5/27/2014

Route to: Solid Waste Haz. Waste Wastewater
Env. Response & Repair Underground Tanks Other

Facility/Project Name APPLETO WIRE FORMER ALBANY INTERNATIONAL	County Name OUTAGAMIE	Well Name MW-20
Facility License, Permit or Monitoring Number WDNR BR15# 0245020015	County Code ---	Wis. Unique Well Number VN452
		DNR Well Number ---

1. Can this well be purged dry? Yes No

2. Well development method
- surged with bailer and bailed 41
 - surged with bailer and pumped 61
 - surged with block and bailed 42
 - surged with block and pumped 62
 - surged with block, bailed and pumped 70
 - compressed air 20
 - bailed only 10
 - pumped only 51
 - pumped slowly 50
 - Other

3. Time spent developing well 97 min.

4. Depth of well (from top of well casing) 14.0 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing 1.3 gal.

7. Volume of water removed from well 14.0 gal.

8. Volume of water added (if any) NA gal.

9. Source of water added NA

10. Analysis performed on water added? Yes No

(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>6.03</u> ft.	<u>13.43</u> ft.
Date	b. <u>05/29/14</u> m m d d y y	<u>05/29/14</u> m m d d y y
Time	c. <u>13:53</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>15:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.25"</u> inches	_____ inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>CHROME</u> <u>STAINED</u> <u>YELLOW</u> <u>VERY LITTLE</u> <u>SEDIMENT</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>SLIGHT TURB</u> <u>SANDY BROWN</u>
Fill in if drilling fluids were used and well is at solid waste facility: EXCEPT FOR PVC CUTTINGS FROM WELL CONST.		
14. Total suspended solids	<u>NA</u> mg/l	<u>NA</u> mg/l
15. COD	<u>NA</u> mg/l	<u>NA</u> mg/l

16. Additional comments on development:

Highly stained yellow (chrome) - Very little sediment except for some small bits of PVC that fell into well when user pipe was turned to length during installation. Water rises about 0.01 ft/20 seconds on recharge

Well developed by: Person's Name and Firm

Name: DAVID J CASPER

Firm: BADGER LABORATORIES &

ENGINEERING CO. INC.

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: David J Casper

Print Initials: DJC

Firm: BADGER LABORATORIES & ENGINEERING CO.

Route to: Solid Waste Haz. Waste Wastewater
Env. Response & Repair Underground Tanks Other

Facility/Project Name APPLETO WIRE FORMER ALBANY INTERNATIONAL	County Name OUTAGAMIE	Well Name MW20-A
Facility License, Permit or Monitoring Number WDNR BRRTS # 024522005	County Code ---	Wis. Unique Well Number VN453
		DNR Well Number ---

1. Can this well be purged dry? Yes No
2. Well development method
- surged with bailer and bailed 41
 - surged with bailer and pumped 61
 - surged with block and bailed 42
 - surged with block and pumped 62
 - surged with block, bailed and pumped 70
 - compressed air 20
 - bailed only 10
 - pumped only 51
 - pumped slowly 50
 - Other
3. Time spent developing well 127 min.
4. Depth of well (from top of well casing) 34.34 ft.
5. Inside diameter of well 2 in.
6. Volume of water in filter pack and well casing 0.47 gal.
7. Volume of water removed from well 4.2 gal.
8. Volume of water added (if any) NA gal.
9. Source of water added NA
10. Analysis performed on water added? NA Yes No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>31.70</u> ft.	<u>34.02</u> ft.
Date	b. <u>05/29/14</u> m m d d y y	<u>05/29/14</u> m m d d y y
Time	c. <u>13:58</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>16:05</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.25"</u> inches	_____ inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>HIGH TURB.</u> <u>BROWN SANDY CLAY</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>LOW TURB.</u> <u>BROWN SANDY CLAY</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>NA</u> mg/l	<u>NA</u> mg/l
15. COD	<u>NA</u> mg/l	<u>NA</u> mg/l

16. Additional comments on development:
High initial turbidity in first 3 barrels, then significant reductions. Bailed down to dry after each 1/2 gallon but recovered to full barrel depth (1000 ml) in about 15 minutes.

Well developed by: Person's Name and Firm

Name: DAVID J CASPER

Firm: BADGER LABORATORIES & ENGINEERING CO. INC

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: David J Casper

Print Initials: D J C

Firm: BADGER LABORATORIES & ENGINEERING

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.

Route to: Solid Waste Haz. Waste Wastewater
Env. Response & Repair Underground Tanks Other

Facility/Project Name <i>APPLETON WIRE FORMER ALBANY INTERNATIONAL</i>	County Name <i>OUTAGAMIE</i>	Well Name <i>MW-21</i>
Facility License, Permit or Monitoring Number <i>WDNR BRRTSH 0245002015</i>	County Code ---	Wis. Unique Well Number <i>VN450</i>
		DNR Well Number ---

1. Can this well be purged dry? Yes No

2. Well development method
- surged with bailer and bailed 41
 - surged with bailer and pumped 61
 - surged with block and bailed 42
 - surged with block and pumped 62
 - surged with block, bailed and pumped 70
 - compressed air 20
 - bailed only 10
 - pumped only 51
 - pumped slowly 50
 - Other

3. Time spent developing well 161 min.

4. Depth of well (from top of well casing) 14.05 ft.

5. Inside diameter of well 2.0 in.

6. Volume of water in filter pack and well casing 1.5 gal.

7. Volume of water removed from well 15.2 gal.

8. Volume of water added (if any) NA gal.

9. Source of water added NA

10. Analysis performed on water added? NA Yes No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>4.91</u> ft.	<u>13.25</u> ft.
Date	b. <u>05/29/14</u> m m d d y y	<u>05/29/14</u> m m d d y y
Time	c. <u>10:04</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>12:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.4</u> inches	<u>0.2</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>SANDY BROWN HIGH TURB</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>SANDY BROWN LOW TURB</u>

