Site Investigation Report

Luedtke Property
11 W Wisconsin Avenue
Tomahawk, Wisconsin

July 23, 2018
by METCO
WDNR File Reference #: 03-35-554426
PECFA Claim #: 54487-1334-11

METCO

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This document was prepared by:

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July 23, 2018

BRRTS #: 03-35-554426
PECFA #: 54487-1334-11

Todd Luedtke
426 Crowfoot Avenue
Fond du Lac, WI 54935

Dear Mr. Luedtke,

Enclosed is our "Site Investigation Report" concerning the Luedtke Property site at 11 W. Wisconsin Avenue in Tomahawk, Wisconsin. This report presents the complete data from all investigation activities.

According to the data collected during the investigation, it is the conclusion of METCO that under existing conditions and limitations, the extent and degree of petroleum contamination has been adequately defined in soil and groundwater to warrant a completed investigation as defined by the WDNR guidelines and regulations.

Although the extent and degree of petroleum contamination is defined to a practical extent, the WDNR will likely require additional groundwater monitoring for contaminant trend analysis prior to granting closure. Per state response to this report, METCO will proceed with this project.

We appreciate the opportunity to be of service to you on this project. Should you have any questions or require additional information, do not hesitate to contact our La Crosse office.

Sincerely,

Jason T. Powell
Staff Scientist

C: Carrie Stoltz – WDNR

EXECUTIVE SUMMARY

A gas station and repair shop (Country Co-op) operated on the subject property from approximately the 1940s until the mid-1980s. After the gas station closed, the building was converted to retail space and has been used for retail/office purposes since then.

In 1986, four 10,000-gallon leaded gasoline USTs were removed from the subject property.

On October 30, 2009, petroleum odors were noticed in the basement of the movie theater located on the adjacent property to the west and reported to the Tomahawk Fire Department. On November 2, 2009, John Sager of the WDNR visited the site to observe the petroleum odors in the basement and investigate possible petroleum sources. No petroleum sources were identified at that time. Further investigation by the WDNR revealed that four 10,000-gallon leaded gasoline USTs were registered on the Wisconsin tank database for the Luedtke Property at 11 W Wisconsin Avenue. Since the former gasoline tanks from the Luedtke Property were suspected to be the source of the petroleum release, the WDNR required that a site investigation be completed.

Numerous other LUST, ERP, and Spill sites exist in the City of Tomahawk. The closest being Les' Standard, which is located approximately 125 feet to the northeast of the subject property. The Les' Standard property is an active gas station and closed LUST site (BRRTS# 03-35-000361). Several Spill cases are also associated with the Les' Standard property.

The site investigation consisted of a Geoprobe Project, a Drilling Project, and two rounds of groundwater sampling. The results of the investigation clearly show that released petroleum products have impacted the local soil and groundwater. Results of the investigation are as follows:

- Native unconsolidated materials in this area generally consist of the following in downward stratigraphic order. From surface to approximately 15 feet bgs exists a brown to gray to tan fine to coarse grained sand with gravel. From approximately 15 feet bgs and extending to approximately 24 feet bgs exists a gray silt to sandy silt. At approximately 24 feet bgs and extending to at least 30 feet bgs exists a tan very fine to fine grained sand to silty sand.

- Bedrock was not encountered during the site investigation, but granite bedrock is expected to exist at approximately 50-100 feet bgs, based on local well construction reports.

- According to data collected from the monitoring wells, the depth to groundwater ranges from 6.43 to 8.00 feet bgs depending on well location and time of year. The depth to water in the piezometer ranged from 8.25 to 9.15 feet bgs depending on the time of year. According to the watertable measurements collected during groundwater sampling, local horizontal groundwater flow in the immediate area of the subject property is generally toward the west to northwest.

- Three areas of unsaturated soil contamination, which exceed the NR720 Groundwater RCL's (Lead only), exist in the area of the removed UST's, encompassing soil borings G-4, G-5, and G-8. These circular shaped areas appear to measure up to 14 feet in diameter and up to 4-6 feet thick.

- A dissolved phase contaminant plume exceeding the NR140 ES and/or PAL has formed at the watertable in the area of the removed UST's and has migrated toward the northwest. This plume is approximately 169 feet long and up to 105 feet wide at its widest point.

- Based on the most recent groundwater analytical results, four monitoring/piezometer wells (MW-1, MW-2, MW-8, and PZ-1) show NR140 ES and/or PAL exceedances.

- Based on the receptor survey, there does not appear to be the potential of contaminant migration along any utility corridors, risk of vapor intrusion to any buildings, or risk to any private wells, or surface waters.

According to the data collected during the investigation, it is the conclusion of METCO that under existing conditions and limitations, the extent and degree of petroleum contamination has been adequately defined in soil and groundwater to warrant a completed investigation as defined by the WDNR guidelines and regulations.

Although the extent and degree of petroleum contamination is defined to a practical extent, the WDNR will likely require additional groundwater monitoring for contaminant trend analysis. Per state response to this report, METCO will proceed with this project.

LIST OF ACRONYMS

AST - Aboveground Storage Tank
ASTM - American Society for Testing and Materials
Cd - Cadmium
DOT - Department of Transportation
DRO - Diesel Range Organics
ES - Enforcement Standards
gpm - gallons per minute
GRO - Gasoline Range Organics
HNU - brand name for Photoionization Detector
ID - inside-diameter
LAST - Leaking Aboveground Storage Tank
LUST - Leaking Underground Storage Tank
MSL - Mean Sea Level
MTBE - Methyl-tert-butyl ether
MW - Monitoring Well
NIOSH - National Institute for Occupational Safety & Health
NR - Natural Resources
OD - outside-diameter
PAH - Polynuclear Aromatic Hydrocarbons
PAL - Preventive Action Limits
Pb - Lead
PECFA - Petroleum Environmental Cleanup Fund
PID - Photoionization Detector
POTW - Publicly Owned Treatment Works
ppb ug/kg - parts per billion
ppm mg/kg - parts per million
psi - pounds per square inch
PVC - Polyvinyl Chloride
PVOC - Petroleum Volatile Organic Compounds
RAP - Remedial Action Plan
scfm - standard cubic feet per minute
SVE - Soil Vapor Extraction
USCS - Unified Soil Classification System
USGS - United States Geological Survey
UST - Underground Storage Tank
VOC - Volatile Organic Compounds
WDNR - Wisconsin Department of Natural Resources
WPDES - Wisconsin Pollutant Discharge Elimination System

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1.0 INTRODUCTION AND BACKGROUND

A Site Investigation is required by the Wisconsin Department of Natural Resources (WDNR) by authority of Section 292.11 of the Wisconsin Statutes. According to the WDNR, any soil that tests more than 10 ppm Gasoline Range Organics (GRO) or Diesel Range Organics (DRO) requires an investigation. Any soil that tests more than the Chapter NR720 Groundwater Residual Contaminant Levels (RCLs), Direct Contact RCLs, and/or Soil Saturation (C-sat) Values may require possible remediation. Any groundwater that tests more than the Preventive Action Limits (PAL) or Enforcement Standards (ES) for compounds listed in Chapter NR140 Groundwater Quality Standards requires an investigation and possible remediation. For a further explanation of WDNR rules and regulations, see Appendix E.

This report presents data collected during the Site Investigation. The purpose of this investigation was to:

1) Determine the extent and degree of petroleum contamination in the environment.

2) Determine if any risks exist to the environment or public health.

3) As conditions warrant, bring the site to closure.

1.1 Responsible Party Information

Todd Luedtke
426 Crowfoot Avenue
Fond du Lac, WI 54935
(920) 602-4910

1.2 Consultant Information

Consultant

METCO
Ronald J. Anderson P.G.
Jason T. Powell
709 Gillette Street, Suite 3
La Crosse, WI 54603
(608) 781-8879

Subcontractors

Geiss Soil & Samples, LLC
W4490 Pope Road
Merrill, WI 54452
(715) 539-3928

Synergy Environmental Lab
1990 Prospect Court
Appleton, WI 54914
(920) 830-2455

Fauerbach Surveying & Engineering
P.O. Box 140
Hillsboro, WI 54634
(608) 489-3363

DKS Transport Services, LLC
N7349 548th Street
Menomonie, WI 54751
(715) 556-2604

1.3 Site Location

Site Address:

11 W. Wisconsin Avenue
Tomahawk, Wisconsin

Latitude and Longitude:
45° 28' 15" N and 89° 43' 47" W

WTM Coordinates:
541123, 555277

Township/Range:
SW ¼, SW ¼, Section 34, Township 35 North, Range 6 East, Lincoln County

1.4 Site History

A gas station and repair shop (Country Co-op) operated on the subject property from approximately the 1940s until the mid-1980s. After the gas station closed, the building was converted to retail space and has been used for retail/office purposes since then.

In 1986, four 10,000-gallon leaded gasoline USTs were removed from the subject property.

On October 30, 2009, petroleum odors were noticed in the basement of the movie theater located on the adjacent property to the west and reported to the Tomahawk Fire Department. On November 2, 2009, John Sager of the WDNR visited the site to observe the petroleum odors in the basement and investigate possible petroleum sources. No petroleum sources were identified at that time. Further investigation by the WDNR revealed that four 10,000-gallon leaded gasoline USTs were registered on the Wisconsin tank database for the Luedtke Property at 11 W Wisconsin Avenue. Since the former gasoline tanks from the Luedtke Property were suspected to be the source of the petroleum release, the WDNR required that a site investigation be completed.

Numerous other LUST, ERP, and Spill sites exist in the City of Tomahawk. The closest being Les' Standard, which is located approximately 125 feet to the northeast of the subject property. The Les' Standard property is an active gas station and closed LUST site (BRRTS# 03-35-000361). Several Spill cases are also associated with the Les' Standard property.

2.0 GEOLOGY AND RECEPTORS

2.1 Regional and Local Geology and Hydrogeology

Topography and Regional Setting

According to the USGS Hydrologic Atlas, Tomahawk is located in the southern portion of the Upper Wisconsin River Basin. The topography of this area is characterized by pitted outwash plains with a poorly developed drainage network as indicated by the numerous lakes in the area.

The elevation of the site is approximately 1,450 feet above Mean Sea Level (MSL). See Appendix A for site location.

Soil and Bedrock

Soil samples were described by METCO field personnel. Assisting literature included the Hydrologic Atlas, Wisconsin Geologic Logs, and Wisconsin Well Constructor Reports.

Local unconsolidated materials generally consist of the following in downward stratigraphic order:

1) Fill material consisting of fine to coarse grained sand with gravel and bricks was encountered in soil boring G-1 from surface to 12 feet bgs.
2) From surface to depths ranging from 13 to 16 feet bgs exists a brown to gray to tan fine to coarse grained sand with gravel.
3) At depths ranging from 13 to 16 feet bgs and extending to approximately 24 feet bgs exists a gray silt to sandy silt.
4) At approximately 24 feet and extending to at least 30 feet bgs exists a tan very fine to fine grained sand to silty sand.

Bedrock was not encountered during the site investigation, but granite bedrock is expected to exist at approximately 50-100 feet bgs, based on local well construction reports.

No other characteristics concerning the local sediments such as structures, voids, layering, lenses or secondary permeability are documented at this time.

Hydrogeology

According to data collected from the monitoring wells, the depth to groundwater ranges from 6.43 to 8.00 feet bgs depending on well location and time of year. The depth to water in the piezometer ranged from 8.25 to 9.15 feet bgs depending on the time of year.

According to the watertable measurements collected during groundwater sampling, local horizontal groundwater flow in the immediate area of the subject property is generally toward the west to northwest. Groundwater Flow Direction Maps are presented in Section 6.

2.2 Receptors

Buildings, Basements, Sumps, and Utility Corridors

The extent of petroleum contamination in groundwater exceeding the NR140 ES and/or PAL appears to come into contact with a water main, a sanitary sewer main, natural gas lines, and a buried electric line. The extent of petroleum contamination in unsaturated soil exceeding the NR720 Groundwater RCL's (Lead only) also comes into contact with a natural gas line.

The water main and sanitary sewer main exist adjacent to the subject property to the north along the south side of W. Wisconsin Avenue. The water main exists at approximately 7 feet below ground surface and is made of 6" ductile iron. The water main was installed in 1986, but the city is unsure of the backfill material. The sanitary sewer main exists at approximately 6 feet below ground surface and is made of 8" plastic piping. The sanitary sewer main was installed in 1986, but the city is unsure of the backfill material. Several sewer (4" or 6" plastic) and water (3/4" copper) lateral lines to the subject property and other nearby buildings also exist in the area of soil and groundwater contamination. These exist at approximately 6-7 feet bgs, but the city is unsure of the backfill material. Based on water level measurements collected from the monitoring wells, groundwater exists at

approximately the same depths of the utility corridors. However, due to the sand/gravel native soils in the area, it is unlikely that these are acting as preferential contamination migration pathways.

Natural gas and telephone lines typically exist within 30 inches of ground surface and backfilled with native soil. Therefore, these do not appear to be potential contaminant migration pathways.

The extent of the groundwater contamination appears to extend underneath the on-site building (Luedtke Property) at depths ranging from 7-8 feet bgs. However, due to the lack of soil contamination near the on-site building, and because Benzene levels in groundwater are less than 1,000 ppb, vapor intrusion in the on-site building is unlikely.

Municipal and Private Water Supply Wells

The subject property and surrounding properties are all served by the City of Tomahawk municipal water supply. The City of Tomahawk has two municipal wells, which are located approximately 4,000 feet to the south of the subject property. The City of Tomahawk is not aware of any private water supply wells in this area. If any private wells do exist, they are not used for domestic purposes.

METCO is not currently aware of any other impacts, receptors, risks, or local problems associated with the subject property.

Surface Waters

The nearest surface water is Lake Mohawksin, a reservoir on the Wisconsin River, which exists approximately 1,500 feet to the north of the subject property.

3.0 SITE INVESTIGATION RESULTS AND RISK CRITERIA

3.1 Methods of Investigation

Workscope

The workscope performed for the LUST Investigation included the following:

1) On January 31, 2017, METCO prepared a LUST Investigation Field Procedures Workplan.

2) On May 8-9, 2017, METCO completed twenty-five Geoprobe borings (G-1 thru G-25). Seventy-three soil samples and twenty-five groundwater samples were collected from the borings for field and/or laboratory analysis.

3) On November 13-14, 2017, METCO completed nine soil borings which were converted to monitoring/piezometer wells (MW-1 thru MW-8, and PZ-1). Thirty-seven soil samples were collected for field and/or laboratory analysis. One composite soil sample was also collected for waste disposal characterization. Upon completion, the monitoring/piezometer wells were properly developed.

4) On December 12, 2017, DKS Transport Services, LLC picked up and properly disposed of 9 drums of soil cuttings and 2 drums of purge water.

5) On January 29, 2018, METCO personnel collected groundwater samples from eight monitoring/piezometer wells (MW-1 thru MW-6, MW-8, and PZ-1) for field and laboratory analysis. The well network was properly surveyed to feet mean sea level (msl) by Fauerbach Surveying & Engineering at this time. However, monitoring well MW-7 could not be sampled or surveyed as the well was beneath a large snow/ice pile and could not be located. METCO also conducted slug tests on three monitoring/piezometer wells (MW-1, MW-8, and PZ-1).

6) On April 30, 2018, METCO personnel collected groundwater samples from nine monitoring/piezometer wells (MW-1 thru MW-8, and PZ-1) for field and laboratory analysis. Monitoring well MW-7 was also properly surveyed by METCO personnel to feet msl at this time.

Site Access Problems

No site access problems were encountered during the LUST investigation.

Analytical Methods

All samples were collected in a manner as to maintain their quality and to eliminate any possible cross contamination. METCO did not deviate from any WDNR or laboratory recommended procedures for sample collection, preservation, or transportation on this project to our knowledge.

Equipment advanced into the subsurface was cleaned between sampling locations. Cleaning consisted of washing with a biodegradable Alconox solution and rinsing with potable water. Disposable equipment was not cleaned, but immediately disposed of after use.

All samples were constantly kept on ice in a cooler and hand delivered to the laboratory.

3.2 Data Discussion

Soil Sampling Data

On May 8-9, 2017, during the Geoprobe Project, twenty-five soil borings were completed with seventy-three soil samples collected for field and/or laboratory analysis (PID, VOC, PVOC, Naphthalene, and/or Lead).

On November 13-14, 2017, during the Drilling Project, nine soil borings were completed with thirty-seven soil samples collected for field and/or laboratory analysis (PID, GRO, PVOC, and Naphthalene). One composite soil sample was also collected for laboratory analysis (GRO, PVOC, Naphthalene, and TCLP-Lead) for waste disposal characterization.

Soil analytical results are summarized in the Soil Analytical Results Tables with exceedances of the NR720 Groundwater RCL values noted.

Soil sample locations are presented in the Detailed Site Map found in Section 6. All data is presented in the data tables in Section 7. The laboratory reports are presented in Appendix B.

Groundwater Sampling Data

On May 8-9, 2017, during the Geoprobe Project, twenty-five groundwater samples were collected from the soil borings (G-1 thru G-25) for laboratory analysis (PVOC and Naphthalene).

On November 13-14, 2017, during the Drilling Project, eight monitoring wells (MW-1 thru MW-8) and one piezometer (PZ-1) were installed and properly developed.

On January 29, 2018, METCO personnel collected groundwater samples from eight monitoring/piezometer wells (MW-1 thru MW-6, MW-8, and PZ-1) (Round 1) for field and laboratory analysis (VOC's, Dissolved Iron, Dissolved Manganese, Nitrate/Nitrite, Sulfate, and Dissolved Lead). Field measurements for water level, temperature, pH, ORP, Dissolved Oxygen and Specific Conductance were collected from all sampled monitoring/piezometer wells. METCO also conducted slug tests on three monitoring/piezometer wells (MW-1, MW-8, and PZ-1). The well network was properly surveyed to feet msl at this time. However, monitoring well MW-7 could not be sampled or surveyed as the well was beneath a large snow/ice pile and could not be located.

On April 30, 2018, METCO personnel collected groundwater samples from nine monitoring/piezometer wells (MW-1 thru MW-8, and PZ-1) (Round 2) for field and laboratory analysis (VOC, PVOC, Naphthalene, and/or Dissolved Lead). Field measurements for water level, temperature, pH, ORP, Dissolved Oxygen and Specific Conductance were collected from all sampled monitoring/piezometer wells. Monitoring well MW-7 was also properly surveyed by METCO personnel to feet msl at this time.

Groundwater analytical results are summarized in the Groundwater Analytical Tables with exceedances of the NR140 Preventive Action Limits (PAL) and/or Enforcement Standard (ES) noted.

The soil boring and monitoring/piezometer well locations are presented in the Detailed Site Map in Section 6. All data is presented in the data tables in Section 7. The lab reports are presented in Appendix B.

Laboratory Certification

Synergy Environmental Lab

Wisconsin Lab Certification #445037560

3.3 Permeability and Hydraulic Conductivity

On January 29, 2018, METCO conducted slug tests on monitoring wells MW-1 and MW-8, and piezometer PZ-1. The slug test data was evaluated using the curve fitting program "Hydro-Test for Windows" Produced by Dakota Environmental, Inc.

Slug test data was evaluated using the Bouwer and Rice method. Hydrogeologic parameters were estimated as follows:

Monitoring Well MW-1
Hydraulic Conductivity (K) = 7.07E-04 cm/sec
Transmissivity = 1.78E-01 cm^2/sec
Flow Velocity (V=KI/n) = 1.68246 m/yr

Monitoring Well MW-8
Hydraulic Conductivity (K) = 4.54E-04 cm/sec

Transmissivity = 1.05E-01 cm^2/sec
Flow Velocity (V=KI/n) = 1.08055 m/yr

Piezometer PZ-1
Hydraulic Conductivity (K) = 3.72E-04 cm/sec
Transmissivity = 2.41E-01 cm^2/sec
Flow Velocity (V=KI/n) = 0.88476 m/yr

Since the thickness of the unconfined aquifer was unknown, the bottoms of monitoring/piezometer wells MW-1 and MW-8, and PZ-1 were assumed as the lower extent of the aquifer for calculation purposes. Slug test data is presented in Appendix E.

3.4 Discussion of Results

Native unconsolidated materials in this area generally consist of the following in downward stratigraphic order. From surface to approximately 15 feet bgs exists a brown to gray to tan fine to coarse grained sand with gravel. From approximately 15 feet bgs and extending to approximately 24 feet bgs exists a gray silt to sandy silt. At approximately 24 feet bgs and extending to at least 30 feet bgs exists a tan very fine to fine grained sand to silty sand.

Bedrock was not encountered during the site investigation, but granite bedrock is expected to exist at approximately 50-100 feet bgs, based on local well construction reports.

According to data collected from the monitoring wells, the depth to groundwater ranges from 6.43 to 8.00 feet bgs depending on well location and time of year. The depth to water in the piezometer ranged from 8.25 to 9.15 feet bgs depending on the time of year. According to the watertable measurements collected during groundwater sampling, local horizontal groundwater flow in the immediate area of the subject property is generally toward the west to northwest.

Three areas of unsaturated soil contamination, which exceed the NR720 Groundwater RCL's (Lead only), exist in the area of the removed UST's, encompassing soil borings G-4, G-5, and G-8. These areas appear to measure up to 14 feet in diameter and up to 4-6 feet thick.

A dissolved phase contaminant plume exceeding the NR140 ES and/or PAL has formed at the watertable in the area of the removed UST's and has migrated toward the northwest. This plume is approximately 169 feet long and up to 105 feet wide at its widest point.

Based on the most recent groundwater analytical results, four monitoring/piezometer wells (MW-1, MW-2, MW-8, and PZ-1) show NR140 ES and/or PAL exceedances.

Based on the receptor survey, there does not appear to be the potential of contaminant migration along any utility corridors, risk of vapor intrusion to any buildings, or risk to any private wells, or surface waters.

To our knowledge, this investigation has not had any major difficulties, unanticipated results, or questionable results.

The Detailed Site Map, Soil Contamination Map, Groundwater Flow Direction Maps, Groundwater Isoconcentration Map, and Geologic Cross- Section figures, which visually define the extent of contamination, are presented in Section 6.

3.5 Risk Assessment

Per the NR746.03 definitions a release from petroleum tanks is considered "high risk" if any of the four following criterion are met:

1) Verified contaminant concentrations in a private or public potable well that exceeds the Preventive Action Limit established under Chapter, Stats. 160.
2) Petroleum product that is not in the dissolved phase (floating product) is present with a thickness of 0.01 feet or more, and verified by more than one sampling event.
3) An Enforcement Standard exceedance in groundwater within 1,000 feet of a well operated by a public utility, or within 100 feet of any other well used to provide water for human consumption.
4) An Enforcement Standard exceedance in fractured bedrock.

A "medium risk" site is defined as a site where contaminants have extended beyond the boundary of the source property, or there is confirmed contamination in the groundwater, but the site does not meet the definition of a "high risk" site.

A "low risk" site is defined as a site where contaminants are contained only within the soil on the source property and there is no confirmed contamination in groundwater.

Based on the NR746.03 definitions, the Luedtke Property site is currently a "medium risk" site.

4.0 CONCLUSION

4.1 Investigation Summary

According to the data collected during the investigation, it is the conclusion of METCO that under existing conditions and limitations, the extent and degree of petroleum contamination has been adequately defined in soil and groundwater to warrant a completed investigation as defined by the WDNR guidelines and regulations.

4.2 Recommendations

Although the extent and degree of petroleum contamination is defined to a practical extent, the WDNR will likely require additional groundwater monitoring for contaminant trend analysis. Per state response to this report, METCO will proceed with this project.

5.0 REFERENCES

Driscoll, F. G., 1986, Groundwater and Wells, St. Paul, Minnesota.

Fetter, C.W., 1988, Applied Hydrogeology, Columbus, Ohio.

Geologic Logs and Well Constructor Reports, Wisconsin Geological and Natural History Survey, Madison, Wisconsin.

Nielson, D.M., 1991, Practical Handbook of Groundwater Monitoring, Chelsea, Michigan.

Oakes, E.L., and Cotter, R.D., 1975, Water Resources of Wisconsin – Upper Wisconsin River Basin, Hydrologic Investigations, Atlas HA-536, U.S. Geological Survey, Washington D.C.

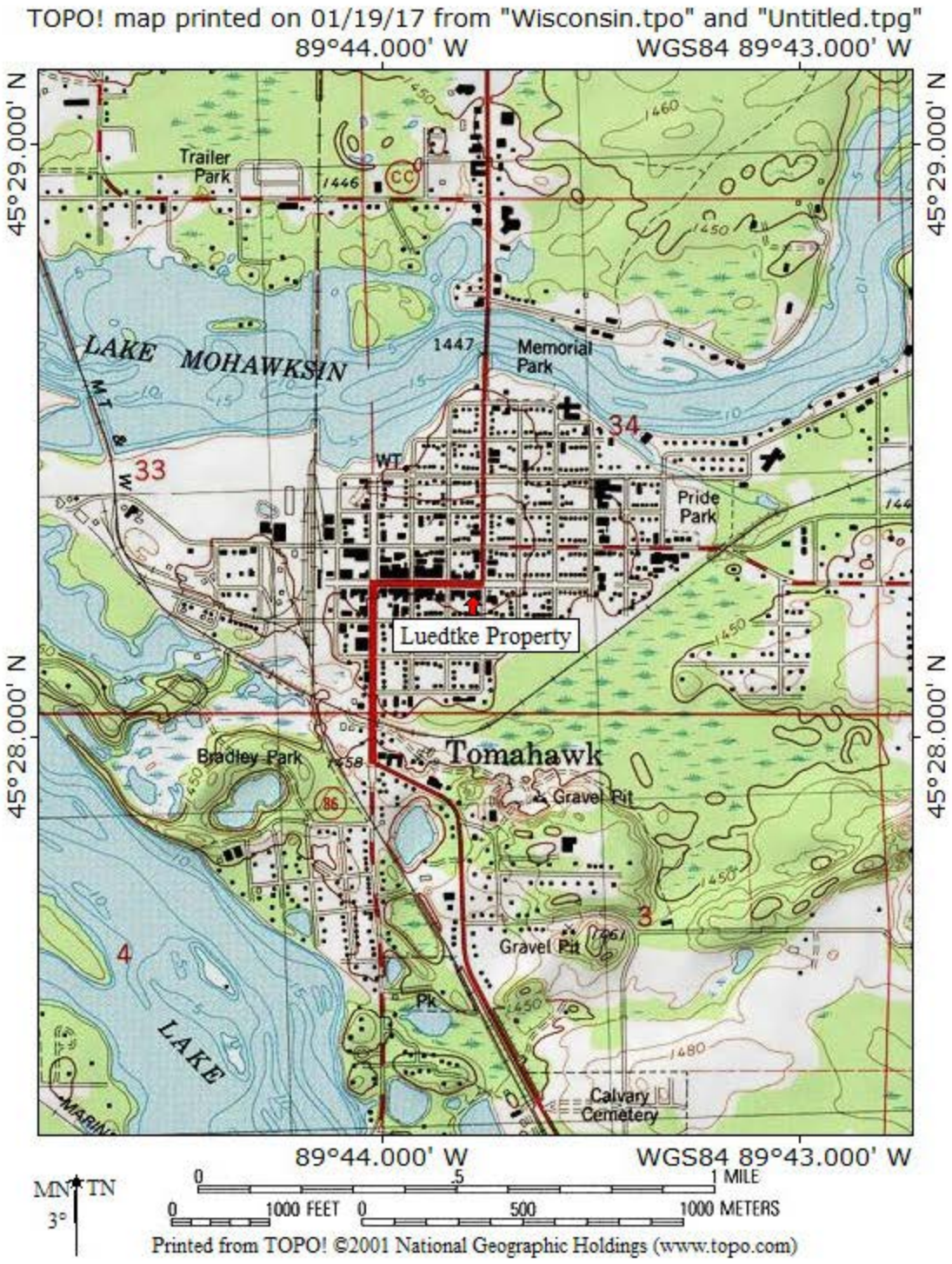
Seamless USGS Topographic Maps on CD-ROM, 2001, National Geographic Holdings, Inc., San Francisco, California.

Walton, W.C., 1989, Groundwater Pumping Tests, Chelsea, Michigan.

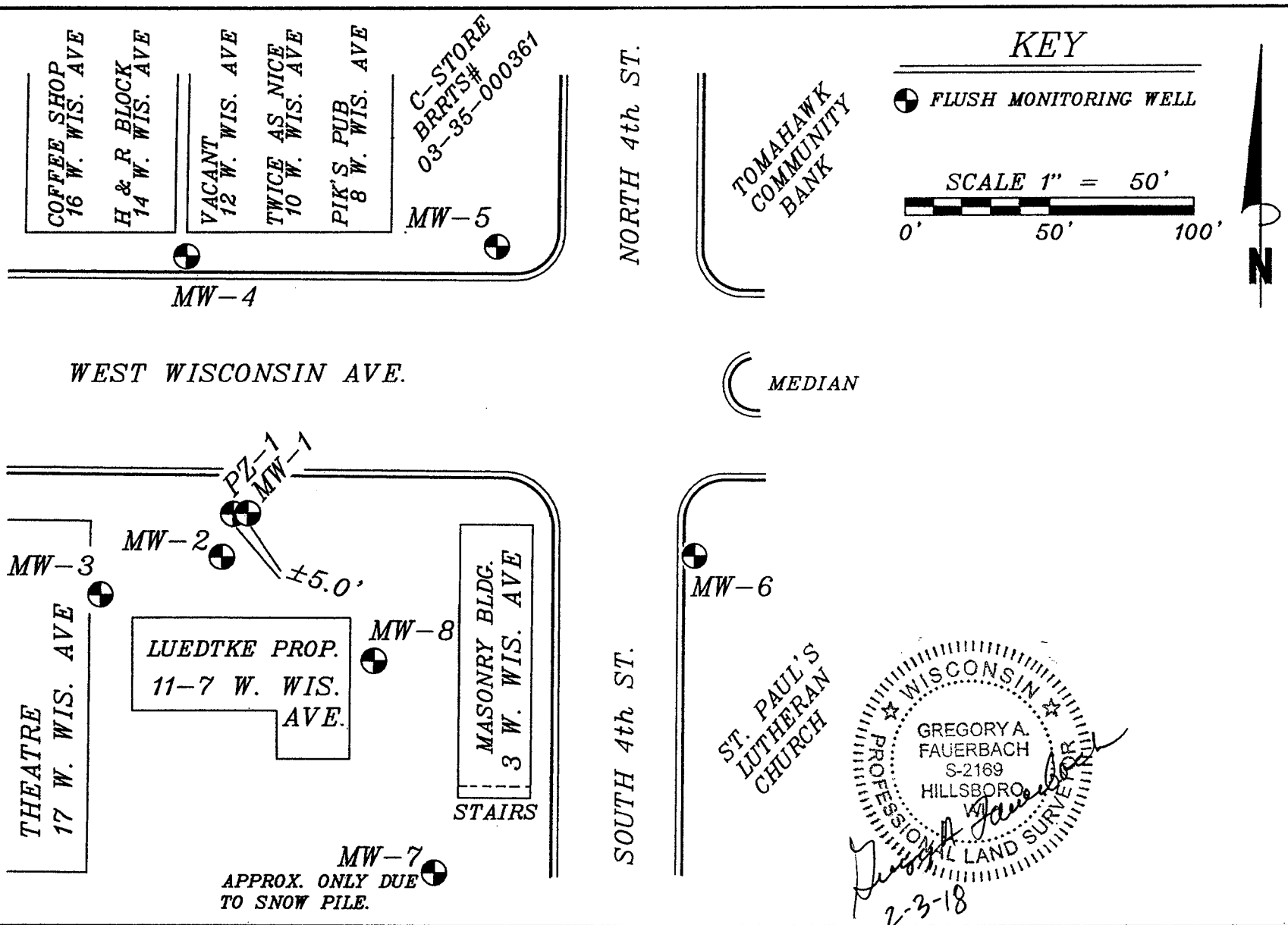
Weston, R.F., 1987, Remedial Technologies for Leaking Underground Storage Tanks.

Other information and data was collected from Todd Luedtke, City of Tomahawk, Diggers Hotline, Geiss Soil and Samples, LLC, Fauerbach Surveying & Engineering, Synergy Environmental Lab, Wisconsin Department of Natural Resources, and local people.

6.0 FIGURES



B.1.a LOCATION MAP CONTOUR INTERVAL 10 FEET
LUEDTKE PROPERTY – TOMAHAWK, WI
SEAMLESS USGS TOPOGRAPHIC MAPS ON CD-ROM



DRAWN BY: GREG FAUERBACH DATE: 1-29-18 FIELD DWG. NO.: 568172	REVISIONS FAUERBACH SURVEYING & ENG. PO BOX 140, HILLSBORO, WI 54634 PH/FAX 608-489-3363	PROJECT: LUEDTKE PROPERTY 11 WEST WISCONSIN AVE. TOMAHAWK, WI 54487	SHEET NAME LOCATION MAP	PAGE 1 OF 1

WELL	LINCOLN COUNTY WISCORS NAD83(2011) NORTH	EAST	TOP OF WELL ELEVATION (NAVD 88)	TOP OF PVC CASING ELEVATION (NAVD 88)
MW-1	228410.20	381913.66	1448.15'	1447.71'
PZ-1	228409.97	381908.67	1448.13'	1447.59'
MW-2	228395.10	381904.85	1448.43'	1448.05'
MW-3	228382.05	381863.40	1448.80'	1448.19'
MW-4	228498.89	381892.59	1448.52'	1448.13'
MW-5	228502.29	381999.22	1448.23'	1447.78'
MW-6	228395.60	382068.16	1448.66'	1448.31'
MW-7 (APPROX.)	228286	381978		
MW-8	228359.18	381957.02	1448.71'	1448.40'

WISCONSIN
GREGORY A. FAUERBACH
S-2169
HILLSBORO
WI
PROFESSIONAL LAND SURVEYOR

1-3-18

DRAWN BY: GREG FAUERBACH DATE: 1-29-18 FIELD DWG. NO.: 568172	REVISIONS FAUERBACH SURVEYING & ENG. PO BOX 140, HILLSBORO, WI 54634 PH/FAX 608-489-3363	PROJECT: LUEDTKE PROPERTY 11 WEST WISCONSIN AVE. TOMAHAWK, WI 54487	SHEET NAME DATA SHEET	PAGE 1 OF 1

B.I.b
DETAILED SITE MAP
LUEDTKE PROPERTY

METCO
709 Gillette St, Suite 3
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Tel: (608) 781-8879
Fax: (608) 781-8893
Excellence through experience

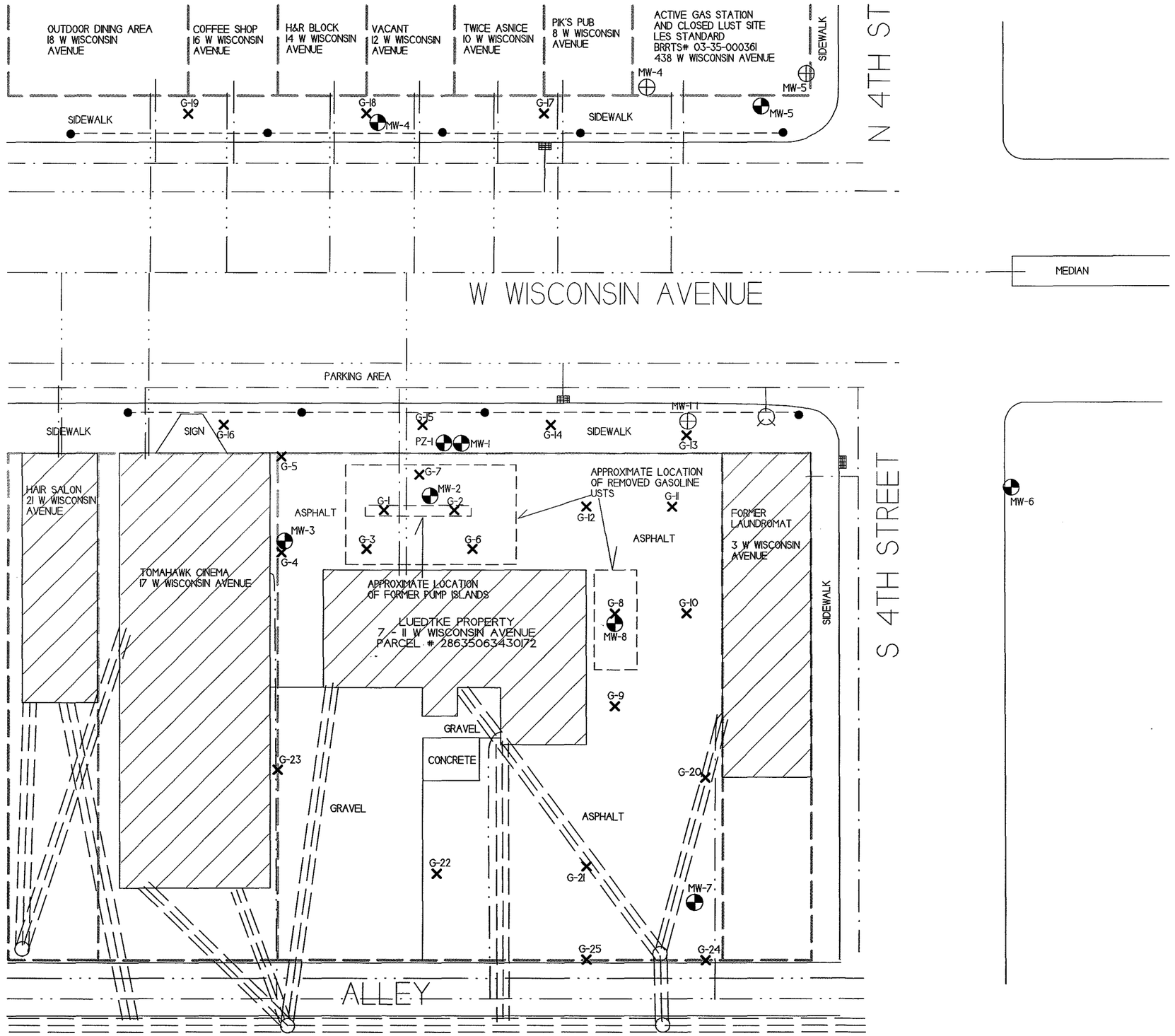
TOMAHAWK, WISCONSIN

DRAWN BY: ED
DATE: 01/18/2007

NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER

- ⊕ - FORMER MONITORING WELL LOCATION - LES STANDARD
- ◓ - MONITORING WELL LOCATION - METCO
- × - SOIL BORING LOCATION
- ▦ - STORM DRAIN
- ⌀ - FIRE HYDRANT
- ● - LIGHT POLE
- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORM SEWER LINE
- WATER LINE
- GAS LINE
- BURIED ELECTRIC LINE
- OVERHEAD ELECTRIC

SCALE:
1 INCH = 30 FEET
0 15 30



B.2.a
SOIL CONTAMINATION
LUEDTKE PROPERTY

METCO
709 Gillette St, Suite 3
La Crosse, WI 54603
Tel: (608) 781-8875
Fax: (608) 781-8893
Excellence through experience

TOMAHAWK, WISCONSIN

DRAWN BY: ED
DATE: 04/18/2007

NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER

⊕ - FORMER MONITORING WELL LOCATION - LES STANDARD

◓ - MONITORING WELL LOCATION - METCO

× - SOIL BORING LOCATION

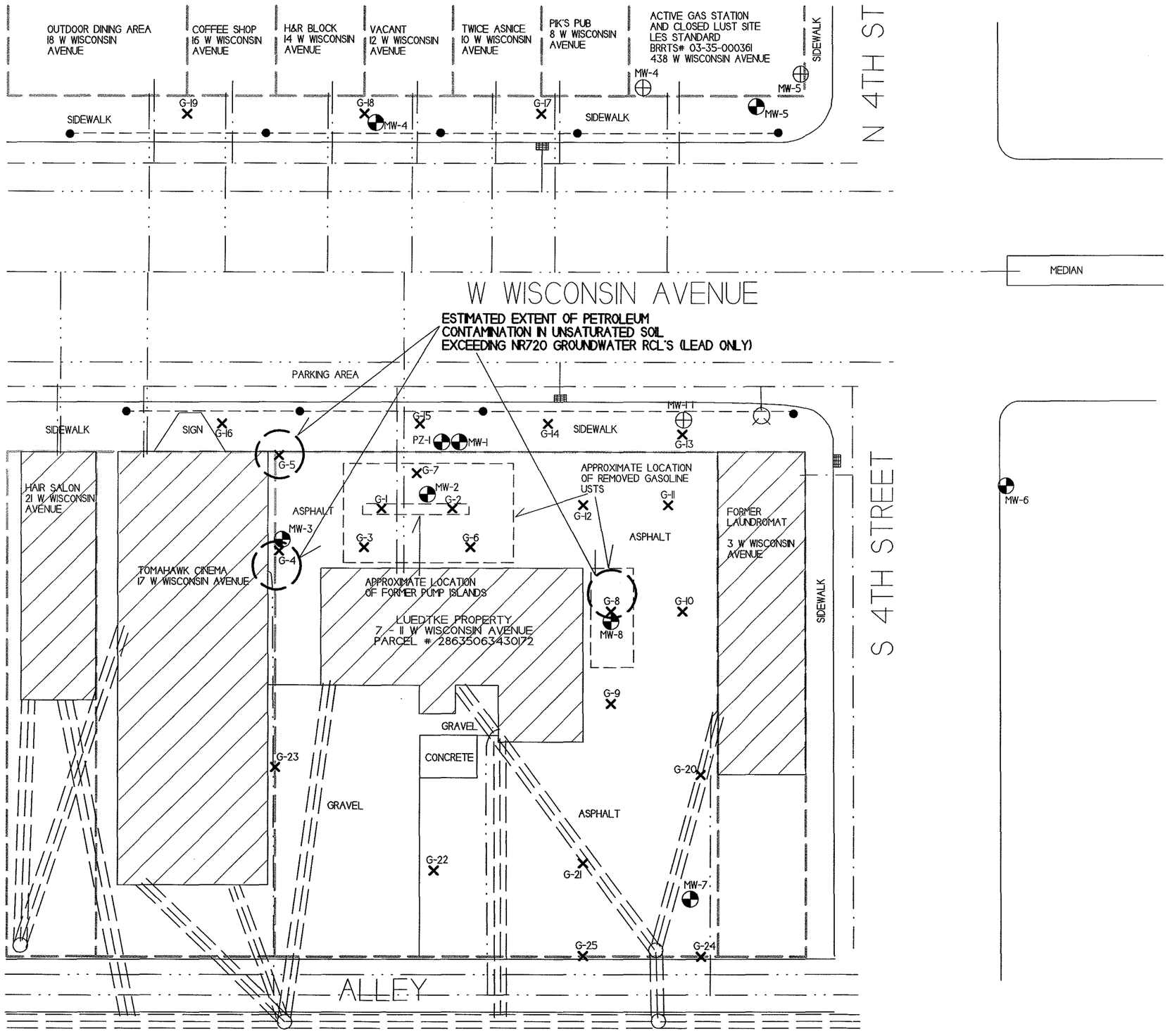
▤ - STORM DRAIN

- FIRE HYDRANT

● - LIGHT POLE

- PROPERTY BOUNDARY
- SANITARY SEWER LINE
- STORM SEWER LINE
- WATER LINE
- GAS LINE
- BURIED ELECTRIC LINE
- OVERHEAD ELECTRIC

SCALE:
1 INCH = 30 FEET
0 15 30



B.3.c GROUNDWATER FLOW DIRECTION (1/29/18)
LUEDTKE PROPERTY

METCO
709 Gillette St, Suite 3
La Crosse, WI 54603
Tel: (608) 781-8879
Fax: (608) 781-8893
Excellence through experience

TOMAHAWK, WISCONSIN

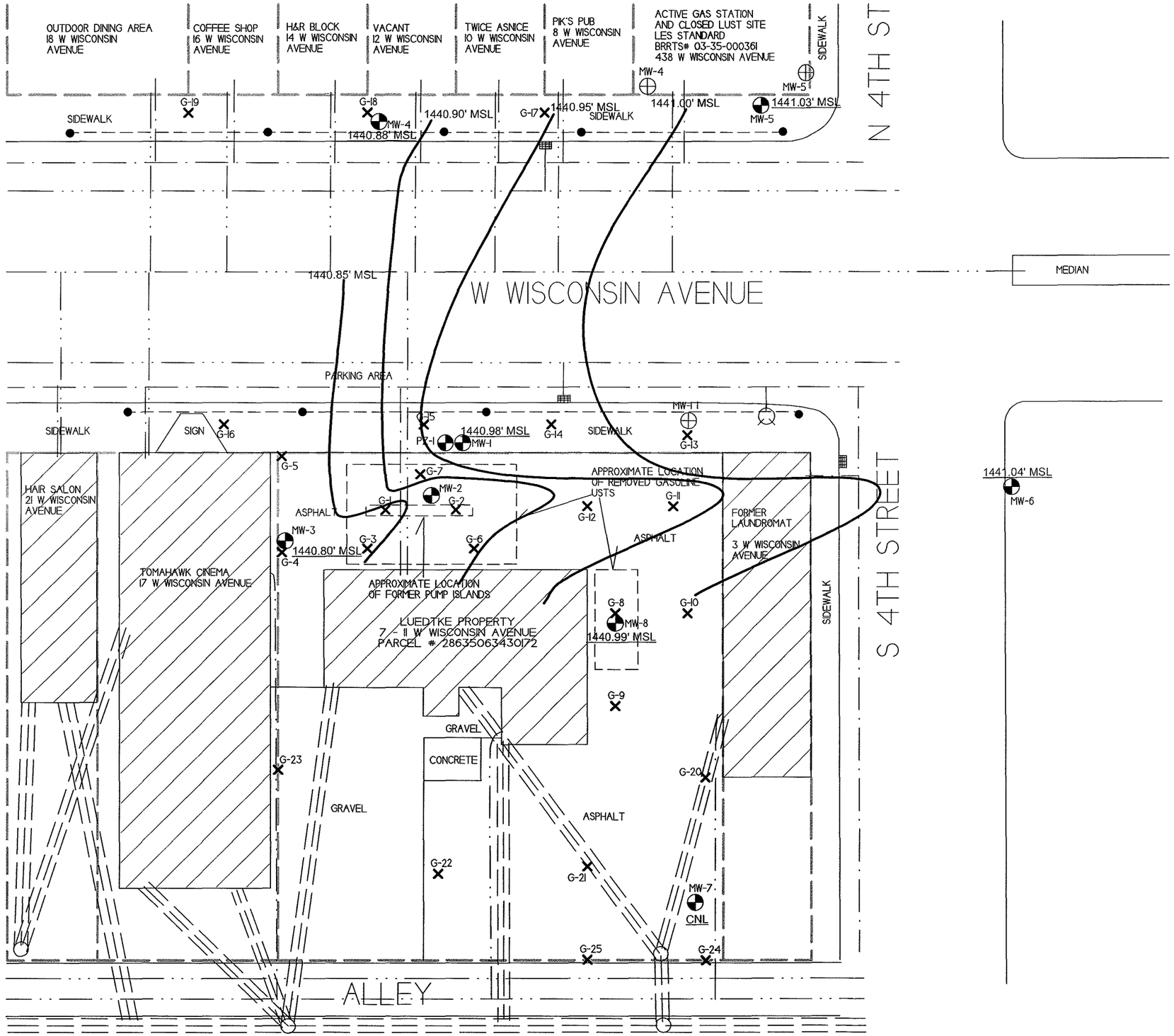
DRAWN BY: ED
DATE: 01/18/2018

NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER

- ⊕ - FORMER MONITORING WELL LOCATION - LES STANDARD
- ◓ - MONITORING WELL LOCATION - METCO
- × - SOIL BORING LOCATION
- ▤ - STORM DRAIN
- ⊖ - FIRE HYDRANT
- ● - LIGHT POLE
- - PROPERTY BOUNDARY
- - SANITARY SEWER LINE
- - STORM SEWER LINE
- - WATER LINE
- - GAS LINE
- - BURIED ELECTRIC LINE
- - OVERHEAD ELECTRIC

SCALE:
1 INCH = 30 FEET
0 15 30

PLEASE NOTE: MONITORING WELL MW-7 COULD NOT BE LOCATED DURING THE 1/29/2018 SAMPLING EVENT AS IT WAS BURIED UNDER A PILE OF SNOW AND ICE.



B.3.c GROUNDWATER FLOW DIRECTION (4/30/18)

LUEDTKE PROPERTY

METCO
709 Gillette St, Suite 3
La Crosse, WI 54603
Tel: (608) 781-8879
Fax: (608) 781-8893
Excellence through experience

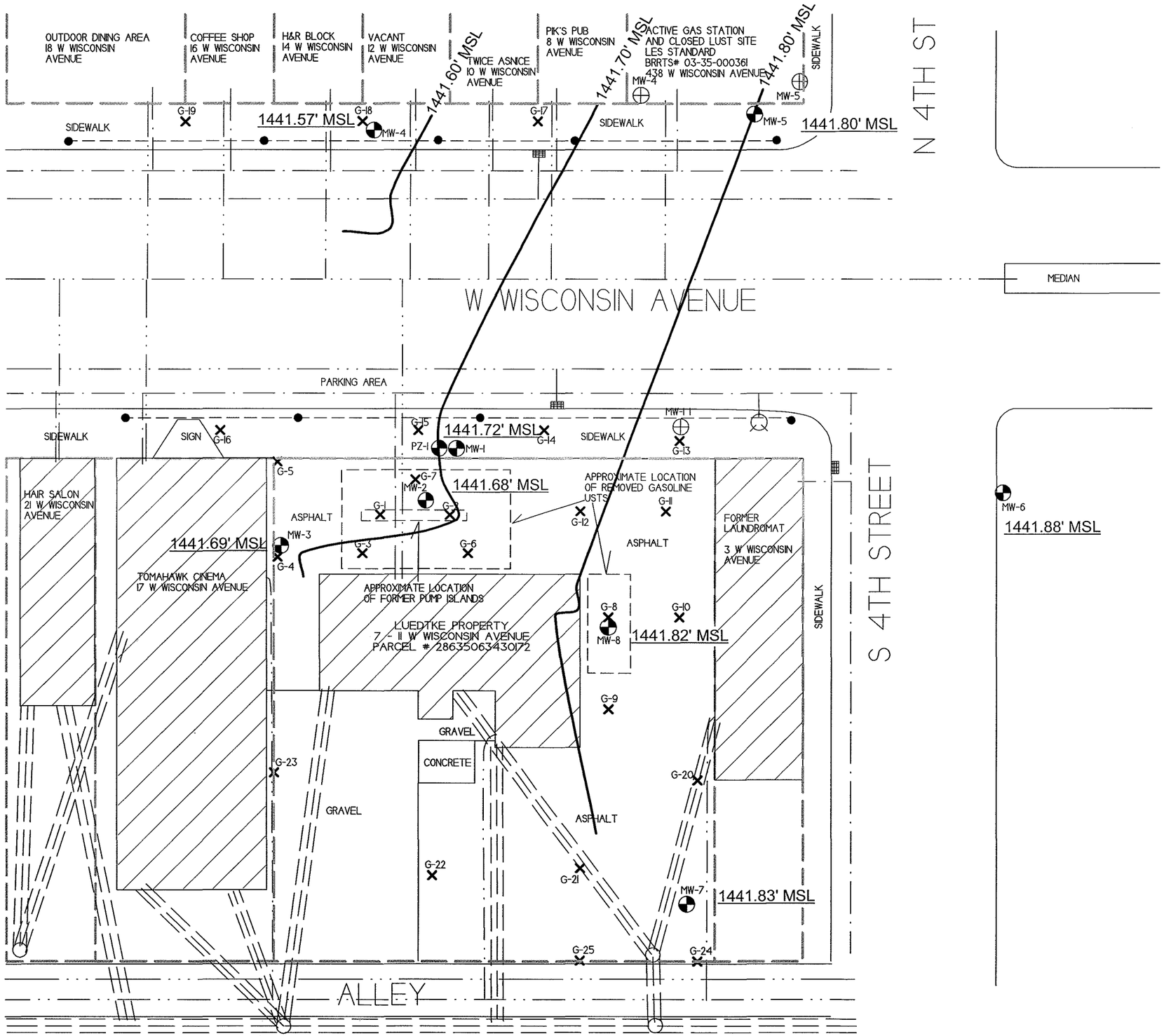
TOMAHAWK, WISCONSIN

DRAWN BY: ED
DATE: 04/30/2007

NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER

- ⊕ - FORMER MONITORING WELL LOCATION - LES STANDARD
- ◓ - MONITORING WELL LOCATION - METCO
- × - SOIL BORING LOCATION
- ▦ - STORM DRAIN
- ⊕ - FIRE HYDRANT
- ● - LIGHT POLE
- - PROPERTY BOUNDARY
- - SANITARY SEWER LINE
- - STORM SEWER LINE
- - WATER LINE
- - GAS LINE
- - BURIED ELECTRIC LINE
- - OVERHEAD ELECTRIC

SCALE:
1 INCH = 30 FEET
0 15 30



B.3.b GROUNDWATER ISOCONCENTRATION (4/30/18)

LUEDTKE PROPERTY

METCO
709 Gillette St, Suite 3
La Crosse, WI 54603
Tel: (608) 781-8870
Fax: (608) 781-8893
Excellence through experience

TOMAHAWK, WISCONSIN

DRAWN BY: ED
DATE: 04/18/2007

NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER

⊕ - FORMER MONITORING WELL LOCATION - LES STANDARD

◓ - MONITORING WELL LOCATION - METCO

× - SOIL BORING LOCATION

▤ - STORM DRAIN

- FIRE HYDRANT

● - LIGHT POLE

- PROPERTY BOUNDARY

- SANITARY SEWER LINE

- STORM SEWER LINE

- WATER LINE

- GAS LINE

- BURIED ELECTRIC LINE

- OVERHEAD ELECTRIC

SCALE:
1 INCH = 30 FEET
0 15 30

OUTDOOR DINING AREA
18 W WISCONSIN AVENUE

COFFEE SHOP
16 W WISCONSIN AVENUE

H&R BLOCK
14 W WISCONSIN AVENUE

VACANT
12 W WISCONSIN AVENUE

TWICE ASNICE
10 W WISCONSIN AVENUE

PIK'S PUB
8 W WISCONSIN AVENUE

ACTIVE GAS STATION
AND CLOSED LUST SITE
LES STANDARD
BRRTS# 03-35-000361
438 W WISCONSIN AVENUE

SIDEWALK

N 4TH ST

MW-4

MW-5

G-19

G-18

G-17

MEDIAN

W WISCONSIN AVENUE

ESTIMATED EXTENT OF PETROLEUM CONTAMINATION IN GROUNDWATER EXCEEDING THE NR140 ES AND/OR PAL

PAL

ES

PARKING AREA

MW-11

G-15

G-16

G-5

PZ-1

MW-1

G-14

G-13

SIGN

HAIR SALON
21 W WISCONSIN AVENUE

G-7

MW-2

G-1

G-2

APPROXIMATE LOCATION OF REMOVED GASOLINE USTS

G-12

G-11

FORMER LAUNDROMAT
3 W WISCONSIN AVENUE

ASPHALT

MW-3

G-4

G-3

G-6

TOMAHAWK CINEMA
17 W WISCONSIN AVENUE

APPROXIMATE LOCATION OF FORMER PUMP ISLANDS

LUEDTKE PROPERTY
11 W WISCONSIN AVENUE
PARCEL # 286350634301?2

G-8

MW-8

G-10

G-9

GRAVEL

CONCRETE

G-23

G-20

GRAVEL

ASPHALT

G-22

G-21

MW-7

G-25

G-24

ALLEY

S 4TH STREET

MW-6

B.3.a.I GEOLOGIC CROSS SECTION FIGURE

LUEDTKE PROPERTY

METCO
709 Gillette St, Suite 3
La Crosse, WI 54603
Tel: (608) 781-8879
Fax: (608) 781-8893
Excellence through experience

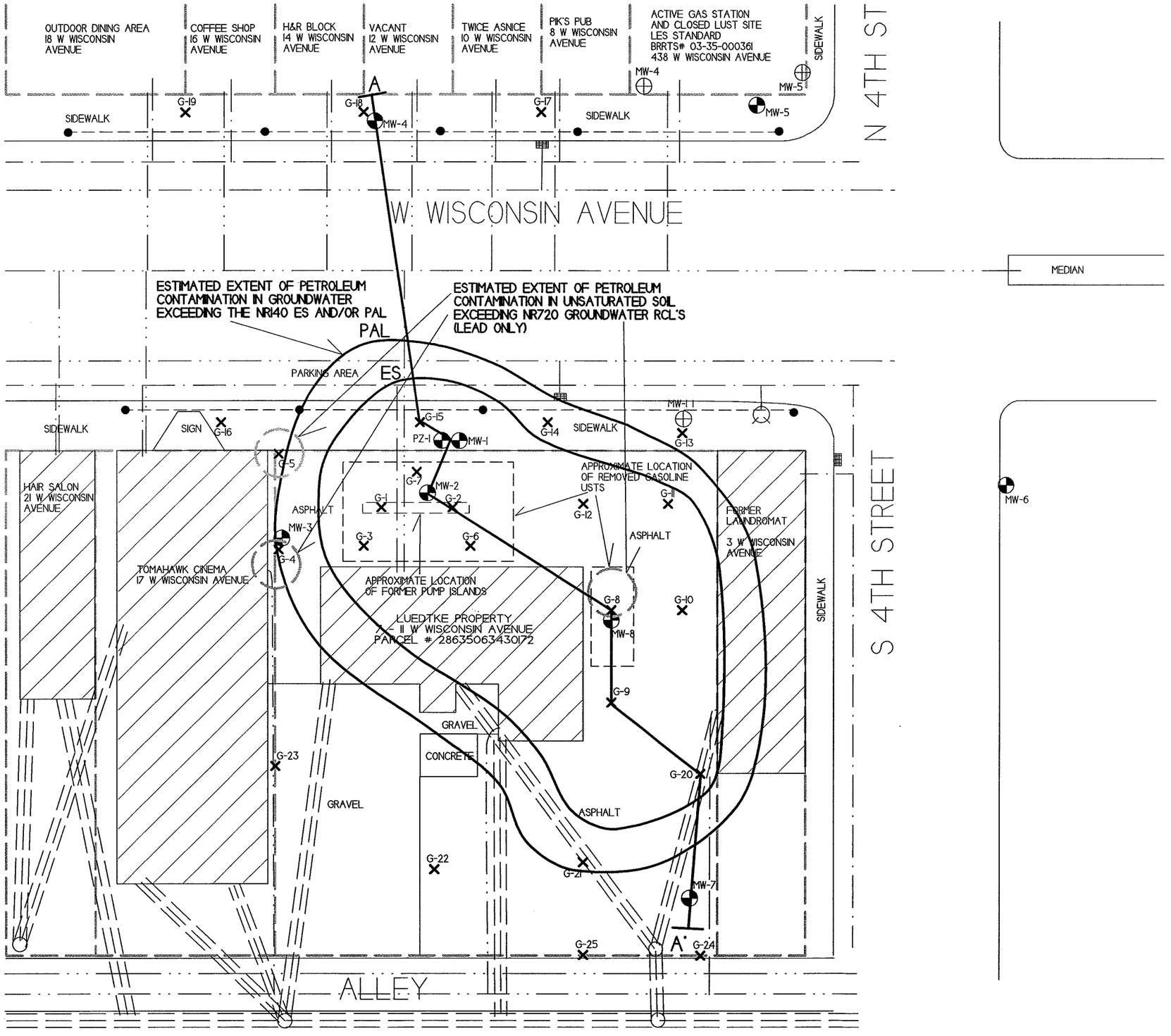
TOMAHAWK, WISCONSIN

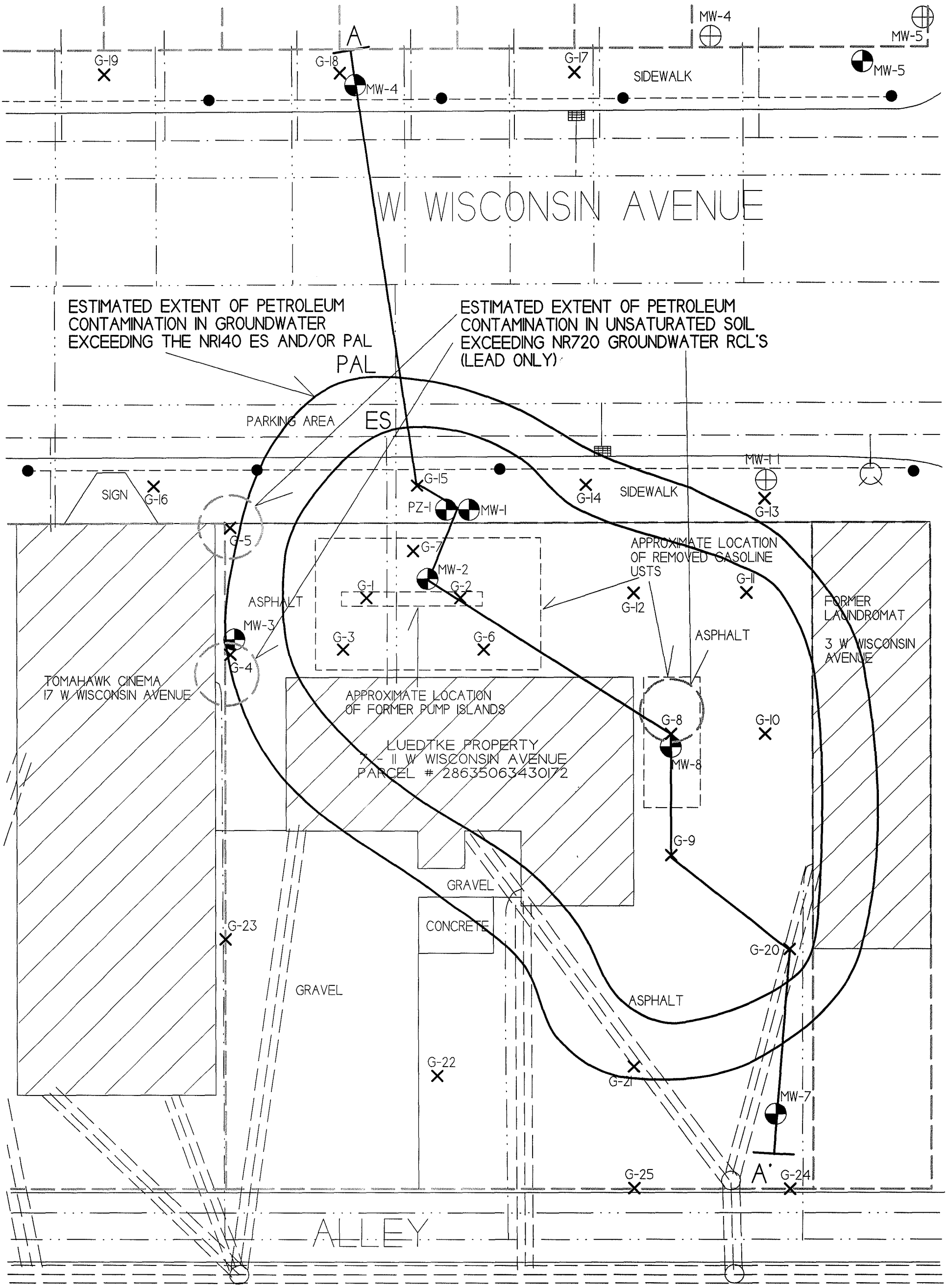
DRAWN BY: ED
DATE: 04/18/2007

NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER

- ⊕ - FORMER MONITORING WELL LOCATION - LES STANDARD
- ◓ - MONITORING WELL LOCATION - METCO
- × - SOIL BORING LOCATION
- ▦ - STORM DRAIN
- ⌀ - FIRE HYDRANT
- ● - LIGHT POLE
- - PROPERTY BOUNDARY
- - SANITARY SEWER LINE
- - STORM SEWER LINE
- - WATER LINE
- - GAS LINE
- - BURIED ELECTRIC LINE
- - OVERHEAD ELECTRIC

SCALE:
1 INCH = 30 FEET
0 15 30





B.3.a.2 GEOLOGIC CROSS SECTION FIGURE (CLOSE UP)

LUEDTKE PROPERTY

METCO
709 Gillette St, Suite 3
La Crosse, WI 54603
Tel: (608) 781-8879
Fax: (608) 781-8893
Excellence through experience

TOMAHAWK, WISCONSIN

DRAWN BY: ED
DATE: 01/15/2007

NOTE: INFORMATION BASED ON AVAILABLE DATA ACTUAL CONDITIONS MAY DIFFER

- = FORMER MONITORING WELL LOCATION - LES STANDARD
- = MONITORING WELL LOCATION - METCO
- = SOIL BORING LOCATION
- = STORM DRAIN
- = FIRE HYDRANT
- = LIGHT POLE

SCALE:
1 INCH = 20 FEET
0 20

- = PROPERTY BOUNDARY
- = SANITARY SEWER LINE
- = STORM SEWER LINE
- = WATER LINE
- = GAS LINE
- = BURIED ELECTRIC LINE
- = OVERHEAD ELECTRIC

B.3.a.3 GEOLOGIC CROSS SECTION FIGURE

LUEDTKE PROPERTY

METCO
709 Gillette St, Suite 3
La Crosse, WI 54603
Tel: (608) 781-8879
Fax: (608) 781-8893
Excellence through experience

TOMAHAWK, WISCONSIN

DRAWN BY: JJ
DATE: 6/18/18

NOTE: SOIL AND GROUNDWATER SAMPLE DATA IS BASED ON LABORATORY RESULTS FROM SAMPLES COLLECTED DURING THE FOLLOWING EVENTS:
- GEOPROBE PROJECT (5/8-9/17)
- DRILLING PROJECT (11/13-14/17)
- ROUND 2 GROUNDWATER SAMPLING (4/30/18)

NOTE: SOIL RESULTS SHOW DETECTS AND EXCEEDANCES THAT HAVE BEEN DOCUMENTED ON THE MAP. SEE DATA TABLES AND/OR LABORATORY REPORTS FOR ALL RESULTS

- ⊕ - MONITORING WELL LOCATION
- ● - GEOPROBE BORING LOCATION
- ✕ - SOIL SAMPLING LOCATION
- ▼ - WATERTABLE

NOTE: WATER TABLE IS BASED ON ALL TIME LOW MEASUREMENTS.

INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER

SOIL SAMPLE RESULTS ARE PRESENTED IN PARTS PER MILLION (PPM).

GROUNDWATER SAMPLE RESULTS ARE PRESENTED IN PARTS PER BILLION (PPB).

GROUNDWATER FLOW IS TOWARD THE WEST TO NORTHWEST.

ND - NO DETECT
PID - PHOTO IONIZATION DETECTOR
GRO - GASOLINE RANGE ORGANICS
PVOC - PETROLEUM VOLATILE ORGANIC COMPOUNDS
B - BENZENE
E - ETHYLBENZENE
MTBE - METHYL-TERT-BUTYL-ETHER
N - NAPHTHALENE
T - TOLUENE
TMB - TRIMETHYLBENZENE
X - XYLENE

GRAY TO TAN TO BROWN FINE TO COARSE GRAINED SAND WITH GRAVEL

GRAY SILT TO SANDY SILT

TAN VERY FINE TO FINE GRAINED SAND TO SILTY SAND

HORIZONTAL SCALE: 1 INCH = 20 FEET
0 20

VERTICAL SCALE: 1 INCH = 5 FEET
0 5

A NORTH — A' SOUTH

1450' MSL
1445' MSL
1440' MSL
1435' MSL
1430' MSL
1425' MSL
1420' MSL
1415' MSL

SIDEWALK
WEST WISCONSIN AVENUE
APPROXIMATE LOCATION OF REMOVED UST'S
LUEDTKE PROPERTY BUILDING
APPROXIMATE LOCATION OF REMOVED UST'S
ASPHALT

MW-4
MW-4-1 3.5 FEET 0.10 PID
MW-4-2 8 FEET 0.10 PID
MW-4-3 12 FEET 0.30 PID
MW-4-4 15 FEET 0.50 PID

G-15
PZ-1-1 3.5 FEET 0.20 PID
G-15-1 3.5 FEET 4.9 PID
G-15-2 8 FEET 8.2 PID
G-15-3 9 FEET 37 PID ND PVOC
PZ-1-3 12 FEET 23.1 PID
PZ-1-4 16 FEET 42 PID
PZ-1-5 20 FEET 14.2 PID
PZ-1-6 24 FEET 8.0 PID
PZ-1-7 28 FEET 5.0 PID
PZ-1-8 30 FEET 2.0 PID

PZ-1 MW-1
MW-1-1 4 FEET 0.10 PID
MW-1-3 8 FEET 24.5 PID 0.052 B 0.059 E 0.066 TMB 0.242 X
MW-1-4 15 FEET 25.7 PID

MW-2
MW-2-1 3.5 FEET 11 PID 1.35 LEAD ND PVOC
MW-2-2 8 FEET 0.6 PID
MW-2-3 9 FEET 11 PID ND PVOC
MW-2-4 15 FEET 2.3 PID 0.061 E 0.040 N 0.134 TMB 0.220 X

G-2
G-2-1 3.5 FEET 11 PID 1.35 LEAD ND PVOC
G-2-2 8 FEET 0.6 PID
G-2-3 10 FEET 10.4 PID 0.030 B 0.073 E 0.078 TMB 0.383 X

G-8 MW-8
G-8-1 3.5 FEET 9 PID 44 LEAD ND PVOC
G-8-2 8 FEET 975 PID 118 LEAD 2.11 E 5.6 N 41.7 TMB 11.7 X
G-8-3 10 FEET 1006 PID
MW-8-1 3.5 FEET 0.20 PID ND PVOC
MW-8-2 9 FEET 377 PID 1640 GRO 3.3 B 35 E 19.6 N 4.6 T 134 TMB 135.8 X
MW-8-3 12 FEET 340 PID
MW-8-4 15 FEET 34 PID 0.129 E 0.057 N 0.050 TMB

G-9
G-9-1 3.5 FEET 3.2 PID 1.17 LEAD ND PVOC
G-9-2 8 FEET 3.19 PID 0.32 E 2.63 N 18.4 TMB 3.27 X
G-9-3 10 FEET 22.7 PID

G-20
G-20-1 3.5 FEET 5.8 PID
G-20-2 8 FEET 5.8 PID
G-20-3 9 FEET 5000 PID 0.135 E 2.12 N 0.115 T 3.15 TMB 1.05 X

MW-7
MW-7-1 3.5 FEET 0.40 PID
MW-7-2 8 FEET 0.40 PID
MW-7-3 12 FEET 0.70 PID
MW-7-4 15 FEET 0.60 PID

ESTIMATED EXTENT OF PETROLEUM CONTAMINATION IN SATURATED SOIL EXCEEDING THE NR720 GW RCLs. (LEAD ONLY) AND GROUNDWATER EXCEEDING THE NR140 ES AND/OR PAL.

MW-4	G-15-W	PZ-1	MW-1	MW-2	G-2-W	G-8-W	MW-8	G-9-W	G-20-W	MW-7
<0.90 LEAD	5.7 B	1.5 LEAD	7.7 LEAD	<0.90 LEAD	36 B	19.1 B	20.9 LEAD	4 B	21.6 B	<0.90 LEAD
<0.22 B	1.01 E	<2.2 B	5.5 B	22.2 B	360 E	2370 E	<1 B	680 E	31.5 E	<0.22 B
<0.26 E	<0.43 MTBE	430 E	112 E	7.4 E	<4.3 MTBE	<21.5 MTBE	1560 E	<4.3 MTBE	<0.43 MTBE	<0.26 E
<0.28 MTBE	1.7 N	<2.8 MTBE	<2.8 MTBE	<0.28 MTBE	97 N	750 N	<14 MTBE	440 N	43 N	<0.28 MTBE
<2.1 N	0.44 T	123 N	79 N	4.8 N	100 T	92 T	490 N	72 T	96 T	<2.1 N
<0.19 T	1.5 TMB	38 T	3.9 T	0.93 T	357 TMB	1670 TMB	20.5 T	1750 TMB	305 TMB	<0.19 T
1.43 TMB	1.27-1.88 X	417 TMB	357 TMB	4.8 TMB	1660 X	10600 X	1860 TMB	2800 X	132 X	1.43 TMB
<0.72 X		804 X	341 X	33.4 X			3370 X			<0.72 X

7.0 DATA TABLES, GRAPHS, AND STATISTICAL ANALYSIS

A.2 Soil Analytical Results Table
Luedtke Property BRRTS #03-35-554426

																	DIRECT CONTACT PVOC & PAH COMBINED		
Sample ID	Depth (feet)	Saturation U/S	Date	PID	Lead (ppm)	DRO (ppm)	GRO (ppm)	Benzene (ppm)	Ethyl Benzene (ppm)	MTBE (ppm)	Naph-thalene (ppm)	Toluene (ppm)	1,2,4-Trime-thylbenzene (ppm)	1,3,5-Trime-thylbenzene (ppm)	Xylene (Total) (ppm)	Other VOC's (ppb)	Exeedance Count	Hazard Index	Cumulative Cancer Risk
G-1-1	3.5	U	05/08/17	0.4	1.58	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-1-2	8.0	S	05/08/17	0.7	NOT SAMPLED											NS			
G-1-3	10.0	S	05/08/17	81	NS	NS	NS	<0.025	<0.025	<0.025	0.259	<0.025	0.302	0.154	0.124	NS			
G-2-1	3.5	U	05/08/17	1.1	1.35	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-2-2	8.0	S	05/08/17	0.6	NOT SAMPLED											NS			
G-2-3	10.0	S	05/08/17	10.4	NS	NS	NS	**0.030**	0.073	<0.025	<0.025	<0.025	0.078	<0.025	0.383	NS			
G-3-1	3.5	U	05/08/17	0.9	3.43	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-3-2	8.0	S	05/08/17	1	NOT SAMPLED											NS			
G-3-3	10.0	S	05/08/17	3.7	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS			
G-4-1	3.5	U	05/08/17	0.6	35.8	NS	NS	<0.025	<0.025	<0.025	0.081	0.080	0.043	<0.025	0.132	NS	0		
G-4-2	8.0	S	05/08/17	0.9	NOT SAMPLED											NS			
G-4-3	10.0	S	05/08/17	16	NS	NS	NS	<0.025	0.044	<0.025	0.094	<0.025	0.126	0.055	0.057-0.082	NS			
G-5-1	3.5	U	05/08/17	0.5	**132**	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0	0.3300	
G-5-2	8.0	S	05/08/17	0.9	NOT SAMPLED											NS			
G-5-3	10.0	S	05/08/17	0.8	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS			
G-6-1	3.5	U	05/08/17	1	2.91	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-6-2	8.0	S	05/08/17	1.6	NOT SAMPLED											NS			
G-6-3	9.0	S	05/08/17	229	NS	NS	NS	<0.025	0.289	<0.025	**3.1**	0.079	**3.3**	**1.17**	2.00	NS			
G-7-1	3.5	U	05/08/17	3	14.6	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-7-2	8.0	S	05/08/17	4.5	NOT SAMPLED											NS			
G-7-3	8.5	S	05/08/17	149	NS	NS	NS	**0.072**	0.065	<0.025	0.063	<0.025	0.060	0.0287	0.316	NS			
G-8-1	3.5	U	05/08/17	9	**44**	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-8-2	8.0	S	05/08/17	975	11.8	NS	NS	<0.15	**2.11**	<0.25	**5.6**	<0.16	**32**	**9.7**	**11.70**	SEE VOC SHEET			
G-8-3	10.0	S	05/08/17	1006	NOT SAMPLED											NS			
G-9-1	3.5	U	05/08/17	3.2	1.17	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-9-2	8.0	S	05/08/17	319	NS	NS	NS	<0.125	0.32	<0.125	**2.63**	<0.125	**8.5**	**9.9**	3.27	NS			
G-9-3	10.0	S	05/08/17	227	NOT SAMPLED											NS			
G-10-1	3.5	U	05/08/17	2.1	4	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-10-2	8.0	S	05/08/17	1044	NS	NS	NS	**0.79**	**1.87**	<0.125	**2.1**	**2.11**	**41**	**26**	**13.58**	NS			
G-10-3	10.0	S	05/08/17	215	NOT SAMPLED											NS			
G-11-1	3.5	U	05/08/17	1.4	3.96	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-11-2	8.0	S	05/08/17	28	NOT SAMPLED											NS			
G-11-3	9.0	S	05/08/17	35	NS	NS	NS	**0.032**	0.0305	<0.025	<0.025	<0.025	0.094	0.032	0.32	NS			
G-12-1	3.5	U	05/08/17	4.5	5.4	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
G-12-2	8.0	S	05/08/17	0.7	NOT SAMPLED											NS			
G-12-3	9.0	S	05/08/17	47	NS	NS	NS	<0.025	0.049	<0.025	<0.025	<0.025	0.168	0.062	0.271	NS			
G-13-1	3.5	U	05/09/17	2.4	NOT SAMPLED											NS	0		
G-13-2	8.0	S	05/09/17	4.9	NOT SAMPLED											NS			
G13-3	10.0	S	05/09/17	8.7	NOT SAMPLED											NS			
G-14-1	3.5	U	05/09/17	6.1	NOT SAMPLED											NS	0		
G-14-2	8.0	S	05/09/17	6	NOT SAMPLED											NS			
G-14-3	9.0	S	05/09/17	335	NS	NS	NS	<0.025	0.108	<0.025	0.056	<0.025	0.142	0.041	0.362	NS			
G-15-1	3.5	U	05/09/17	4.9	NOT SAMPLED											NS	0		
G-15-2	8.0	S	05/09/17	8.2	NOT SAMPLED											NS			
G-15-3	9.0	S	05/09/17	37	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS			
G-16-1	3.5	U	05/09/17	5.1	NOT SAMPLED											NS	0		
G-16-2	8.0	S	05/09/17	6.4	NOT SAMPLED											NS			
G-16-3	10.0	S	05/09/17	5.6	NOT SAMPLED											NS			
G-17-1	3.5	U	05/09/17	5.8	NOT SAMPLED											NS	0		
G-17-2	8.0	S	05/09/17	8.6	NOT SAMPLED											NS			
G-18-1	3.5	U	05/09/17	7.3	NOT SAMPLED											NS	0		
G-18-2	8.0	S	05/09/17	5.1	NOT SAMPLED											NS			
G-18-3	10.0	S	05/09/17	6.4	NOT SAMPLED											NS			
G-19-1	3.5	U	05/09/17	5.8	NOT SAMPLED											NS	0		
G-19-2	8.0	S	05/09/17	4.7	NOT SAMPLED											NS			
G-19-3	10.0	S	05/09/17	5.8	NOT SAMPLED											NS			
G-20-1	3.5	U	05/09/17	5.8	NOT SAMPLED											NS	0		
G-20-2	8.0	S	05/09/17	5.8	NOT SAMPLED											NS			
G-20-3	9.0	S	05/09/17	5000	NS	NS	NS	<0.025	0.135	<0.025	**2.12**	0.115	**0.64**	**2.51**	1.05	NS			
G-21-1	3.5	U	05/09/17	6.7	NOT SAMPLED											NS	0		
G-21-2	8.0	S	05/09/17	8.4	NOT SAMPLED											NS			
G-21-3	9.0	S	05/09/17	5000	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	0.0251	0.055	0.035	<0.075	NS			
G-22-1	3.5	U	05/09/17	5.1	NOT SAMPLED											NS	0		
G-22-2	8.0	S	05/09/17	6.4	NOT SAMPLED											NS			
G-22-3	10.0	S	05/09/17	7.1	NOT SAMPLED											NS			
G-23-1	3.5	U	05/09/17	3.9	NOT SAMPLED											NS	0		
G-23-2	8.0	S	05/09/17	5.8	NOT SAMPLED											NS			
G-23-3	10.0	S	05/09/17	7.0	NOT SAMPLED											NS			
G-24-1	3.5	U	05/09/17	7.3	NOT SAMPLED											NS	0		
G-24-2	8.0	S	05/09/17	5.1	NOT SAMPLED											NS			
G-24-3	10.0	S	05/09/17	8.9	NOT SAMPLED											NS			
G-25-1					NO RECOVERY											NS			
G-25-2	8.0	S	05/09/17	4.7	NOT SAMPLED											NS			
G-25-3	10.0	S	05/09/17	15.8	NOT SAMPLED											NS			
Groundwater RCL					27.00	-	-	**0.00512**	**1.57**	**0.027**	**0.6582**	**1.11**	**1.38**		**3.96**	-			
Non-Industrial Direct Contact RCL					**400.00**	-	-	**1.6**	**8.02**	**63.8**	**5.52**	**818**	**219**	**182**	**260**	-		1.00E+00	1.00E-05
Industrial Direct Contact RCL					**(800)**	-		**(7.07)**	**(35.4)**	**(282)**	**(24.1)**	**(818)**	**(219)**	**(182)**	**(258)**	-		1.00E+00	1.00E-05
Soil Saturation Concentration (C-sat)*					-	-	-	**1820***	**480***	**8870***	-	**818***	**219***	**182***	**258***	-			

Bold = Groundwater RCL Exceedance
Bold & Underline = Non Industrial Direct Contact RCL Exceedance
(Bold & Parentheses) = Industrial Direct Contact RCL Exceedance
Bold & Asteric * = C-sat Exceedance
Italics = Industrial Direct Contact RCL
NS = Not Sampled
NM = Not Measured
(ppm) = parts per million
ND = No Detects
DRO = Diesel Range Organics
GRO = Gasoline Range Organics
PID = Photoionization Detector
PVOC's = Petroleum Volatile Organic Compounds
VOC's = Volatile Organic Compounds
Note: Non-Industrial RCLs apply to this site.