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids NA mg/l NA mg/l

15. COD NA mg/l NA mg/l

16. Additional comments on development:

*Fine sandy/clay sediment largely disappeared after first 8 gallons.
Can always remove 200 ml in every bail - Does not go dry.
Checks with water level meter shows significant inflow*

Well developed by: Person's Name and Firm

Name: DAVID J CASPER

Firm: BADGER LABORATORIES &

ENGINEERING CO. INC

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: David J Casper

Print Initials: D J C

Firm: BADGER LABORATORIES & ENGINEERING Co. Inc

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Route to: Solid Waste Haz. Waste Wastewater
Env. Response & Repair Underground Tanks Other

Facility/Project Name <u>APPLETON WIRE FORMER</u> <u>ALBANY INTERNATIONAL</u>	County Name <u>OUTAGAMIE</u>	Well Name <u>MW-21A</u>
Facility License, Permit or Monitoring Number <u>WDRN BRRTS# 0245000215</u>	County Code ---	Wis. Unique Well Number <u>VA451</u>
		DNR Well Number ---

1. Can this well be purged dry? Yes No
↑
2. Well development method
- surged with bailer and bailed 41
 - surged with bailer and pumped 61
 - surged with block and bailed 42
 - surged with block and pumped 62
 - surged with block, bailed and pumped 70
 - compressed air 20
 - bailed only 10
 - pumped only 51
 - pumped slowly 50
 - Other
3. Time spent developing well 259 min.
4. Depth of well (from top of well casing) 34.0 ft.
5. Inside diameter of well 2 in.
6. Volume of water in filter pack and well casing 0.5 gal.
7. Volume of water removed from well 5.2 gal.
8. Volume of water added (if any) NA gal.
9. Source of water added NA
10. Analysis performed on water added? NA Yes No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>31.14</u> ft.	<u>33.25</u> ft.
Date	b. <u>05/29/14</u> m m d d y y	<u>05/29/14</u> m m d d y y
Time	c. <u>08:57</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>13:16</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0.5</u> inches	<u>0.1</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>MEDIUM SANDY BROWN</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>SLIGHT-BROWN SANDY</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>NA</u> mg/l	<u>NA</u> mg/l
15. COD	<u>NA</u> mg/l	<u>NA</u> mg/l

16. Additional comments on development:
Well recharges very slowly per water level indicator
Too slowly to continuously bail, but does not go dry.

Well developed by: Person's Name and Firm

Name: DAVID J. CASPER

Firm: BADGER LABS & ENGINEERING

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: David J Casper

Print Initials: D J C

Firm: BADGER LABORATORIES & ENGINEERING

NOTE: Shaded areas are for DNR use only. See instructions for more information including a list of county codes.



BADGER LABORATORIES & ENGINEERING INC.

501 WEST BELL STREET • NEENAH, WISCONSIN 54956-4868 • EST. 1966

(920) 729-1100 • FAX (920) 729-4945 • 1-800-776-7196

ALBANY INTERNATIONAL-APPLETON
253 TROY RD
RENSSELAER, NY 12144-

Report Number: 1405296
Report Date: 7/11/2016
Sampled By: BL&E

Attn:

PO#:
Samples: 1

Sample Number: 44011279
Description: GP-13 TEMP
WELL #13
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	2991	ug/l		30	100	SM3111D	05/23/14
HEX CHROME	1.6	mg/l		0.03	0.1	SM3500CrD	05/12/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/23/14

BADGER LABS & ENGINEERING
WDNR Certified Lab #445023150
Approved By:

JMW:dc



BADGER LABORATORIES & ENGINEERING INC.

501 WEST BELL STREET • NEENAH, WISCONSIN 54956-4868 • EST. 1966

(920) 729-1100 • FAX (920) 729-4945 • 1-800-776-7196

ALBANY INTERNATIONAL-APPLETON
253 TROY RD
RENSSELAER, NY 12144-

Report Number: 1404784
Report Date: 7/11/2016
Sampled By: BL&E

Attn:

PO#: 22
Samples: 22

CC DAVE

Sample Number: 44011288
Description: GP-7-1 0-5'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	18	ppm		0.58	1.9	SM3111D	05/20/14
HEX CHROME	<0.227	ppm		0.227	0.75	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	86.9	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011289
Description: GP-7-2 5-10'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	18	ppm		0.58	1.9	SM3111D	05/20/14
HEX CHROME	0.368	ppm		0.239	0.789	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	87.6	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011290
Description: GP-7-3 10-15'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	22	ppm		0.59	1.9	SM3111D	05/20/14
HEX CHROME	0.582	ppm		0.239	0.789	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	86.2	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011291
Description: GP-7-4 15-20'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	28	ppm		0.45	1.5	SM3111D	05/20/14
HEX CHROME	0.287	ppm		0.233	0.77	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	83.4	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011292
Description: GP-8-1 0-5'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	39	ppm		0.54	1.8	SM3111D	05/20/14
HEX CHROME	0.450	ppm		0.221	0.729	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	86.4	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011293
Description: GP-8-2 5-10'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	48	ppm		1.5	5	SM3111D	05/20/14
HEX CHROME	0.761	ppm		0.209	0.69	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	87.1	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011294
Description: GP-8-3 10-15'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	46	ppm		1.4	4.6	SM3111D	05/20/14
HEX CHROME	0.709	ppm		0.219	0.73	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	82.7	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011295
Description: GP-9-1 0-5'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	29	ppm		0.9	2.97	SM3111D	05/20/14
HEX CHROME	<0.228	ppm		0.228	0.752	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	85.4	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011296
Description: GP-9-2 5-10'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	42	ppm		1.3	4.3	SM3111D	05/20/14
HEX CHROME	0.748	ppm		0.231	0.762	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	88.2	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011297
Description: GP-9-3 10-15'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	23	ppm		0.41	1.4	SM3111D	05/20/14
HEX CHROME	<0.221	ppm		0.221	0.729	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	85.1	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011298
Description: GP-9-4 15-20'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	15	ppm		0.35	1.2	SM3111D	05/20/14
HEX CHROME	0.774	ppm		0.213	0.703	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	81.7	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011299
Description: GP-10-1 0-5'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	77	ppm		2.3	7.6	SM3111D	05/20/14
HEX CHROME	1.03	ppm		0.232	0.766	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	87.8	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011300
Description: GP-10-2 5-10'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	48	ppm		1.5	5	SM3111D	05/20/14
HEX CHROME	1.11	ppm		0.23	0.759	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	86.5	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011301
Description: GP-10-3 10-15'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	22	ppm		0.45	1.5	SM3111D	05/20/14
HEX CHROME	<0.225	ppm		0.225	0.743	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	84.4	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011302
Description: GP-11-1 0-5'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	1130	ppm		34	112	SM3111D	05/20/14
HEX CHROME	4.48	ppm		0.214	0.706	SM3500CrD	06/04/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/29/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TCLP CHROMIUM	13	mg/l		0.37	1.2	SM3111B	06/02/14
TCLP EXTRACTION	COMPLETE			0	0	SW846-1311	05/27/14
TOTAL SOLIDS	95.7	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011303
Description: GP-11-2 5-10'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	76	ppm		2.1	6.9	SM3111D	05/20/14
HEX CHROME	1.77	ppm		0.22	0.726	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	95.6	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011304
Description: GP-11-3 10-15'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	45	ppm		1.3	4.3	SM3111D	05/20/14
HEX CHROME	<0.235	ppm		0.235	0.776	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	80.8	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011305
Description: GP-11-4 15-20'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	15	ppm		0.31	1	SM3111D	05/20/14
HEX CHROME	<0.236	ppm		0.236	0.779	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	80.4	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011306
Description: GP-12-1 0-5'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	355	ppm		0.38	1.3	SM3111D	05/20/14
HEX CHROME	<0.221	ppm		0.221	0.729	SM3500CrD	06/04/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/29/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TCLP CHROMIUM	0.09	mg/l		0.03	0.1	SM3111B	06/02/14
TCLP EXTRACTION	COMPLETE			0	0	SW846-1311	05/27/14
TOTAL SOLIDS	80.9	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011307
Description: GP-1202 5-10'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	128	ppm		0.44	1.5	SM3111D	05/20/14
HEX CHROME	<0.237	ppm		0.237	0.782	SM3500CrD	06/04/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/29/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TCLP CHROMIUM	<0.03	mg/l		0.03	0.1	SM3111B	06/02/14
TCLP EXTRACTION	COMPLETE			0	0	SW846-1311	05/27/14
TOTAL SOLIDS	81.7	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011308
Description: GP-13-1 0-5'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	164	ppm		0.36	1.2	SM3111D	05/20/14
HEX CHROME	3.06	ppm		0.224	0.739	SM3500CrD	06/04/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/29/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TCLP CHROMIUM	<0.03	mg/l		0.03	0.1	SM3111B	06/02/14
TCLP EXTRACTION	COMPLETE			0	0	SW846-1311	05/27/14
TOTAL SOLIDS	80.0	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011309
Description: GP-13-2 5-11'
Sample Date: 5/12/2014
Date Received: 5/12/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	43	ppm		0.42	1.4	SM3111D	05/20/14
HEX CHROME	0.306	ppm		0.248	0.818	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	80.0	%		0.01	0.01	SM2540B	06/07/14

BADGER LABS & ENGINEERING
WDNR Certified Lab #445023150
Approved By:

JMW:dc



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ALBANY INTERNATIONAL-APPLETON
253 TROY RD
RENSSELAER, NY 12144-

Report Number: 1404841
Report Date: 7/11/2016
Sampled By: BL&E

Attn:

PO#:
Samples: 1

CC DAVE

Sample Number: 44011413
Description: GEO PROBE GP-7 TEMP
WELL #7
Sample Date: 5/13/2014
Date Received: 5/14/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	183	ug/l		30	100	SM3111D	05/23/14
HEX CHROME	0.029	mg/l		0.003	0.009	SM3500CrD	05/17/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/23/14

BADGER LABS & ENGINEERING
WDNR Certified Lab #445023150
Approved By:

JMW:dc



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ALBANY INTERNATIONAL-APPLETON
253 TROY RD
RENSSELAER, NY 12144-

Report Number: 1404948
Report Date: 7/11/2016
Sampled By: BL&E

Attn:

PO#: 22
Samples: 22

CC DAVE

Sample Number: 44011634
Description: MW 20-A-1 0-5'
Sample Date: 5/14/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	362	ppm		9.3	31	SM3111D	05/20/14
HEX CHROME	3.08	ppm		0.247	0.815	SM3500CrD	06/04/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/29/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TCLP CHROMIUM	2.6	mg/l		0.03	0.1	SM3111B	06/02/14
TCLP EXTRACTION	COMPLETE			0	0	SW846-1311	05/27/14
TOTAL SOLIDS	86.1	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011635
Description: MW 20-A-2 5-10'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	146	ppm		4.2	14	SM3111D	05/20/14
HEX CHROME	0.941	ppm		0.259	0.855	SM3500CrD	06/04/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/29/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TCLP CHROMIUM	1.8	mg/l		0.03	0.1	SM3111B	06/02/14
TCLP EXTRACTION	COMPLETE			0	0	SW846-1311	05/27/14
TOTAL SOLIDS	87.1	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011636
Description: MW 20-A-3 10-15'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	263	ppm		7.1	23	SM3111D	05/20/14
HEX CHROME	0.343	ppm		0.21	0.693	SM3500CrD	06/04/14
METALS DIGESTION	DONE			0	0	EPA200.2	05/29/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TCLP CHROMIUM	4.5	mg/l		0.03	0.1	SM3111B	06/02/14
TCLP EXTRACTION	COMPLETE			0	0	SW846-1311	05/27/14
TOTAL SOLIDS	84.6	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011637
Description: MW 20-A-4 15-20'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	24	ppm		0.47	1.6	SM3111D	05/20/14
HEX CHROME	0.469	ppm		0.231	0.762	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	81.6	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011638
Description: MW 20-A-5 20-25'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	16	ppm		0.4	1.32	SM3111D	05/20/14
HEX CHROME	0.550	ppm		0.226	0.746	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	80.8	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011639
Description: MW 20-A-6 25-30'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	17	ppm		0.41	1.4	SM3111D	05/20/14
HEX CHROME	0.277	ppm		0.225	0.743	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	81.4	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011640
Description: MW 20-A-7 30-35'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	15	ppm		0.48	1.6	SM3111D	05/20/14
HEX CHROME	<0.231	ppm		0.231	0.762	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	80.6	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011641
Description: MW 20-A-8 35-40'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	15	ppm		0.38	1.3	SM3111D	05/20/14
HEX CHROME	<0.211	ppm		0.211	0.696	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	80.4	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011642
Description: GP-1-2 5-10'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	37	ppm		1.2	4	SM3111D	05/20/14
HEX CHROME	<0.221	ppm		0.221	0.729	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	85.3	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011643
Description: GP-1-3 10-15'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	18	ppm		0.4	1.32	SM3111D	05/20/14
HEX CHROME	<0.218	ppm		0.218	0.719	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	82.6	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011644
Description: GP-1-4 15-20'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	62	ppm		1.9	6.3	SM3111D	05/20/14
HEX CHROME	<0.234	ppm		0.234	0.772	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	82.4	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011645
Description: GP-2-1 0-5'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	25	ppm		0.4	1.32	SM3111D	05/20/14
HEX CHROME	<0.253	ppm		0.253	0.835	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	77.7	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011646
Description: GP-2-2 5-10'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	18	ppm		0.38	1.3	SM3111D	05/20/14
HEX CHROME	<0.211	ppm		0.211	0.696	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	83.5	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011647
Description: GP-3-1 0-5'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	27	ppm		0.83	2.7	SM3111D	05/20/14
HEX CHROME	<0.212	ppm		0.212	0.7	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	79.7	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011648
Description: GP-3-2 5-10'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	55	ppm		1.7	5.6	SM3111D	05/20/14
HEX CHROME	<0.223	ppm		0.223	0.736	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	84.2	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011649
Description: GP-6-1 0-5'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	51	ppm		1.5	5	SM3111D	05/20/14
HEX CHROME	<0.229	ppm		0.229	0.756	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	82.9	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011650
Description: GP-6-2 5-10'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	18	ppm		0.54	1.8	SM3111D	05/20/14
HEX CHROME	1.23	ppm		0.234	0.772	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	86.7	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011651
Description: GP-6-3 10-15'
Sample Date: 5/13/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	23	ppm		0.45	1.5	SM3111D	05/20/14
HEX CHROME	1.35	ppm		0.223	0.736	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	88.2	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011652
Description: MW 21-1-A 0-5'
Sample Date: 5/14/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	21	ppm		0.53	1.7	SM3111D	05/20/14
HEX CHROME	<0.229	ppm		0.229	0.756	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	81.9	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011653
Description: MW 21-A-2 5-10'
Sample Date: 5/14/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	13	ppm		0.49	1.6	SM3111D	05/20/14
HEX CHROME	<0.224	ppm		0.224	0.739	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	86.1	%		0.01	0.01	SM2540B	06/07/14



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Sample Number: 44011654
Description: MW 21-A-3 10-15'
Sample Date: 5/14/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	18	ppm		0.41	1.4	SM3111D	05/20/14
HEX CHROME	<0.230	ppm		0.23	0.759	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	82.8	%		0.01	0.01	SM2540B	06/07/14

Sample Number: 44011655
Description: MW 21-A-4 15-20'
Sample Date: 5/14/2014
Date Received: 5/15/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	15	ppm		0.5	1.65	SM3111D	05/20/14
HEX CHROME	<0.226	ppm		0.226	0.746	SM3500CrD	06/04/14
SOLIDS DIGESTION	DONE			0	0	EPA200.2	05/19/14
TOTAL SOLIDS	84.2	%		0.01	0.01	SM2540B	06/07/14

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WDNR Certified Lab #445023150
Approved By:

JMW:dc



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ALBANY INTERNATIONAL-APPLETON
253 TROY RD
RENSSELAER, NY 12144-

Report Number: 1405494
Report Date: 7/11/2016
Sampled By: CLIENT

Attn:

PO#:
Samples: 7

Sample Number: 44012829
Description: MW-20
Sample Date: 6/2/2014
Date Received: 6/2/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	338	mg/l		7.9	26	SM3111D	06/02/14
HEX CHROME	338	mg/l		15	50	SM3500CrD	06/03/14

Sample Number: 44012830
Description: MW-20A
Sample Date: 6/2/2014
Date Received: 6/2/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	1.2	mg/l		0.03	0.1	SM3111D	06/02/14
HEX CHROME	1.06	mg/l		0.03	0.1	SM3500CrD	06/03/14

Sample Number: 44012831
Description: MW-21
Sample Date: 6/2/2014
Date Received: 6/2/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	0.0026	mg/l		0.0001	0.0003	SM3113D	06/17/14
HEX CHROME	<0.03	mg/l		0.03	0.1	SM3500CrD	06/03/14



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Sample Number: 44012832
Description: MW-21A
Sample Date: 6/2/2014
Date Received: 6/2/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	0.0018	mg/l		0.0001	0.0003	SM3113D	06/17/20
HEX CHROME	<0.03	mg/l		0.03	0.1	SM3500CrD	06/03/14

Sample Number: 44012833
Description: SUMP
Sample Date: 6/2/2014
Date Received: 6/2/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	7.0	mg/l		0.3	1	SM3111D	06/11/14
HEX CHROME	6.8	mg/l		0.6	2	SM3500CrD	06/03/14
METALS DIGESTION	DONE			0	0	EPA200.2	06/06/14

Sample Number: 44012834
Description: MANHOLE
Sample Date: 6/2/2014
Date Received: 6/2/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	1.5	mg/l		0.03	0.1	SM3111D	06/02/14
HEX CHROME	1.5	mg/l		0.06	0.2	SM3500CrD	06/03/14
TURBIDITY-LAB	0.4	NTU		0	0	EPA180.1	06/03/14

Sample Number: 44012835
Description: OUTFALL
Sample Date: 6/2/2014
Date Received: 6/2/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	0.04	mg/l		0.03	0.1	SM3111D	06/02/14
TURBIDITY-LAB	0.4	NTU		0	0	EPA180.1	06/03/14



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WDNR Certified Lab #445023150
Approved By:

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ALBANY INTERNATIONAL-APPLETON
253 TROY RD
RENSSELAER, NY 12144-

Report Number: 1406724
Report Date: 7/11/2016
Sampled By: CLIENT

Attn:

PO#: 4500208835
Samples: 13

Sample Number: 44015840
Description: SUMP
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	27	mg/l		0.27	0.89	SM3111D	07/18/14
HEX CHROME	27	mg/l		0.6	1.98	SM3500CrD	07/08/14
METALS DIGESTION	DONE			0	0	EPA200.2	07/16/14

Sample Number: 44015841
Description: MANHOLE
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	3.8	mg/l		0.11	0.37	SM3111D	07/09/14
HEX CHROME	3.20	mg/l		0.06	0.198	SM3500CrD	07/08/14
TURBIDITY-LAB	0.3	NTU		0	0	EPA180.1	07/09/14

Sample Number: 44015842
Description: MW-05
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	1.3	mg/l		0.03	0.1	SM3111D	07/09/14
HEX CHROME	1.18	mg/l		0.03	0.099	SM3500CrD	07/08/14



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Sample Number: 44015843
Description: MW-05A
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	0.004	mg/l		0.0001	0	SM3113D	07/16/14
HEX CHROME	<0.003	mg/l		0.003	0.009	SM3500CrD	07/08/14

Sample Number: 44015844
Description: MW-19
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	18	mg/l		0.3	1	SM3111D	07/09/14
HEX CHROME	17	mg/l		0.15	0.495	SM3500CrD	07/08/14

Sample Number: 44015845
Description: MW-19A
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	0.0038	mg/l		0.0001	0.0003	SM3113D	07/16/14
HEX CHROME	<0.003	mg/l		0.003	0.009	SM3500CrD	07/08/14

Sample Number: 44015846
Description: MW-20
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	283	mg/l		7.9	26	SM3111D	07/09/14
HEX CHROME	89	mg/l		0.6	1.98	SM3500CrD	07/08/14



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Sample Number: 44015847
Description: MW-20A
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	0.23	mg/l		0.03	0.1	SM3111D	07/09/14
HEX CHROME	0.015	mg/l		0.003	0.009	SM3500CrD	07/08/14

Sample Number: 44015848
Description: MW-200
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	301	mg/l		8.5	28	SM3111D	07/09/14
HEX CHROME	255	mg/l		3	9.9	SM3500CrD	07/08/14

Sample Number: 44015849
Description: MW-21
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	0.21	mg/l		0.03	0.1	SM3111D	07/09/14
HEX CHROME	<0.003	mg/l		0.003	0.009	SM3500CrD	07/08/14

Sample Number: 44015850
Description: MW-21A
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM, DISSOLVED	0.0011	mg/l		0.0001	0.0003	SM3113D	07/16/14
HEX CHROME	<0.003	mg/l		0.003	0.009	SM3500CrD	07/08/14



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Sample Number: 44015851
Description: 001 OUTFALL
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	0.36	mg/l		0.03	0.1	SM3111D	07/09/14
TURBIDITY-LAB	0.3	NTU		0	0	EPA180.1	07/09/14

Sample Number: 44015852
Description: CANISTER A
Sample Date: 7/8/2014
Date Received: 7/8/2014

Parameter	Results	Units	Codes	LOD	LOQ	Method	Analyzed
CHROMIUM,TOTAL REC	2.2	mg/l		0.03	0.1	SM3111D	07/18/14
METALS DIGESTION	DONE			0	0	EPA200.2	07/16/14