U=UNSATURATED (BASED ON ALL TIME LOW WATER TABLE PER WDNR)
S=SATURATED (BASED ON ALL TIME LOW WATER TABLE PER WDNR)

A.2 Soil Analytical Results Table
Luedtke Property BRRTS #03-35-554426

																DIRECT CONTACT PVOC & PAH COMBINED		
Sample ID	Depth (feet)	Saturation U/S	Date	PID	Lead (ppm)	DRO (ppm)	GRO (ppm)	Benzene (ppm)	Ethyl Benzene (ppm)	MTBE (ppm)	Naph-thalene (ppm)	Toluene (ppm)	1,2,4-Trime-thylbenzene (ppm)	1,3,5-Trime-thylbenzene (ppm)	Xylene (Total) (ppm)	Other VOC's (ppb)	Exeedance Count	Hazard Index	Cumulative Cancer Risk
PZ-1-1	3.5	U	11/13/17	0.2	NOT SAMPLED											NS	0		
PZ-1-2	NO RECOVERY															NS			
PZ-1-3	12	S	11/13/17	23.1	NOT SAMPLED											NS			
PZ-1-4	16	S	11/13/17	42	NOT SAMPLED											NS			
PZ-1-5	20	S	11/13/17	14.2	NOT SAMPLED											NS			
PZ-1-6	24	S	11/13/17	8.0	NOT SAMPLED											NS			
PZ-1-7	28	S	11/13/17	5.0	NOT SAMPLED											NS			
PZ-1-8	30	S	11/13/17	2.0	NOT SAMPLED											NS			
MW-1-1	4	U	11/13/17	0.1	NOT SAMPLED											NS	0		
MW-1-2	NO RECOVERY															NS			
MW-1-3	8	S	11/13/17	24.5	NS	NS	NS	**0.052**	0.059	<0.025	<0.025	<0.025	0.066	<0.025	0.242	NS			
MW-1-4	15	S	11/13/17	25.7	NOT SAMPLED											NS			
MW-2-1	3.5	U	11/13/17	0.1	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS	0		
MW-2-2	NO RECOVERY															NS			
MW-2-3	9	S	11/13/17	1.1	NS	NS	NS	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.075	NS			
MW-2-4	15	S	11/13/17	2.3	NS	NS	NS	<0.025	0.061	<0.025	0.040	<0.025	0.102	0.032	0.220	NS			
MW-3-1	3.5	U	11/13/17	0.4	NOT SAMPLED											NS	0		
MW-3-2	8	S	11/13/17	0.1	NOT SAMPLED											NS			
MW-3-3	10	S	11/13/17	12.6	NS	NS	NS	<0.025	0.051	<0.025	0.0303	<0.025	0.052	0.0276	0.094-0.119	NS			
MW-3-4	15	S	11/13/17	6.3	NS	NS	NS	<0.025	0.038	<0.025	0.0277	<0.025	<0.025	<0.025	0.064-0.089	NS			
MW-4-1	3.5	U	11/14/17	0.1	NOT SAMPLED											NS	0		
MW-4-2	8	S	11/14/17	0.1	NOT SAMPLED											NS			
MW-4-3	12	S	11/14/17	0.3	NOT SAMPLED											NS			
MW-4-4	15	S	11/14/17	0.5	NOT SAMPLED											NS			
MW-5-1	3.5	U	11/14/17	0.5	NOT SAMPLED											NS	0		
MW-5-2	8	S	11/14/17	0.7	NOT SAMPLED											NS			
MW-5-3	12	S	11/14/17	0.8	NOT SAMPLED											NS			
MW-5-4	15	S	11/14/17	0.7	NOT SAMPLED											NS			
MW-6-1	3.5	U	11/14/17	0.5	NOT SAMPLED											NS	0		
MW-6-2	8	S	11/14/17	0.6	NOT SAMPLED											NS			
MW-6-3	12	S	11/14/17	0.4	NOT SAMPLED											NS			
MW-6-4	15	S	11/14/17	0.8	NOT SAMPLED											NS			
MW-7-1	3.5	U	11/14/17	0.4	NOT SAMPLED											NS			
MW-7-2	8.0	S	11/14/17	0.4	NOT SAMPLED											NS			
MW-7-3	12.0	S	11/14/17	0.7	NOT SAMPLED											NS			
MW-7-4	15.0	S	11/14/17	0.6	NOT SAMPLED											NS			
MW-8-1	3.5	U	11/14/17	0.2	NS	NS	NS	<0.025	<0.025	<0.025	0.0282	<0.025	<0.025	<0.025	<0.075	NS			
MW-8-2	8.0	S	11/14/17	377	NS	NS	1640	3.3	35	<0.125	**19.6**	**4.6**	**98**	**36**	**135.8**	NS			
MW-8-3	12.0	S	11/14/17	340	NOT SAMPLED											NS			
MW-8-4	15.0	S	11/14/17	34	NS	NS	NS	<0.025	0.129	<0.025	0.057	<0.025	<0.025	0.050	<0.075	NS			
DRUM COMPO-SITE			11/14/17	NS	NS	NS	172	<0.05	0.43	<0.05	1.53	0.095	7.0	4.0	2.51	<0.1 TCLP LEAD			
Groundwater RCL				**27.00**	-	-	**0.00512**	**1.57**	**0.027**	**0.6582**	**1.11**	**1.38**		**3.96**	-				
Non-Industrial Direct Contact RCL				**400.00**	-	-	**1.6**	**8.02**	**63.8**	**5.52**	**818**	**219**	**182**	**260**	-		1.00E+00	1.00E-05	
Industrial Direct Contact RCL				**(800)**	-		**(7.07)**	**(35.4)**	**(282)**	**(24.1)**	**(818)**	**(219)**	**(182)**	**(258)**	-		1.00E+00	1.00E-05	
Soil Saturation Concentration (C-sat)*				-	-	-	**1820***	**480***	**8870***	-	**818***	**219***	**182***	**258***	-				

Bold = Groundwater RCL Exceedance
Bold & Underline = Non Industrial Direct Contact RCL Exceedance
(Bold & Parentheses) = Industrial Direct Contact RCL Exceedance
Bold & Asteric * = C-sat Exceedance
Italics = Industrial Direct Contact RCL
NS = Not Sampled
NM = Not Measured
(ppm) = parts per million
ND = No Detects
DRO = Diesel Range Organics
GRO = Gasoline Range Organics
PID = Photoionization Detector
PVOC's = Petroleum Volatile Organic Compounds
VOC's = Volatile Organic Compounds
Note: Non-Industrial RCLs apply to this site.

U=UNSATURATED (BASED ON ALL TIME LOW WATER TABLE PER WDNR)
S=SATURATED (BASED ON ALL TIME LOW WATER TABLE PER WDNR)

A.2 Soil Analytical Results Table
Luedtke Property BRRTS #03-35-554426

Sampling Conducted on May 8, 2017

VOC's		Bold = Groundwater RCL	Underline & Bold = Non-Industrial Direct Contact RCL	(Parenthesis & Bold) = Industrial Direct Contact RCL	Asteric * & Bold =Soil Saturation (C-sat) RCL
Sample ID#	**G-8-2**				
Sample Depth/ft.	8				
Solids Percent	86.2				
Lead/ppm	11.8	**27**	**400**	**(800)**	= =
Benzene/ppm	< 0.15	**0.00512**	**1.6**	**(7.07)**	1820*
Bromobenzene/ppm	< 0.125	= =	**342**	**(679)**	= =
Bromodichloromethane/ppm	< 0.37	**0.000326**	**0.418**	**(1.83)**	= =
Bromoform/ppm	< 0.145	**0.00233**	**25.4**	**(113)**	= =
tert-Butylbenzene/ppm	< 0.13	= =	**183**	**(183)**	183*
sec-Butylbenzene/ppm	1.13	= =	**145**	**(145)**	145*
n-Butylbenzene/ppm	5.4	= =	**108**	**(108)**	108*
Carbon Tetrachloride/ppm	< 0.08	**0.00388**	**0.916**	**(4.03)**	= =
Chlorobenzene/ppm	< 0.065	= =	**370**	**(761)**	761*
Chloroethane/ppm	< 0.455	**0.227**	= =	= =	= =
Chloroform/ppm	< 0.175	**0.0033**	**0.454**	**(1.98)**	= =
Chloromethane/ppm	< 0.38	**0.0155**	**159**	**(669)**	= =
2-Chlorotoluene/ppm	< 0.075	= =	= =	= =	= =
4-Chlorotoluene/ppm	< 0.09	= =	= =	= =	= =
1,2-Dibromo-3-chloropropane/ppm	< 0.29	**0.000173**	**0.008**	**(0.092)**	= =
Dibromochloromethane/ppm	< 0.125	**0.032**	**8.28**	**(38.9)**	= =
1,4-Dichlorobenzene/ppm	< 0.185	**0.144**	**3.74**	**(16.4)**	= =
1,3-Dichlorobenzene/ppm	< 0.185	**1.1528**	**297**	**(193)**	297*
1,2-Dichlorobenzene/ppm	< 0.14	**1.168**	**376**	**(376)**	376*
Dichlorodifluoromethane/ppm	< 0.24	**3.0863**	**126**	**(530)**	= =
1,2-Dichloroethane/ppm	< 0.19	**0.00284**	**0.652**	**(2.87)**	540*
1,1-Dichloroethane/ppm	< 0.17	**0.4834**	**5.06**	**(22.2)**	= =
1,1-Dichloroethene/ppm	< 0.11	**0.00502**	**320**	**(1190)**	1190*
cis-1,2-Dichloroethene/ppm	< 0.16	**0.0412**	**156**	**(2340)**	= =
trans-1,2-Dichloroethene/ppm	< 0.14	**0.626**	**1560**	**(1850)**	= =
1,2-Dichloropropane/ppm	< 0.175	**0.00332**	**0.406**	**(1.78)**	= =
1,3-Dichloropropane/ppm	< 0.125	= =	**1490**	**(1490)**	1490*
trans-1,3-Dichloropropene/ppm	< 0.11		**1510**	**(1510)**	= =
cis-1,3-Dichloropropene/ppm	< 0.195	0.001	**1210**	**(1210)**	= =
Di-isopropyl ether/ppm	< 0.05	= =	**2260**	**(2260)**	2260*
EDB (1,2-Dibromoethane)/ppm	< 0.115	**0.0000282**	**0.05**	**(0.221)**	= =
Ethylbenzene/ppm	**2.11**	**1.57**	**8.02**	**(35.4)**	480*
Hexachlorobutadiene/ppm	< 0.425	= =	**1.63**	**(7.19)**	= =
Isopropylbenzene/ppm	0.9	= =	= =	= =	= =
p-Isopropyltoluene/ppm	1.4	= =	**162**	**(162)**	162*
Methylene chloride/ppm	< 0.75	**0.00256**	**61.8**	**(1150)**	= =
Methyl tert-butyl ether (MTBE)/ppm	< 0.25	**0.027**	**63.8**	**(282)**	8870*
Naphthalene/ppm	**5.6**	**0.6582**	**5.52**	**(24.1)**	= =
n-Propylbenzene/ppm	3.8	= =	= =	= =	= =
1,1,2,2-Tetrachloroethane/ppm	< 0.14	**0.000156**	**0.81**	**(3.6)**	= =
1,1,1,2-Tetrachloroethane/ppm	< 0.14	**0.0534**	**2.78**	**(12.3)**	= =
Tetrachloroethene (PCE)/ppm	< 0.16	**0.00454**	**33**	**(145)**	= =
Toluene/ppm	< 0.16	**1.11**	**818**	**(818)**	818*
1,2,4-Trichlorobenzene/ppm	< 0.32	**0.408**	**24**	**(113)**	= =
1,2,3-Trichlorobenzene/ppm	< 0.33	= =	**62.6**	**(934)**	= =
1,1,1-Trichloroethane/ppm	< 0.15	**0.1402**	= =	= =	= =
1,1,2-Trichloroethane/ppm	< 0.165	**0.00324**	**1.59**	**(7.01)**	= =
Trichloroethene (TCE)/ppm	< 0.205	**0.00358**	**1.3**	**(8.41)**	= =
Trichlorofluoromethane/ppm	< 0.205	**2.2387**	**1230**	**(1230)**	1230*
1,2,4-Trimethylbenzene/ppm	**32**	**1.38**	**219**	**(219)**	219*
1,3,5-Trimethylbenzene/ppm	**9.7**		**182**	**(182)**	182*
Vinyl Chloride/ppm	< 0.095	**0.000138**	**0.07**	**(2.08)**	= =
m&p-Xylene/ppm	**7.8**	**3.96**	**260**	**(260)**	258*
o-Xylene/ppm	**3.9**				

NS = not sampled, NM = Not Measured
(ppm) = parts per million
= = No Exceedences
"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

A.1 Groundwater Analytical Table
(Geoprobe)
Luedtke Property BRRTS #03-35-554426

Sample ID	Date	GRO (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
G-1-W	05/08/17	NS	**6.8**	11.2	<0.43	*22.6*	3.04	83.6	45.8
G-2-W	05/08/17	NS	**36**	*360*	<4.3	*97*	100	*357*	*1660*
G-3-W	05/08/17	NS	**5.5**	*360*	<4.3	**114**	56	*316*	*1320*
G-4-W	05/08/17	NS	<0.27	13.1	<0.43	*41*	1.11	28.1	15.21
G-5-W	05/08/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-6-W	05/08/17	NS	<5.4	*202*	<8.6	**265**	41	*446*	*949*
G-7-W	05/08/17	NS	**39**	9.2	<0.43	*30.7*	4.3	17.2	42.2
G-8-W	05/08/17	NS	**19.1**	**2370**	<21.5	**750**	92	**1670**	**10600**
G-9-W	05/08/17	NS	*4.0*	*680*	<4.3	**440**	72	**1750**	**2800**
G-10-W	05/08/17	NS	<13.5	*320*	<21.5	**360**	<16.5	**2100**	*1110*
G-11-W	05/08/17	NS	**13**	**770**	<8.6	**227**	96	**814**	*1180*
G-12-W	05/08/17	NS	**9.1**	*330*	<8.6	**135**	46	*462*	*1117*
G-13-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-14-W	05/09/17	NS	*0.94*	6.9	<0.43	<1.7	1.61	7.37	11.22
G-15-W	05/09/17	NS	**5.7**	1.01	<0.43	<1.7	0.44	1.5	1.27-1.88
G-16-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-17-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-18-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-19-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-20-W	05/09/17	NS	**21.6**	31.5	<0.43	*43*	96	*305*	132
G-21-W	05/09/17	NS	*0.92*	1.38	<0.43	1.95	2.94	16	4.88
G-22-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-23-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-24-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
G-25-W	05/09/17	NS	<0.27	<0.56	<0.43	<1.7	<0.33	<1.14	<1.71
ENFORCE MENT STANDARD ES = Bold		-	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT PAL = Italics		-	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

NS = Not Sampled
(ppb) = parts per billion (ppm) = parts per million
DRO = Diesel Range Organics
GRO = Gasoline Range Organics

A.1 Groundwater Analytical Table
Luedtke Property BRRTS #03-35-554426

Well MW-1
PVC Elevation = 1447.71 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	1440.98	6.73	*2.4*	**9.3**	108	<2.8	*99*	3.5	*429*	*414*
04/30/18	1441.72	5.99	*7.7*	**5.5**	112	<2.8	*79*	3.9	*357*	341
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well MW-2
PVC Elevation = 1448.05 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	1440.86	7.19	<0.9	**19.2**	16	<0.28	6.3	1.02	9	25.17
04/30/18	1441.68	6.37	<0.9	**22.2**	7.4	<0.28	4.8	0.93	4.8	33.4
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well MW-3
PVC Elevation = 1448.19 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	1440.80	7.39	<0.9	<2.2	69	<2.8	*26.2*	3.2	64	94
04/30/18	1441.69	6.50	<0.9	<0.22	1.8	<0.28	3.03	<0.19	<1.43	1.11
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

A.1 Groundwater Analytical Table
Luedtke Property BRRTS #03-35-554426

Well MW-4
PVC Elevation = 1448.13 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	1440.88	7.25	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
04/30/18	1441.57	6.56	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well MW-5
PVC Elevation = 1447.78 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	1441.03	6.75	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
04/30/18	1441.80	5.98	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well MW-6
PVC Elevation = 1448.31 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	1441.04	7.27	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
04/30/18	1441.88	6.43	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

A.1 Groundwater Analytical Table
Luedtke Property BRRTS #03-35-554426

Well MW-7
PVC Elevation = 1449.08 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	COULD NOT LOCATE									
04/30/18	1441.83	7.25	<0.9	<0.22	<0.26	<0.28	<2.1	<0.19	<1.43	<0.72
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well MW-8
PVC Elevation = 1448.40 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	1440.99	7.41	**21.2**	<11	**1600**	<14	**790**	29	**1940**	**5500**
04/30/18	1441.82	6.58	**20.9**	<11	**1560**	<14	**490**	20.5	**1860**	**3370**
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

Well PZ-1
PVC Elevation = 1447.59 (feet) (MSL)

Date	Water Elevation (in feet msl)	Depth to water from top of PVC (in feet)	Lead (ppb)	Benzene (ppb)	Ethyl Benzene (ppb)	MTBE (ppb)	Naph-thalene (ppb)	Toluene (ppb)	Trimethyl-benzenes (ppb)	Xylene (Total) (ppb)
01/29/18	1438.98	8.61	<0.9	**7.6**	*311*	<2.8	*65*	<3.8	*248*	*816*
04/30/18	1439.88	7.71	*1.5*	<2.2	*430*	<2.8	**123**	38	*417*	*804*
ENFORCEMENT STANDARD **ES = Bold**			**15**	**5**	**700**	**60**	**100**	**800**	**480**	**2000**
PREVENTIVE ACTION LIMIT *PAL = Italics*			*1.5*	*0.5*	*140*	*12*	*10*	*160*	*96*	*400*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured
Note: Elevations are presented in feet mean sea level (msl).

A.1 Groundwater Analytical Table
Luedtke Property BRRTS #03-35-554426

Well Sampling Conducted on:	01/29/18	01/29/18	01/29/18	01/29/18	01/29/18	01/29/18	01/29/18	01/29/18	04/30/18		
VOC's										**ENFORCEMENT STANDARD = ES – Bold**	*PREVENTIVE ACTION LIMIT = PAL - Italics*
Well Name	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**	**MW-8**	**PZ-1**	**MW-7**		
Lead, dissolved/ppb	*2.4*	< 0.9	< 0.9	< 0.9	< 0.9	<0.9	**21.2**	< 0.9	< 0.9	**15**	*1.5*
Benzene/ppb	**9.3**	**19.2**	< 2.2	< 0.22	< 0.22	< 0.22	< 11	**7.6**	< 0.22	**5**	*0.5*
Bromobenzene/ppb	< 4.4	< 0.44	< 4.4	< 0.44	< 0.44	< 0.44	< 22	< 4.4	< 0.44	==	==
Bromodichloromethane/ppb	< 3.3	< 0.33	< 3.3	< 0.33	< 0.33	< 0.33	< 16.5	< 3.3	< 0.33	**0.6**	*0.06*
Bromoform/ppb	< 4.5	< 0.45	< 4.5	< 0.45	< 0.45	< 0.45	< 22.5	< 4.5	< 0.45	**4.4**	*0.44*
tert-Butylbenzene/ppb	< 2.5	< 0.25	< 2.5	< 0.25	< 0.25	< 0.25	< 12.5	< 2.5	< 0.25	==	==
sec-Butylbenzene/ppb	< 7.9	< 0.79	< 7.9	< 0.79	< 0.79	< 0.79	< 39.5	< 7.9	< 0.79	==	==
n-Butylbenzene/ppb	< 7.1	< 0.71	< 7.1	< 0.71	< 0.71	< 0.71	< 35.5	< 7.1	< 0.71	==	==
Carbon Tetrachloride/ppb	< 3.1	< 0.31	< 3.1	< 0.31	< 0.31	< 0.31	< 15.5	< 3.1	< 0.31	**5**	*0.5*
Chlorobenzene/ppb	< 2.6	< 0.26	< 2.6	< 0.26	< 0.26	< 0.26	< 13	< 2.6	< 0.26	==	==
Chloroethane/ppb	< 6.1	< 0.61	< 6.1	< 0.61	< 0.61	< 0.61	< 30.5	< 6.1	< 0.61	**400**	*80*
Chloroform/ppb	< 2.6	< 0.26	< 2.6	< 0.26	< 0.26	< 0.26	< 13	< 2.6	< 0.26	**6**	*0.6*
Chloromethane/ppb	< 5.4	< 0.54	< 5.4	< 0.54	< 0.54	< 0.54	< 27	< 5.4	< 0.54	**30**	*3*
2-Chlorotoluene/ppb	< 3.1	< 0.31	< 3.1	< 0.31	< 0.31	< 0.31	< 15.5	< 3.1	< 0.31	==	==
4-Chlorotoluene/ppb	< 2.6	< 0.26	< 2.6	< 0.26	< 0.26	< 0.26	< 13	< 2.6	< 0.26	==	==
1,2-Dibromo-3-chloropropane/ppb	< 29.6	< 2.96	< 29.6	< 2.96	< 2.96	< 2.96	< 148	< 29.6	< 2.96	**0.2**	*0.02*
Dibromochloromethane/ppb	< 2.2	< 0.22	< 2.2	< 0.22	< 0.22	< 0.22	< 11	< 2.2	< 0.22	**60**	*6*
1,4-Dichlorobenzene/ppb	< 7	< 0.7	< 7	< 0.7	< 0.7	< 0.7	< 35	< 7	< 0.7	**75**	*15*
1,3-Dichlorobenzene/ppb	< 8.5	< 0.85	< 8.5	< 0.85	< 0.85	< 0.85	< 42.5	< 8.5	< 0.85	**600**	*120*
1,2-Dichlorobenzene/ppb	< 8.6	< 0.86	< 8.6	< 0.86	< 0.86	< 0.86	< 43	< 8.6	< 0.86	**600**	*60*
Dichlorodifluoromethane/ppb	< 3.2	< 0.32	< 3.2	< 0.32	< 0.32	< 0.32	< 16	< 3.2	< 0.32	**1000**	*200*
1,2-Dichloroethane/ppb	< 2.5	< 0.25	< 2.5	< 0.25	< 0.25	< 0.25	< 12.5	< 2.5	< 0.25	**5**	*0.5*
1,1-Dichloroethane/ppb	< 3.6	< 0.36	< 3.6	< 0.36	< 0.36	< 0.36	< 18	< 3.6	< 0.36	**850**	*85*
1,1-Dichloroethene/ppb	< 4.2	< 0.42	< 4.2	< 0.42	< 0.42	< 0.42	< 21	< 4.2	< 0.42	**7**	*0.7*
cis-1,2-Dichloroethene/ppb	< 3.7	< 0.37	< 3.7	< 0.37	< 0.37	< 0.37	< 18.5	< 3.7	< 0.37	**70**	*7*
trans-1,2-Dichloroethene/ppb	< 3.4	< 0.34	< 3.4	< 0.34	< 0.34	< 0.34	< 17	< 3.4	< 0.34	**100**	*20*
1,2-Dichloropropane/ppb	< 4.4	< 0.44	< 4.4	< 0.44	< 0.44	< 0.44	< 22	< 4.4	< 0.44	**5**	*0.5*
1,3-Dichloropropane/ppb	< 3	< 0.3	< 3	< 0.3	< 0.3	< 0.3	< 15	< 3	< 0.3	==	==
trans-1,3-Dichloropropene/ppm	< 3.2	< 0.32	< 3.2	< 0.32	< 0.32	< 0.32	< 16	< 3.2	< 0.32		
cis-1,3-Dichloropropene/ppm	< 2.6	< 0.26	< 2.6	< 0.26	< 0.26	< 0.26	< 13	< 2.6	< 0.26	**0.4**	*0.04*
Di-isopropyl ether/ppb	< 2.1	< 0.21	< 2.1	< 0.21	< 0.21	< 0.21	< 10.5	< 2.1	< 0.21	==	==
EDB (1,2-Dibromoethane)/ppb	< 3.4	< 0.34	< 3.4	< 0.34	< 0.34	< 0.34	< 17	< 3.4	< 0.34	**0.05**	*0.005*
Ethylbenzene/ppb	108	16	69	< 0.26	< 0.26	< 0.26	**1600**	*311*	< 0.26	**700**	*140*
Hexachlorobutadiene/ppb	< 13.4	< 1.34	< 13.4	< 1.34	< 1.34	< 1.34	< 67	< 13.4	< 1.34	==	==
Isopropylbenzene/ppb	25.1	2.13 "J"	15.5 "J"	< 0.78	< 0.78	< 0.78	108 "J"	28.9	< 0.78	==	==
p-Isopropyltoluene/ppb	3.5 "J"	< 0.24	< 2.4	< 0.24	< 0.24	< 0.24	14.5 "J"	3.8 "J"	< 0.24	==	==
Methylene chloride/ppb	< 13.2	< 1.32	< 13.2	< 1.32	< 1.32	< 1.32	< 66	< 13.2	< 1.32	**5**	*0.5*
Methyl tert-butyl ether (MTBE)/ppb	< 2.8	< 0.28	< 2.8	< 0.28	< 0.28	< 0.28	< 14	< 2.8	< 0.28	**60**	*12*
Naphthalene/ppb	*99*	6.3 "J"	*26.2 "J"*	< 2.1	< 2.1	< 2.1	**790**	*65 "J"*	< 2.1	**100**	*10*
n-Propylbenzene/ppb	41	2.83	14.5 "J"	< 0.61	< 0.61	< 0.61	197	33	< 0.61	==	==
1,1,2,2-Tetrachloroethane/ppb	< 3	< 0.3	< 3	< 0.3	< 0.3	< 0.3	< 15	< 3	< 0.3	**0.2**	*0.02*
1,1,1,2-Tetrachloroethane/ppb	< 3.5	< 0.35	< 3.5	< 0.35	< 0.35	< 0.35	< 17.5	< 3.5	< 0.35	**70**	*7*
Tetrachloroethene (PCE)/ppb	< 3.8	< 0.38	< 3.8	< 0.38	< 0.38	< 0.38	< 19	< 3.8	< 0.38	**5**	*0.5*
Toluene/ppb	3.5 "J"	1.02	3.2 "J"	< 0.19	< 0.19	< 0.19	29 "J"	42	< 0.19	**800**	*160*
1,2,4-Trichlorobenzene/ppb	< 11.5	< 1.15	< 11.5	< 1.15	< 1.15	< 1.15	< 57.5	< 11.5	< 1.15	**70**	*14*
1,2,3-Trichlorobenzene/ppb	< 17.1	< 1.71	< 17.1	< 1.71	< 1.71	< 1.71	< 85.5	< 17.1	< 1.71	==	==
1,1,1-Trichloroethane/ppb	< 3.3	< 0.33	< 3.3	< 0.33	< 0.33	< 0.33	< 16.5	< 3.3	< 0.33	**200**	*40*
1,1,2-Trichloroethane/ppb	< 4.2	< 0.42	< 4.2	< 0.42	< 0.42	< 0.42	< 21	< 4.2	< 0.42	**5**	*0.5*
Trichloroethene (TCE)/ppb	< 3	< 0.3	< 3	< 0.3	< 0.3	< 0.3	< 15	< 3	< 0.3	**5**	*0.5*
Trichlorofluoromethane/ppb	< 3.5	< 0.35	< 3.5	< 0.35	< 0.35	< 0.35	< 17.5	< 3.5	< 0.35	==	==
1,2,4-Trimethylbenzene/ppb	*330*	5.2	51	< 0.8	< 0.8	< 0.8	**1580**	*186*	< 0.8	**Total TMB's 480**	*Total TMB's 96*
1,3,5-Trimethylbenzene/ppb	*99*	3.8	13 "J"	< 0.63	< 0.63	< 0.63	**360**	*62*	< 0.63	**0.2**	*0.02*
Vinyl Chloride/ppb	< 2	< 0.2	< 2	< 0.2	< 0.2	< 0.2	< 10	< 2	< 0.2	**Total Xylenes 2000**	*Total Xylenes 400*
m&p-Xylene/ppb	*350*	23.2	86	< 0.43	< 0.43	< 0.43	**4200**	*710*	< 0.43		
o-Xylene/ppb	*64*	1.97	8.0 "J"	< 0.29	< 0.29	< 0.29	1300	*106*	< 0.29		

NS = not sampled, NM = Not Measured
Q = Analyte detected above laboratory method detection limit but below practical quantitation limit.
= = No Exceedences
(ppb) = parts per billion
(ppm) = parts per million
"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

A.6 Water Level Elevations
Luedtke Property BRRTS #03-35-554426
Tomahawk, Wisconsin

	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	PZ-1
Ground Surface (feet msl)	1448.15	1448.43	1448.80	1448.52	1448.23	1448.66	1449.44	1448.71	1448.13
PVC top (feet msl)	1447.71	1448.05	1448.19	1448.13	1447.78	1448.31	1449.08	1448.40	1447.59
Well Depth (feet)	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	30.00
Top of screen (feet msl)	1443.15	1443.43	1443.80	1443.52	1443.23	1443.66	1444.44	1443.71	1423.13
Bottom of screen (feet msl)	1433.15	1433.43	1433.80	1433.52	1433.23	1433.66	1434.44	1433.71	1418.13
Depth to Water From Top of PVC (feet)									
01/29/18	6.73	7.19	7.39	7.25	6.75	7.27	CNL	7.41	8.61
04/30/18	5.99	6.37	6.50	6.56	5.98	6.43	7.25	6.58	7.71
Depth to Water From Ground Surface (feet)									
01/29/18	7.17	7.57	8.00	7.64	7.20	7.62	CNL	7.72	9.15
04/30/18	6.43	6.75	7.11	6.95	6.43	6.78	7.61	6.89	8.25
Groundwater Elevation (feet msl)									
01/29/18	1440.98	1440.86	1440.80	1440.88	1441.03	1441.04	CNL	1440.99	1438.98
04/30/18	1441.72	1441.68	1441.69	1441.57	1441.80	1441.88	1441.83	1441.82	1439.88

CNL = Could Not Locate
A = Abandoned and removed during soil excavation project
NI = Not Installed

A.7 Other
Groundwater NA Indicator Results
Luedtke Property BRRTS #03-35-554426

Well MW-1

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	3.94	6.20	36.4	6.33	1813	<0.36	21.4	5.68	**1040**
04/30/18	1.18	6.49	21	7.8	1910	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

Well MW-2

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	3.46	5.54	101.8	7.73	1411	<0.36	9.90	10.1	**2270**
04/30/18	0.57	5.89	72	9.5	985	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

Well MW-3

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	3.14	6.50	32.8	10.16	717	<0.36	38.6	0.98	**839**
04/30/18	2.56	7.32	225	12	1170	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

Well MW-4

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	5.30	7.35	257.9	7.22	369	*2.16*	33.8	0.18	36.8
04/30/18	5.35	6.41	222	10.0	944	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

A.7 Other
Groundwater NA Indicator Results
Luedtke Property BRRTS #03-35-554426

Well MW-5

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	7.28	7.65	230.7	5.14	680	*2.13*	19.7	<0.03	9.0
04/30/18	5.80	7.64	201	9.7	559	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

Well MW-6

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	5.59	7.72	291.1	7.43	304	1.18	18.5	0.05	27.2
04/30/18	9.16	7.39	257	7.4	290.9	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

Well MW-7

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	COULD NOT LOCATE								
04/30/18	4.73	7.12	231	9.8	379.7	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

Well MW-8

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	3.40	6.32	-71.7	7.61	412	<0.36	31.4	29.0	**1520**
04/30/18	0.69	6.52	6	8.7	523	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

A.7 Other
Groundwater NA Indicator Results
Luedtke Property BRRTS #03-35-554426

Well PZ-1

Date	Dissolved Oxygen (ppm)	pH	ORP	Temp (C)	Specific Conductance	Nitrate + Nitrite (ppm)	Total Sulfate (ppm)	Dissolved Iron (ppm)	Man-ganese (ppb)
01/29/18	3.72	5.87	70.5	8.82	773	<0.36	4.53	23.4	**1930**
04/30/18	1.05	6.36	41	9.9	902	NS	NS	NS	NS
ENFORCEMENT STANDARD = **ES – Bold**						**10**	-	-	**300**
PREVENTIVE ACTION LIMIT = *PAL - Italics*						*2*	-	-	*60*

(ppb) = parts per billion (ppm) = parts per million
ns = not sampled nm = not measured ORP = Oxidation Reduction Potential
Note: Elevations are presented in feet mean sea level (msl).

A.7 Other
Luedtke Property
Slug Test Calculations

MW-1

	ft/s	cm/s	m/yr
K	2.32E-05	7.07E-04	223.00
	sq ft/s	**sq cm/s**	
T	1.92E-04	1.78E-01	

MW-8

	ft/s	cm/s	m/yr
K	1.49E-05	4.54E-04	143.22
	sq ft/s	**sq cm/s**	
T	1.13E-04	1.05E-01	

PZ-1

	ft/s	cm/s	m/yr
K	1.22E-05	3.72E-04	117.27
	sq ft/s	**sq cm/s**	
T	2.60E-04	2.41E-01	

Date	Elv. (High)	Elv. (Low)	Distance (ft)	Hyd Grad (I)
1/29/2018	1441.00	1440.85	69	0.0021739
4/30/2018	1441.80	1441.60	85	0.0023529
Average				0.0022634

	K (m/yr)	I	n	Flow Velocity (m/yr)
MW-1	223.00	0.0022634	0.3	1.68246
MW-8	143.22	0.0022634	0.3	1.08055
PZ-1	117.27	0.0022634	0.3	0.88476

8.0 PHOTOS

Photos

Photo #1: Looking southwest.

Photo #2: Looking south.

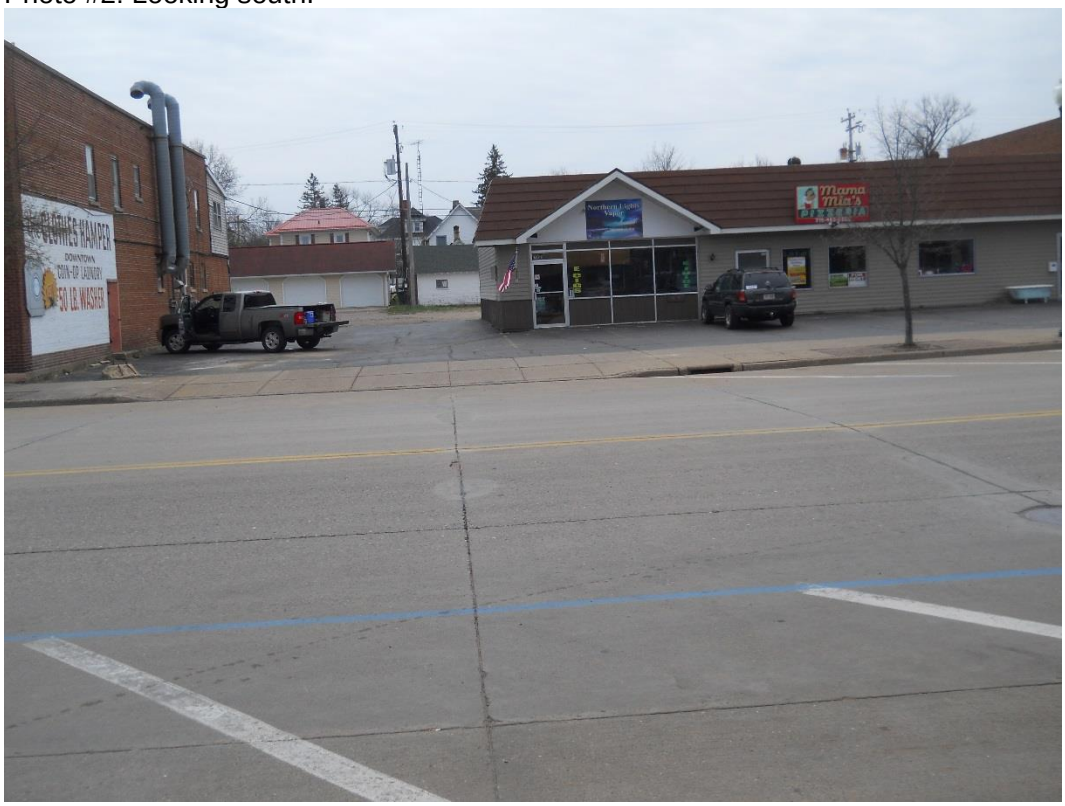


Photo #3: Looking north/northeast.

Photo #4: Looking north.

APPENDIX A/ METHODS OF INVESTIGATION

Geoprobe Project

Geoprobe sampling was completed by Geiss Soil & Samples LLC, Merrill, Wisconsin, under the supervision of METCO personnel. The Geoprobe consists of a truck or track-mounted, hydraulically driven unit that advances interconnected, 1-inch diameter, 4-foot-long, and stainless-steel rods into the subsurface.

Field observations such as soil characteristics, petroleum odors, and petroleum staining associated with all the collected samples were continuously noted throughout sampling. All Geoprobe holes were properly abandoned to ground level using bentonite clay.

The purpose of the Geoprobe Project was to cost effectively determine, if the released contaminants have impacted the soil and groundwater, and determine the general extent of contamination along those mediums. This collected information would then be used to guide the Drilling Project, if required.

Geoprobe Soil Sampling

The procedure consisted of advancing an assembled stainless-steel sampler to the top of the interval to be sampled. A stop-pin was then removed, and the sampler driven until filled. The rods were retracted from the hole and the sample recovered.

Geoprobe Groundwater Sampling

This procedure consisted of advancing a stainless steel, mill slotted well point into the watertable interface. Disposable, flexible, ¼ inch diameter polyethylene tubing was then introduced through the steel rods and down to the watertable interface. A hand-held pump was used to slowly draw an undisturbed water sample into the polyethylene tube, which was then removed from the steel rods and the water sample immediately placed into sampling containers.

Drilling Project

Soil borings were conducted by Geiss Soil & Samples LLC, Merrill, Wisconsin, under the supervision of METCO personnel. Using a truck-mounted auger drill rig, all borings were completed in accordance with ASTM D-1452, "Soil Investigation and Sampling by Auger Boring," using 4.25-inch, inside-diameter (ID) augers. Soil sampling was conducted using a Geoprobe.

Field observations such as soil characteristics, petroleum odors, and petroleum staining were continuously noted throughout the drilling process.

The purpose of the Drilling Project and subsequent well installation/sampling was to investigate subsurface conditions and characteristics, verify the extent of petroleum contamination in local soil and groundwater, and collect aquifer data.

Field Screening

Selected soil samples were scanned with a Rae Systems Mini RaeLite Photo-ionization Detector (PID) equipped with a 10.6 eV lamp. Metered calibrations were done at the beginning of each workday using an isobutylene standard. A quart sized Ziploc bag was filled, by gloved hand, one-third full with the sample. The Ziploc bags were sealed and shaken vigorously for 30 seconds. Headspace development was established by allowing the sample to rest for at least 15 minutes. If ambient temperatures are below 70 degrees Fahrenheit, headspace development takes place in a heated environment, which allows the sample enough time to establish satisfactory headspace. To take readings, the PID probe was inserted through the Ziploc seal and the highest meter response recorded.

Throughout the field projects the PID Meter did not encounter any vast temperature or humidity changes, malfunctions, repairs, or any other obvious interferences that would affect its results.

Monitoring Well Installation, Development, and Sampling

Monitoring/piezometer well installation was completed by Geiss Soil & Samples LLC, under the supervision of METCO personnel and done in accordance with Wisconsin Department of Natural Resources Chapter NR141, "Groundwater Monitoring Well Requirements." The monitoring/piezometer wells were constructed of flush threaded, 2-inch inside-diameter schedule 40 polyvinyl chloride (PVC) piping. Ten-foot well screens with 0.010-inch slots were installed partially into the groundwater for the monitoring wells, and a five-foot well screen with 0.010-inch slots was installed for the piezometer, with the watertable intersecting the screen. Uniform washed sand was installed around the well screens to serve as a filter pack. Bentonite was used above the filter pack to provide an annular space seal.

Locking watertight caps along with steel flush-mounted covers were installed with the wells for protection. Monitoring Well Construction Forms and a Groundwater Monitoring Well Information Form are presented in Appendix C.

The wells were surveyed by Fauerbach Surveying & Engineering of Hillsboro, Wisconsin and by METCO personnel. Measurements were recorded in feet mean sea level.

Each well was alternately surged and purged by METCO personnel with a bottom loading, disposable, polyethylene bailer for 15-20 minutes to remove fines from the well screen. Approximately 20-90 gallons of groundwater was then removed with a small electrical submersible pump. Well Development Forms are presented in Appendix C.

Groundwater samples for laboratory analysis were collected using a bottom loading, disposable, polyethylene bailer and disposable, polyethylene twine. A minimum of four well volumes was purged from the well immediately before sampling.

Field observations such as color, turbidity, petroleum odors, and petroleum sheens associated with the collected samples were continuously noted throughout sampling.

Sample Preparation

The volume of sample, size of container, and type of sample preservation was dependent on the specific parameter for which the sample was to be analyzed. Parameter specific information is presented in the LUST Sample Guidelines located in Appendix E.

Field Sampling and Transportation Quality Control

All samples were collected in a manner as to maintain their quality and to eliminate any possible cross contamination. METCO did not deviate from any WDNR or laboratory recommended procedures for sample collection, preservation, or transportation on this project.

Equipment advanced into the subsurface was cleaned between sampling locations. Cleaning consisted of washing with a biodegradable Alconox solution and rinsing with potable water. Disposable equipment was not cleaned, but immediately disposed of after use.

All samples were constantly kept on ice in a cooler and hand delivered to the laboratory.

Laboratory Quality Control

See Appendix B for the results of any field blanks, trip blanks, temperature blanks, lab spikes, split samples, replicate spikes, and duplicates.

Investigative Wastes

On December 12, 2017, DKS Transport Services, LLC, of Menomonie, Wisconsin picked-up and disposed of 9 drums of soil cuttings and 2 drums of purge water at the Advanced Disposal Seven Mile Creek Landfill in Eau Claire, Wisconsin.

APPENDIX B/ ANALYTICAL METHODS & LABORATORY DATA REPORTS

Synergy Environmental Lab,

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

TODD LUEDTKE
TODD LUEDTKE
426 CROWFOOT AVE.,
FOND DU LAC, WI 54935

Report Date *24-May-17*

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892A
Sample ID MEOH BLANK
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/12/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/12/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/12/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/12/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/12/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/12/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/12/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/12/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/12/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892B
Sample ID G-1-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	97.1	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	1.58	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/12/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/12/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/12/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/12/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/12/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/12/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/12/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/12/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/12/2017	TCC	1

Lab Code 5032892C
Sample ID G-1-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	86.4	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/12/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/12/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/12/2017	TCC	1
Naphthalene	0.259	mg/kg	0.022	0.07	1	GRO95/8021		5/12/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/12/2017	TCC	1
1,2,4-Trimethylbenzene	0.302	mg/kg	0.01	0.032	1	GRO95/8021		5/12/2017	TCC	1
1,3,5-Trimethylbenzene	0.154	mg/kg	0.011	0.036	1	GRO95/8021		5/12/2017	TCC	1
m&p-Xylene	0.065	mg/kg	0.012	0.037	1	GRO95/8021		5/12/2017	TCC	1
o-Xylene	0.059	mg/kg	0.015	0.047	1	GRO95/8021		5/12/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892D
Sample ID G-2-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	95.6	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	1.35	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/12/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/12/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/12/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/12/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/12/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/12/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/12/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/12/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/12/2017	TCC	1

Lab Code 5032892E
Sample ID G-2-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.7	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	0.030 "J"	mg/kg	0.019	0.06	1	GRO95/8021		5/13/2017	TCC	1
Ethylbenzene	0.073	mg/kg	0.01	0.032	1	GRO95/8021		5/13/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/13/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/13/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/13/2017	TCC	1
1,2,4-Trimethylbenzene	0.078	mg/kg	0.01	0.032	1	GRO95/8021		5/13/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/13/2017	TCC	1
m&p-Xylene	0.254	mg/kg	0.012	0.037	1	GRO95/8021		5/13/2017	TCC	1
o-Xylene	0.129	mg/kg	0.015	0.047	1	GRO95/8021		5/13/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892F
Sample ID G-3-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	94.4	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	3.43	mg/Kg	0.85	2.9	5	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/13/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/13/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/13/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/13/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/13/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/13/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/13/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/13/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/13/2017	TCC	1

Lab Code 5032892G
Sample ID G-3-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.1	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/13/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/13/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/13/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/13/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/13/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/13/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/13/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/13/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/13/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892H
Sample ID G-4-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	90.2	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	35.8	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	0.081	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	0.080	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	0.043	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	0.088	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	0.044 "J"	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Lab Code 50328921
Sample ID G-4-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.7	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	0.044	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	0.094	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	0.126	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	0.055	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	0.057	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892J
Sample ID G-5-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	92.5	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	132	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Lab Code 5032892K
Sample ID G-5-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	82.9	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892L
Sample ID G-6-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	97.0	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	2.91	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/19/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/19/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/19/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/19/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/19/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/19/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/19/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/19/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/19/2017	TCC	1

Lab Code 5032892M
Sample ID G-6-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	81.2	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/17/2017	TCC	1
Ethylbenzene	0.289	mg/kg	0.01	0.032	1	GRO95/8021		5/17/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/17/2017	TCC	1
Naphthalene	3.1	mg/kg	0.022	0.07	1	GRO95/8021		5/17/2017	TCC	1
Toluene	0.079	mg/kg	0.014	0.046	1	GRO95/8021		5/17/2017	TCC	1
1,2,4-Trimethylbenzene	3.3	mg/kg	0.01	0.032	1	GRO95/8021		5/17/2017	TCC	1
1,3,5-Trimethylbenzene	1.17	mg/kg	0.011	0.036	1	GRO95/8021		5/17/2017	TCC	1
m&p-Xylene	1.33	mg/kg	0.012	0.037	1	GRO95/8021		5/17/2017	TCC	1
o-Xylene	0.67	mg/kg	0.015	0.047	1	GRO95/8021		5/17/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892N
Sample ID G-7-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	94.1	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	14.6	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Lab Code 5032892O
Sample ID G-7-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	72.1	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	0.072	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	0.065	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	0.063 "J"	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	0.060	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	0.0287 "J"	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	0.211	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	0.105	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892P
Sample ID G-8-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	95.6	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	44.0	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892Q
Sample ID G-8-2
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	86.2	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	11.8	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
VOC's										
Benzene	< 0.15	mg/kg	0.15	4.8	5	8260B		5/19/2017	CJR	1
Bromobenzene	< 0.125	mg/kg	0.125	0.405	5	8260B		5/19/2017	CJR	1
Bromodichloromethane	< 0.37	mg/kg	0.37	1.2	5	8260B		5/19/2017	CJR	1
Bromoform	< 0.145	mg/kg	0.145	0.46	5	8260B		5/19/2017	CJR	1
tert-Butylbenzene	< 0.13	mg/kg	0.13	0.42	5	8260B		5/19/2017	CJR	1
sec-Butylbenzene	1.13	mg/kg	0.165	0.5	5	8260B		5/19/2017	CJR	1
n-Butylbenzene	5.4	mg/kg	0.2	0.65	5	8260B		5/19/2017	CJR	1
Carbon Tetrachloride	< 0.08	mg/kg	0.08	0.265	5	8260B		5/19/2017	CJR	1
Chlorobenzene	< 0.065	mg/kg	0.065	0.2	5	8260B		5/19/2017	CJR	1
Chloroethane	< 0.455	mg/kg	0.455	1.45	5	8260B		5/19/2017	CJR	1
Chloroform	< 0.175	mg/kg	0.175	0.55	5	8260B		5/19/2017	CJR	1
Chloromethane	< 0.38	mg/kg	0.38	1.2	5	8260B		5/19/2017	CJR	1
2-Chlorotoluene	< 0.075	mg/kg	0.075	0.235	5	8260B		5/19/2017	CJR	1
4-Chlorotoluene	< 0.09	mg/kg	0.09	0.285	5	8260B		5/19/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 0.29	mg/kg	0.29	0.9	5	8260B		5/19/2017	CJR	1
Dibromochloromethane	< 0.125	mg/kg	0.125	0.395	5	8260B		5/19/2017	CJR	1
1,4-Dichlorobenzene	< 0.185	mg/kg	0.185	0.6	5	8260B		5/19/2017	CJR	1
1,3-Dichlorobenzene	< 0.185	mg/kg	0.185	0.6	5	8260B		5/19/2017	CJR	1
1,2-Dichlorobenzene	< 0.14	mg/kg	0.14	0.44	5	8260B		5/19/2017	CJR	1
Dichlorodifluoromethane	< 0.24	mg/kg	0.24	0.75	5	8260B		5/19/2017	CJR	1
1,2-Dichloroethane	< 0.19	mg/kg	0.19	0.6	5	8260B		5/19/2017	CJR	1
1,1-Dichloroethane	< 0.17	mg/kg	0.17	0.55	5	8260B		5/19/2017	CJR	1
1,1-Dichloroethene	< 0.11	mg/kg	0.11	0.345	5	8260B		5/19/2017	CJR	1
cis-1,2-Dichloroethene	< 0.16	mg/kg	0.16	0.5	5	8260B		5/19/2017	CJR	1
trans-1,2-Dichloroethene	< 0.14	mg/kg	0.14	0.45	5	8260B		5/19/2017	CJR	1
1,2-Dichloropropane	< 0.175	mg/kg	0.175	0.55	5	8260B		5/19/2017	CJR	1
1,3-Dichloropropane	< 0.125	mg/kg	0.125	0.395	5	8260B		5/19/2017	CJR	1
trans-1,3-Dichloropropene	< 0.11	mg/kg	0.11	0.34	5	8260B		5/19/2017	CJR	1
cis-1,3-Dichloropropene	< 0.195	mg/kg	0.195	0.6	5	8260B		5/19/2017	CJR	1
Di-isopropyl ether	< 0.05	mg/kg	0.05	0.16	5	8260B		5/19/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.115	mg/kg	0.115	0.36	5	8260B		5/19/2017	CJR	1
Ethylbenzene	2.11	mg/kg	0.175	0.55	5	8260B		5/19/2017	CJR	1
Hexachlorobutadiene	< 0.425	mg/kg	0.425	1.35	5	8260B		5/19/2017	CJR	1
Isopropylbenzene	0.90	mg/kg	0.17	0.55	5	8260B		5/19/2017	CJR	1
p-Isopropyltoluene	1.4	mg/kg	0.145	0.465	5	8260B		5/19/2017	CJR	1
Methylene chloride	< 0.75	mg/kg	0.75	2.3	5	8260B		5/19/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.25	mg/kg	0.25	0.8	5	8260B		5/19/2017	CJR	1
Naphthalene	5.6	mg/kg	0.47	1.5	5	8260B		5/19/2017	CJR	1
n-Propylbenzene	3.8	mg/kg	0.165	0.5	5	8260B		5/19/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.14	mg/kg	0.14	4.4	5	8260B		5/19/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.14	mg/kg	0.14	0.45	5	8260B		5/19/2017	CJR	1
Tetrachloroethene	< 0.16	mg/kg	0.16	0.5	5	8260B		5/19/2017	CJR	1
Toluene	< 0.16	mg/kg	0.16	0.5	5	8260B		5/19/2017	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892Q
Sample ID G-8-2
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,4-Trichlorobenzene	< 0.32	mg/kg	0.32	1	5	8260B		5/19/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.33	mg/kg	0.33	1.05	5	8260B		5/19/2017	CJR	1
1,1,1-Trichloroethane	< 0.15	mg/kg	0.15	4.8	5	8260B		5/19/2017	CJR	1
1,1,2-Trichloroethane	< 0.165	mg/kg	0.165	0.55	5	8260B		5/19/2017	CJR	1
Trichloroethene (TCE)	< 0.205	mg/kg	0.205	0.65	5	8260B		5/19/2017	CJR	1
Trichlorofluoromethane	< 0.205	mg/kg	0.205	0.65	5	8260B		5/19/2017	CJR	1
1,2,4-Trimethylbenzene	32	mg/kg	0.125	0.4	5	8260B		5/19/2017	CJR	1
1,3,5-Trimethylbenzene	9.7	mg/kg	0.16	0.5	5	8260B		5/19/2017	CJR	1
Vinyl Chloride	< 0.095	mg/kg	0.095	0.31	5	8260B		5/19/2017	CJR	1
m&p-Xylene	7.8	mg/kg	0.36	1.15	5	8260B		5/19/2017	CJR	1
o-Xylene	3.9	mg/kg	0.22	0.7	5	8260B		5/19/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	94	Rec %			5	8260B		5/19/2017	CJR	1
SUR - 4-Bromofluorobenzene	104	Rec %			5	8260B		5/19/2017	CJR	1
SUR - Dibromofluoromethane	95	Rec %			5	8260B		5/19/2017	CJR	1
SUR - Toluene-d8	103	Rec %			5	8260B		5/19/2017	CJR	1

Lab Code 5032892R
Sample ID G-9-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	96.8	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	1.17	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/17/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/17/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/17/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/17/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/17/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/17/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/17/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/17/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/17/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892S
Sample ID G-9-2
Sample Matrix Soil
Sample Date 5/8/2017

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General											
General											
Solids Percent	85.7		%			1	5021		5/11/2017	NJC	1
Organic											
PVOC + Naphthalene											
Benzene		< 0.125	mg/kg	0.095	0.3	5	GRO95/8021		5/17/2017	TCC	1
Ethylbenzene	0.32		mg/kg	0.05	0.16	5	GRO95/8021		5/17/2017	TCC	1
Methyl tert-butyl ether (MTBE)		< 0.125	mg/kg	0.0395	0.125	5	GRO95/8021		5/17/2017	TCC	1
Naphthalene	2.63		mg/kg	0.11	0.35	5	GRO95/8021		5/17/2017	TCC	1
Toluene		< 0.125	mg/kg	0.07	0.23	5	GRO95/8021		5/17/2017	TCC	1
1,2,4-Trimethylbenzene	8.5		mg/kg	0.05	0.16	5	GRO95/8021		5/17/2017	TCC	1
1,3,5-Trimethylbenzene	9.9		mg/kg	0.055	0.18	5	GRO95/8021		5/17/2017	TCC	1
m&p-Xylene	2.08		mg/kg	0.06	0.185	5	GRO95/8021		5/17/2017	TCC	1
o-Xylene	1.19		mg/kg	0.075	0.235	5	GRO95/8021		5/17/2017	TCC	1

Lab Code 5032892T
Sample ID G-10-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General											
General											
Solids Percent	96.6		%			1	5021		5/11/2017	NJC	1
Inorganic											
Metals											
Lead, Total	4.00		mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic											
PVOC + Naphthalene											
Benzene		< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene		< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)		< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene		< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene		< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene		< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene		< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene		< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene		< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892U
Sample ID G-10-2
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	85.7	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	0.79	mg/kg	0.095	0.3	5	GRO95/8021		5/17/2017	TCC	1
Ethylbenzene	1.87	mg/kg	0.05	0.16	5	GRO95/8021		5/17/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.125	mg/kg	0.0395	0.125	5	GRO95/8021		5/17/2017	TCC	1
Naphthalene	2.1	mg/kg	0.11	0.35	5	GRO95/8021		5/17/2017	TCC	1
Toluene	2.11	mg/kg	0.07	0.23	5	GRO95/8021		5/17/2017	TCC	1
1,2,4-Trimethylbenzene	41	mg/kg	0.05	0.16	5	GRO95/8021		5/17/2017	TCC	1
1,3,5-Trimethylbenzene	26	mg/kg	0.055	0.18	5	GRO95/8021		5/17/2017	TCC	1
m&p-Xylene	11.5	mg/kg	0.06	0.185	5	GRO95/8021		5/17/2017	TCC	1
o-Xylene	2.08	mg/kg	0.075	0.235	5	GRO95/8021		5/17/2017	TCC	1

Lab Code 5032892V
Sample ID G-11-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	94.4	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	3.96	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	<.0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892W
Sample ID G-11-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	78.7	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	0.032 "J"	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	0.0305 "J"	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	0.094	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	0.032 "J"	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	0.247	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	0.073	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Lab Code 5032892X
Sample ID G-12-1
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	95.2	%			1	5021		5/11/2017	NJC	1
Inorganic										
Metals										
Lead, Total	5.40	mg/Kg	0.34	1.16	2	6010B		5/19/2017	CWT	1 49
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 5032892Y
Sample ID G-12-3
Sample Matrix Soil
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	85.4	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	0.049	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	0.168	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	0.062	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	0.219	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	0.052	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Lab Code 5032892Z
Sample ID TRIP BLANK
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/17/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/17/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/17/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/17/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/17/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/17/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/17/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/17/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/17/2017	TCC	1

Lab Code 52892AAA
Sample ID G-23-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/18/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/18/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/18/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/18/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 52892BBB
Sample ID G-24-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/18/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/18/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/18/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/18/2017	TCC	1

Lab Code 52892CCC
Sample ID G-25-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/19/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/19/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/19/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/19/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/19/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/19/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/19/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/19/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/19/2017	TCC	1

Lab Code 532892AA
Sample ID G-1-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	6.8	ug/l	0.27	0.87	1	GRO95/8021		5/19/2017	TCC	1
Ethylbenzene	11.2	ug/l	0.56	1.77	1	GRO95/8021		5/19/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/19/2017	TCC	1
Naphthalene	22.6	ug/l	1.7	5.27	1	GRO95/8021		5/19/2017	TCC	1
Toluene	3.04	ug/l	0.33	1.06	1	GRO95/8021		5/19/2017	TCC	1
1,2,4-Trimethylbenzene	63	ug/l	0.56	1.78	1	GRO95/8021		5/19/2017	TCC	1
1,3,5-Trimethylbenzene	20.6	ug/l	0.58	1.84	1	GRO95/8021		5/19/2017	TCC	1
m&p-Xylene	29.4	ug/l	1.1	3.49	1	GRO95/8021		5/19/2017	TCC	1
o-Xylene	16.4	ug/l	0.61	1.92	1	GRO95/8021		5/19/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892BB
Sample ID G-2-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	36	ug/l	2.7	8.7	10	GRO95/8021		5/19/2017	TCC	1
Ethylbenzene	360	ug/l	5.6	17.7	10	GRO95/8021		5/19/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 4.3	ug/l	4.3	13.6	10	GRO95/8021		5/19/2017	TCC	1
Naphthalene	97	ug/l	17	52.7	10	GRO95/8021		5/19/2017	TCC	1
Toluene	100	ug/l	3.3	10.6	10	GRO95/8021		5/19/2017	TCC	1
1,2,4-Trimethylbenzene	281	ug/l	5.6	17.8	10	GRO95/8021		5/19/2017	TCC	1
1,3,5-Trimethylbenzene	76	ug/l	5.8	18.4	10	GRO95/8021		5/19/2017	TCC	1
m&p-Xylene	1200	ug/l	11	34.9	10	GRO95/8021		5/19/2017	TCC	1
o-Xylene	460	ug/l	6.1	19.2	10	GRO95/8021		5/19/2017	TCC	1

Lab Code 532892CC
Sample ID G-3-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	5.5 "J"	ug/l	2.7	8.7	10	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	360	ug/l	5.6	17.7	10	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 4.3	ug/l	4.3	13.6	10	GRO95/8021		5/18/2017	TCC	1
Naphthalene	114	ug/l	17	52.7	10	GRO95/8021		5/18/2017	TCC	1
Toluene	56	ug/l	3.3	10.6	10	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	241	ug/l	5.6	17.8	10	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	75	ug/l	5.8	18.4	10	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	1010	ug/l	11	34.9	10	GRO95/8021		5/18/2017	TCC	1
o-Xylene	310	ug/l	6.1	19.2	10	GRO95/8021		5/18/2017	TCC	1

Lab Code 532892DD
Sample ID G-4-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/19/2017	TCC	1
Ethylbenzene	13.1	ug/l	0.56	1.77	1	GRO95/8021		5/19/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/19/2017	TCC	1
Naphthalene	41	ug/l	1.7	5.27	1	GRO95/8021		5/19/2017	TCC	1
Toluene	1.11	ug/l	0.33	1.06	1	GRO95/8021		5/19/2017	TCC	1
1,2,4-Trimethylbenzene	20.3	ug/l	0.56	1.78	1	GRO95/8021		5/19/2017	TCC	1
1,3,5-Trimethylbenzene	7.8	ug/l	0.58	1.84	1	GRO95/8021		5/19/2017	TCC	1
m&p-Xylene	12.3	ug/l	1.1	3.49	1	GRO95/8021		5/19/2017	TCC	1
o-Xylene	2.91	ug/l	0.61	1.92	1	GRO95/8021		5/19/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892EE
Sample ID G-5-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/18/2017	TCC	I
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/18/2017	TCC	I
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/18/2017	TCC	I
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/18/2017	TCC	I
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/18/2017	TCC	I
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/18/2017	TCC	I
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/18/2017	TCC	I
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/18/2017	TCC	I
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/18/2017	TCC	I

Lab Code 532892FF
Sample ID G-6-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 5.4	ug/l	5.4	17.4	20	GRO95/8021		5/18/2017	TCC	I
Ethylbenzene	202	ug/l	11.2	35.4	20	GRO95/8021		5/18/2017	TCC	I
Methyl tert-butyl ether (MTBE)	< 8.6	ug/l	8.6	27.2	20	GRO95/8021		5/18/2017	TCC	I
Naphthalene	265	ug/l	34	105.4	20	GRO95/8021		5/18/2017	TCC	I
Toluene	41	ug/l	6.6	21.2	20	GRO95/8021		5/18/2017	TCC	I
1,2,4-Trimethylbenzene	340	ug/l	11.2	35.6	20	GRO95/8021		5/18/2017	TCC	I
1,3,5-Trimethylbenzene	106	ug/l	11.6	36.8	20	GRO95/8021		5/18/2017	TCC	I
m&p-Xylene	700	ug/l	22	69.8	20	GRO95/8021		5/18/2017	TCC	I
o-Xylene	249	ug/l	12.2	38.4	20	GRO95/8021		5/18/2017	TCC	I

Lab Code 532892GG
Sample ID G-7-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	39	ug/l	0.27	0.87	1	GRO95/8021		5/17/2017	TCC	I
Ethylbenzene	9.2	ug/l	0.56	1.77	1	GRO95/8021		5/17/2017	TCC	I
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/17/2017	TCC	I
Naphthalene	30.7	ug/l	1.7	5.27	1	GRO95/8021		5/17/2017	TCC	I
Toluene	4.3	ug/l	0.33	1.06	1	GRO95/8021		5/17/2017	TCC	I
1,2,4-Trimethylbenzene	11.9	ug/l	0.56	1.78	1	GRO95/8021		5/17/2017	TCC	I
1,3,5-Trimethylbenzene	5.3	ug/l	0.58	1.84	1	GRO95/8021		5/17/2017	TCC	I
m&p-Xylene	21	ug/l	1.1	3.49	1	GRO95/8021		5/17/2017	TCC	I
o-Xylene	22.2	ug/l	0.61	1.92	1	GRO95/8021		5/17/2017	TCC	I

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892HH
Sample ID G-8-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	19.1 "J"	ug/l	13.5	43.5	50	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	2370	ug/l	28	88.5	50	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 21.5	ug/l	21.5	68	50	GRO95/8021		5/18/2017	TCC	1
Naphthalene	750	ug/l	85	263.5	50	GRO95/8021		5/18/2017	TCC	1
Toluene	92	ug/l	16.5	53	50	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	1340	ug/l	28	89	50	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	330	ug/l	29	92	50	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	7400	ug/l	55	174.5	50	GRO95/8021		5/18/2017	TCC	1
o-Xylene	3200	ug/l	30.5	96	50	GRO95/8021		5/18/2017	TCC	1

Lab Code 532892II
Sample ID G-9-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	4.0 "J"	ug/l	2.7	8.7	10	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	680	ug/l	5.6	17.7	10	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 4.3	ug/l	4.3	13.6	10	GRO95/8021		5/18/2017	TCC	1
Naphthalene	440	ug/l	17	52.7	10	GRO95/8021		5/18/2017	TCC	1
Toluene	72	ug/l	3.3	10.6	10	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	1340	ug/l	5.6	17.8	10	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	410	ug/l	5.8	18.4	10	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	1880	ug/l	11	34.9	10	GRO95/8021		5/18/2017	TCC	1
o-Xylene	920	ug/l	6.1	19.2	10	GRO95/8021		5/18/2017	TCC	1

Lab Code 532892JJ
Sample ID G-10-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 13.5	ug/l	13.5	43.5	50	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	320	ug/l	28	88.5	50	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 21.5	ug/l	21.5	68	50	GRO95/8021		5/18/2017	TCC	1
Naphthalene	360	ug/l	85	263.5	50	GRO95/8021		5/18/2017	TCC	1
Toluene	< 16.5	ug/l	16.5	53	50	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	1600	ug/l	28	89	50	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	500	ug/l	29	92	50	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	790	ug/l	55	174.5	50	GRO95/8021		5/18/2017	TCC	1
o-Xylene	320	ug/l	30.5	96	50	GRO95/8021		5/18/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892KK
Sample ID G-11-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	13 "J"	ug/l	5.4	17.4	20	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	770	ug/l	11.2	35.4	20	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 8.6	ug/l	8.6	27.2	20	GRO95/8021		5/18/2017	TCC	1
Naphthalene	227	ug/l	34	105.4	20	GRO95/8021		5/18/2017	TCC	1
Toluene	96	ug/l	6.6	21.2	20	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	630	ug/l	11.2	35.6	20	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	184	ug/l	11.6	36.8	20	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	640	ug/l	22	69.8	20	GRO95/8021		5/18/2017	TCC	1
o-Xylene	540	ug/l	12.2	38.4	20	GRO95/8021		5/18/2017	TCC	1

Lab Code 532892LL
Sample ID G-12-W
Sample Matrix Water
Sample Date 5/8/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	9.1 "J"	ug/l	5.4	17.4	20	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	330	ug/l	11.2	35.4	20	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 8.6	ug/l	8.6	27.2	20	GRO95/8021		5/18/2017	TCC	1
Naphthalene	135	ug/l	34	105.4	20	GRO95/8021		5/18/2017	TCC	1
Toluene	46	ug/l	6.6	21.2	20	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	360	ug/l	11.2	35.6	20	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	102	ug/l	11.6	36.8	20	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	1020	ug/l	22	69.8	20	GRO95/8021		5/18/2017	TCC	1
o-Xylene	97	ug/l	12.2	38.4	20	GRO95/8021		5/18/2017	TCC	1

Lab Code 532892MM
Sample ID G-14-3
Sample Matrix Soil
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.7	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	0.108	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	0.056 "J"	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	0.142	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	0.041	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	0.277	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	0.085	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892NN
Sample ID G-15-3
Sample Matrix Soil
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.7	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/16/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/16/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/16/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		5/16/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/16/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		5/16/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/16/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/16/2017	TCC	1

Lab Code 532892OO
Sample ID G-20-3
Sample Matrix Soil
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.5	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/20/2017	TCC	1
Ethylbenzene	0.135	mg/kg	0.01	0.032	1	GRO95/8021		5/20/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/20/2017	TCC	1
Naphthalene	2.12	mg/kg	0.022	0.07	1	GRO95/8021		5/20/2017	TCC	1
Toluene	0.115	mg/kg	0.014	0.046	1	GRO95/8021		5/20/2017	TCC	1
1,2,4-Trimethylbenzene	0.64	mg/kg	0.01	0.032	1	GRO95/8021		5/20/2017	TCC	1
1,3,5-Trimethylbenzene	2.51	mg/kg	0.011	0.036	1	GRO95/8021		5/20/2017	TCC	1
m&p-Xylene	0.64	mg/kg	0.012	0.037	1	GRO95/8021		5/20/2017	TCC	1
o-Xylene	0.41	mg/kg	0.015	0.047	1	GRO95/8021		5/20/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892PP
Sample ID G-21-3
Sample Matrix Soil
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	84.3	%			1	5021		5/11/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		5/20/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		5/20/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		5/20/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		5/20/2017	TCC	1
Toluene	0.0251 "J"	mg/kg	0.014	0.046	1	GRO95/8021		5/20/2017	TCC	1
1,2,4-Trimethylbenzene	0.055	mg/kg	0.01	0.032	1	GRO95/8021		5/20/2017	TCC	1
1,3,5-Trimethylbenzene	0.035 "J"	mg/kg	0.011	0.036	1	GRO95/8021		5/20/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		5/20/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		5/20/2017	TCC	1

Lab Code 532892QQ
Sample ID G-13-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/17/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/17/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/17/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/17/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/17/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/17/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/17/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/17/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/17/2017	TCC	1

Lab Code 532892RR
Sample ID G-14-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	0.94	ug/l	0.27	0.87	1	GRO95/8021		5/17/2017	TCC	1
Ethylbenzene	6.9	ug/l	0.56	1.77	1	GRO95/8021		5/17/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/17/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/17/2017	TCC	1
Toluene	1.61	ug/l	0.33	1.06	1	GRO95/8021		5/17/2017	TCC	1
1,2,4-Trimethylbenzene	5.5	ug/l	0.56	1.78	1	GRO95/8021		5/17/2017	TCC	1
1,3,5-Trimethylbenzene	1.87	ug/l	0.58	1.84	1	GRO95/8021		5/17/2017	TCC	1
m&p-Xylene	9.4	ug/l	1.1	3.49	1	GRO95/8021		5/17/2017	TCC	1
o-Xylene	1.82 "J"	ug/l	0.61	1.92	1	GRO95/8021		5/17/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892SS
Sample ID G-15-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	5.7	ug/l	0.27	0.87	1	GRO95/8021		5/17/2017	TCC	1
Ethylbenzene	1.01 "J"	ug/l	0.56	1.77	1	GRO95/8021		5/17/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/17/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/17/2017	TCC	1
Toluene	0.44 "J"	ug/l	0.33	1.06	1	GRO95/8021		5/17/2017	TCC	1
1,2,4-Trimethylbenzene	0.78 "J"	ug/l	0.56	1.78	1	GRO95/8021		5/17/2017	TCC	1
1,3,5-Trimethylbenzene	0.72 "J"	ug/l	0.58	1.84	1	GRO95/8021		5/17/2017	TCC	1
m&p-Xylene	1.27 "J"	ug/l	1.1	3.49	1	GRO95/8021		5/17/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/17/2017	TCC	1

Lab Code 532892TT
Sample ID G-16-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/18/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/18/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/18/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/18/2017	TCC	1

Lab Code 532892UU
Sample ID G-17-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/18/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/18/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/18/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/18/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/18/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/18/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/18/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/18/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/18/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892VV
Sample ID G-18-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/18/2017	TCC	
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/18/2017	TCC	
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/18/2017	TCC	
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/18/2017	TCC	
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/18/2017	TCC	
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/18/2017	TCC	
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/18/2017	TCC	
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/18/2017	TCC	
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/18/2017	TCC	

Lab Code 532892WW
Sample ID G-19-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/18/2017	TCC	
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/18/2017	TCC	
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/18/2017	TCC	
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/18/2017	TCC	
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/18/2017	TCC	
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/18/2017	TCC	
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/18/2017	TCC	
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/18/2017	TCC	
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/18/2017	TCC	

Lab Code 532892XX
Sample ID G-20-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	21.6	ug/l	0.27	0.87	1	GRO95/8021		5/23/2017	TCC	
Ethylbenzene	31.5	ug/l	0.56	1.77	1	GRO95/8021		5/23/2017	TCC	
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/23/2017	TCC	
Naphthalene	43	ug/l	1.7	5.27	1	GRO95/8021		5/23/2017	TCC	
Toluene	96	ug/l	0.33	1.06	1	GRO95/8021		5/23/2017	TCC	
1,2,4-Trimethylbenzene	111	ug/l	0.56	1.78	1	GRO95/8021		5/23/2017	TCC	
1,3,5-Trimethylbenzene	194	ug/l	0.58	1.84	1	GRO95/8021		5/23/2017	TCC	
m&p-Xylene	84	ug/l	1.1	3.49	1	GRO95/8021		5/23/2017	TCC	
o-Xylene	48	ug/l	0.61	1.92	1	GRO95/8021		5/23/2017	TCC	

Project Name LUEDTKE PROPERTY **Invoice #** E32892
Project #

Lab Code 532892YY
Sample ID G-21-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	0.92	ug/l	0.27	0.87	1	GRO95/8021		5/23/2017	TCC	1
Ethylbenzene	1.38 "J"	ug/l	0.56	1.77	1	GRO95/8021		5/23/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/23/2017	TCC	1
Naphthalene	1.95 "J"	ug/l	1.7	5.27	1	GRO95/8021		5/23/2017	TCC	1
Toluene	2.94	ug/l	0.33	1.06	1	GRO95/8021		5/23/2017	TCC	1
1,2,4-Trimethylbenzene	11.1	ug/l	0.56	1.78	1	GRO95/8021		5/23/2017	TCC	1
1,3,5-Trimethylbenzene	4.9	ug/l	0.58	1.84	1	GRO95/8021		5/23/2017	TCC	1
m&p-Xylene	3.4 "J"	ug/l	1.1	3.49	1	GRO95/8021		5/23/2017	TCC	1
o-Xylene	1.48 "J"	ug/l	0.61	1.92	1	GRO95/8021		5/23/2017	TCC	1

Lab Code 532892ZZ
Sample ID G-22-W
Sample Matrix Water
Sample Date 5/9/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.27	ug/l	0.27	0.87	1	GRO95/8021		5/19/2017	TCC	1
Ethylbenzene	< 0.56	ug/l	0.56	1.77	1	GRO95/8021		5/19/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.43	ug/l	0.43	1.36	1	GRO95/8021		5/19/2017	TCC	1
Naphthalene	< 1.7	ug/l	1.7	5.27	1	GRO95/8021		5/19/2017	TCC	1
Toluene	< 0.33	ug/l	0.33	1.06	1	GRO95/8021		5/19/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.56	ug/l	0.56	1.78	1	GRO95/8021		5/19/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.58	ug/l	0.58	1.84	1	GRO95/8021		5/19/2017	TCC	1
m&p-Xylene	< 1.1	ug/l	1.1	3.49	1	GRO95/8021		5/19/2017	TCC	1
o-Xylene	< 0.61	ug/l	0.61	1.92	1	GRO95/8021		5/19/2017	TCC	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.
49	Sample diluted to compensate for matrix interference.

CWT denotes sub contract lab - Certification #445126660

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature *Michael Ricker*

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # № 2906

Page 1 of 6

Sample Handling Request
_____ Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : | Quote No.:

Project #:

Sampler: (signature)

Project (Name / Location): Luedtke Property

Reports To: Todd Luedtke	Invoice To: Todd Luedtke
Company	Company C/O METCO
Address 426 Crowfoot Ave	Address 709 Gillette St, Ste 3
City State Zip Fond du Lac, WI 54935	City State Zip La Crosse, WI 54603
Phone (920) 602-4910	Phone (608) 781-8879
FAX	FAX

Analysis Requested | **Other Analysis**

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
503289-24	Meth Blank	5/4/17					1		MEOH									X						
B	G-1-1		10:10		X		3	S	/None			X						X						
C	G-1-3		10:15				2											X						
D	G-2-1		10:30				3		/None			X						X						
E	G-2-3		10:40				2											X						
F	G-3-1		11:10				3		/None			X						X						
G	G-3-3		11:15				2											X						
H	G-4-1		11:40				3		/None			X						X						
I	G-4-3		11:45				2											X						
J	G-5-1		12:00				3		/None			X						X						

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Lab to send copy of report to METCO.