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WDNR Certified Lab #445023150
Approved By:

JMW:dc

Facility/Project Name Appleton Wire-Former Albany International Chrome Plant		Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.		Well Name MW-20	
Facility License, Permit or Monitoring No. WDNR ERP # 02-45-000015		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input type="checkbox"/> Lat. 44° 16' 9.25" Long. 88° 23' 42.6" or _____		Wis. Unique Well No. DNR Well ID No. VN452	
Facility ID _____		St. Plane _____ ft. N. _____ ft. E. S/C/N		Date Well Installed 05/14/2014 m m d d y y y y	
Type of Well Well Code 11 / MW		Section Location of Waste/Source SW 1/4 of NW 1/4 of Sec. 25, T. 21 N, R. 17 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Tony Kapugi	
Distance from Waste/Source _____ ft.		Enf. Stds. Apply <input type="checkbox"/>		On-Site Environmental	
		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input checked="" type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____	

A. Protective pipe, top elevation - 765.67 ft. MSL

B. Well casing, top elevation - 768.36 ft. MSL

C. Land surface elevation - 768.67 ft. MSL

D. Surface seal, bottom - 766 ft. MSL or _____ ft.

12. USCS classification of soil near screen:
 GP GM GC GW SW SP
 SM SC ML MH CL CH
 Bedrock

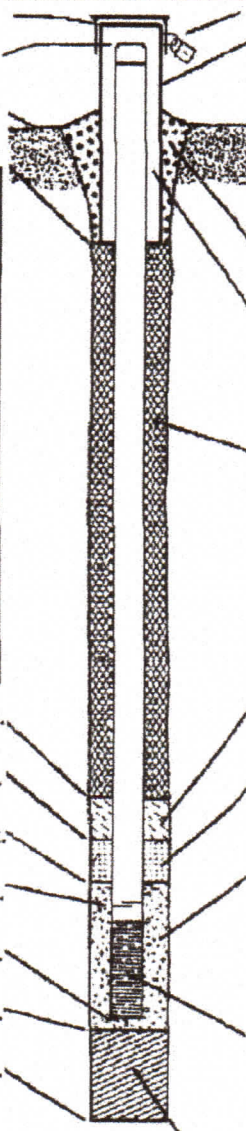
13. Sieve analysis performed? Yes No

14. Drilling method used: Rotary 50
 Hollow Stem Auger 41
 Other

15. Drilling fluid used: Water 02 Air 01
 Drilling Mud 03 None 99

16. Drilling additives used? Yes No
 Describe _____

17. Source of water (attach analysis, if required):



1. Cap and lock? Yes No

2. Protective cover pipe:
 a. Inside diameter: _____ in.
 b. Length: _____ ft.
 c. Material: MORRISON Steel 04
 FLUSH MOUNT Other
 d. Additional protection? Yes No
 If yes, describe: _____

3. Surface seal:
 Bentonite 30
 Concrete 01
 Other

4. Material between well casing and protective pipe:
 Bentonite 30
 Other

5. Annular space seal:
 a. Granular/Chipped Bentonite 33
 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry 35
 c. _____ Lbs/gal mud weight ... Bentonite slurry 31
 d. _____ % Bentonite ... Bentonite-cement grout 50
 e. 2.5 Ft³ volume added for any of the above
 f. How installed: Tremie 01
 Tremie pumped 02
 Gravity 08

6. Bentonite seal:
 a. Bentonite granules 33
 b. 1/4 in. 3/8 in. 1/2 in. Bentonite chips 32
 c. _____ Other

7. Fine sand material: Manufacturer, product name & mesh size
 a. Sidley 5000
 b. Volume added 3 bags ft³

8. Filter pack material: Manufacturer, product name & mesh size
 a. Sidley #5
 b. Volume added 1/2 bag ft³

9. Well casing:
 Flush threaded PVC schedule 40 23
 Flush threaded PVC schedule 80 24
 Other

10. Screen material: PVC
 a. Screen type: Factory cut 11
 Continuous slot 01
 Other
 b. Manufacturer Monoflex
 c. Slot size: 0.010 in.
 d. Slotted length: 10 ft.

11. Backfill material (below filter pack):
 None 14
 Other

E. Bentonite seal, top - 766 ft. MSL or _____ ft.

F. Fine sand, top - 764 ft. MSL or 4.6 ft.

G. Filter pack, top - 765.70 ft. MSL or 5.9 ft.

H. Screen joint, top - 764.38 ft. MSL or 8.98 ft.

I. Well bottom - 754.38 ft. MSL or 13.98 ft.

J. Filter pack, bottom - 758.17 ft. MSL or 14.5 ft.

K. Borehole, bottom - 753.67 ft. MSL or 15 ft.

L. Borehole, diameter - 8.25 in.

M. O.D. well casing - 2.125 in.

N. I.D. well casing - 2 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature David J. Kapugi Firm Badger Laboratories and Engineering Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Facility/Project Name Appleton Wire-Former Albany International Chrome Plant		Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.		Well Name <u>MW 20-A</u>	
Facility License, Permit or Monitoring No. WDNR ERP # 02-45-000015		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input type="checkbox"/> Lat. 44° 16' 9.25" Long. 88° 23' 42.6" or _____		Wis. Unique Well No. <u>VN453</u> DNR Well ID No. _____	
Facility ID _____		St. Plane _____ ft. N. _____ ft. E. S/C/N _____		Date Well Installed <u>05/14/2014</u> m m d d y y y y	
Type of Well Well Code <u>11</u> / <u>MW</u>		Section Location of Waste/Source SW 1/4 of NW 1/4 of Sec. 25, T. 21 N, R. 17 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Tony Kapugi	
Distance from Waste/Source _____ ft.		Enf. Stds. Apply <input type="checkbox"/>		On-Site Environmental _____	
Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input checked="" type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____			