1e C Rates

Agent Status

Sample Integrity - To be completed by receiving lab
Method of Shipment: Sun
Temp of Temp. Blank: °C On Ice: X
Cooler seal intact upon receipt: Yes No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	9:15AM	5/10/17			

Received In Laboratory By: Time: Date:

CHAIN OF JSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 290

Page 2 of 6

Sample Handling Request

____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)

X Normal Turn Around

Lab I.D. #

Account No. : **Quote No.:**

Project #:

Sampler: (signature)

Project (Name / Location): Lued the Property

Reports To: See Page 1 → Invoice To:

Company	Company
Address	Address
City State Zip	City State Zip
Phone	Phone
FAX	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS								PID/ FID
503284	G-5-3	5/8/17	12:05		X		2	S	MeOH									X													
	G-6-1		12:40				3		None			X						X													
	G-6-3		12:45				2											X													
	G-7-1		1:00				3		None			X						X													
	G-7-3		1:05				2											X													
	G-8-1		1:25				3		None			X						X													
	G-8-2		1:35				3		None			X										X									
	G-9-1		1:55				3		None			X						X													
	G-9-2		2:00				2											X													
	G-10-1		2:15				3		None			X						X													

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Analysis Requested — Other Analysis

Sample Integrity - To be completed by receiving lab

Method of Shipment: Stat

Temp. of Temp. Blank: °C On Ice: X

Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	9:15AM	5/10/17			

Received In Laboratory By: Time: Date:

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 290

Page 3 of 6

Sample Handling Request
____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : | **Quote No.:**

Project #:

Sampler: (signature)

Project (Name / Location): Lued the Property

Reports To: See Page 1 | Invoice To:

Company	Company
Address	Address
City State Zip	City State Zip
Phone	Phone
FAX	FAX

Analysis Requested | **Other Analysis**

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS							PID/ FID
503282W	G-10-2	5/8/17	2:20		X		2	S	MEOH									X												
V	G-11-1		2:30				3		/None			X						X												
W	G-11-3		3:35				2											X												
X	G-12-1		4:15				3		/None			X						X												
Y	G-12-3		4:30				2											X												
Z	Trip Blank						1		HCl									X												
AA	G-1-W		10:20		X	N	3	GW										X												
BB	G-2-W		11:00				3											X												
CC	G-3-W		11:20				3											X												
DD	G-4-W		11:50				3											X												

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab
Method of Shipment:
Temp. of Temp. Blank ____ °C On Ice: X
Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	9:15AM	5/10/17			

Received in Laboratory By: | Time: | Date:

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 290

Page 4 of 6

Sample Handling Request
___ Rush Analysis Date Required ___
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D.#:

Account No.: | Quote No.:

Project #:

Sampler: (signature)

Project (Name / Location): Lued the Property

Reports To: See Page 1 → Invoice To:

Company	Company
Address	Address
City State Zip	City State Zip
Phone	Phone
FAX	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
532825	G-5-W	5/8/17	12:10		X	N	3	GW	HCl									X						
	G-6-W		12:55															X						
	G-7-W		1:15															X						
	G-8-W		1:45															X						
	G-9-W		2:05															X						
	G-10-W		2:25															X						
	G-11-W		3:45															X						
	G-12-W	↓	4:30			↓	↓	↓	↓									X						
	G-14-3	5/9/17	8:30				2	S	MEOH									X						
	G-15-3	5/9/17	8:50		↓		2	S	MEOH									X						

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Sun
Temp. of Temp. Blank: ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	9:15AM	5/10/17			

Received in Laboratory By:

CHAIN OF JSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 290

Page 5 of 6

Sample Handling Request

_____ Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)

X Normal Turn Around

Lab I.D. #

Account No. : | **Quote No.:**

Project #:

Sampler: (signature)

Project (Name / Location): Lund the Property

Reports To: See Page 1 | Invoice To:

Company	Company
Address	Address
City State Zip	City State Zip
Phone	Phone
FAX	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID
532897-010	G-20-3	5/9/17	11:00		X		2	S	MeOH									X						
PP	G-21-3		11:15				2	S	MeOH									X						
QQ	G-13-W		8:15			N	3	GW	HCl									X						
RR	G-14-W		8:35															X						
SS	G-15-W		8:55															X						
TT	G-16-W		9:15															X						
UU	G-17-W		9:45															X						
VV	G-18-W		10:05															X						
WW	G-19-W		10:30															X						
XX	G-20-W		11:05															X						

Analysis Requested | Other Analysis

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Synergy

Temp. of Temp. Blank: ___ °C On Ice: X

Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	9:15 AM	5/10/17			

Received in Laboratory By: _____ Time: _____ Date: _____

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 2906

Page 6 of 6

Sample Handling Request
Rush Analysis Date Required
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : | Quote No.:

Project #:

Sampler: (signature) Sean Ker

Project (Name / Location): Lued the Property

Reports To: See Page 1 → | Invoice To: →

Company | Company

Address | Address

City State Zip | City State Zip

Phone | Phone

FAX | FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID
522812-14	G-21-W	5/9/17	11:20		X	N	3	GW	HCl									X						
AA	G-22-W		11:40				3											X						
HHH	G-23-W		12:40				2											X						
BBB	G-24-W		1:00				2											X						
CCC	G-25-W	↓	1:10		↓	↓	2	↓	↓									X						

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Synergy
Temp. of Temp. Blank: ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
[signature]	9:15AM	5/10/17			

Received in Laboratory By: [signature] Time: 8:00 Date: 5/11/17

Synergy Environmental Lab,

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

TODD LUEDTKE
TODD LUEDTKE
426 CROWFOOT AVE.,
FOND DU LAC, WI 54935

Report Date *30-Nov-17*

Project Name LUEDTKE PROPERTY **Invoice #** E33914
Project #

Lab Code 5033914A
Sample ID METH BLANK
Sample Matrix Soil
Sample Date 11/13/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		11/24/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/24/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		11/24/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/24/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		11/24/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		11/24/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		11/24/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E33914
Project #

Lab Code 5033914B
Sample ID MW-1-3
Sample Matrix Soil
Sample Date 11/13/2017

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General											
General											
Solids Percent	83.9		%			1	5021		11/16/2017	NJC	1
Organic											
PVOC + Naphthalene											
Benzene	0.052 "J"		mg/kg	0.019	0.06	1	GRO95/8021		11/24/2017	TCC	1
Ethylbenzene	0.059		mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
Methyl tert-butyl ether (MTBE)		< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/24/2017	TCC	1
Naphthalene		< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		11/24/2017	TCC	1
Toluene		< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/24/2017	TCC	1
1,2,4-Trimethylbenzene	0.066		mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
1,3,5-Trimethylbenzene		< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		11/24/2017	TCC	1
m&p-Xylene	0.18		mg/kg	0.012	0.037	1	GRO95/8021		11/24/2017	TCC	1
o-Xylene	0.062		mg/kg	0.015	0.047	1	GRO95/8021		11/24/2017	TCC	1

Lab Code 5033914C
Sample ID MW-2-1
Sample Matrix Soil
Sample Date 11/13/2017

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General											
General											
Solids Percent	93.8		%			1	5021		11/16/2017	NJC	1
Organic											
PVOC + Naphthalene											
Benzene		< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		11/24/2017	TCC	1
Ethylbenzene		< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
Methyl tert-butyl ether (MTBE)		< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/24/2017	TCC	1
Naphthalene		< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		11/24/2017	TCC	1
Toluene		< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/24/2017	TCC	1
1,2,4-Trimethylbenzene		< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
1,3,5-Trimethylbenzene		< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		11/24/2017	TCC	1
m&p-Xylene		< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		11/24/2017	TCC	1
o-Xylene		< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		11/24/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E33914
Project #

Lab Code 5033914D
Sample ID MW-2-3
Sample Matrix Soil
Sample Date 11/13/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.7	%			1	5021		11/16/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		11/24/2017	TCC	1
Ethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/24/2017	TCC	1
Naphthalene	< 0.025	mg/kg	0.022	0.07	1	GRO95/8021		11/24/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/24/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		11/24/2017	TCC	1
m&p-Xylene	< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		11/24/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		11/24/2017	TCC	1

Lab Code 5033914E
Sample ID MW-2-4
Sample Matrix Soil
Sample Date 11/13/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	84.7	%			1	5021		11/16/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		11/24/2017	TCC	1
Ethylbenzene	0.061	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/24/2017	TCC	1
Naphthalene	0.040 "J"	mg/kg	0.022	0.07	1	GRO95/8021		11/24/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/24/2017	TCC	1
1,2,4-Trimethylbenzene	0.102	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
1,3,5-Trimethylbenzene	0.032 "J"	mg/kg	0.011	0.036	1	GRO95/8021		11/24/2017	TCC	1
m&p-Xylene	0.152	mg/kg	0.012	0.037	1	GRO95/8021		11/24/2017	TCC	1
o-Xylene	0.068	mg/kg	0.015	0.047	1	GRO95/8021		11/24/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E33914
Project #

Lab Code 5033914F
Sample ID MW-3-3
Sample Matrix Soil
Sample Date 11/13/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	83.6	%			1	5021		11/16/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		11/24/2017	TCC	1
Ethylbenzene	0.051	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/24/2017	TCC	1
Naphthalene	0.0303 "J"	mg/kg	0.022	0.07	1	GRO95/8021		11/24/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/24/2017	TCC	1
1,2,4-Trimethylbenzene	0.052	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
1,3,5-Trimethylbenzene	0.0276 "J"	mg/kg	0.011	0.036	1	GRO95/8021		11/24/2017	TCC	1
m&p-Xylene	0.094	mg/kg	0.012	0.037	1	GRO95/8021		11/24/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		11/24/2017	TCC	1

Lab Code 5033914G
Sample ID MW-3-4
Sample Matrix Soil
Sample Date 11/13/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General										
General										
Solids Percent	87.7	%			1	5021		11/16/2017	NJC	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		11/24/2017	TCC	1
Ethylbenzene	0.038	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
Methyl tert-butyl ether (MTBE)	< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/24/2017	TCC	1
Naphthalene	0.0277 "J"	mg/kg	0.022	0.07	1	GRO95/8021		11/24/2017	TCC	1
Toluene	< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/24/2017	TCC	1
1,2,4-Trimethylbenzene	< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/24/2017	TCC	1
1,3,5-Trimethylbenzene	< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		11/24/2017	TCC	1
m&p-Xylene	0.064	mg/kg	0.012	0.037	1	GRO95/8021		11/24/2017	TCC	1
o-Xylene	< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		11/24/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E33914
Project #

Lab Code 5033914H
Sample ID MW-8-1
Sample Matrix Soil
Sample Date 11/13/2017

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General											
General											
Solids Percent	89.6		%			1	5021		11/16/2017	NJC	1
Organic											
PVOC + Naphthalene											
Benzene		< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		11/27/2017	TCC	1
Ethylbenzene		< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)		< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/27/2017	TCC	1
Naphthalene	0.0282 "J"		mg/kg	0.022	0.07	1	GRO95/8021		11/27/2017	TCC	1
Toluene		< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/27/2017	TCC	1
1,2,4-Trimethylbenzene		< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/27/2017	TCC	1
1,3,5-Trimethylbenzene		< 0.025	mg/kg	0.011	0.036	1	GRO95/8021		11/27/2017	TCC	1
m&p-Xylene		< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		11/27/2017	TCC	1
o-Xylene		< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		11/27/2017	TCC	1

Lab Code 50339141
Sample ID MW-8-2
Sample Matrix Soil
Sample Date 11/13/2017

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General											
General											
Solids Percent	85.4		%			1	5021		11/16/2017	NJC	1
Organic											
GRO/PVOC + Naphthalene											
Gasoline Range Organics	1640		mg/kg	53.5	170.5	50	GRO95/8021		11/30/2017	TCC	1
Benzene	3.3		mg/kg	0.095	0.3	5	GRO95/8021		11/27/2017	TCC	1
Ethylbenzene	35		mg/kg	0.05	0.16	5	GRO95/8021		11/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)		< 0.125	mg/kg	0.0395	0.125	5	GRO95/8021		11/27/2017	TCC	1
Naphthalene	19.6		mg/kg	0.11	0.35	5	GRO95/8021		11/27/2017	TCC	1
Toluene	4.6		mg/kg	0.07	0.23	5	GRO95/8021		11/27/2017	TCC	1
1,2,4-Trimethylbenzene	98		mg/kg	0.05	0.16	5	GRO95/8021		11/27/2017	TCC	1
1,3,5-Trimethylbenzene	36		mg/kg	0.055	0.18	5	GRO95/8021		11/27/2017	TCC	1
m&p-Xylene	109		mg/kg	0.06	0.185	5	GRO95/8021		11/27/2017	TCC	1
o-Xylene	26.8		mg/kg	0.075	0.235	5	GRO95/8021		11/27/2017	TCC	1

Project Name LUEDTKE PROPERTY **Invoice #** E33914
Project #

Lab Code 5033914J
Sample ID MW-8-4
Sample Matrix Soil
Sample Date 11/13/2017

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General											
General											
Solids Percent	79.8		%			1	5021		11/16/2017	NJC	1
Organic											
PVOC + Naphthalene											
Benzene		< 0.025	mg/kg	0.019	0.06	1	GRO95/8021		11/27/2017	TCC	1
Ethylbenzene	0.129		mg/kg	0.01	0.032	1	GRO95/8021		11/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)		< 0.025	mg/kg	0.0079	0.025	1	GRO95/8021		11/27/2017	TCC	1
Naphthalene	0.057 "J"		mg/kg	0.022	0.07	1	GRO95/8021		11/27/2017	TCC	1
Toluene		< 0.025	mg/kg	0.014	0.046	1	GRO95/8021		11/27/2017	TCC	1
1,2,4-Trimethylbenzene		< 0.025	mg/kg	0.01	0.032	1	GRO95/8021		11/27/2017	TCC	1
1,3,5-Trimethylbenzene	0.050		mg/kg	0.011	0.036	1	GRO95/8021		11/27/2017	TCC	1
m&p-Xylene		< 0.05	mg/kg	0.012	0.037	1	GRO95/8021		11/27/2017	TCC	1
o-Xylene		< 0.025	mg/kg	0.015	0.047	1	GRO95/8021		11/27/2017	TCC	1

Lab Code 5033914K
Sample ID DRUM
Sample Matrix Soil
Sample Date 11/13/2017

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
General											
General											
Solids Percent	87.5		%			1	5021		11/16/2017	NJC	1
Inorganic											
Metals											
TCLP Lead		< 0.1	mg/l		0.1	1	6010B		11/24/2017	ESC	1
Organic											
GRO/PVOC + Naphthalene											
Gasoline Range Organics	172		mg/kg	2.14	6.82	2	GRO95/8021		11/27/2017	TCC	1
Benzene		< 0.05	mg/kg	0.038	0.12	2	GRO95/8021		11/27/2017	TCC	1
Ethylbenzene	0.43		mg/kg	0.02	0.064	2	GRO95/8021		11/27/2017	TCC	1
Methyl tert-butyl ether (MTBE)		< 0.05	mg/kg	0.0158	0.05	2	GRO95/8021		11/27/2017	TCC	1
Naphthalene	1.53		mg/kg	0.044	0.14	2	GRO95/8021		11/27/2017	TCC	1
Toluene	0.095		mg/kg	0.028	0.092	2	GRO95/8021		11/27/2017	TCC	1
1,2,4-Trimethylbenzene	7.0		mg/kg	0.02	0.064	2	GRO95/8021		11/27/2017	TCC	1
1,3,5-Trimethylbenzene	4.0		mg/kg	0.022	0.072	2	GRO95/8021		11/27/2017	TCC	1
m&p-Xylene	1.94		mg/kg	0.024	0.074	2	GRO95/8021		11/27/2017	TCC	1
o-Xylene	0.57		mg/kg	0.03	0.094	2	GRO95/8021		11/27/2017	TCC	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.

ESC denotes sub contract lab - Certification #998093910

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature *Michael Ricker*

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 3050

Page 1 of 2

Sample Handling Request
_____ Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab ID #:
Account No. : Quote No.:
Project #:
Sampler: (signature)
Project (Name / Location): Luedtke Property

Reports To: Todd Luedtke	Invoice To: Todd Luedtke
Company	Company c/o METCO
Address 426 Crowfoot Ave	Address 709 Gillette St, Ste 3
City State Zip Fond du Lac, WI 54935	City State Zip La Crosse, WI 54603
Phone (920) 602-4910	Phone (608) 781-8879
FAX	FAX

Lab ID	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS							PID/ FID
503331-01	Meth Blank	11/13					1		MEOH									X												
-02	MW-1-3		12:45		X		2	S										X												
-03	MW-2-1		1:45		X		2	S										X												
-04	MW-2-3		1:50		X		2	S										X												
-05	MW-2-4		1:55		X		2	S										X												
-06	MW-3-3		2:55		X		2	S										X												
-07	MW-3-4		3:00		X		2	S										X												
-08	MW-8-1	11/14	12:20		X		2	S										X												
-09	MW-8-2		12:35		X		2	S			X							X												
-10	MW-8-4		12:45		X		2	S										X												

Analysis Requested — Other Analysis

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Lab to send copy of report to METCO
Use Rates
Agent Status

Sample Integrity - To be completed by receiving lab
Method of Shipment: UPS
Temp. of Temp. Blank ____ °C On Ice X
Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	8:15AM	11/15/17			

Received in Laboratory By: Time: 8:00 Date: 11/16/17

CHAIN OF JSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 305

Page 2 of 2

Sample Handling Request
Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : | Quote No.:

Project #:

Sampler: (signature)

Project (Name / Location): Lyed Hse Property

Reports To: See Page 1 | Invoice To:

Company | Company

Address | Address

City State Zip | City State Zip

Phone | Phone

FAX | FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	TCLP-Lead						PID/ FID
505351	Drum Composite	11/14	1:05	X			4	S	unpreserved		X							X					X							

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Lab
Temp. of Temp. Blank ____ °C On Ice: Y
Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
	8:15AM	11/15/17			

Received in Laboratory By: Time: 8:00 Date: 11/16/17

Synergy Environmental Lab,

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

TODD LUEDTKE
TODD LUEDTKE
426 CROWFOOT AVE.,
FOND DU LAC, WI 54935

Report Date *09-Feb-18*

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185A
Sample ID MW-6
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Iron, Dissolved	0.05		mg/l	0.03	0.1	1	200.7		2/7/2018	CWT	1
Lead, Dissolved		< 0.9	ug/L	0.9	3	1	7421		2/2/2018	CWT	1
Manganese, Dissolved	27.2		ug/L	4.2	13.8	1	200.7		2/7/2018	CWT	1
Organic											
VOC's											
Benzene		< 0.22	ug/l	0.22	0.71	1	8260B		2/5/2018	CJR	1
Bromobenzene		< 0.44	ug/l	0.44	1.38	1	8260B		2/5/2018	CJR	1
Bromodichloromethane		< 0.33	ug/l	0.33	1.06	1	8260B		2/5/2018	CJR	1
Bromoform		< 0.45	ug/l	0.45	1.44	1	8260B		2/5/2018	CJR	1
tert-Butylbenzene		< 0.25	ug/l	0.25	0.8	1	8260B		2/5/2018	CJR	1
sec-Butylbenzene		< 0.79	ug/l	0.79	2.53	1	8260B		2/5/2018	CJR	1
n-Butylbenzene		< 0.71	ug/l	0.71	2.25	1	8260B		2/5/2018	CJR	1
Carbon Tetrachloride		< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
Chlorobenzene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Chloroethane		< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
Chloroform		< 0.26	ug/l	0.26	0.82	1	8260B		2/5/2018	CJR	1
Chloromethane		< 0.54	ug/l	0.54	1.72	1	8260B		2/5/2018	CJR	1
2-Chlorotoluene		< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
4-Chlorotoluene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
1,2-Dibromo-3-chloropropane		< 2.96	ug/l	2.96	9.43	1	8260B		2/5/2018	CJR	1
Dibromochloromethane		< 0.22	ug/l	0.22	0.69	1	8260B		2/5/2018	CJR	1
1,4-Dichlorobenzene		< 0.7	ug/l	0.7	2.22	1	8260B		2/5/2018	CJR	1
1,3-Dichlorobenzene		< 0.85	ug/l	0.85	2.7	1	8260B		2/5/2018	CJR	1
1,2-Dichlorobenzene		< 0.86	ug/l	0.86	2.74	1	8260B		2/5/2018	CJR	1
Dichlorodifluoromethane		< 0.32	ug/l	0.32	1.02	1	8260B		2/5/2018	CJR	1
1,2-Dichloroethane		< 0.25	ug/l	0.25	0.78	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethane		< 0.36	ug/l	0.36	1.14	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethene		< 0.42	ug/l	0.42	1.34	1	8260B		2/5/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185A
Sample ID MW-6
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
cis-1,2-Dichloroethene		< 0.37	ug/l	0.37	1.16	1	8260B		2/5/2018	CJR	1
trans-1,2-Dichloroethene		< 0.34	ug/l	0.34	1.07	1	8260B		2/5/2018	CJR	1
1,2-Dichloropropane		< 0.44	ug/l	0.44	1.39	1	8260B		2/5/2018	CJR	1
1,3-Dichloropropane		< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
trans-1,3-Dichloropropene		< 0.32	ug/l	0.32	1.01	1	8260B		2/5/2018	CJR	1
cis-1,3-Dichloropropene		< 0.26	ug/l	0.26	0.81	1	8260B		2/5/2018	CJR	1
Di-isopropyl ether		< 0.21	ug/l	0.21	0.66	1	8260B		2/5/2018	CJR	1
EDB (1,2-Dibromoethane)		< 0.34	ug/l	0.34	1.09	1	8260B		2/5/2018	CJR	1
Ethylbenzene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Hexachlorobutadiene		< 1.34	ug/l	1.34	4.28	1	8260B		2/5/2018	CJR	1
Isopropylbenzene		< 0.78	ug/l	0.78	2.47	1	8260B		2/5/2018	CJR	1
p-Isopropyltoluene		< 0.24	ug/l	0.24	0.76	1	8260B		2/5/2018	CJR	1
Methylene chloride		< 1.32	ug/l	1.32	4.21	1	8260B		2/5/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 0.28	ug/l	0.28	0.89	1	8260B		2/5/2018	CJR	1
Naphthalene		< 2.1	ug/l	2.1	6.65	1	8260B		2/5/2018	CJR	1
n-Propylbenzene		< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
1,1,2,2-Tetrachloroethane		< 0.3	ug/l	0.3	0.97	1	8260B		2/5/2018	CJR	1
1,1,1,2-Tetrachloroethane		< 0.35	ug/l	0.35	1.13	1	8260B		2/5/2018	CJR	1
Tetrachloroethene		< 0.38	ug/l	0.38	1.21	1	8260B		2/5/2018	CJR	1
Toluene		< 0.19	ug/l	0.19	0.6	1	8260B		2/5/2018	CJR	1
1,2,4-Trichlorobenzene		< 1.15	ug/l	1.15	3.67	1	8260B		2/5/2018	CJR	1
1,2,3-Trichlorobenzene		< 1.71	ug/l	1.71	5.43	1	8260B		2/5/2018	CJR	1
1,1,1-Trichloroethane		< 0.33	ug/l	0.33	1.05	1	8260B		2/5/2018	CJR	1
1,1,2-Trichloroethane		< 0.42	ug/l	0.42	1.32	1	8260B		2/5/2018	CJR	1
Trichloroethene (TCE)		< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
Trichlorofluoromethane		< 0.35	ug/l	0.35	1.1	1	8260B		2/5/2018	CJR	1
1,2,4-Trimethylbenzene		< 0.8	ug/l	0.8	2.55	1	8260B		2/5/2018	CJR	1
1,3,5-Trimethylbenzene		< 0.63	ug/l	0.63	2	1	8260B		2/5/2018	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.65	1	8260B		2/5/2018	CJR	1
m&p-Xylene		< 0.43	ug/l	0.43	1.38	1	8260B		2/5/2018	CJR	1
o-Xylene		< 0.29	ug/l	0.29	0.93	1	8260B		2/5/2018	CJR	1
SUR - 4-Bromofluorobenzene	102		REC %			1	8260B		2/5/2018	CJR	1
SUR - Dibromofluoromethane	104		REC %			1	8260B		2/5/2018	CJR	1
SUR - Toluene-d8	94		REC %			1	8260B		2/5/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	98		REC %			1	8260B		2/5/2018	CJR	1
Wet Chemistry											
General											
Nitrite Plus Nitrate	1.18		mg/l	0.36	1.15	1	353.2		2/6/2018	NJC	1
Sulfate, Unfiltered	18.5		mg/l	1.35	4.3	1	ASTM D516-		2/6/2018	NJC	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185B
Sample ID MW-4
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Iron, Dissolved	0.18		mg/l	0.03	0.1	1	200.7		2/7/2018	CWT	1
Lead, Dissolved		< 0.9	ug/L	0.9	3	1	7421		2/2/2018	CWT	1
Manganese, Dissolved	36.8		ug/L	4.2	13.8	1	200.7		2/7/2018	CWT	1
Organic											
VOC's											
Benzene		< 0.22	ug/l	0.22	0.71	1	8260B		2/5/2018	CJR	1
Bromobenzene		< 0.44	ug/l	0.44	1.38	1	8260B		2/5/2018	CJR	1
Bromodichloromethane		< 0.33	ug/l	0.33	1.06	1	8260B		2/5/2018	CJR	1
Bromoform		< 0.45	ug/l	0.45	1.44	1	8260B		2/5/2018	CJR	1
tert-Butylbenzene		< 0.25	ug/l	0.25	0.8	1	8260B		2/5/2018	CJR	1
sec-Butylbenzene		< 0.79	ug/l	0.79	2.53	1	8260B		2/5/2018	CJR	1
n-Butylbenzene		< 0.71	ug/l	0.71	2.25	1	8260B		2/5/2018	CJR	1
Carbon Tetrachloride		< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
Chlorobenzene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Chloroethane		< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
Chloroform		< 0.26	ug/l	0.26	0.82	1	8260B		2/5/2018	CJR	1
Chloromethane		< 0.54	ug/l	0.54	1.72	1	8260B		2/5/2018	CJR	1
2-Chlorotoluene		< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
4-Chlorotoluene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
1,2-Dibromo-3-chloropropane		< 2.96	ug/l	2.96	9.43	1	8260B		2/5/2018	CJR	1
Dibromochloromethane		< 0.22	ug/l	0.22	0.69	1	8260B		2/5/2018	CJR	1
1,4-Dichlorobenzene		< 0.7	ug/l	0.7	2.22	1	8260B		2/5/2018	CJR	1
1,3-Dichlorobenzene		< 0.85	ug/l	0.85	2.7	1	8260B		2/5/2018	CJR	1
1,2-Dichlorobenzene		< 0.86	ug/l	0.86	2.74	1	8260B		2/5/2018	CJR	1
Dichlorodifluoromethane		< 0.32	ug/l	0.32	1.02	1	8260B		2/5/2018	CJR	1
1,2-Dichloroethane		< 0.25	ug/l	0.25	0.78	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethane		< 0.36	ug/l	0.36	1.14	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethene		< 0.42	ug/l	0.42	1.34	1	8260B		2/5/2018	CJR	1
cis-1,2-Dichloroethene		< 0.37	ug/l	0.37	1.16	1	8260B		2/5/2018	CJR	1
trans-1,2-Dichloroethene		< 0.34	ug/l	0.34	1.07	1	8260B		2/5/2018	CJR	1
1,2-Dichloropropane		< 0.44	ug/l	0.44	1.39	1	8260B		2/5/2018	CJR	1
1,3-Dichloropropane		< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
trans-1,3-Dichloropropene		< 0.32	ug/l	0.32	1.01	1	8260B		2/5/2018	CJR	1
cis-1,3-Dichloropropene		< 0.26	ug/l	0.26	0.81	1	8260B		2/5/2018	CJR	1
Di-isopropyl ether		< 0.21	ug/l	0.21	0.66	1	8260B		2/5/2018	CJR	1
EDB (1,2-Dibromoethane)		< 0.34	ug/l	0.34	1.09	1	8260B		2/5/2018	CJR	1
Ethylbenzene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Hexachlorobutadiene		< 1.34	ug/l	1.34	4.28	1	8260B		2/5/2018	CJR	1
Isopropylbenzene		< 0.78	ug/l	0.78	2.47	1	8260B		2/5/2018	CJR	1
p-Isopropyltoluene		< 0.24	ug/l	0.24	0.76	1	8260B		2/5/2018	CJR	1
Methylene chloride		< 1.32	ug/l	1.32	4.21	1	8260B		2/5/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 0.28	ug/l	0.28	0.89	1	8260B		2/5/2018	CJR	1
Naphthalene		< 2.1	ug/l	2.1	6.65	1	8260B		2/5/2018	CJR	1
n-Propylbenzene		< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
1,1,2,2-Tetrachloroethane		< 0.3	ug/l	0.3	0.97	1	8260B		2/5/2018	CJR	1
1,1,1,2-Tetrachloroethane		< 0.35	ug/l	0.35	1.13	1	8260B		2/5/2018	CJR	1
Tetrachloroethene		< 0.38	ug/l	0.38	1.21	1	8260B		2/5/2018	CJR	1
Toluene		< 0.19	ug/l	0.19	0.6	1	8260B		2/5/2018	CJR	1
1,2,4-Trichlorobenzene		< 1.15	ug/l	1.15	3.67	1	8260B		2/5/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185B
Sample ID MW-4
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene		< 1.71	ug/l	1.71	5.43	1	8260B		2/5/2018	CJR	1
1,1,1-Trichloroethane		< 0.33	ug/l	0.33	1.05	1	8260B		2/5/2018	CJR	1
1,1,2-Trichloroethane		< 0.42	ug/l	0.42	1.32	1	8260B		2/5/2018	CJR	1
Trichloroethene (TCE)		< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
Trichlorofluoromethane		< 0.35	ug/l	0.35	1.1	1	8260B		2/5/2018	CJR	1
1,2,4-Trimethylbenzene		< 0.8	ug/l	0.8	2.55	1	8260B		2/5/2018	CJR	1
1,3,5-Trimethylbenzene		< 0.63	ug/l	0.63	2	1	8260B		2/5/2018	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.65	1	8260B		2/5/2018	CJR	1
m&p-Xylene		< 0.43	ug/l	0.43	1.38	1	8260B		2/5/2018	CJR	1
o-Xylene		< 0.29	ug/l	0.29	0.93	1	8260B		2/5/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	108		REC %			1	8260B		2/5/2018	CJR	1
SUR - 4-Bromofluorobenzene	103		REC %			1	8260B		2/5/2018	CJR	1
SUR - Dibromofluoromethane	106		REC %			1	8260B		2/5/2018	CJR	1
SUR - Toluene-d8	96		REC %			1	8260B		2/5/2018	CJR	1
Wet Chemistry											
General											
Nitrite Plus Nitrate	2.16		mg/l	0.36	1.15	1	353.2		2/6/2018	NJC	1
Sulfate, Unfiltered	33.8		mg/l	1.35	4.3	1	ASTM D516-		2/6/2018	NJC	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185C
Sample ID MW-5
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Iron, Dissolved		< 0.03	mg/l	0.03	0.1	1	200.7		2/7/2018	CWT	1
Lead, Dissolved		< 0.9	ug/L	0.9	3	1	7421		2/2/2018	CWT	1
Manganese, Dissolved	9.0		ug/L	4.2	13.8	1	200.7		2/7/2018	CWT	1
Organic											
VOC's											
Benzene		< 0.22	ug/l	0.22	0.71	1	8260B		2/5/2018	CJR	1
Bromobenzene		< 0.44	ug/l	0.44	1.38	1	8260B		2/5/2018	CJR	1
Bromodichloromethane		< 0.33	ug/l	0.33	1.06	1	8260B		2/5/2018	CJR	1
Bromoform		< 0.45	ug/l	0.45	1.44	1	8260B		2/5/2018	CJR	1
tert-Butylbenzene		< 0.25	ug/l	0.25	0.8	1	8260B		2/5/2018	CJR	1
sec-Butylbenzene		< 0.79	ug/l	0.79	2.53	1	8260B		2/5/2018	CJR	1
n-Butylbenzene		< 0.71	ug/l	0.71	2.25	1	8260B		2/5/2018	CJR	1
Carbon Tetrachloride		< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
Chlorobenzene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Chloroethane		< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
Chloroform		< 0.26	ug/l	0.26	0.82	1	8260B		2/5/2018	CJR	1
Chloromethane		< 0.54	ug/l	0.54	1.72	1	8260B		2/5/2018	CJR	1
2-Chlorotoluene		< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
4-Chlorotoluene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
1,2-Dibromo-3-chloropropane		< 2.96	ug/l	2.96	9.43	1	8260B		2/5/2018	CJR	1
Dibromochloromethane		< 0.22	ug/l	0.22	0.69	1	8260B		2/5/2018	CJR	1
1,4-Dichlorobenzene		< 0.7	ug/l	0.7	2.22	1	8260B		2/5/2018	CJR	1
1,3-Dichlorobenzene		< 0.85	ug/l	0.85	2.7	1	8260B		2/5/2018	CJR	1
1,2-Dichlorobenzene		< 0.86	ug/l	0.86	2.74	1	8260B		2/5/2018	CJR	1
Dichlorodifluoromethane		< 0.32	ug/l	0.32	1.02	1	8260B		2/5/2018	CJR	1
1,2-Dichloroethane		< 0.25	ug/l	0.25	0.78	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethane		< 0.36	ug/l	0.36	1.14	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethene		< 0.42	ug/l	0.42	1.34	1	8260B		2/5/2018	CJR	1
cis-1,2-Dichloroethene		< 0.37	ug/l	0.37	1.16	1	8260B		2/5/2018	CJR	1
trans-1,2-Dichloroethene		< 0.34	ug/l	0.34	1.07	1	8260B		2/5/2018	CJR	1
1,2-Dichloropropane		< 0.44	ug/l	0.44	1.39	1	8260B		2/5/2018	CJR	1
1,3-Dichloropropane		< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
trans-1,3-Dichloropropene		< 0.32	ug/l	0.32	1.01	1	8260B		2/5/2018	CJR	1
cis-1,3-Dichloropropene		< 0.26	ug/l	0.26	0.81	1	8260B		2/5/2018	CJR	1
Di-isopropyl ether		< 0.21	ug/l	0.21	0.66	1	8260B		2/5/2018	CJR	1
EDB (1,2-Dibromoethane)		< 0.34	ug/l	0.34	1.09	1	8260B		2/5/2018	CJR	1
Ethylbenzene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Hexachlorobutadiene		< 1.34	ug/l	1.34	4.28	1	8260B		2/5/2018	CJR	1
Isopropylbenzene		< 0.78	ug/l	0.78	2.47	1	8260B		2/5/2018	CJR	1
p-Isopropyltoluene		< 0.24	ug/l	0.24	0.76	1	8260B		2/5/2018	CJR	1
Methylene chloride		< 1.32	ug/l	1.32	4.21	1	8260B		2/5/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 0.28	ug/l	0.28	0.89	1	8260B		2/5/2018	CJR	1
Naphthalene		< 2.1	ug/l	2.1	6.65	1	8260B		2/5/2018	CJR	1
n-Propylbenzene		< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
1,1,2,2-Tetrachloroethane		< 0.3	ug/l	0.3	0.97	1	8260B		2/5/2018	CJR	1
1,1,1,2-Tetrachloroethane		< 0.35	ug/l	0.35	1.13	1	8260B		2/5/2018	CJR	1
Tetrachloroethene		< 0.38	ug/l	0.38	1.21	1	8260B		2/5/2018	CJR	1
Toluene		< 0.19	ug/l	0.19	0.6	1	8260B		2/5/2018	CJR	1
1,2,4-Trichlorobenzene		< 1.15	ug/l	1.15	3.67	1	8260B		2/5/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185C
Sample ID MW-5
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene		< 1.71	ug/l	1.71	5.43	1	8260B		2/5/2018	CJR	1
1,1,1-Trichloroethane		< 0.33	ug/l	0.33	1.05	1	8260B		2/5/2018	CJR	1
1,1,2-Trichloroethane		< 0.42	ug/l	0.42	1.32	1	8260B		2/5/2018	CJR	1
Trichloroethene (TCE)		< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
Trichlorofluoromethane		< 0.35	ug/l	0.35	1.1	1	8260B		2/5/2018	CJR	1
1,2,4-Trimethylbenzene		< 0.8	ug/l	0.8	2.55	1	8260B		2/5/2018	CJR	1
1,3,5-Trimethylbenzene		< 0.63	ug/l	0.63	2	1	8260B		2/5/2018	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.65	1	8260B		2/5/2018	CJR	1
m&p-Xylene		< 0.43	ug/l	0.43	1.38	1	8260B		2/5/2018	CJR	1
o-Xylene		< 0.29	ug/l	0.29	0.93	1	8260B		2/5/2018	CJR	1
SUR - Toluene-d8	94		REC %			1	8260B		2/5/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	106		REC %			1	8260B		2/5/2018	CJR	1
SUR - 4-Bromofluorobenzene	100		REC %			1	8260B		2/5/2018	CJR	1
SUR - Dibromofluoromethane	104		REC %			1	8260B		2/5/2018	CJR	1
Wet Chemistry											
General											
Nitrite Plus Nitrate	2.13		mg/l	0.36	1.15	1	353.2		2/6/2018	NJC	1
Sulfate, Unfiltered	19.7		mg/l	1.35	4.3	1	ASTM D516-		2/6/2018	NJC	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185D
Sample ID MW-3
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Iron, Dissolved	0.98		mg/l	0.03	0.1	1	200.7		2/7/2018	CWT	1
Lead, Dissolved		< 0.9	ug/L	0.9	3	1	7421		2/2/2018	CWT	1
Manganese, Dissolved	839		ug/L	4.2	13.8	1	200.7		2/7/2018	CWT	1
Organic											
VOC's											
Benzene		< 2.2	ug/l	2.2	7.1	10	8260B		2/5/2018	CJR	1
Bromobenzene		< 4.4	ug/l	4.4	13.8	10	8260B		2/5/2018	CJR	1
Bromodichloromethane		< 3.3	ug/l	3.3	10.6	10	8260B		2/5/2018	CJR	1
Bromoform		< 4.5	ug/l	4.5	14.4	10	8260B		2/5/2018	CJR	1
tert-Butylbenzene		< 2.5	ug/l	2.5	8	10	8260B		2/5/2018	CJR	1
sec-Butylbenzene		< 7.9	ug/l	7.9	25.3	10	8260B		2/5/2018	CJR	1
n-Butylbenzene		< 7.1	ug/l	7.1	22.5	10	8260B		2/5/2018	CJR	1
Carbon Tetrachloride		< 3.1	ug/l	3.1	9.8	10	8260B		2/5/2018	CJR	1
Chlorobenzene		< 2.6	ug/l	2.6	8.3	10	8260B		2/5/2018	CJR	1
Chloroethane		< 6.1	ug/l	6.1	19.5	10	8260B		2/5/2018	CJR	1
Chloroform		< 2.6	ug/l	2.6	8.2	10	8260B		2/5/2018	CJR	1
Chloromethane		< 5.4	ug/l	5.4	17.2	10	8260B		2/5/2018	CJR	1
2-Chlorotoluene		< 3.1	ug/l	3.1	9.8	10	8260B		2/5/2018	CJR	1
4-Chlorotoluene		< 2.6	ug/l	2.6	8.3	10	8260B		2/5/2018	CJR	1
1,2-Dibromo-3-chloropropane		< 29.6	ug/l	29.6	94.3	10	8260B		2/5/2018	CJR	1
Dibromochloromethane		< 2.2	ug/l	2.2	6.9	10	8260B		2/5/2018	CJR	1
1,4-Dichlorobenzene		< 7	ug/l	7	22.2	10	8260B		2/5/2018	CJR	1
1,3-Dichlorobenzene		< 8.5	ug/l	8.5	27	10	8260B		2/5/2018	CJR	1
1,2-Dichlorobenzene		< 8.6	ug/l	8.6	27.4	10	8260B		2/5/2018	CJR	1
Dichlorodifluoromethane		< 3.2	ug/l	3.2	10.2	10	8260B		2/5/2018	CJR	1
1,2-Dichloroethane		< 2.5	ug/l	2.5	7.8	10	8260B		2/5/2018	CJR	1
1,1-Dichloroethane		< 3.6	ug/l	3.6	11.4	10	8260B		2/5/2018	CJR	1
1,1-Dichloroethene		< 4.2	ug/l	4.2	13.4	10	8260B		2/5/2018	CJR	1
cis-1,2-Dichloroethene		< 3.7	ug/l	3.7	11.6	10	8260B		2/5/2018	CJR	1
trans-1,2-Dichloroethene		< 3.4	ug/l	3.4	10.7	10	8260B		2/5/2018	CJR	1
1,2-Dichloropropane		< 4.4	ug/l	4.4	13.9	10	8260B		2/5/2018	CJR	1
1,3-Dichloropropane		< 3	ug/l	3	9.4	10	8260B		2/5/2018	CJR	1
trans-1,3-Dichloropropene		< 3.2	ug/l	3.2	10.1	10	8260B		2/5/2018	CJR	1
cis-1,3-Dichloropropene		< 2.6	ug/l	2.6	8.1	10	8260B		2/5/2018	CJR	1
Di-isopropyl ether		< 2.1	ug/l	2.1	6.6	10	8260B		2/5/2018	CJR	1
EDB (1,2-Dibromoethane)		< 3.4	ug/l	3.4	10.9	10	8260B		2/5/2018	CJR	1
Ethylbenzene	69		ug/l	2.6	8.3	10	8260B		2/5/2018	CJR	1
Hexachlorobutadiene		< 13.4	ug/l	13.4	42.8	10	8260B		2/5/2018	CJR	1
Isopropylbenzene	15.5 "J"		ug/l	7.8	24.7	10	8260B		2/5/2018	CJR	1
p-Isopropyltoluene		< 2.4	ug/l	2.4	7.6	10	8260B		2/5/2018	CJR	1
Methylene chloride		< 13.2	ug/l	13.2	42.1	10	8260B		2/5/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 2.8	ug/l	2.8	8.9	10	8260B		2/5/2018	CJR	1
Naphthalene	26.2 "J"		ug/l	21	66.5	10	8260B		2/5/2018	CJR	1
n-Propylbenzene	14.5 "J"		ug/l	6.1	19.5	10	8260B		2/5/2018	CJR	1
1,1,2,2-Tetrachloroethane		< 3	ug/l	3	9.7	10	8260B		2/5/2018	CJR	1
1,1,1,2-Tetrachloroethane		< 3.5	ug/l	3.5	11.3	10	8260B		2/5/2018	CJR	1
Tetrachloroethene		< 3.8	ug/l	3.8	12.1	10	8260B		2/5/2018	CJR	1
Toluene	3.2 "J"		ug/l	1.9	6	10	8260B		2/5/2018	CJR	1
1,2,4-Trichlorobenzene		< 11.5	ug/l	11.5	36.7	10	8260B		2/5/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185D
Sample ID MW-3
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene		< 17.1	ug/l	17.1	54.3	10	8260B		2/5/2018	CJR	1
1,1,1-Trichloroethane		< 3.3	ug/l	3.3	10.5	10	8260B		2/5/2018	CJR	1
1,1,2-Trichloroethane		< 4.2	ug/l	4.2	13.2	10	8260B		2/5/2018	CJR	1
Trichloroethene (TCE)		< 3	ug/l	3	9.4	10	8260B		2/5/2018	CJR	1
Trichlorofluoromethane		< 3.5	ug/l	3.5	11	10	8260B		2/5/2018	CJR	1
1,2,4-Trimethylbenzene	51		ug/l	8	25.5	10	8260B		2/5/2018	CJR	1
1,3,5-Trimethylbenzene	13 "J"		ug/l	6.3	20	10	8260B		2/5/2018	CJR	1
Vinyl Chloride		< 2	ug/l	2	6.5	10	8260B		2/5/2018	CJR	1
m&p-Xylene	86		ug/l	4.3	13.8	10	8260B		2/5/2018	CJR	1
o-Xylene	8.0 "J"		ug/l	2.9	9.3	10	8260B		2/5/2018	CJR	1
SUR - Dibromofluoromethane	104		REC %			10	8260B		2/5/2018	CJR	1
SUR - Toluene-d8	96		REC %			10	8260B		2/5/2018	CJR	1
SUR - 4-Bromofluorobenzene	103		REC %			10	8260B		2/5/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	95		REC %			10	8260B		2/5/2018	CJR	1
Wet Chemistry											
General											
Nitrite Plus Nitrate		< 0.36	mg/l	0.36	1.15	1	353.2		2/6/2018	NJC	1
Sulfate, Unfiltered	38.6		mg/l	1.35	4.3	1	ASTM D516-		2/6/2018	NJC	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185E
Sample ID PZ-1
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Iron, Dissolved	23.4		mg/l	0.03	0.1	1	200.7		2/7/2018	CWT	1
Lead, Dissolved		< 0.9	ug/L	0.9	3	1	7421		2/2/2018	CWT	1
Manganese, Dissolved	1930		ug/L	4.2	13.8	1	200.7		2/7/2018	CWT	1
Organic											
VOC's											
Benzene	7.6		ug/l	2.2	7.1	10	8260B		2/6/2018	CJR	1
Bromobenzene		< 4.4	ug/l	4.4	13.8	10	8260B		2/6/2018	CJR	1
Bromodichloromethane		< 3.3	ug/l	3.3	10.6	10	8260B		2/6/2018	CJR	1
Bromoform		< 4.5	ug/l	4.5	14.4	10	8260B		2/6/2018	CJR	1
tert-Butylbenzene		< 2.5	ug/l	2.5	8	10	8260B		2/6/2018	CJR	1
sec-Butylbenzene		< 7.9	ug/l	7.9	25.3	10	8260B		2/6/2018	CJR	1
n-Butylbenzene		< 7.1	ug/l	7.1	22.5	10	8260B		2/6/2018	CJR	1
Carbon Tetrachloride		< 3.1	ug/l	3.1	9.8	10	8260B		2/6/2018	CJR	1
Chlorobenzene		< 2.6	ug/l	2.6	8.3	10	8260B		2/6/2018	CJR	1
Chloroethane		< 6.1	ug/l	6.1	19.5	10	8260B		2/6/2018	CJR	1
Chloroform		< 2.6	ug/l	2.6	8.2	10	8260B		2/6/2018	CJR	1
Chloromethane		< 5.4	ug/l	5.4	17.2	10	8260B		2/6/2018	CJR	1
2-Chlorotoluene		< 3.1	ug/l	3.1	9.8	10	8260B		2/6/2018	CJR	1
4-Chlorotoluene		< 2.6	ug/l	2.6	8.3	10	8260B		2/6/2018	CJR	1
1,2-Dibromo-3-chloropropane		< 29.6	ug/l	29.6	94.3	10	8260B		2/6/2018	CJR	1
Dibromochloromethane		< 2.2	ug/l	2.2	6.9	10	8260B		2/6/2018	CJR	1
1,4-Dichlorobenzene		< 7	ug/l	7	22.2	10	8260B		2/6/2018	CJR	1
1,3-Dichlorobenzene		< 8.5	ug/l	8.5	27	10	8260B		2/6/2018	CJR	1
1,2-Dichlorobenzene		< 8.6	ug/l	8.6	27.4	10	8260B		2/6/2018	CJR	1
Dichlorodifluoromethane		< 3.2	ug/l	3.2	10.2	10	8260B		2/6/2018	CJR	1
1,2-Dichloroethane		< 2.5	ug/l	2.5	7.8	10	8260B		2/6/2018	CJR	1
1,1-Dichloroethane		< 3.6	ug/l	3.6	11.4	10	8260B		2/6/2018	CJR	1
1,1-Dichloroethene		< 4.2	ug/l	4.2	13.4	10	8260B		2/6/2018	CJR	1
cis-1,2-Dichloroethene		< 3.7	ug/l	3.7	11.6	10	8260B		2/6/2018	CJR	1
trans-1,2-Dichloroethene		< 3.4	ug/l	3.4	10.7	10	8260B		2/6/2018	CJR	1
1,2-Dichloropropane		< 4.4	ug/l	4.4	13.9	10	8260B		2/6/2018	CJR	1
1,3-Dichloropropane		< 3	ug/l	3	9.4	10	8260B		2/6/2018	CJR	1
trans-1,3-Dichloropropene		< 3.2	ug/l	3.2	10.1	10	8260B		2/6/2018	CJR	1
cis-1,3-Dichloropropene		< 2.6	ug/l	2.6	8.1	10	8260B		2/6/2018	CJR	1
Di-isopropyl ether		< 2.1	ug/l	2.1	6.6	10	8260B		2/6/2018	CJR	1
EDB (1,2-Dibromoethane)		< 3.4	ug/l	3.4	10.9	10	8260B		2/6/2018	CJR	1
Ethylbenzene	311		ug/l	2.6	8.3	10	8260B		2/6/2018	CJR	1
Hexachlorobutadiene		< 13.4	ug/l	13.4	42.8	10	8260B		2/6/2018	CJR	1
Isopropylbenzene	28.9		ug/l	7.8	24.7	10	8260B		2/6/2018	CJR	1
p-Isopropyltoluene	3.8 "J"		ug/l	2.4	7.6	10	8260B		2/6/2018	CJR	1
Methylene chloride		< 13.2	ug/l	13.2	42.1	10	8260B		2/6/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 2.8	ug/l	2.8	8.9	10	8260B		2/6/2018	CJR	1
Naphthalene	65 "J"		ug/l	21	66.5	10	8260B		2/6/2018	CJR	1
n-Propylbenzene	33		ug/l	6.1	19.5	10	8260B		2/6/2018	CJR	1
1,1,2,2-Tetrachloroethane		< 3	ug/l	3	9.7	10	8260B		2/6/2018	CJR	1
1,1,1,2-Tetrachloroethane		< 3.5	ug/l	3.5	11.3	10	8260B		2/6/2018	CJR	1
Tetrachloroethene		< 3.8	ug/l	3.8	12.1	10	8260B		2/6/2018	CJR	1
Toluene	42		ug/l	1.9	6	10	8260B		2/6/2018	CJR	1
1,2,4-Trichlorobenzene		< 11.5	ug/l	11.5	36.7	10	8260B		2/6/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185E
Sample ID PZ-1
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene		< 17.1	ug/l	17.1	54.3	10	8260B		2/6/2018	CJR	1
1,1,1-Trichloroethane		< 3.3	ug/l	3.3	10.5	10	8260B		2/6/2018	CJR	1
1,1,2-Trichloroethane		< 4.2	ug/l	4.2	13.2	10	8260B		2/6/2018	CJR	1
Trichloroethene (TCE)		< 3	ug/l	3	9.4	10	8260B		2/6/2018	CJR	1
Trichlorofluoromethane		< 3.5	ug/l	3.5	11	10	8260B		2/6/2018	CJR	1
1,2,4-Trimethylbenzene	186		ug/l	8	25.5	10	8260B		2/6/2018	CJR	1
1,3,5-Trimethylbenzene	62		ug/l	6.3	20	10	8260B		2/6/2018	CJR	1
Vinyl Chloride		< 2	ug/l	2	6.5	10	8260B		2/6/2018	CJR	1
m&p-Xylene	710		ug/l	4.3	13.8	10	8260B		2/6/2018	CJR	1
o-Xylene	106		ug/l	2.9	9.3	10	8260B		2/6/2018	CJR	1
SUR - 4-Bromofluorobenzene	104		REC %			10	8260B		2/6/2018	CJR	1
SUR - Dibromofluoromethane	102		REC %			10	8260B		2/6/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	94		REC %			10	8260B		2/6/2018	CJR	1
SUR - Toluene-d8	96		REC %			10	8260B		2/6/2018	CJR	1
Wet Chemistry											
General											
Nitrite Plus Nitrate		< 0.36	mg/l	0.36	1.15	1	353.2		2/6/2018	NJC	1
Sulfate, Unfiltered	4.53		mg/l	1.35	4.3	1	ASTM D516-		2/6/2018	NJC	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185F
Sample ID MW-1
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Iron, Dissolved	5.68		mg/l	0.03	0.1	1	200.7		2/7/2018	CWT	1
Lead, Dissolved	2.4		ug/L	0.9	3	1	7421		2/2/2018	CWT	1
Manganese, Dissolved	1040		ug/L	4.2	13.8	1	200.7		2/7/2018	CWT	1
Organic											
VOC's											
Benzene	9.3		ug/l	2.2	7.1	10	8260B		2/6/2018	CJR	1
Bromobenzene		< 4.4	ug/l	4.4	13.8	10	8260B		2/6/2018	CJR	1
Bromodichloromethane		< 3.3	ug/l	3.3	10.6	10	8260B		2/6/2018	CJR	1
Bromoform		< 4.5	ug/l	4.5	14.4	10	8260B		2/6/2018	CJR	1
tert-Butylbenzene		< 2.5	ug/l	2.5	8	10	8260B		2/6/2018	CJR	1
sec-Butylbenzene		< 7.9	ug/l	7.9	25.3	10	8260B		2/6/2018	CJR	1
n-Butylbenzene		< 7.1	ug/l	7.1	22.5	10	8260B		2/6/2018	CJR	1
Carbon Tetrachloride		< 3.1	ug/l	3.1	9.8	10	8260B		2/6/2018	CJR	1
Chlorobenzene		< 2.6	ug/l	2.6	8.3	10	8260B		2/6/2018	CJR	1
Chloroethane		< 6.1	ug/l	6.1	19.5	10	8260B		2/6/2018	CJR	1
Chloroform		< 2.6	ug/l	2.6	8.2	10	8260B		2/6/2018	CJR	1
Chloromethane		< 5.4	ug/l	5.4	17.2	10	8260B		2/6/2018	CJR	1
2-Chlorotoluene		< 3.1	ug/l	3.1	9.8	10	8260B		2/6/2018	CJR	1
4-Chlorotoluene		< 2.6	ug/l	2.6	8.3	10	8260B		2/6/2018	CJR	1
1,2-Dibromo-3-chloropropane		< 29.6	ug/l	29.6	94.3	10	8260B		2/6/2018	CJR	1
Dibromochloromethane		< 2.2	ug/l	2.2	6.9	10	8260B		2/6/2018	CJR	1
1,4-Dichlorobenzene		< 7	ug/l	7	22.2	10	8260B		2/6/2018	CJR	1
1,3-Dichlorobenzene		< 8.5	ug/l	8.5	27	10	8260B		2/6/2018	CJR	1
1,2-Dichlorobenzene		< 8.6	ug/l	8.6	27.4	10	8260B		2/6/2018	CJR	1
Dichlorodifluoromethane		< 3.2	ug/l	3.2	10.2	10	8260B		2/6/2018	CJR	1
1,2-Dichloroethane		< 2.5	ug/l	2.5	7.8	10	8260B		2/6/2018	CJR	1
1,1-Dichloroethane		< 3.6	ug/l	3.6	11.4	10	8260B		2/6/2018	CJR	1
1,1-Dichloroethene		< 4.2	ug/l	4.2	13.4	10	8260B		2/6/2018	CJR	1
cis-1,2-Dichloroethene		< 3.7	ug/l	3.7	11.6	10	8260B		2/6/2018	CJR	1
trans-1,2-Dichloroethene		< 3.4	ug/l	3.4	10.7	10	8260B		2/6/2018	CJR	1
1,2-Dichloropropane		< 4.4	ug/l	4.4	13.9	10	8260B		2/6/2018	CJR	1
1,3-Dichloropropane		< 3	ug/l	3	9.4	10	8260B		2/6/2018	CJR	1
trans-1,3-Dichloropropene		< 3.2	ug/l	3.2	10.1	10	8260B		2/6/2018	CJR	1
cis-1,3-Dichloropropene		< 2.6	ug/l	2.6	8.1	10	8260B		2/6/2018	CJR	1
Di-isopropyl ether		< 2.1	ug/l	2.1	6.6	10	8260B		2/6/2018	CJR	1
EDB (1,2-Dibromoethane)		< 3.4	ug/l	3.4	10.9	10	8260B		2/6/2018	CJR	1
Ethylbenzene	108		ug/l	2.6	8.3	10	8260B		2/6/2018	CJR	1
Hexachlorobutadiene		< 13.4	ug/l	13.4	42.8	10	8260B		2/6/2018	CJR	1
Isopropylbenzene	25.1		ug/l	7.8	24.7	10	8260B		2/6/2018	CJR	1
p-Isopropyltoluene	3.5 "J"		ug/l	2.4	7.6	10	8260B		2/6/2018	CJR	1
Methylene chloride		< 13.2	ug/l	13.2	42.1	10	8260B		2/6/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 2.8	ug/l	2.8	8.9	10	8260B		2/6/2018	CJR	1
Naphthalene	99		ug/l	21	66.5	10	8260B		2/6/2018	CJR	1
n-Propylbenzene	41		ug/l	6.1	19.5	10	8260B		2/6/2018	CJR	1
1,1,2,2-Tetrachloroethane		< 3	ug/l	3	9.7	10	8260B		2/6/2018	CJR	1
1,1,1,2-Tetrachloroethane		< 3.5	ug/l	3.5	11.3	10	8260B		2/6/2018	CJR	1
Tetrachloroethene		< 3.8	ug/l	3.8	12.1	10	8260B		2/6/2018	CJR	1
Toluene	3.5 "J"		ug/l	1.9	6	10	8260B		2/6/2018	CJR	1
1,2,4-Trichlorobenzene		< 11.5	ug/l	11.5	36.7	10	8260B		2/6/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185F
Sample ID MW-1
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene		< 17.1	ug/l	17.1	54.3	10	8260B		2/6/2018	CJR	1
1,1,1-Trichloroethane		< 3.3	ug/l	3.3	10.5	10	8260B		2/6/2018	CJR	1
1,1,2-Trichloroethane		< 4.2	ug/l	4.2	13.2	10	8260B		2/6/2018	CJR	1
Trichloroethene (TCE)		< 3	ug/l	3	9.4	10	8260B		2/6/2018	CJR	1
Trichlorofluoromethane		< 3.5	ug/l	3.5	11	10	8260B		2/6/2018	CJR	1
1,2,4-Trimethylbenzene	330		ug/l	8	25.5	10	8260B		2/6/2018	CJR	1
1,3,5-Trimethylbenzene	99		ug/l	6.3	20	10	8260B		2/6/2018	CJR	1
Vinyl Chloride		< 2	ug/l	2	6.5	10	8260B		2/6/2018	CJR	1
m&p-Xylene	350		ug/l	4.3	13.8	10	8260B		2/6/2018	CJR	1
o-Xylene	64		ug/l	2.9	9.3	10	8260B		2/6/2018	CJR	1
SUR - 4-Bromofluorobenzene	103		REC %			10	8260B		2/6/2018	CJR	1
SUR - Dibromofluoromethane	108		REC %			10	8260B		2/6/2018	CJR	1
SUR - Toluene-d8	96		REC %			10	8260B		2/6/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	107		REC %			10	8260B		2/6/2018	CJR	1
Wet Chemistry											
General											
Nitrite Plus Nitrate		< 0.36	mg/l	0.36	1.15	1	353.2		2/6/2018	NJC	1
Sulfate, Unfiltered	21.4		mg/l	1.35	4.3	1	ASTM D516-		2/6/2018	NJC	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185G
Sample ID MW-2
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Iron, Dissolved	10.1		mg/l	0.03	0.1	1	200.7		2/7/2018	CWT	1
Lead, Dissolved		< 0.9	ug/L	0.9	3	1	7421		2/2/2018	CWT	1
Manganese, Dissolved	2270		ug/L	4.2	13.8	1	200.7		2/7/2018	CWT	1
Organic											
VOC's											
Benzene	19.2		ug/l	0.22	0.71	1	8260B		2/5/2018	CJR	1
Bromobenzene		< 0.44	ug/l	0.44	1.38	1	8260B		2/5/2018	CJR	1
Bromodichloromethane		< 0.33	ug/l	0.33	1.06	1	8260B		2/5/2018	CJR	1
Bromoform		< 0.45	ug/l	0.45	1.44	1	8260B		2/5/2018	CJR	1
tert-Butylbenzene		< 0.25	ug/l	0.25	0.8	1	8260B		2/5/2018	CJR	1
sec-Butylbenzene		< 0.79	ug/l	0.79	2.53	1	8260B		2/5/2018	CJR	1
n-Butylbenzene		< 0.71	ug/l	0.71	2.25	1	8260B		2/5/2018	CJR	1
Carbon Tetrachloride		< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
Chlorobenzene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Chloroethane		< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
Chloroform		< 0.26	ug/l	0.26	0.82	1	8260B		2/5/2018	CJR	1
Chloromethane		< 0.54	ug/l	0.54	1.72	1	8260B		2/5/2018	CJR	1
2-Chlorotoluene		< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
4-Chlorotoluene		< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
1,2-Dibromo-3-chloropropane		< 2.96	ug/l	2.96	9.43	1	8260B		2/5/2018	CJR	1
Dibromochloromethane		< 0.22	ug/l	0.22	0.69	1	8260B		2/5/2018	CJR	1
1,4-Dichlorobenzene		< 0.7	ug/l	0.7	2.22	1	8260B		2/5/2018	CJR	1
1,3-Dichlorobenzene		< 0.85	ug/l	0.85	2.7	1	8260B		2/5/2018	CJR	1
1,2-Dichlorobenzene		< 0.86	ug/l	0.86	2.74	1	8260B		2/5/2018	CJR	1
Dichlorodifluoromethane		< 0.32	ug/l	0.32	1.02	1	8260B		2/5/2018	CJR	1
1,2-Dichloroethane		< 0.25	ug/l	0.25	0.78	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethane		< 0.36	ug/l	0.36	1.14	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethene		< 0.42	ug/l	0.42	1.34	1	8260B		2/5/2018	CJR	1
cis-1,2-Dichloroethene		< 0.37	ug/l	0.37	1.16	1	8260B		2/5/2018	CJR	1
trans-1,2-Dichloroethene		< 0.34	ug/l	0.34	1.07	1	8260B		2/5/2018	CJR	1
1,2-Dichloropropane		< 0.44	ug/l	0.44	1.39	1	8260B		2/5/2018	CJR	1
1,3-Dichloropropane		< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
trans-1,3-Dichloropropene		< 0.32	ug/l	0.32	1.01	1	8260B		2/5/2018	CJR	1
cis-1,3-Dichloropropene		< 0.26	ug/l	0.26	0.81	1	8260B		2/5/2018	CJR	1
Di-isopropyl ether		< 0.21	ug/l	0.21	0.66	1	8260B		2/5/2018	CJR	1
EDB (1,2-Dibromoethane)		< 0.34	ug/l	0.34	1.09	1	8260B		2/5/2018	CJR	1
Ethylbenzene	16		ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Hexachlorobutadiene		< 1.34	ug/l	1.34	4.28	1	8260B		2/5/2018	CJR	1
Isopropylbenzene	2.13 "J"		ug/l	0.78	2.47	1	8260B		2/5/2018	CJR	1
p-Isopropyltoluene		< 0.24	ug/l	0.24	0.76	1	8260B		2/5/2018	CJR	1
Methylene chloride		< 1.32	ug/l	1.32	4.21	1	8260B		2/5/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 0.28	ug/l	0.28	0.89	1	8260B		2/5/2018	CJR	1
Naphthalene	6.3 "J"		ug/l	2.1	6.65	1	8260B		2/5/2018	CJR	1
n-Propylbenzene	2.83		ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
1,1,2,2-Tetrachloroethane		< 0.3	ug/l	0.3	0.97	1	8260B		2/5/2018	CJR	1
1,1,1,2-Tetrachloroethane		< 0.35	ug/l	0.35	1.13	1	8260B		2/5/2018	CJR	1
Tetrachloroethene		< 0.38	ug/l	0.38	1.21	1	8260B		2/5/2018	CJR	1
Toluene	1.02		ug/l	0.19	0.6	1	8260B		2/5/2018	CJR	1
1,2,4-Trichlorobenzene		< 1.15	ug/l	1.15	3.67	1	8260B		2/5/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185G
Sample ID MW-2
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene		< 1.71	ug/l	1.71	5.43	1	8260B		2/5/2018	CJR	1
1,1,1-Trichloroethane		< 0.33	ug/l	0.33	1.05	1	8260B		2/5/2018	CJR	1
1,1,2-Trichloroethane		< 0.42	ug/l	0.42	1.32	1	8260B		2/5/2018	CJR	1
Trichloroethene (TCE)		< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
Trichlorofluoromethane		< 0.35	ug/l	0.35	1.1	1	8260B		2/5/2018	CJR	1
1,2,4-Trimethylbenzene	5.2		ug/l	0.8	2.55	1	8260B		2/5/2018	CJR	1
1,3,5-Trimethylbenzene	3.8		ug/l	0.63	2	1	8260B		2/5/2018	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.65	1	8260B		2/5/2018	CJR	1
m&p-Xylene	23.2		ug/l	0.43	1.38	1	8260B		2/5/2018	CJR	1
o-Xylene	1.97		ug/l	0.29	0.93	1	8260B		2/5/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	105		REC %			1	8260B		2/5/2018	CJR	1
SUR - 4-Bromofluorobenzene	99		REC %			1	8260B		2/5/2018	CJR	1
SUR - Dibromofluoromethane	106		REC %			1	8260B		2/5/2018	CJR	1
SUR - Toluene-d8	96		REC %			1	8260B		2/5/2018	CJR	1
Wet Chemistry											
General											
Nitrite Plus Nitrate		< 0.36	mg/l	0.36	1.15	1	353.2		2/6/2018	NJC	1
Sulfate, Unfiltered	9.90		mg/l	1.35	4.3	1	ASTM D516-		2/6/2018	NJC	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185H
Sample ID MW-8
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Iron, Dissolved	29.0		mg/l	0.03	0.1	1	200.7		2/7/2018	CWT	1
Lead, Dissolved	21.2		ug/L	0.9	3	1	7421		2/2/2018	CWT	1
Manganese, Dissolved	1520		ug/L	4.2	13.8	1	200.7		2/7/2018	CWT	1
Organic											
VOC's											
Benzene		< 11	ug/l	11	35.5	50	8260B		2/6/2018	CJR	1
Bromobenzene		< 22	ug/l	22	69	50	8260B		2/6/2018	CJR	1
Bromodichloromethane		< 16.5	ug/l	16.5	53	50	8260B		2/6/2018	CJR	1
Bromoform		< 22.5	ug/l	22.5	72	50	8260B		2/6/2018	CJR	1
tert-Butylbenzene		< 12.5	ug/l	12.5	40	50	8260B		2/6/2018	CJR	1
sec-Butylbenzene		< 39.5	ug/l	39.5	126.5	50	8260B		2/6/2018	CJR	1
n-Butylbenzene		< 35.5	ug/l	35.5	112.5	50	8260B		2/6/2018	CJR	1
Carbon Tetrachloride		< 15.5	ug/l	15.5	49	50	8260B		2/6/2018	CJR	1
Chlorobenzene		< 13	ug/l	13	41.5	50	8260B		2/6/2018	CJR	1
Chloroethane		< 30.5	ug/l	30.5	97.5	50	8260B		2/6/2018	CJR	1
Chloroform		< 13	ug/l	13	41	50	8260B		2/6/2018	CJR	1
Chloromethane		< 27	ug/l	27	86	50	8260B		2/6/2018	CJR	1
2-Chlorotoluene		< 15.5	ug/l	15.5	49	50	8260B		2/6/2018	CJR	1
4-Chlorotoluene		< 13	ug/l	13	41.5	50	8260B		2/6/2018	CJR	1
1,2-Dibromo-3-chloropropane		< 148	ug/l	148	471.5	50	8260B		2/6/2018	CJR	1
Dibromochloromethane		< 11	ug/l	11	34.5	50	8260B		2/6/2018	CJR	1
1,4-Dichlorobenzene		< 35	ug/l	35	111	50	8260B		2/6/2018	CJR	1
1,3-Dichlorobenzene		< 42.5	ug/l	42.5	135	50	8260B		2/6/2018	CJR	1
1,2-Dichlorobenzene		< 43	ug/l	43	137	50	8260B		2/6/2018	CJR	1
Dichlorodifluoromethane		< 16	ug/l	16	51	50	8260B		2/6/2018	CJR	1
1,2-Dichloroethane		< 12.5	ug/l	12.5	39	50	8260B		2/6/2018	CJR	1
1,1-Dichloroethane		< 18	ug/l	18	57	50	8260B		2/6/2018	CJR	1
1,1-Dichloroethene		< 21	ug/l	21	67	50	8260B		2/6/2018	CJR	1
cis-1,2-Dichloroethene		< 18.5	ug/l	18.5	58	50	8260B		2/6/2018	CJR	1
trans-1,2-Dichloroethene		< 17	ug/l	17	53.5	50	8260B		2/6/2018	CJR	1
1,2-Dichloropropane		< 22	ug/l	22	69.5	50	8260B		2/6/2018	CJR	1
1,3-Dichloropropane		< 15	ug/l	15	47	50	8260B		2/6/2018	CJR	1
trans-1,3-Dichloropropene		< 16	ug/l	16	50.5	50	8260B		2/6/2018	CJR	1
cis-1,3-Dichloropropene		< 13	ug/l	13	40.5	50	8260B		2/6/2018	CJR	1
Di-isopropyl ether		< 10.5	ug/l	10.5	33	50	8260B		2/6/2018	CJR	1
EDB (1,2-Dibromoethane)		< 17	ug/l	17	54.5	50	8260B		2/6/2018	CJR	1
Ethylbenzene	1600		ug/l	13	41.5	50	8260B		2/6/2018	CJR	1
Hexachlorobutadiene		< 67	ug/l	67	214	50	8260B		2/6/2018	CJR	1
Isopropylbenzene	108 "J"		ug/l	39	123.5	50	8260B		2/6/2018	CJR	1
p-Isopropyltoluene	14.5 "J"		ug/l	12	38	50	8260B		2/6/2018	CJR	1
Methylene chloride		< 66	ug/l	66	210.5	50	8260B		2/6/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 14	ug/l	14	44.5	50	8260B		2/6/2018	CJR	1
Naphthalene	790		ug/l	105	332.5	50	8260B		2/6/2018	CJR	1
n-Propylbenzene	197		ug/l	30.5	97.5	50	8260B		2/6/2018	CJR	1
1,1,2,2-Tetrachloroethane		< 15	ug/l	15	48.5	50	8260B		2/6/2018	CJR	1
1,1,1,2-Tetrachloroethane		< 17.5	ug/l	17.5	56.5	50	8260B		2/6/2018	CJR	1
Tetrachloroethene		< 19	ug/l	19	60.5	50	8260B		2/6/2018	CJR	1
Toluene	29 "J"		ug/l	9.5	30	50	8260B		2/6/2018	CJR	1
1,2,4-Trichlorobenzene		< 57.5	ug/l	57.5	183.5	50	8260B		2/6/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 5034185H
Sample ID MW-8
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2,3-Trichlorobenzene		< 85.5	ug/l	85.5	271.5	50	8260B		2/6/2018	CJR	1
1,1,1-Trichloroethane		< 16.5	ug/l	16.5	52.5	50	8260B		2/6/2018	CJR	1
1,1,2-Trichloroethane		< 21	ug/l	21	66	50	8260B		2/6/2018	CJR	1
Trichloroethene (TCE)		< 15	ug/l	15	47	50	8260B		2/6/2018	CJR	1
Trichlorofluoromethane		< 17.5	ug/l	17.5	55	50	8260B		2/6/2018	CJR	1
1,2,4-Trimethylbenzene	1580		ug/l	40	127.5	50	8260B		2/6/2018	CJR	1
1,3,5-Trimethylbenzene	360		ug/l	31.5	100	50	8260B		2/6/2018	CJR	1
Vinyl Chloride		< 10	ug/l	10	32.5	50	8260B		2/6/2018	CJR	1
m&p-Xylene	4200		ug/l	21.5	69	50	8260B		2/6/2018	CJR	1
o-Xylene	1300		ug/l	14.5	46.5	50	8260B		2/6/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	104		REC %			50	8260B		2/6/2018	CJR	1
SUR - 4-Bromofluorobenzene	104		REC %			50	8260B		2/6/2018	CJR	1
SUR - Dibromofluoromethane	103		REC %			50	8260B		2/6/2018	CJR	1
SUR - Toluene-d8	94		REC %			50	8260B		2/6/2018	CJR	1
Wet Chemistry											
General											
Nitrite Plus Nitrate		< 0.36	mg/l	0.36	1.15	1	353.2		2/6/2018	NJC	1
Sulfate, Unfiltered	31.4		mg/l	1.35	4.3	1	ASTM D516-		2/6/2018	NJC	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 50341851
Sample ID TB
Sample Matrix Water
Sample Date 1/29/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.22	ug/l	0.22	0.71	1	8260B		2/5/2018	CJR	1
Bromobenzene	< 0.44	ug/l	0.44	1.38	1	8260B		2/5/2018	CJR	1
Bromodichloromethane	< 0.33	ug/l	0.33	1.06	1	8260B		2/5/2018	CJR	1
Bromoform	< 0.45	ug/l	0.45	1.44	1	8260B		2/5/2018	CJR	1
tert-Butylbenzene	< 0.25	ug/l	0.25	0.8	1	8260B		2/5/2018	CJR	1
sec-Butylbenzene	< 0.79	ug/l	0.79	2.53	1	8260B		2/5/2018	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.25	1	8260B		2/5/2018	CJR	1
Carbon Tetrachloride	< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
Chlorobenzene	< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Chloroethane	< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
Chloroform	< 0.26	ug/l	0.26	0.82	1	8260B		2/5/2018	CJR	1
Chloromethane	< 0.54	ug/l	0.54	1.72	1	8260B		2/5/2018	CJR	1
2-Chlorotoluene	< 0.31	ug/l	0.31	0.98	1	8260B		2/5/2018	CJR	1
4-Chlorotoluene	< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
1,2-Dibromo-3-chloropropane	< 2.96	ug/l	2.96	9.43	1	8260B		2/5/2018	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.69	1	8260B		2/5/2018	CJR	1
1,4-Dichlorobenzene	< 0.7	ug/l	0.7	2.22	1	8260B		2/5/2018	CJR	1
1,3-Dichlorobenzene	< 0.85	ug/l	0.85	2.7	1	8260B		2/5/2018	CJR	1
1,2-Dichlorobenzene	< 0.86	ug/l	0.86	2.74	1	8260B		2/5/2018	CJR	1
Dichlorodifluoromethane	< 0.32	ug/l	0.32	1.02	1	8260B		2/5/2018	CJR	1
1,2-Dichloroethane	< 0.25	ug/l	0.25	0.78	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethane	< 0.36	ug/l	0.36	1.14	1	8260B		2/5/2018	CJR	1
1,1-Dichloroethene	< 0.42	ug/l	0.42	1.34	1	8260B		2/5/2018	CJR	1
cis-1,2-Dichloroethene	< 0.37	ug/l	0.37	1.16	1	8260B		2/5/2018	CJR	1
trans-1,2-Dichloroethene	< 0.34	ug/l	0.34	1.07	1	8260B		2/5/2018	CJR	1
1,2-Dichloropropane	< 0.44	ug/l	0.44	1.39	1	8260B		2/5/2018	CJR	1
1,3-Dichloropropane	< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
trans-1,3-Dichloropropene	< 0.32	ug/l	0.32	1.01	1	8260B		2/5/2018	CJR	1
cis-1,3-Dichloropropene	< 0.26	ug/l	0.26	0.81	1	8260B		2/5/2018	CJR	1
Di-isopropyl ether	< 0.21	ug/l	0.21	0.66	1	8260B		2/5/2018	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		2/5/2018	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		2/5/2018	CJR	1
Hexachlorobutadiene	< 1.34	ug/l	1.34	4.28	1	8260B		2/5/2018	CJR	1
Isopropylbenzene	< 0.78	ug/l	0.78	2.47	1	8260B		2/5/2018	CJR	1
p-Isopropyltoluene	< 0.24	ug/l	0.24	0.76	1	8260B		2/5/2018	CJR	1
Methylene chloride	< 1.32	ug/l	1.32	4.21	1	8260B		2/5/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		2/5/2018	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		2/5/2018	CJR	1
n-Propylbenzene	< 0.61	ug/l	0.61	1.95	1	8260B		2/5/2018	CJR	1
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		2/5/2018	CJR	1
1,1,1,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.13	1	8260B		2/5/2018	CJR	1
Tetrachloroethene	< 0.38	ug/l	0.38	1.21	1	8260B		2/5/2018	CJR	1
Toluene	< 0.19	ug/l	0.19	0.6	1	8260B		2/5/2018	CJR	1
1,2,4-Trichlorobenzene	< 1.15	ug/l	1.15	3.67	1	8260B		2/5/2018	CJR	1
1,2,3-Trichlorobenzene	< 1.71	ug/l	1.71	5.43	1	8260B		2/5/2018	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.05	1	8260B		2/5/2018	CJR	1
1,1,2-Trichloroethane	< 0.42	ug/l	0.42	1.32	1	8260B		2/5/2018	CJR	1
Trichloroethene (TCE)	< 0.3	ug/l	0.3	0.94	1	8260B		2/5/2018	CJR	1
Trichlorofluoromethane	< 0.35	ug/l	0.35	1.1	1	8260B		2/5/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		2/5/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34185
Project #

Lab Code 50341851
Sample ID TB
Sample Matrix Water
Sample Date 1/29/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene		< 0.63	ug/l	0.63	2	1	8260B		2/5/2018	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.65	1	8260B		2/5/2018	CJR	1
m&p-Xylene		< 0.43	ug/l	0.43	1.38	1	8260B		2/5/2018	CJR	1
o-Xylene		< 0.29	ug/l	0.29	0.93	1	8260B		2/5/2018	CJR	1
SUR - Toluene-d8	96		REC %			1	8260B		2/5/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	111		REC %			1	8260B		2/5/2018	CJR	1
SUR - 4-Bromofluorobenzene	104		REC %			1	8260B		2/5/2018	CJR	1
SUR - Dibromofluoromethane	108		REC %			1	8260B		2/5/2018	CJR	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.