A. Protective pipe, top elevation	<u>768.67</u> ft. MSL	1. Cap and lock?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation	<u>768.29</u> ft. MSL	2. Protective cover pipe:	
C. Land surface elevation	<u>768.67</u> ft. MSL	a. Inside diameter:	<u>8</u> in.
D. Surface seal, bottom	_____ ft. MSL or _____ ft.	b. Length:	<u>1.5</u> ft.
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input checked="" type="checkbox"/> Bedrock <input type="checkbox"/> 13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/> 15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99 16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____ 17. Source of water (attach analysis, if required): _____		c. Material:	Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
		d. Additional protection?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____
		3. Surface seal:	Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
		4. Material between well casing and protective pipe:	Bentonite <input type="checkbox"/> 30 Other <input type="checkbox"/>
E. Bentonite seal, top	_____ ft. MSL or <u>25.3</u> ft.	5. Annular space seal:	
F. Fine sand, top	_____ ft. MSL or <u>26.3</u> ft.	a. Granular/Chipped Bentonite <input type="checkbox"/> 33	
G. Filter pack, top	_____ ft. MSL or <u>27.3</u> ft.	b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35	
H. Screen joint, top	_____ ft. MSL or <u>30.3</u> ft.	c. _____ Lbs/gal mud weight Bentonite slurry <input type="checkbox"/> 31	
I. Well bottom	_____ ft. MSL or <u>35.3</u> ft.	d. _____ % Bentonite Bentonite-cement grout <input type="checkbox"/> 50	
J. Filter pack, bottom	_____ ft. MSL or <u>36.8</u> ft.	e. _____ Ft ³ volume added for any of the above	
K. Borehole, bottom	_____ ft. MSL or <u>38</u> ft.	f. How installed:	Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
L. Borehole, diameter	<u>8.25</u> in.	6. Bentonite seal:	
M. O.D. well casing	<u>2.125</u> in.	a. Bentonite granules <input type="checkbox"/> 33	
N. I.D. well casing	<u>2</u> in.	b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input type="checkbox"/> 32	
		c. _____ Other <input type="checkbox"/>	
		7. Fine sand material: Manufacturer, product name & mesh size	
		a. Sidley 5000	
		b. Volume added _____ ft ³	
		8. Filter pack material: Manufacturer, product name & mesh size	
		a. Sidley #5	
		b. Volume added _____ ft ³	
		9. Well casing:	Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
		10. Screen material: <u>PVC</u>	
		a. Screen type:	Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
		b. Manufacturer <u>Monoflex</u>	
		c. Slot size:	<u>0.010</u> in.
		d. Slotted length:	<u>5</u> ft.
		11. Backfill material (below filter pack):	None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature [Signature] Firm Badger Laboratories and Engineering Inc.

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Facility/Project Name Appleton Wire-Former Albany International Chrome Plant		Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.		Well Name <u>MW-21</u>	
Facility License, Permit or Monitoring No. WDNR ERP # 02-45-000015		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input type="checkbox"/> Lat. 44° 16' 9.25" Long. 88° 23' 42.6" or _____		Wis. Unique Well No. <u>WV 450</u> DNR Well ID No. _____	
Facility ID _____		St. Plane _____ ft. N. _____ ft. E. S/C/N _____		Date Well Installed <u>05/14/2014</u> m m d d y y y y	
Type of Well Well Code <u>11</u> / <u>MW</u>		Section Location of Waste/Source SW 1/4 of NW 1/4 of Sec. <u>25</u> , T. <u>21</u> N, R. <u>17</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Tony Kapugi	
Distance from Waste/Source _____ ft.		Enf. Stds. Apply <input type="checkbox"/>		On-Site Environmental	
Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input checked="" type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____			

<p>A. Protective pipe, top elevation - <u>769.185</u> ft. MSL</p> <p>B. Well casing, top elevation - <u>768.85</u> ft. MSL</p> <p>C. Land surface elevation - <u>768.185</u> ft. MSL</p> <p>D. Surface seal, bottom - - - - - ft. MSL or <u>3.5</u> ft.</p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: _____ in. b. Length: _____ ft. c. Material: _____ Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/></p> <p>d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/></p> <p>5. Annular space seal: a. Granular/Chipped Bentonite <input type="checkbox"/> 33 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft³ volume added for any of the above f. How installed: Tremie <input checked="" type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08</p> <p>6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input type="checkbox"/> 32 c. _____ Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name & mesh size a. <u>Sidley 5000</u> b. Volume added _____ ft³</p> <p>8. Filter pack material: Manufacturer, product name & mesh size a. <u>Sidley #5</u> b. Volume added _____ ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/></p> <p>10. Screen material: <u>PVC</u> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/></p> <p>b. Manufacturer <u>Monoflex</u> c. Slot size: _____ 0.010 in. d. Slotted length: <u>10</u> ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/></p>
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12. USCS classification of soil near screen:
GP GM GC GW SW SP
SM SC ML MH CL CH
Bedrock

13. Sieve analysis performed? Yes No

14. Drilling method used: Rotary 50
Hollow Stem Auger 41
Other

15. Drilling fluid used: Water 02 Air 01
Drilling Mud 03 None 99

16. Drilling additives used? Yes No
Describe _____

17. Source of water (attach analysis, if required):

<p>E. Bentonite seal, top - - - - - ft. MSL or <u>3.5</u> ft.</p> <p>F. Fine sand, top - - - - - ft. MSL or <u>8.5</u> ft.</p> <p>G. Filter pack, top - - - - - ft. MSL or <u>12.67</u> ft.</p> <p>H. Screen joint, top - - - - - ft. MSL or <u>13.07</u> ft.</p> <p>I. Well bottom - - - - - ft. MSL or <u>14.02</u> ft.</p> <p>J. Filter pack, bottom - - - - - ft. MSL or <u>14.07</u> ft.</p> <p>K. Borehole, bottom - - - - - ft. MSL or <u>15.00</u> ft.</p> <p>L. Borehole, diameter - <u>8.25</u> in.</p> <p>M. O.D. well casing - <u>2.125</u> in.</p> <p>N. I.D. well casing - <u>2</u> in.</p>

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm Badger Laboratories and Engineering Inc.