CWT denotes sub contract lab - Certification #445126660

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature Michael Ricker

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # No 297(

Page 1 of 1

Sample Handling Request
_____ Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #	
Account No. :	Quote No.:
Project #:	
Sampler: (signature)	Brian Kaiser
Project (Name / Location):	Luedtke Property / Tomahawk
Reports To:	Todd Luedtke
Company	
Address	426 Crowfoot Avenue
City State Zip	Fond du Lac, WI 54935
Phone	(920) - 602 - 4910
FAX	
Invoice To:	Todd Luedtke
Company	c/o METCO
Address	709 Gillette Street, Suite 3
City State Zip	La Crosse, WI 54603
Phone	
FAX	

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD (Dissolved)	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	Dissolved Iron	Dissolved Manganese							PID/ FID
508	MW-6	1/29/18	1035			Y	6	GW	HCl, H2SO4, HNO3, None			X	X	X					X			X	X	X	X							
A	MW-4		1105									X	X						X			X	X	X	X							
B	MW-5		1150									X	X						X			X	X	X	X							
C	MW-3		1215									X	X						X			X	X	X	X							
D	PZ-1		1255									X	X						X			X	X	X	X							
E	MW-1		130									X	X						X			X	X	X	X							
F	MW-2		200									X	X						X			X	X	X	X							
G	MW-8		225									X	X						X			X	X	X	X							
H	TB						1		HCl													X										

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Lab to send copy of report to METCO/Jason P. (Invoice to METCO)

* U+C rates apply

* Agent Status

Sample Integrity - To be completed by receiving lab
Method of Shipment: Car
Temp. of Temp. Blank: ___ °C On Ice: X
Cooler(s) intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Brian Kaiser	8:30AM	1/31/18			

Received in Laboratory By: [signature] Time: 8:00 Date: 2/1/18

Synergy Environmental Lab,

1990 Prospect Ct., Appleton, WI 54914 *P 920-830-2455 * F 920-733-0631

TODD LUEDTKE
TODD LUEDTKE
426 CROWFOOT AVE.,
FOND DU LAC, WI 54935

Report Date *18-May-18*

Project Name LUEDTKE PROPERTY **Invoice #** E34569
Project #

Lab Code 5034569A
Sample ID MW-6
Sample Matrix Water
Sample Date 4/30/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.9	ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.71	1	8260B		5/4/2018	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		5/4/2018	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		5/4/2018	CJR	1
Toluene	< 0.19	ug/l	0.19	0.6	1	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2	1	8260B		5/4/2018	CJR	1
m&p-Xylene	< 0.43	ug/l	0.43	1.38	1	8260B		5/4/2018	CJR	1
o-Xylene	< 0.29	ug/l	0.29	0.93	1	8260B		5/4/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34569
Project #

Lab Code 5034569B
Sample ID MW-4
Sample Matrix Water
Sample Date 4/30/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.9	ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.71	1	8260B		5/4/2018	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		5/4/2018	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		5/4/2018	CJR	1
Toluene	< 0.19	ug/l	0.19	0.6	1	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2	1	8260B		5/4/2018	CJR	1
m&p-Xylene	< 0.43	ug/l	0.43	1.38	1	8260B		5/4/2018	CJR	1
o-Xylene	< 0.29	ug/l	0.29	0.93	1	8260B		5/4/2018	CJR	1

Lab Code 5034569C
Sample ID MW-5
Sample Matrix Water
Sample Date 4/30/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.9	ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.71	1	8260B		5/4/2018	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		5/4/2018	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		5/4/2018	CJR	1
Toluene	< 0.19	ug/l	0.19	0.6	1	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2	1	8260B		5/4/2018	CJR	1
m&p-Xylene	< 0.43	ug/l	0.43	1.38	1	8260B		5/4/2018	CJR	1
o-Xylene	< 0.29	ug/l	0.29	0.93	1	8260B		5/4/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34569
Project #

Lab Code 5034569D
Sample ID MW-7
Sample Matrix Water
Sample Date 4/30/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Lead, Dissolved	< 0.9	ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic										
VOC's										
Benzene	< 0.22	ug/l	0.22	0.71	1	8260B		5/5/2018	CJR	1
Bromobenzene	< 0.44	ug/l	0.44	1.38	1	8260B		5/5/2018	CJR	1
Bromodichloromethane	< 0.33	ug/l	0.33	1.06	1	8260B		5/5/2018	CJR	1
Bromoform	< 0.45	ug/l	0.45	1.44	1	8260B		5/5/2018	CJR	1
tert-Butylbenzene	< 0.25	ug/l	0.25	0.8	1	8260B		5/5/2018	CJR	1
sec-Butylbenzene	< 0.79	ug/l	0.79	2.53	1	8260B		5/5/2018	CJR	1
n-Butylbenzene	< 0.71	ug/l	0.71	2.25	1	8260B		5/5/2018	CJR	1
Carbon Tetrachloride	< 0.31	ug/l	0.31	0.98	1	8260B		5/5/2018	CJR	1
Chlorobenzene	< 0.26	ug/l	0.26	0.83	1	8260B		5/5/2018	CJR	1
Chloroethane	< 0.61	ug/l	0.61	1.95	1	8260B		5/5/2018	CJR	1
Chloroform	< 0.26	ug/l	0.26	0.82	1	8260B		5/5/2018	CJR	1
Chloromethane	< 0.54	ug/l	0.54	1.72	1	8260B		5/5/2018	CJR	1
2-Chlorotoluene	< 0.31	ug/l	0.31	0.98	1	8260B		5/5/2018	CJR	1
4-Chlorotoluene	< 0.26	ug/l	0.26	0.83	1	8260B		5/5/2018	CJR	1
1,2-Dibromo-3-chloropropane	< 2.96	ug/l	2.96	9.43	1	8260B		5/5/2018	CJR	1
Dibromochloromethane	< 0.22	ug/l	0.22	0.69	1	8260B		5/5/2018	CJR	1
1,4-Dichlorobenzene	< 0.7	ug/l	0.7	2.22	1	8260B		5/5/2018	CJR	1
1,3-Dichlorobenzene	< 0.85	ug/l	0.85	2.7	1	8260B		5/5/2018	CJR	1
1,2-Dichlorobenzene	< 0.86	ug/l	0.86	2.74	1	8260B		5/5/2018	CJR	1
Dichlorodifluoromethane	< 0.32	ug/l	0.32	1.02	1	8260B		5/5/2018	CJR	1
1,2-Dichloroethane	< 0.25	ug/l	0.25	0.78	1	8260B		5/5/2018	CJR	1
1,1-Dichloroethane	< 0.36	ug/l	0.36	1.14	1	8260B		5/5/2018	CJR	1
1,1-Dichloroethene	< 0.42	ug/l	0.42	1.34	1	8260B		5/5/2018	CJR	1
cis-1,2-Dichloroethene	< 0.37	ug/l	0.37	1.16	1	8260B		5/5/2018	CJR	1
trans-1,2-Dichloroethene	< 0.34	ug/l	0.34	1.07	1	8260B		5/5/2018	CJR	1
1,2-Dichloropropane	< 0.44	ug/l	0.44	1.39	1	8260B		5/5/2018	CJR	1
1,3-Dichloropropane	< 0.3	ug/l	0.3	0.94	1	8260B		5/5/2018	CJR	1
trans-1,3-Dichloropropene	< 0.32	ug/l	0.32	1.01	1	8260B		5/5/2018	CJR	1
cis-1,3-Dichloropropene	< 0.26	ug/l	0.26	0.81	1	8260B		5/5/2018	CJR	1
Di-isopropyl ether	< 0.21	ug/l	0.21	0.66	1	8260B		5/5/2018	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		5/5/2018	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		5/5/2018	CJR	1
Hexachlorobutadiene	< 1.34	ug/l	1.34	4.28	1	8260B		5/5/2018	CJR	1
Isopropylbenzene	< 0.78	ug/l	0.78	2.47	1	8260B		5/5/2018	CJR	1
p-Isopropyltoluene	< 0.24	ug/l	0.24	0.76	1	8260B		5/5/2018	CJR	1
Methylene chloride	< 1.32	ug/l	1.32	4.21	1	8260B		5/5/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		5/5/2018	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		5/5/2018	CJR	1
n-Propylbenzene	< 0.61	ug/l	0.61	1.95	1	8260B		5/5/2018	CJR	1
1,1,2,2-Tetrachloroethane	< 0.3	ug/l	0.3	0.97	1	8260B		5/5/2018	CJR	1
1,1,1,2-Tetrachloroethane	< 0.35	ug/l	0.35	1.13	1	8260B		5/5/2018	CJR	1
Tetrachloroethene	< 0.38	ug/l	0.38	1.21	1	8260B		5/5/2018	CJR	1
Toluene	< 0.19	ug/l	0.19	0.6	1	8260B		5/5/2018	CJR	1
1,2,4-Trichlorobenzene	< 1.15	ug/l	1.15	3.67	1	8260B		5/5/2018	CJR	1
1,2,3-Trichlorobenzene	< 1.71	ug/l	1.71	5.43	1	8260B		5/5/2018	CJR	1
1,1,1-Trichloroethane	< 0.33	ug/l	0.33	1.05	1	8260B		5/5/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34569
Project #

Lab Code 5034569D
Sample ID MW-7
Sample Matrix Water
Sample Date 4/30/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane		< 0.42	ug/l	0.42	1.32	1	8260B		5/5/2018	CJR	1
Trichloroethene (TCE)		< 0.3	ug/l	0.3	0.94	1	8260B		5/5/2018	CJR	1
Trichlorofluoromethane		< 0.35	ug/l	0.35	1.1	1	8260B		5/5/2018	CJR	1
1,2,4-Trimethylbenzene		< 0.8	ug/l	0.8	2.55	1	8260B		5/5/2018	CJR	1
1,3,5-Trimethylbenzene		< 0.63	ug/l	0.63	2	1	8260B		5/5/2018	CJR	1
Vinyl Chloride		< 0.2	ug/l	0.2	0.65	1	8260B		5/5/2018	CJR	1
m&p-Xylene		< 0.43	ug/l	0.43	1.38	1	8260B		5/5/2018	CJR	1
o-Xylene		< 0.29	ug/l	0.29	0.93	1	8260B		5/5/2018	CJR	1
SUR - 1,2-Dichloroethane-d4	100		REC %			1	8260B		5/5/2018	CJR	1
SUR - 4-Bromofluorobenzene	97		REC %			1	8260B		5/5/2018	CJR	1
SUR - Dibromofluoromethane	101		REC %			1	8260B		5/5/2018	CJR	1
SUR - Toluene-d8	104		REC %			1	8260B		5/5/2018	CJR	1

Lab Code 5034569E
Sample ID MW-3
Sample Matrix Water
Sample Date 4/30/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Lead, Dissolved		< 0.9	ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic											
PVOC + Naphthalene											
Benzene		< 0.22	ug/l	0.22	0.71	1	8260B		5/4/2018	CJR	1
Ethylbenzene	1.8		ug/l	0.26	0.83	1	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 0.28	ug/l	0.28	0.89	1	8260B		5/4/2018	CJR	1
Naphthalene	3.03 "J"		ug/l	2.1	6.65	1	8260B		5/4/2018	CJR	1
Toluene		< 0.19	ug/l	0.19	0.6	1	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene		< 0.8	ug/l	0.8	2.55	1	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene		< 0.63	ug/l	0.63	2	1	8260B		5/4/2018	CJR	1
m&p-Xylene	0.80 "J"		ug/l	0.43	1.38	1	8260B		5/4/2018	CJR	1
o-Xylene	0.31 "J"		ug/l	0.29	0.93	1	8260B		5/4/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34569
Project #

Lab Code 5034569F
Sample ID PZ-1
Sample Matrix Water
Sample Date 4/30/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Lead, Dissolved	1.5 "J"		ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic											
PVOC + Naphthalene											
Benzene		< 2.2	ug/l	2.2	7.1	10	8260B		5/4/2018	CJR	1
Ethylbenzene	430		ug/l	2.6	8.3	10	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 2.8	ug/l	2.8	8.9	10	8260B		5/4/2018	CJR	1
Naphthalene	123		ug/l	21	66.5	10	8260B		5/4/2018	CJR	1
Toluene	38		ug/l	1.9	6	10	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene	311		ug/l	8	25.5	10	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene	106		ug/l	6.3	20	10	8260B		5/4/2018	CJR	1
m&p-Xylene	720		ug/l	4.3	13.8	10	8260B		5/4/2018	CJR	1
o-Xylene	84		ug/l	2.9	9.3	10	8260B		5/4/2018	CJR	1

Lab Code 5034569G
Sample ID MW-1
Sample Matrix Water
Sample Date 4/30/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Lead, Dissolved	7.7		ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic											
PVOC + Naphthalene											
Benzene	5.5 "J"		ug/l	2.2	7.1	10	8260B		5/4/2018	CJR	1
Ethylbenzene	112		ug/l	2.6	8.3	10	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 2.8	ug/l	2.8	8.9	10	8260B		5/4/2018	CJR	1
Naphthalene	79		ug/l	21	66.5	10	8260B		5/4/2018	CJR	1
Toluene	3.9 "J"		ug/l	1.9	6	10	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene	272		ug/l	8	25.5	10	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene	85		ug/l	6.3	20	10	8260B		5/4/2018	CJR	1
m&p-Xylene	286		ug/l	4.3	13.8	10	8260B		5/4/2018	CJR	1
o-Xylene	55		ug/l	2.9	9.3	10	8260B		5/4/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34569
Project #

Lab Code 5034569H
Sample ID MW-2
Sample Matrix Water
Sample Date 4/30/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Lead, Dissolved		< 0.9	ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic											
PVOC + Naphthalene											
Benzene	22.2		ug/l	0.22	0.71	1	8260B		5/4/2018	CJR	1
Ethylbenzene	7.4		ug/l	0.26	0.83	1	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 0.28	ug/l	0.28	0.89	1	8260B		5/4/2018	CJR	1
Naphthalene	4.8 "J"		ug/l	2.1	6.65	1	8260B		5/4/2018	CJR	1
Toluene	0.93		ug/l	0.19	0.6	1	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene	3.6		ug/l	0.8	2.55	1	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene	1.2 "J"		ug/l	0.63	2	1	8260B		5/4/2018	CJR	1
m&p-Xylene	30.1		ug/l	0.43	1.38	1	8260B		5/4/2018	CJR	1
o-Xylene	3.3		ug/l	0.29	0.93	1	8260B		5/4/2018	CJR	1

Lab Code 5034569I
Sample ID MW-8
Sample Matrix Water
Sample Date 4/30/2018

	Result		Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic											
Metals											
Lead, Dissolved	20.9		ug/L	0.9	3	1	7421		5/4/2018	CWT	1
Organic											
PVOC + Naphthalene											
Benzene		< 11	ug/l	11	35.5	50	8260B		5/4/2018	CJR	1
Ethylbenzene	1560		ug/l	13	41.5	50	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)		< 14	ug/l	14	44.5	50	8260B		5/4/2018	CJR	1
Naphthalene	490		ug/l	105	332.5	50	8260B		5/4/2018	CJR	1
Toluene	20.5 "J"		ug/l	9.5	30	50	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene	1520		ug/l	40	127.5	50	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene	340		ug/l	31.5	100	50	8260B		5/4/2018	CJR	1
m&p-Xylene	2790		ug/l	21.5	69	50	8260B		5/4/2018	CJR	1
o-Xylene	580		ug/l	14.5	46.5	50	8260B		5/4/2018	CJR	1

Project Name LUEDTKE PROPERTY **Invoice #** E34569
Project #

Lab Code 5034569J
Sample ID TB
Sample Matrix Water
Sample Date 4/30/2018

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
PVOC + Naphthalene										
Benzene	< 0.22	ug/l	0.22	0.71	1	8260B		5/4/2018	CJR	1
Ethylbenzene	< 0.26	ug/l	0.26	0.83	1	8260B		5/4/2018	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.28	ug/l	0.28	0.89	1	8260B		5/4/2018	CJR	1
Naphthalene	< 2.1	ug/l	2.1	6.65	1	8260B		5/4/2018	CJR	1
Toluene	< 0.19	ug/l	0.19	0.6	1	8260B		5/4/2018	CJR	1
1,2,4-Trimethylbenzene	< 0.8	ug/l	0.8	2.55	1	8260B		5/4/2018	CJR	1
1,3,5-Trimethylbenzene	< 0.63	ug/l	0.63	2	1	8260B		5/4/2018	CJR	1
m&p-Xylene	< 0.43	ug/l	0.43	1.38	1	8260B		5/4/2018	CJR	1
o-Xylene	< 0.29	ug/l	0.29	0.93	1	8260B		5/4/2018	CJR	1

"J" Flag: Analyte detected between LOD and LOQ LOD Limit of Detection LOQ Limit of Quantitation

Code	*Comment*
1	Laboratory QC within limits.

CWT denotes sub contract lab - Certification #445126660

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

Authorized Signature *Michael Ricker*

CHAIN OF CUSTODY RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # № 3125

Page 1 of 1

Sample Handling Request
_____ Rush Analysis Date Required _____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : | **Quote No.:**

Project #:

Sampler: (signature) Tyler Woodtke

Project (Name / Location): Luedtke Property / Tomahawk

Reports To: Todd Luedtke	Invoice To: Todd Luedtke
Company	Company c/o METCO
Address 426 Crowfoot Ave.	Address 709 Gillette Street, Ste. 3
City State Zip Fond du Lac, WI 54935	City State Zip La Crosse, WI 54603
Phone (920) 602-4910	Phone (608) 781-8879
FAX	FAX

Analysis Requested | **Other Analysis**

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD (Dissolved)	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
585959 A	MW-6	4/30	1030			Y	4	GW	HNO_3, None			X						X						
B	MW-4		1055									X						X						
C	MW-5		1120									X						X						
D	MW-3		1145									X										X		
E	MW-3		1210									X						X						
F	PZ-1		1245									X						X						
G	MW-1		1110									X						X						
H	MW-2		1135									X						X						
I	MW-8		1200									X						X						
J	TB						1		HCl									X						

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

Lab to send copy of report to METCO/Jason P. (Invoice to METCO)
#U+C Rates Apply
#Agent Status
*Charge Trip Blank at PVOC + Naphthalene rate.

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Car
Temp. of Temp. Blank ____ °C On Ice: X
Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Tyler Woodtke	8:00 AM	5/2/18			

Received in Laboratory By: _____ Time: 8:00 Date: 5/3/18

APPENDIX C/ WELL AND BOREHOLE DOCUMENTATION

State of Wisconsin
Department of Natural Resources

GROUNDWATER MONITORING WELL INFORMATION FORM
Chapter 281 and 289, Wis. Stats.
Form 4400-89 Rev. 7-98

Facility Name	Facility ID Number	License, Permit or Monitoring No.	Date	Completed By (Name and Firm)
Luedtke Property	735041230		6/13/2018	Jon Jensen/METCO

WI Unique Well No	Well Name	DNR Well ID Number	Well Location	Dir. N/E	Dir. S/W	Date Established	Well Casing Diam.	Well Casing Type	Elevations Top of Well Casing	Elevations Ground Surface	Reference MSL (√)	Reference Site Datum (√)	Depths Screen Top	Depths Initial Groundwater	Depths Well Depth	Screen Length	Well Type	Well Status	Enf. Stds.	Grad-ient	Distance to Waste
			228409.97	X																	
VR691	PZ-1		381908.67	X		11/14/2017	2	P	1447.59	1448.13	X		25	8.22	30	5	12/pz	A	X	D	6
			228410.2	X																	
VR692	MW-1		381913.66	X		11/14/2017	2	P	1447.71	1448.15	X		5	6.41	15	10	11/mw	A	X	D	6
			228395.1	X																	Source Well
VR693	MW-2		381904.85	X		11/14/2017	2	P	1448.05	1448.43	X		5	7.52	15	10	11/mw	A	X		
			228382.05	X																	
VR694	MW-3		381863.4	X		11/14/2017	2	P	1448.19	1448.8	X		5	6.88	15	10	11/mw	A		S	17
			228498.89	X																	
VR695	MW-4		381892.59	X		11/14/2017	2	P	1448.13	1448.52	X		5	6.98	15	10	11/mw	A		D	95
			228502.29	X																	
VR696	MW-5		381999.22	X		11/14/2017	2	P	1447.78	1448.23	X		5	6.49	15	10	11/mw	A		S	121
			228395.6	X																	
VR697	MW-6		382068.16	X		11/14/2017	2	P	1448.31	1448.66	X		5	6.95	15	10	11/mw	A		U	108
			228286	X																	
VR698	MW-7		381978	X		11/14/2017	2	P	1449.08	1449.44	X		5	7.71	15	10	11/mw	A		U	67
			228359.18	X																	Source Well
VR699	MW-8		381957.02	X		11/14/2017	2	P	1448.4	1448.71	X		5	7.05	15	10	11/mw	A	X		

Location Coordinates Are:
☐ State Plane Coordinate ☐ Northern ☐ Central ☐ Southern
☒ Local Grid System

Grid Origin Location: (Check if estimated: ☐)
Lat. 45 ° 28 ' 15 " Long. 89 ° 43 ' 47 " or
St. Plane _____ ft. N. _____ ft. E. S/C/N Zone

Remarks:

Completion of this form is mandatory under s. NR 507.14 and NR 110.25 Wis. Adm. Code. Failure to file this form may result in forfeiture of not less than $10 nor more than $5,000 for each day of violation. Personally identifiable information provided is intended to be used by the Department for the purposes related to the waste management program.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: PZ-1
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VR691 / DNR Well ID No.:
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 11/14/2017 (m m d d y y y y)
Type of Well: Well Code 12/PZ	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Darrin Prentice, Geiss Soil + Samples LLC
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known / Gov. Lot Number	

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or 0 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

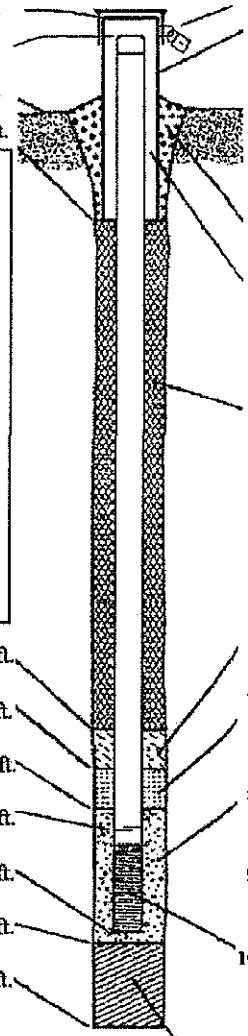
14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ _____

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):
_____

E. Bentonite seal, top _____ ft. MSL or 1 ft.
F. Fine sand, top _____ ft. MSL or 23 ft.
G. Filter pack, top _____ ft. MSL or 23 ft.
H. Screen joint, top _____ ft. MSL or 25 ft.
I. Well bottom _____ ft. MSL or 30 ft.
J. Filter pack, bottom _____ ft. MSL or 31 ft.
K. Borehole, bottom _____ ft. MSL or 31 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.40 in.
N. I.D. well casing 2.06 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / 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. _____ Ft^3 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. #20 Red Flint
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added _____ ft^3
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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.
11. Backfill material (below filter pack): None ☐ 14 / Other ☒ _____

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

Signature	Firm
Darrin Prentice	Geiss Soil + Samples LLC

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.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well: ____ ft. ☐N ☐S ____ ft. ☐E ☐W	Well Name: MW-1
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VR692 / DNR Well ID No.:
Facility ID	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 11/14/2017 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____ T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Darrin Prentice, Geiss Soil & Samples LLC
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known / Gov. Lot Number	

A. Protective pipe, top elevation ____ ft. MSL
B. Well casing, top elevation ____ ft. MSL
C. Land surface elevation ____ ft. MSL
D. Surface seal, bottom ____ ft. MSL or 0 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 ☐ ____

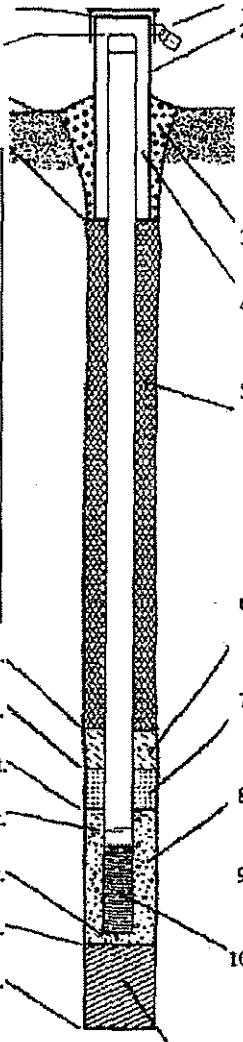
15. Drilling fluid used: Water ☐ 02 / Air ☐ 01 / Drilling Mud ☐ 03 / None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe ____

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

E. Bentonite seal, top ____ ft. MSL or 5 ft.
F. Fine sand, top ____ ft. MSL or 3 ft.
G. Filter pack, top ____ ft. MSL or 4 ft.
H. Screen joint, top ____ ft. MSL or 5 ft.
I. Well bottom ____ ft. MSL or 15 ft.
J. Filter pack, bottom ____ ft. MSL or 16 ft.
K. Borehole, bottom ____ ft. MSL or 16 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.40 in.
N. I.D. well casing 2.06 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / 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. ____ Ft^3 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. #20 Red Flint
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added ____ ft^3
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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☐ 14 / Other ☒ ____

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

Signature: Darrin Prentice | Firm: Geiss Soil & Samples LLC

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.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well: ____ ft. ☐N. ☐S. ____ ft. ☐E. ☐W.	Well Name: MW-2
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ____ ° ____ ' ____ " Long. ____ ° ____ ' ____ " or	Wis. Unique Well No.: UR693 / DNR Well ID No.: ____
Facility ID: ____	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 11/17/2017 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____ T. ____ N. R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Darrin Prentice, Geiss Soil & Samples LLC
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: ____

A. Protective pipe, top elevation ____ ft. MSL
B. Well casing, top elevation ____ ft. MSL
C. Land surface elevation ____ ft. MSL
D. Surface seal, bottom ____ ft. MSL or 0 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

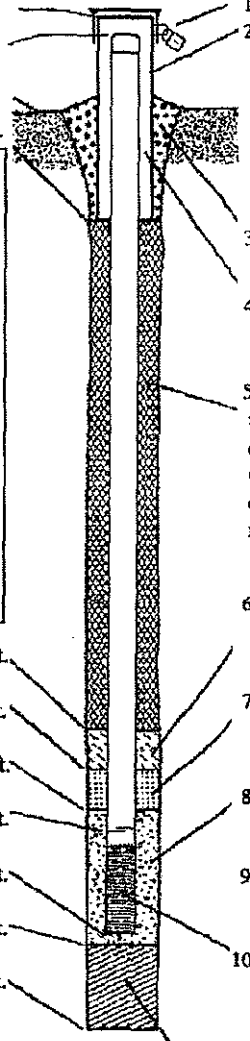
14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ ____

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):
____

E. Bentonite seal, top ____ ft. MSL or 5 ft.
F. Fine sand, top ____ ft. MSL or 3 ft.
G. Filter pack, top ____ ft. MSL or 4 ft.
H. Screen joint, top ____ ft. MSL or 5 ft.
I. Well bottom ____ ft. MSL or 15 ft.
J. Filter pack, bottom ____ ft. MSL or 16 ft.
K. Borehole, bottom ____ ft. MSL or 16 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.40 in.
N. I.D. well casing 2.06 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / 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. ____ Ft^3 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. #20 Red Flint
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added ____ ft^3
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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☐ 14 / Other ☒ ____

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

Signature: Darrin Prentice | Firm: Geiss Soil & Samples LLC

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.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-3
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VR694 / DNR Well ID No.: ____
Facility ID: ____	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 11/14/2017 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Darrin Prentice, Geiss Soil & Samples LLC
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: ____

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or 0 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):
_____

E. Bentonite seal, top _____ ft. MSL or 5 ft.

F. Fine sand, top _____ ft. MSL or 3 ft.

G. Filter pack, top _____ ft. MSL or 4 ft.

H. Screen joint, top _____ ft. MSL or 5 ft.

I. Well bottom _____ ft. MSL or 15 ft.

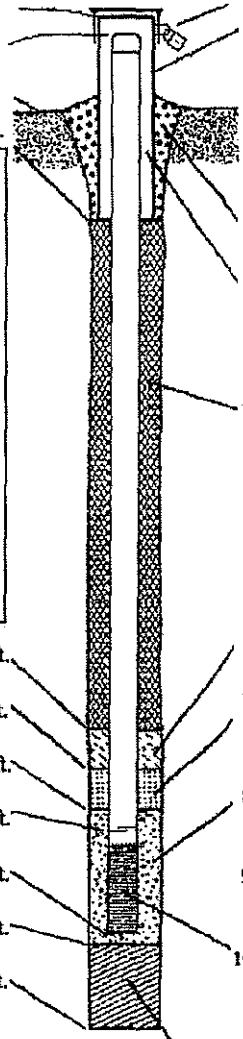
J. Filter pack, bottom _____ ft. MSL or 16 ft.

K. Borehole, bottom _____ ft. MSL or 16 ft.

L. Borehole, diameter 8.25 in.

M. O.D. well casing 2.40 in.

N. I.D. well casing 2.06 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 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. _____ Ft^3 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. #20 Red Flint
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added _____ ft^3

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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

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

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

Signature	Firm
Darrin Prentice	Geiss Soil & Samples LLC

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.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: MW-4
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ____ ° ____ ' ____ " Long. ____ ° ____ ' ____ " or	Wis. Unique Well No.: VR 695 / DNR Well ID No.: ____
Facility ID: ____	St. Plane ____ ft. N, ____ ft. E. S/C/N	Date Well Installed: 11, 14, 2017 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐ E ☐ W	Well Installed By: Name (first, last) and Firm: Darrin Prentice Geiss Soil & Samples LLC
Distance from Waste/Source ____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number: ____

A. Protective pipe, top elevation ____ ft. MSL
B. Well casing, top elevation ____ ft. MSL
C. Land surface elevation ____ ft. MSL
D. Surface seal, bottom ____ ft. MSL or 0 ft.

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

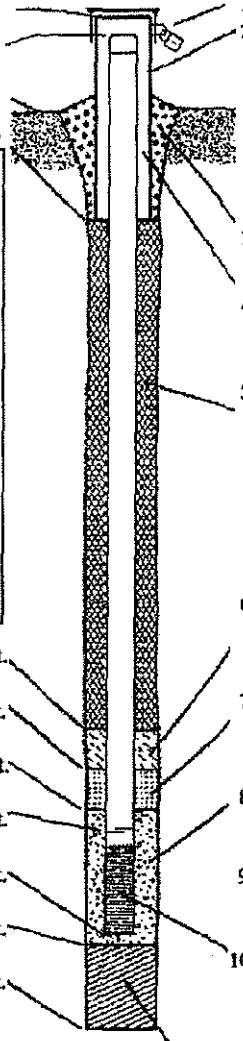
13. Sieve analysis performed? ☐ Yes ☒ No

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):
____



E. Bentonite seal, top ____ ft. MSL or 5 ft.
F. Fine sand, top ____ ft. MSL or 3 ft.
G. Filter pack, top ____ ft. MSL or 4 ft.
H. Screen joint, top ____ ft. MSL or 5 ft.
I. Well bottom ____ ft. MSL or 15 ft.
J. Filter pack, bottom ____ ft. MSL or 16 ft.
K. Borehole, bottom ____ ft. MSL or 16 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.40 in.
N. I.D. well casing 2.06 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / 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. ____ Ft^3 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. #20 Red Flint
b. Volume added ____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added ____ ft^3
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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☐ 14 / Other ☒ ____

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

Signature: Darrin Prentice Firm: Geiss Soil & Samples LLC

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.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-5
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VR 696 / DNR Well ID No.:
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 11/14/2017 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: ___1/4 of ___1/4 of Sec. ___ T. ___ N, R. ___ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Darrin Prentice Geiss Soil & Samples LLC
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or 0 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

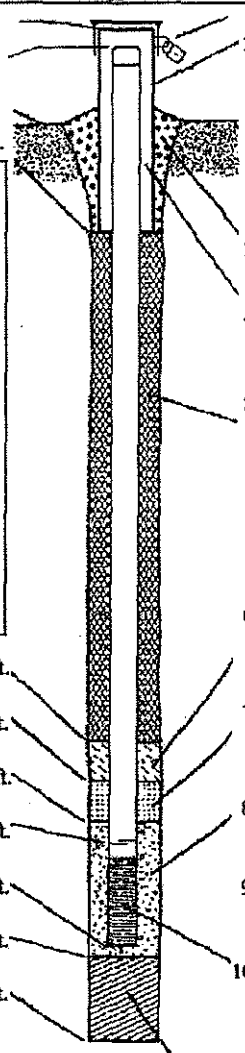
16. Drilling additives used? ☐ Yes ☒ No

Describe _____

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

_____

E. Bentonite seal, top _____ ft. MSL or 5 ft.
F. Fine sand, top _____ ft. MSL or 3 ft.
G. Filter pack, top _____ ft. MSL or 4 ft.
H. Screen joint, top _____ ft. MSL or 5 ft.
I. Well bottom _____ ft. MSL or 15 ft.
J. Filter pack, bottom _____ ft. MSL or 16 ft.
K. Borehole, bottom _____ ft. MSL or 16 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.40 in.
N. I.D. well casing 2.06 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / 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. _____ Ft^3 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. #20 Red Flint
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added _____ ft^3
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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☐ 14 / Other ☒ _____

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

Signature	Firm
Darrin Prentice	Geiss Soil & Samples LLC

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.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well: _____ ft. ☐N. ☐S. _____ ft. ☐E. ☐W.	Well Name: MW-6
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VR697 / DNR Well ID No.:
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 11/14/2017 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: _____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Darrin Prentice / Geiss Soil & Samples LLC
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	Gov. Lot Number:

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or 0 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

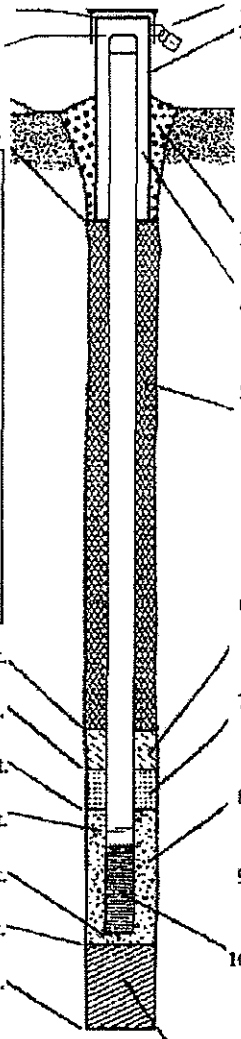
14. Drilling method used: Rotary ☐ 50 / Hollow Stem Auger ☒ 41 / Other ☐ _____

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):
_____

E. Bentonite seal, top _____ ft. MSL or 5 ft.
F. Fine sand, top _____ ft. MSL or 3 ft.
G. Filter pack, top _____ ft. MSL or 4 ft.
H. Screen joint, top _____ ft. MSL or 5 ft.
I. Well bottom _____ ft. MSL or 15 ft.
J. Filter pack, bottom _____ ft. MSL or 16 ft.
K. Borehole, bottom _____ ft. MSL or 16 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.40 in.
N. I.D. well casing 2.06 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / 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. _____ Ft^3 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. #20 Red Flint
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added _____ ft^3
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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☐ 14 / Other ☒ _____

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

Signature: Darrin Prentice | Firm: Geiss Soil & Samples LLC

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.

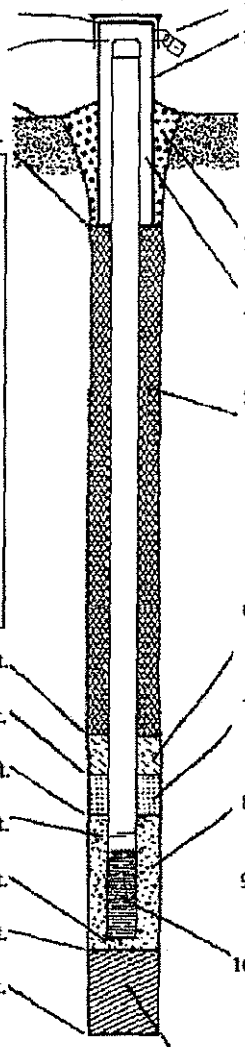
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well ☐ ft. ☐N ☐S ☐ ft. ☐E ☐W	Well Name: MW-7
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VR698 / DNR Well ID No.
Facility ID	St. Plane ft. N, ft. E. S/C/N	Date Well Installed: 11/14/2017 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: ¼ of ¼ of Sec. T. N, R. ☐E ☐W	Well Installed By: Name (first, last) and Firm: Darrin Prentice, Geiss Soil & Samples LLC
Distance from Waste/Source ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known / Gov. Lot Number	



A. Protective pipe, top elevation ____ ft. MSL
B. Well casing, top elevation ____ ft. MSL
C. Land surface elevation ____ ft. MSL
D. Surface seal, bottom ____ ft. MSL or 0 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):

E. Bentonite seal, top ____ ft. MSL or 5 ft.
F. Fine sand, top ____ ft. MSL or 3 ft.
G. Filter pack, top ____ ft. MSL or 4 ft.
H. Screen joint, top ____ ft. MSL or 5 ft.
I. Well bottom ____ ft. MSL or 15 ft.
J. Filter pack, bottom ____ ft. MSL or 16 ft.
K. Borehole, bottom ____ ft. MSL or 16 ft.
L. Borehole, diameter 8.25 in.
M. O.D. well casing 2.40 in.
N. I.D. well casing 2.06 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / 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. ____ 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. #20 Red Flint
b. Volume added ____ ft³
8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added ____ 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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.
11. Backfill material (below filter pack): None ☐ 14 / Other ☒

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

Signature: Darrin Prentice Firm: Geiss Soil & Samples LLC

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.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Luedtke Property	Local Grid Location of Well: _____ ft. ☐N ☐S _____ ft. ☐E ☐W	Well Name: MW-8
Facility License, Permit or Monitoring No.	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. ° ' " Long. ° ' " or	Wis. Unique Well No.: VR699 / DNR Well ID No.: ____
Facility ID: ____	St. Plane _____ ft. N, _____ ft. E. S/C/N	Date Well Installed: 11/14/2017 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____ T. ____ N, R. ____ ☐E ☐W	Well Installed By: Name (first, last) and Firm: Darrin Prentice, Geiss Soil & Samples LLC
Distance from Waste/Source _____ ft. / Enf. Stds. Apply ☐	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known / Gov. Lot Number	

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or 0 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):

_____

E. Bentonite seal, top _____ ft. MSL or 5 ft.

F. Fine sand, top _____ ft. MSL or 3 ft.

G. Filter pack, top _____ ft. MSL or 4 ft.

H. Screen joint, top _____ ft. MSL or 5 ft.

I. Well bottom _____ ft. MSL or 15 ft.

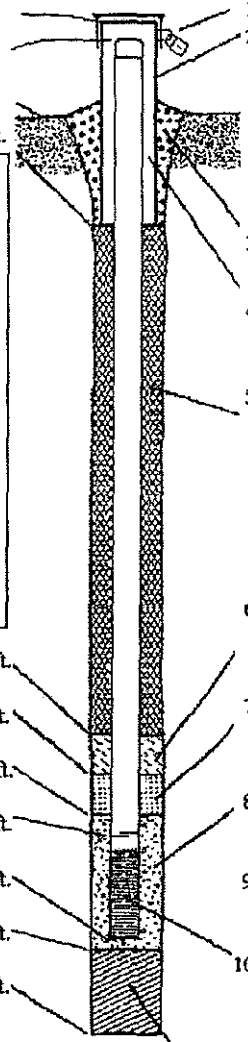
J. Filter pack, bottom _____ ft. MSL or 16 ft.

K. Borehole, bottom _____ ft. MSL or 16 ft.

L. Borehole, diameter 8.25 in.

M. O.D. well casing 2.40 in.

N. I.D. well casing 2.06 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 1 ft.
c. Material: Steel ☒ 04 / 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. _____ Ft^3 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. #20 Red Flint
b. Volume added _____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. #40 Red Flint
b. Volume added _____ ft^3

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 Johnson
c. Slot size: 0.010 in.
d. Slotted length: 10 ft.

11. Backfill material (below filter pack): None ☐ 14 / Other ☒ _____

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

Signature: Darrin Prentice | Firm: Geiss Soil & Samples LLC

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.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	PZ-1

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR691	

1. Can this well be purged dry? [X] Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	[X] 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 125 min.

4. Depth of well (from top of well casisng) 30 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 23.9 gal.

7. Volume of water removed from well 65 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing) a.	8.22 ft.	15.81 ft.
Date b.	11 / 13 / 2017 (m m d d y y y y)	1 / 1 / 3 / 2017 (m m d d y y y y)
Time c.	02 : 10 ☐ a.m. X p.m.	04 : 15 ☐ a.m. X p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid X 15 (Describe) Brown	Clear [X] 20 Turbid ☐ 25 (Describe) Clear
	High turbidity	Low turbidity

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

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

15. COD ____ mg/l ____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	MW-1

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR692	

1. Can this well be purged dry? ☐ Yes X No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	X 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 80 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 9.4 gal.

7. Volume of water removed from well 90 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 6.41 ft.	6.72 ft.
Date	b. 11 / 13 / 2017 (m m d d y y y y)	11/13/2017 (m m d d y y y y)
Time	c. 02 : 10 ☐ a.m. X p.m.	03 : 30 ☐ a.m. X p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid X 15 (Describe) Brown	Clear X 20 Turbid ☐ 25 (Describe) Clear
	High turbdity	Low turbidity

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

14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	MW-2

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR693	

1. Can this well be purged dry? [X] Yes ☐ No

2. Well development method

surged with bailer and bailed	[X] 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 45 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 8.2 gal.

7. Volume of water removed from well 20 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 7.52 ft.	10.49 ft.
Date	b. 11 / 13 / 2017 (m m d d y y y y)	11 / 13 / 2017 (m m d d y y y y)
Time	c. 03 : 30 ☐ a.m. X p.m.	04 : 15 ☐ a.m. ☐ p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid X 15 (Describe) Tan	Clear [X] 20 Turbid ☐ 25 (Describe) Clear
	High turbidity	Low turbidity

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

14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	MW-3

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR694	

1. Can this well be purged dry? ☐ Yes X No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	[X] 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 60 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 8.9 gal.

7. Volume of water removed from well 60 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 6.88 ft.	8.52 ft.
Date	b. 11 / 14 / 2017 (m m d d y y y y)	11/14/2017 (m m d d y y y y)
Time	c. 07 : 40 X a.m. ☐ p.m.	08 : 40 X a.m. ☐ p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid X 15	Clear [X] 20 Turbid ☐ 25
	(Describe) Brown	(Describe) Clear
	High turbidity	Low turbidity
14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	MW-4

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR695	

1. Can this well be purged dry? ☐ Yes X No

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	X	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 60 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 8 gal.