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Facility/Project Name Appleton Wire-Former Albany International Chrome Plant		Local Grid Location of Well _____ ft. <input type="checkbox"/> N. _____ ft. <input type="checkbox"/> E. _____ ft. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> W.		Well Name <u>MW-21-A</u>	
Facility License, Permit or Monitoring No. WDNR ERP # 02-45-000015		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input type="checkbox"/> Lat. 44° 16' 9.25" Long. 88° 23' 42.6" or _____		Wis. Unique Well No. <u>VN451</u> DNR Well ID No. _____	
Facility ID _____		St. Plane _____ ft. N. _____ ft. E. S/C/N _____		Date Well Installed <u>05/14/2014</u> m m d d y y y y	
Type of Well Well Code <u>11</u> / <u>MW</u>		Section Location of Waste/Source SW 1/4 of NW 1/4 of Sec. 25, T. 21 N, R. 17 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Tony Kapugi	
Distance from Waste/Source _____ ft.		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input checked="" type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number _____	
Enf. Stds. Apply <input type="checkbox"/>				On-Site Environmental _____	

A. Protective pipe, top elevation 769.195 ft. MSL
 B. Well casing, top elevation 768.855 ft. MSL
 C. Land surface elevation 769.195 ft. MSL
 D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
 GP GM GC GW SW SP
 SM SC ML MH CL CH
 Bedrock

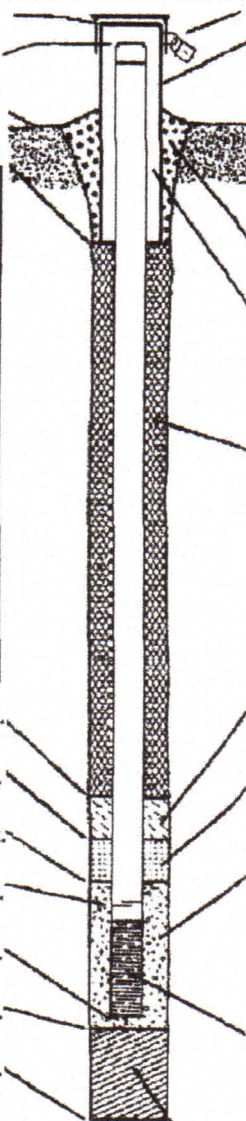
13. Sieve analysis performed? Yes No

14. Drilling method used: Rotary 50
 Hollow Stem Auger 41
 Other

15. Drilling fluid used: Water 02 Air 01
 Drilling Mud 03 None 99

16. Drilling additives used? Yes No
 Describe _____

17. Source of water (attach analysis, if required):



- Cap and lock? Yes No
- Protective cover pipe:
 - Inside diameter: 8 in.
 - Length: 1.5 ft.
 - Material: Steel 04
Other
 - Additional protection? Yes No
If yes, describe: _____
- Surface seal: Bentonite 30
Concrete 01
Other
- Material between well casing and protective pipe: Bentonite 30
Other
- Annular space seal:
 - Granular/Chipped Bentonite 33
 - _____ Lbs/gal mud weight . . . Bentonite-sand slurry 35
 - _____ Lbs/gal mud weight Bentonite slurry 31
 - _____ % Bentonite Bentonite-cement grout 50
 - _____ Ft³ volume added for any of the above
 - How installed: Tremie 01
Tremie pumped 02
Gravity 08
- Bentonite seal:
 - Bentonite granules 33
 - 1/4 in. 3/8 in. 1/2 in. Bentonite chips 32
 - Other
- Fine sand material: Manufacturer, product name & mesh size
 a. Sidley 5000
 b. Volume added 14 ft³
- Filter pack material: Manufacturer, product name & mesh size
 a. Sidley #5
 b. Volume added 4 ft³
- Well casing: Flush threaded PVC schedule 40 23
 Flush threaded PVC schedule 80 24
 Other
- Screen material: PVC
 - Screen type: Factory cut 11
Continuous slot 01
Other
 - Manufacturer Monoflex
 - Slot size: 0.010 in.
 - Slotted length: 5 ft.
- Backfill material (below filter pack): None 14
Other

E. Bentonite seal, top _____ ft. MSL or _____ ft.
 F. Fine sand, top _____ ft. MSL or _____ ft.
 G. Filter pack, top _____ ft. MSL or 28.4 ft.
 H. Screen joint, top _____ ft. MSL or 30.6 ft.
 I. Well bottom _____ ft. MSL or 35.6 ft.
 J. Filter pack, bottom _____ ft. MSL or 36.9 ft.
 K. Borehole, bottom _____ ft. MSL or 38 ft.
 L. Borehole, diameter 8.25 in.
 M. O.D. well casing 2.125 in.
 N. I.D. well casing 2 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.
 Signature [Signature] Firm Badger Laboratories and Engineering Inc.

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