7. Volume of water removed from well 60 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 6.98 ft.	7.09 ft.
Date	b. 11 / 14 / 2017 (m m d d y y y y)	11/14/2017 (m m d d y y y y)
Time	c. 09 : 00 X a.m. ☐ p.m.	10 : 00 X a.m. ☐ p.m.
12. Sediment in well bottom	inches	inches
13. Water clarity	Clear ☐ 10 Turbid X 15 (Describe) Tan	Clear X 20 Turbid ☐ 25 (Describe) Clear
	High turbidity	Low turbidity

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

14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: E Dahl
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	MW-5

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR696	

1. Can this well be purged dry? ☐ Yes X No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	[X] 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 45 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 9.4 gal.

7. Volume of water removed from well 45 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 6.49 ft.	6.66 ft.
Date	b. 11 / 14 / 2017 (m m d d y y y y)	11 / 14 / 2017 (m m d d y y y y)
Time	c. 10 : 20 X a.m. ☐ p.m.	11 : 05 X a.m. ☐ p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid X 15 (Describe) Tan	Clear [X] 20 Turbid ☐ 25 (Describe) Clear
	High turbidity	Low turbidity

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

14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	MW-6

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR697	

1. Can this well be purged dry? ☐ Yes X No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	X 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 50 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 8.8 gal.

7. Volume of water removed from well 50 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 6.95 ft.	7.05 ft.
Date	b. 11 / 14 / 2017 (m m d d y y y y)	1 / 1 / 1 4 / 2 0 1 7 (m m d d y y y y)
Time	c. 11 : 20 X a.m. ☐ p.m.	12 : 10 ☐ a.m. X p.m.
12. Sediment in well bottom	___ inches	___ inches
13. Water clarity	Clear ☐ 10 Turbid X 15 (Describe) Tan, High turbidity	Clear X 20 Turbid ☐ 25 (Describe) Clear, Low turbidity

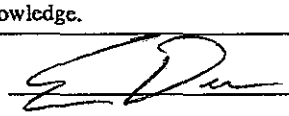
Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: 
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	MW-7

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR698	

1. Can this well be purged dry? ☐ Yes X No

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	X	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 60 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 8.6 gal.

7. Volume of water removed from well 60 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 7.71 ft.	7.78 ft.
Date	b. 11 / 14 / 2017 (m m d d y y y y)	11/4/2017 (m m d d y y y y)
Time	c. 12 : 25 ☐ a.m. X p.m.	01 : 25 ☐ a.m. X p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid X 15 (Describe) TAn	Clear X 20 Turbid ☐ 25 (Describe) Clear
	High turbidity	Low turbidity

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

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

15. COD ____ mg/l ____ mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: [signature]
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment [X] Other ☐ _____

Facility/Project Name	County Name	Well Name
Luedtke Property	LINCOLN	MW-8

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	35	VR699	

1. Can this well be purged dry? [X] Yes ☐ No

2. Well development method

surged with bailer and bailed	☐	41
surged with bailer and pumped	[X]	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 80 min.

4. Depth of well (from top of well casisng) 15 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 8.7 gal.

7. Volume of water removed from well 80 gal.

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

9. Source of water added _____

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 7.05 ft.	9.42 ft.
Date	b. 11 / 14 / 2017 (m m d d y y y y)	11/14/2017 (m m d d y y y y)
Time	c. 02 : 00 ☐ a.m. [X] p.m.	03 : 20 ☐ a.m. [X] p.m.
12. Sediment in well bottom	____ inches	____ inches
13. Water clarity	Clear ☐ 10 Turbid [X] 15 (Describe) Tan	Clear [X] 20 Turbid ☐ 25 (Describe) Clear
	High turbidity	Low turbidity
14. Total suspended solids	____ mg/l	____ mg/l
15. COD	____ mg/l	____ mg/l

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

16. Well developed by: Name (first, last) and Firm
First Name: Eric Last Name: Dahl
Firm: METCO

17. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party
First Name: Todd Last Name: Luedtke
Facility/Firm: Responsible Party
Street: 426 Crowfoot Avenue
City/State/Zip: Fond du Lac WI 54935-

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: Eric Dahl
Firm: METCO

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-1

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	05/08/2017	05/08/2017	Geoprobe
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-1-1 (0-4 feet)	48 36		2	Tan fine to medium grained sand	SP			0.4		Dry				No Petro Odor
			4											
G-1-2 (4-8 feet)	48 12		6	Tan fine to coarse grained sand with gravel and bricks	FILL			0.7		M/W				Petro Odor
			8											
G-1-3 (8-12 feet)	48 12		10	Tan fine to coarse grained sand with gravel and bricks	FILL			81		W				Petro Odor
			12	EOB @ 12 Feet. Groundwater sample G-1-W collected at 8-12 feet. Borehole Abandoned.										
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-2

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/08/2017 MM/ DD/ YYYY	05/08/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-2-1 (0-4 feet)	48 36		2	Tan fine to medium grained sand	SP			1.1		Dry				No Petro Odor
			4											
G-2-2 (4-8 feet)	48 24		6	Brown fine to coarse grained sand with gravel	SP			0.6		M				Slight Petro Odor
			8											
G-2-3 (8-12 feet)	48 30		10	Brown fine to coarse grained sand with gravel	SP			10.4		W				Slight Petro Odor
			12	EOB @ 12 Feet. Groundwater sample G-2-W collected at 7-12 feet. Borehole Abandoned.										
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-3

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/08/2017 MM/ DD/ YYYY	05/08/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-3-1 (0-4 feet)	48 30		0-4	Tan fine to coarse grained sand with gravel	SP			0.9		Dry				No Petro Odor
G-3-2 (4-8 feet)	48 12		4-8	Brown fine to coarse grained sand with gravel	SP			1.0		M				No Petro Odor
G-3-3 (8-10 feet)	24 12		8-10	Brown fine to coarse grained sand with gravel	SP			3.7		W				Slight Petro Odor
			10	EOB @ 10 Feet. Groundwater sample G-3-W collected at 5-10 feet. Borehole Abandoned.										

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-4

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	05/08/2017	05/08/2017	Geoprobe
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-4-1 (0-4 feet)	48 30		2	Tan fine to coarse grained sand with gravel	SP			0.6		Dry				No Petro Odor
G-4-2 (4-8 feet)	48 24		4 6 8	Tan fine to coarse grained sand with gravel	SP			0.9		M				No Petro Odor
G-4-3 (8-10 feet)	24 18		10	Brown fine to coarse grained sand with gravel	SP			16		W				Slight Petro Odor
			12 14 16 18 20 22 24	EOB @ 10 Feet. Groundwater sample G-4-W collected at 5-10 feet. Borehole Abandoned.										

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-5

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/08/2017 MM/ DD/ YYYY	05/08/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-5-1 (0-4 feet)	48 18		2	Tan fine to coarse grained sand with gravel	SP			0.5		Dry				No Petro Odor
			4											
G-5-2 (4-8 feet)	48 6		6	Tan fine to coarse grained sand with gravel	SP			0.9		M				No Petro Odor
			8											
G-5-3 (8-10 feet)	24 24		10	Brown fine to coarse grained sand with gravel	SP			0.8		W				No Petro Odor
				EOB @ 10 Feet. Groundwater sample G-5-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-6

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/08/2017 MM/ DD/ YYYY	05/08/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties										
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-6-1 (0-4 feet)	48 24		2 4	Tan fine to coarse grained sand with gravel	SP			1.0		Dry				No Petro Odor
G-6-2 (4-8 feet)	48 6		6 8	Tan fine to coarse grained sand with gravel	SP			1.6		Dry				No Petro Odor
G-6-3 (8-10 feet)	24 24		10	Brown fine to coarse grained sand with gravel	SP			229		W				Petro Odor
			12 14 16 18 20 22 24	EOB @ 10 Feet. Groundwater sample G-6-W collected at 5-10 feet. Borehole Abandoned.										

Signature: Firm: METCO

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-7

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/08/2017 MM/ DD/ YYYY	05/08/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-7-1 (0-4 feet)	48 30		2	Tan fine to coarse grained sand with gravel	SP			3.0		M				No Petro Odor
			4											
G-7-2 (4-8 feet)	48 18		6	Tan fine to coarse grained sand with gravel	SP			4.5		M				No Petro Odor
			8											
G-7-3 (8-10 feet)	24 24		10	Brown fine to coarse grained sand with gravel	SP			149		W				Petro Odor
				EOB @ 10 Feet. Groundwater sample G-7-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-8

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	05/08/2017	05/08/2017	Geoprobe
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-8-1 (0-4 feet)	48 36		2	Tan fine to coarse grained sand with gravel	SP			9.0		Dry				No Petro Odor
			4											
G-8-2 (4-8 feet)	48 24		6	Tan fine to coarse grained sand with gravel	SP			975		M/W				Petro Odor from 6-8 feet
			8											
G-8-3 (8-10 feet)	24 24		10	Brown fine to coarse grained sand with gravel	SP			1006		W				Petro Odor
				EOB @ 10 Feet. Groundwater sample G-8-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-9

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	05/08/2017	05/08/2017	Geoprobe
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-9-1 (0-4 feet)	48 36		2	Tan fine to coarse grained sand with gravel	SP			3.2		M				No Petro Odor
			4											
			6											
G-9-2 (4-8 feet)	48 36			Tan fine to coarse grained sand with gravel	SP			319		M/W				Petro Odor from 6-8 feet
			8											
G-9-3 (8-10 feet)	24 24		10	Tan fine to coarse grained sand with gravel	SP			227		W				Petro Odor
				EOB @ 10 Feet. Groundwater sample G-9-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-10

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	05/08/2017	05/08/2017	Geoprobe
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-10-1 (0-4 feet)	48 / 36		2	Tan fine to coarse grained sand with gravel	SP			2.1		M				No Petro Odor
			4											
			6											
G-10-2 (4-8 feet)	48 / 36			Tan fine to coarse grained sand with gravel	SP			1044		M/W				Petro Odor from 6-8 feet
			8											
G-10-3 (8-10 feet)	24 / 24		10	Tan fine to coarse grained sand with gravel	SP			215		W				Petro Odor
				EOB @ 10 Feet. Groundwater sample G-10-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-11

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/08/2017 MM/ DD/ YYYY	05/08/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-11-1 (0-4 feet)	48 30		2	Tan fine to coarse grained sand with gravel	SP			1.4		M				No Petro Odor
G-11-2 (4-8 feet)	48 6		4 6 8	Tan fine to coarse grained sand with gravel	SP			28		M				Petro Odor from 6-8 feet
G-11-3 (8-10 feet)	24 24		10	Brown fine to coarse grained sand with gravel	SP			35		W				Slight Petro Odor
			12 14 16 18 20 22 24	EOB @ 10 Feet. Groundwater sample G-11-W collected at 5-10 feet. Borehole Abandoned.										

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-12

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/08/2017 MM/ DD/ YYYY	05/08/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-12-1 (0-4 feet)	48 18		2	Tan fine to coarse grained sand with gravel	SP			4.5		Dry				No Petro Odor
G-12-2 (4-8 feet)	48 18		4 6 8	Tan fine to coarse grained sand with gravel	SP			0.7		M				No Petro Odor
G-12-3 (8-10 feet)	24 24		10	Brown fine to coarse grained sand with gravel	SP			47		W				Petro Odor
			12 14 16 18 20 22 24	EOB @ 10 Feet. Groundwater sample G-12-W collected at 5-10 feet. Borehole Abandoned.										

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-13

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			0	Concrete										
G-13-1 (0-4 feet)	48 24		2	Tan fine to medium grained sand	SP			2.4		Dry				No Petro Odor
			4											
G-13-2 (4-8 feet)	48 24		6	Tan fine to coarse grained sand with gravel	SP			4.9		M				No Petro Odor
			8											
G-13-3 (8-10 feet)	24 24		10	Tan fine to coarse grained sand with gravel	SP			8.7		W				No Petro Odor
				EOB @ 10 Feet. Groundwater sample G-13-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-14

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	05/09/2017	05/09/2017	Geoprobe
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			0	Concrete										
G-14-1 (0-4 feet)	48 24		2	Tan fine to medium grained sand	SP			6.1		M				No Petro Odor
			4											
G-14-2 (4-8 feet)	48 24		6	Tan fine to coarse grained sand with gravel	SP			6.0		M				No Petro Odor
			8											
G-14-3 (8-10 feet)	24 24		10	Brown fine to coarse grained sand with gravel	SP			335		W				Petro Odor
				EOB @ 10 Feet. Groundwater sample G-14-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-15

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
				Concrete										
G-15-1 (0-4 feet)	48 30		2	Tan fine to coarse grained sand with gravel	SP			4.9		Dry				No Petro Odor
			4											
G-15-2 (4-8 feet)	48 24		6	Tan fine to coarse grained sand with gravel	SP			8.2		M				No Petro Odor
			8											
G-15-3 (8-10 feet)	24 24		10	Gray fine to coarse grained sand with gravel	SP			37		W				Petro Odor
				EOB @ 10 Feet. Groundwater sample G-15-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-16

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
				Concrete										
G-16-1 (0-4 feet)	48 30		2	Tan fine to coarse grained sand with gravel	SP			5.1		M				No Petro Odor
			4											
G-16-2 (4-8 feet)	48 24		6	Tan fine to coarse grained sand with gravel	SP			6.4		M				No Petro Odor
			8											
G-16-3 (8-10 feet)	24 24		10	Brown fine to coarse grained sand with gravel	SP			5.6		W				No Petro Odor
				EOB @ 10 Feet. Groundwater sample G-16-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-17

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			0	Concrete										
G-17-1 (0-4 feet)	48 24		2	Tan fine to coarse grained sand with gravel	SP			5.8		M				No Petro Odor
			4											
G-17-2 (4-8 feet)	48 24		6	Tan fine to coarse grained sand with gravel	SP			8.6		M/W				No Petro Odor
			8	EOB @ 8 Feet. Groundwater sample G-17-W collected at 3-8 feet. Borehole Abandoned.										
			10											
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-18

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
			0	Concrete										
G-18-1 (0-4 feet)	48 / 24		2	Tan fine to medium grained sand	SP			7.3		M				No Petro Odor
			4											
G-18-2 (4-8 feet)	48 / 30		6	Tan fine to coarse grained sand with gravel	SP			5.1		M/W				No Petro Odor
			8											
G-18-3 (8-10 feet)	24 / 24		10	Tan fine to coarse grained sand with gravel	SP			6.4		W				No Petro Odor
			12	EOB @ 10 Feet. Groundwater sample G-18-W collected at 5-10 feet. Borehole Abandoned.										
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-19

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	05/09/2017	05/09/2017	Geoprobe
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
				Concrete										
G-19-1 (0-4 feet)	48 24		2	Tan fine to coarse grained sand with gravel	SP			5.8		M				No Petro Odor
			4											
G-19-2 (4-8 feet)	48 30		6	Tan fine to coarse grained sand with gravel	SP			4.7		M				No Petro Odor
			8											
G-19-3 (8-10 feet)	24 24		10	Tan fine to coarse grained sand with gravel	SP			5.8		W				No Petro Odor
				EOB @ 10 Feet. Groundwater sample G-19-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-20

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	05/09/2017	05/09/2017	Geoprobe
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-20-1 (0-4 feet)	48 24		2	Tan fine to medium grained sand	SP			5.8		M				No Petro Odor
			4											
G-20-2 (4-8 feet)	48 30		6	Tan fine to coarse grained sand with gravel	SP			5.8		M				No Petro Odor
			8											
G-20-3 (8-10 feet)	24 24		10	Tan fine to coarse grained sand with gravel	SP			5000+		W				Petro Odor
				EOB @ 10 Feet. Groundwater sample G-20-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-21

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-21-1 (0-4 feet)	48 30		2	Tan fine to coarse grained sand with gravel	SP			6.7		M				No Petro Odor
			4											
G-21-2 (4-8 feet)	48 30		6	Tan fine to coarse grained sand with gravel	SP			8.4		M				No Petro Odor
			8											
G-21-3 (8-10 feet)	24 24		10	Tan fine to coarse grained sand with gravel	SP			5000+		W				Petro Odor
				EOB @ 10 Feet. Groundwater sample G-21-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-22

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-22-1 (0-4 feet)	48 30		2	Tan fine to coarse grained sand with gravel	SP			5.1		M				No Petro Odor
			4											
G-22-2 (4-8 feet)	48 30		6	Tan fine to coarse grained sand with gravel	SP			6.4		M				No Petro Odor
			8											
G-22-3 (8-10 feet)	24 24		10	Tan fine to coarse grained sand with gravel	SP			7.1		W				No Petro Odor
				EOB @ 10 Feet. Groundwater sample G-22-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-23

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-23-1 (0-4 feet)	48 30		2	Brown fine to coarse grained sand with gravel	SP			3.9		M				No Petro Odor
			4											
G-23-2 (4-8 feet)	48 30		6	Tan fine to coarse grained sand with gravel	SP			5.8		M				No Petro Odor
			8											
G-23-3 (8-10 feet)	24 24		10	Tan fine to coarse grained sand with gravel	SP			7.0		W				No Petro Odor
				EOB @ 10 Feet. Groundwater sample G-23-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-24

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties: USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-24-1 (0-4 feet)	48 / 24		2	Tan fine to coarse grained sand with gravel	SP			7.3		M				No Petro Odor
			4											
G-24-2 (4-8 feet)	48 / 30		6	Tan fine to medium grained sand	SP			5.1		M				No Petro Odor
			8											
G-24-3 (8-10 feet)	24 / 24		10	Tan fine to coarse grained sand with gravel	SP			8.9		W				No Petro Odor
				EOB @ 10 Feet. Groundwater sample G-24-W collected at 5-10 feet. Borehole Abandoned.										
			12											
			14											
			16											
			18											
			20											
			22											
			24											

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luetke Property		G-25

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice Firm: Geiss Soil & Samples, LLC	05/09/2017 MM/ DD/ YYYY	05/09/2017 MM /DD/ YYYY	Geoprobe

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			1,442 Feet MSL	1,450 Feet MSL	2 inches

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45° 28 ' 15"	N E
SW ¼ of SW ¼ of Section 34, T 35 N, R 6 E	Long 89° 43' 47"	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
G-25-1 (0-4 feet)	48 0		2 4	No recovery										
G-25-2 (4-8 feet)	48 30		6 8	Tan fine to medium grained sand	SP			4.7		M				No Petro Odor
G-25-3 (8-10 feet)	24 24		10	Tan fine to coarse grained sand with gravel	SP			15.8		W				No Petro Odor
			12 14 16 18 20 22 24	EOB @ 10 Feet. Groundwater sample G-25-W collected at 5-10 feet. Borehole Abandoned.										

Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		PZ-1

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/13/2017	11/13/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR691		PZ-1	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45 ° 28 ' 15"	N E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
				Concrete										
PZ-1-1 (3.5 feet)	48 / 30		4	0-4' Tan fine to medium grained sand	SP			0.2		M				No petro odor
PZ-1-2 (4-8 feet)	48 / 0		8	4-8' No recovery										
PZ-1-3 (12 feet)	48 / 36		12	8-16' Tan fine to coarse grained sand with gravel	SP			23.1		W				Petro odor
PZ-1-4 (16 feet)	48 / 30		16					42		W				Petro odor
PZ-1-5 (20 feet)	48 / 42		20	16-24' Gray sandy silt	ML			14.2		W				Petro odor
PZ-1-6 (24 feet)	48 / 48		24	24-28' Tan very fine grained sand	SP			8.0		W				Slight petro odor
PZ-1-7 (28 feet)	48 / 48		28	28-30' Tan very fine grained sand to silty sand	SP/SM			5.0		W				Slight petro odor
PZ-1-8 (30 feet)	24 / 24		32	EOB at 30 feet bgs. Piezometer well PZ-1 was installed to 30 feet with a 10 foot screen.				2.0		W				Slight petro odor
			36											

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

Signature: Firm: **METCO**

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		MW-1

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/13/2017	11/13/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR692		MW-1	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45 ° 28 ' 15"	N E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S Feet W

Facility ID	County	County Code	Civil Town / **City** / Village
735041230	Lincoln	35	City of Tomahawk

Sample: Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
				Concrete										
MW-1-1	48			0-4' Tan fine to medium grained sand	SP			0.1		M				No petro odor
(3.5 feet)	24		4											
MW-1-2	48													
(4-8 feet)	0			4-8' No recovery										
MW-1-3	48		8					24.5		W				Petro odor
(8 feet)	36													
			12	8-15' Tan fine to coarse grained sand with gravel	SP									
MW-1-4	36							25.7		W				Petro odor
(15 feet)	36		16	EOB at 15 feet bgs. Monitoring well MW-1 was installed to 15 feet with a 10 foot screen.										
			20											
			24											
			28											
			32											
			36											

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		MW-2

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/13/2017	11/13/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR693		MW-2	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45 ° 28 ' 15"	N E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S Feet W

Facility ID	County	County Code	Civil Town / **City** / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
MW-2-1 (3.5 feet)	48 / 36		0	0-4' Tan fine to medium grained sand	SP			0.1		M				No petro odor
MW-2-2 (4-8 feet)	48 / 0		4	4-8' No recovery										
MW-2-3 (9 feet)	48 / 36		8	8-12' Tan fine to coarse grained sand with gravel	SP			1.1		W				Petro odor
			12	12-15' Tan fine to medium grained sand	SP									
MW-2-4 (15 feet)	36 / 36		16	EOB at 15 feet bgs. Monitoring well MW-2 was installed to 15 feet with a 10 foot screen.				2.3		W				Petro odor
			20											
			24											
			28											
			32											
			36											

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		MW-3

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/13/2017	11/13/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR694		MW-3	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45 ° 28 ' 15"	N E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S Feet W

Facility ID	County	County Code	Civil Town / **City** / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
MW-3-1 (3.5 feet)	48 / 24		4	0-8' Tan fine to coarse grained sand with gravel	SP			0.4		M				No petro odor
MW-3-2 (8 feet)	48 / 12		8					0.1		M				No petro odor
MW-3-3 (10 feet)	48 / 42		12	8-12' Tan very fine to fine grained sand	SP			12.6		W				Petro odor
				12-15' Tan fine to coarse grained sand with gravel	SP									
MW-3-4 (15 feet)	36 / 30		16	EOB at 15 feet bgs. Monitoring well MW-3 was installed to 15 feet with a 10 foot screen.				6.3		W				Petro odor
			20											
			24											
			28											
			32											
			36											

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		MW-4

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/14/2017	11/14/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR695		MW-4	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location	
State Plane N, E	Lat 45 ° 28 ' 15"	N	E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S	Feet W

Facility ID	County	County Code	Civil Town / **City** / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	Soil Properties USCS	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
				Concrete										
MW-4-1 (3.5 feet)	48 / 24		4	0-8' Tan fine to coarse grained sand	SP			0.1		M				No petro odor
MW-4-2 (8 feet)	48 / 30		8					0.1		M				No petro odor
				8-12' Tan fine to coarse grained sand with gravel	SP									
MW-4-3 (12 feet)	48 / 42		12					0.3		W				No petro odor
				12-15' Tan very fine grained sand	SP									
MW-4-4 (15 feet)	36 / 36		16	EOB at 15 feet bgs. Monitoring well MW-4 was installed to 15 feet with a 10 foot screen.				0.5		W				No petro odor
			20											
			24											
			28											
			32											
			36											

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Signature: Firm: **METCO**

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		MW-5

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/14/2017	11/14/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

Wt Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR696		MW-5	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45 ° 28 ' 15"	N E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S Feet W

Facility ID	County	County Code	Civil Town / **City** / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
				Concrete										
MW-5-1 (3.5 feet)	48 / 12		4	0-4' Tan fine to coarse grained sand	SP			0.5		M				No petro odor
MW-5-2 (8 feet)	48 / 30		8	4-12' Tan fine to coarse grained sand with gravel	SP			0.7		M				No petro odor
MW-5-3 (12 feet)	48 / 12		12					0.8		W				No petro odor
MW-5-4 (15 feet)	36 / 36		16	12-15' Tan very fine grained sand	SP			0.7		W				No petro odor
			20	EOB at 15 feet bgs. Monitoring well MW-5 was installed to 15 feet with a 10 foot screen.										
			24											
			28											
			32											
			36											

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

Signature: Firm: **METCO**

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Department of Natural Resources

SOIL BORING LOG INFORMATION

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Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		MW-6

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/14/2017	11/14/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

Wt Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR697		MW-6	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45 ° 28 ' 15"	N E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S Feet W

Facility ID	County	County Code	Civil Town / **City** / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
MW-6-1 (3.5 feet)	48 / 24		0	0-4' Tan fine to medium grained sand	SP			0.5		M				No petro odor
			4	4-8' Tan fine to coarse grained sand	SP									
MW-6-2 (8 feet)	48 / 30		8					0.6		M				No petro odor
				8-12' Tan medium to coarse grained sand with gravel	SP									
MW-6-3 (12 feet)	48 / 36		12	12-13' Tan gravel	GP			0.4		W				No petro odor
				13-15' Tan very fine grained sand	SP									
MW-6-4 (15 feet)	36 / 24		16	EOB at 15 feet bgs. Monitoring well MW-6 was installed to 15 feet with a 10 foot screen.				0.8		W				No petro odor
			20											
			24											
			28											
			32											
			36											

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Signature: Firm: **METCO**

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State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		MW-7

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/14/2017	11/14/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR698		MW-7	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location	
State Plane N, E	Lat 45 ° 28 ' 15"	N	E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S	Feet W

Facility ID	County	County Code	Civil Town / City / Village
735041230	Lincoln	35	City of Tomahawk

Sample Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	Soil Properties: PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
MW-7-1 (3.5 feet)	48 / 24		4	0-4' Tan very fine to medium grained sand	SP			0.4		M				No petro odor
MW-7-2 (8 feet)	48 / 30		8	4-8' Tan fine to medium grained sand	SP			0.4		M				No petro odor
MW-7-3 (12 feet)	48 / 24		12	8-12' Tan medium to coarse grained sand with gravel	SP			0.7		W				No petro odor
MW-7-4 (15 feet)	36 / 12		16	12-15' Tan fine to coarse grained sand	SP			0.6		W				No petro odor
				EOB at 15 feet bgs. Monitoring well MW-7 was installed to 15 feet with a 10 foot screen.										
			20											
			24											
			28											
			32											
			36											

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Signature: Firm: **METCO**

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Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed / Wastewater: Waste Management:
Remediation / Redevelopment: X Other:

Facility / Project Name	License / Permit / Monitoring Number	Boring Number
Luedtke Property		MW-8

Boring Drilled By: Name of crew chief (first, last) and Firm	Drilling Date Started	Drilling Date Completed	Drilling Method
First: Darrin Last: Prentice	11/14/2017	11/14/2017	Geoprobe/H.S.A.
Firm: Geiss Soil & Samples, LLC	MM/ DD/ YYYY	MM /DD/ YYYY	

WI Unique Well No.	DNR Well ID No.	Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
VR699		MW-8	1,442 Feet MSL	1,450 Feet MSL	8"

Local Grid Origin (estimated X) or Boring Location		Local Grid Location
State Plane N, E	Lat 45 ° 28 ' 15"	N E
SW¼ of SW¼ of Section 34, T 35 N, R 6 E	Long 89 ° 43 ' 47 "	Feet S Feet W

Facility ID	County	County Code	Civil Town / **City** / Village
735041230	Lincoln	35	City of Tomahawk

Sample					Soil Properties									
Number & Type	Length Att. & Recovered (in)	Blow Counts	Depth in Feet (below ground surface)	Soil / Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID / FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD / Comments
MW-8-1 (3.5 feet)	48 / 24		4	0-8' Tan to gray fine to coarse grained sand with gravel	SP			0.2		M				No petro odor
MW-8-2 (8 feet)	48 / 24		8	8-13' Tan very fine grained sand	SP			373		M				Petro odor
MW-8-3 (12 feet)	48 / 30		12	13-15'Gray silt	ML			340		W				Petro odor
MW-8-4 (15 feet)	36 / 36		16	EOB at 15 feet bgs. Monitoring well MW-8 was installed to 15 feet with a 10 foot screen.				34		W				Slight petro odor
			20											
			24											
			28											
			32											
			36											

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

Signature: Firm: **METCO**

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295 and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in 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 this form is not intended to be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Lattitude / Longitude (Degrees and Minutes) | Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk | Well ZIP Code: 54487-

Subdivision Name | Lot #

Reason For Removal From Service: Sampling Complete | WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
12	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)? | Depth to Water (feet): 8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	12	18	

6. Comments

G-1
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route: 709 Gillette St, Ste. 3 | Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work | Date Signed: 5/11/2017

DNR Use Only

Date Received | Noted By | Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08) Page 1 of 2

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1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes): 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name: — Lot #:

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
12	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	12	18	

6. Comments

G-2
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route: 709 Gillette St, Ste. 3 — Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work — Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08) Page 1 of 2

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes): 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk — Well ZIP Code: 54487-

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)? — Depth to Water (feet): 8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-3
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route: 709 Gillette St, Ste. 3 — Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work — Date Signed: 5/11/2017

DNR Use Only

Date Received — Noted By — Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08) Page 1 of 2

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk — Well ZIP Code: 54487-

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner: Fond du Lac — State: WI — ZIP Code: 54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)? — Depth to Water (feet): 8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-4
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route: 709 Gillette St, Ste. 3 — Telephone Number: (608) 781-8879

City: La Crosse — State: WI — ZIP Code: 54603-

Signature of Person Doing Work — Date Signed: 5/11/2017

DNR Use Only

Date Received — Noted By — Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)
45 ° 28.25 ' N
89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-
Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type:
[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
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If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
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Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
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For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-5
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only
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Comments

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Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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or Gov't Lot #

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Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name | Lot #

Reason For Removal From Service: Sampling Complete

WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
[X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
[X] Other (specify): Geoprobe

Formation Type:
[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-6
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route: 709 Gillette St, Ste. 3

Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only
Date Received | Noted By
Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes): 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk — Well ZIP Code: 54487-

Subdivision Name: — Lot #:

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner: Fond du Lac — State: WI — ZIP Code: 54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-7
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route: 709 Gillette St, Ste. 3 — Telephone Number: (608) 781-8879

City: La Crosse — State: WI — ZIP Code: 54603-

Signature of Person Doing Work — Date Signed: 5/11/2017

DNR Use Only

Date Received: — Noted By: — Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes): 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name	Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-8
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work:

Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08) Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)
45 ° 28.25 ' N
89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk | Well ZIP Code: 54487-

Subdivision Name | Lot #

Reason For Removal From Service: Sampling Complete | WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner: Fond du Lac | State: WI | ZIP Code: 54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-9
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route: 709 Gillette St, Ste. 3 | Telephone Number: (608) 781-8879

City: La Crosse | State: WI | ZIP Code: 54603-

Signature of Person Doing Work | Date Signed: 5/11/2017

DNR Use Only
Date Received | Noted By
Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name: — Lot #:

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-10
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work: [signature] — Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Lattitude / Longitude (Degrees and Minutes)	Method Code (see instructions)
45 ° 28.25 ' N	
89 ° 43.78 ' W	

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk

Well ZIP Code: 54487-

Subdivision Name:

Lot #:

Reason For Removal From Service: Sampling Complete

WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-11
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
La Crosse	WI	54603-		5/11/2017

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes): 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk — Well ZIP Code: 54487-

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/8/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)? — Depth to Water (feet): 8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-12
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/8/2017

Street or Route: 709 Gillette St, Ste. 3 — Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work — Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type:

☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type:

[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-13
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)
45 ° 28.25 ' N
89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk | Well ZIP Code: 54487-

Subdivision Name | Lot #

Reason For Removal From Service: Sampling Complete | WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-14
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route: 709 Gillette St, Ste. 3 | Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work | Date Signed: 5/11/2017

DNR Use Only
Date Received | Noted By
Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name | Lot #

Reason For Removal From Service: Sampling Complete

WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-15
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route: 709 Gillette St, Ste. 3

Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only

Date Received | Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes): 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk — Well ZIP Code: 54487-

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner: Fond du Lac — State: WI — ZIP Code: 54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-16
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route: 709 Gillette St, Ste. 3 — Telephone Number: (608) 781-8879

City: La Crosse — State: WI — ZIP Code: 54603-

Signature of Person Doing Work — Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-
Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type:

☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type:

[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
8	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	7

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	8	12	

6. Comments

G-17
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route: 709 Gillette St, Ste. 3

Telephone Number: (608) 781-8879

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
La Crosse	WI	54603-		5/11/2017

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) 45 ° 28.25 ' N; 89 ° 43.78 ' W — Method Code (see instructions):

¼ / ¼ or Gov't Lot #	¼	Section	Township	Range
SW	SW	34	35 N	6 [X] E ☐ W

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name: — Lot #:

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-18
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
La Crosse	WI	54603-		5/11/2017

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	Wi Unique Well # of Removed Well	Fldcap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name	Lot #

Reason For Removal From Service	Wi Unique Well # of Replacement Well
Sampling Complete	

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-19
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete

WI Unique Well # of Replacement Well

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	Lbs
Bentonite Chips	Surface	10	15

6. Comments

G-20
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route: 709 Gillette St, Ste. 3

Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only

Date Received | Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-21
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
La Crosse	WI	54603-		5/11/2017

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name | Lot #

Reason For Removal From Service: Sampling Complete

WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type:

☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type:

[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-22
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to:
☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)
45 ° 28.25 ' N
89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
[X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
[X] Other (specify): Geoprobe

Formation Type:
[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-23
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route	Telephone Number
709 Gillette St, Ste. 3	(608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

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☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

45 ° 28.25 ' N

89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town: Tomahawk — Well ZIP Code: 54487-

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type: [X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material: ☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials: ☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.) ☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " " ☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only: ☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-24
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route: 709 Gillette St, Ste. 3 — Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work — Date Signed: 5/11/2017

DNR Use Only

Date Received — Noted By — Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater [X] Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
LINCOLN		

Latitude / Longitude (Degrees and Minutes) | Method Code (see instructions)
45 ° 28.25 ' N
89 ° 43.78 ' W

¼ / ¼	¼	Section	Township	Range	
SW	SW	34	35 N	6	[X] E ☐ W

or Gov't Lot #

Well Street Address: 11 W. Wisconsin Ave.

Well City, Village or Town	Well ZIP Code
Tomahawk	54487-

Subdivision Name | Lot #

Reason For Removal From Service: Sampling Complete | WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Luedtke Property

Facility ID (FID or PWS): 735041230

License/Permit/Monitoring #:

Original Well Owner: Todd Luedtke

Present Well Owner: Todd Luedtke

Mailing Address of Present Owner: 426 Crowfoot Ave.

City of Present Owner	State	ZIP Code
Fond du Lac	WI	54935-

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well [X] Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 5/9/2017

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug [X] Other (specify): Geoprobe

Formation Type:
[X] Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
10	

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
2	

Was well annular space grouted? ☐ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
	8

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	[X] N/A
Liner(s) removed?	☐ Yes	☐ No	[X] N/A
Screen removed?	☐ Yes	☐ No	[X] N/A
Casing left in place?	☐ Yes	☐ No	[X] N/A
Was casing cut off below surface?	☐ Yes	☐ No	[X] N/A
Did sealing material rise to surface?	[X] Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	[X] No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	[X] N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	[X] Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) [X] Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete [X] Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	Lbs	
Bentonite Chips	Surface	10	15	

6. Comments

G-25
Abandoned by Geiss Soil and Samples LLC under METCO's supervision

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Eric Dahl/METCO		5/9/2017

Street or Route: 709 Gillette St, Ste. 3

Telephone Number: (608) 781-8879

City	State	ZIP Code
La Crosse	WI	54603-

Signature of Person Doing Work

Date Signed: 5/11/2017

DNR Use Only
Date Received | Noted By
Comments

APPENDIX D/ WASTE DISPOSAL DOCUMENTATION

DKS Transport Services, LLC
N7349 548th Street
Menomonie, WI 54751
715-556-2604

INVOICE

12-12 20 17

CUSTOMER: Marco % Todd Luedtke
709 Gillette St
La Crosse WI 54603

JOB NAME: Luedtke Property
Tomahawk WI

☐ CASH ☐ CHECK # _____ ☑ IN-HOUSE ACCOUNT

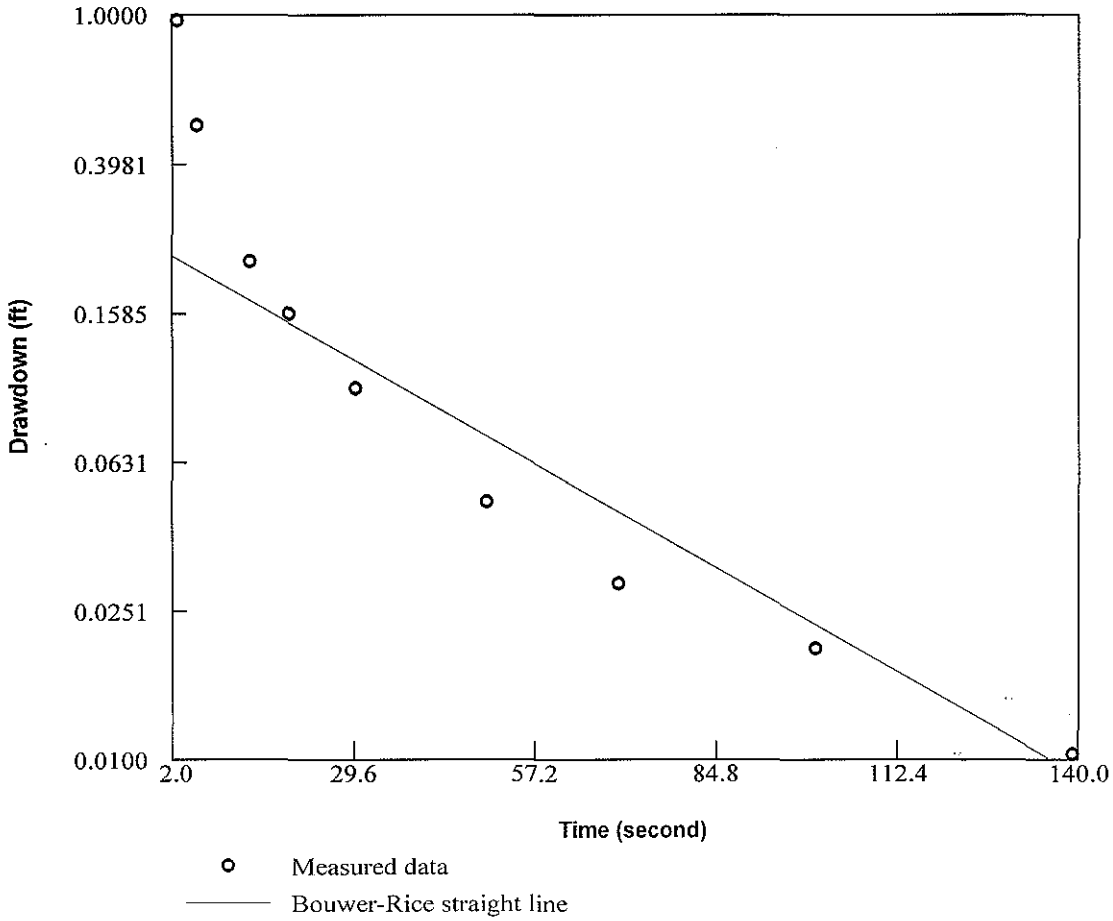
QUANTITY DATE	QUANTITY SHIPPED	DESCRIPTION	QTY.	UNIT PRICE	AMOUNT
	1	Mobilization	1	287 70	287 70
	9	Haul soil drums to Advanced Disposal - Eau Claire	9	108 15	973 35
	2	Haul water drums to Advanced Disposal - Eau Claire	2	42 11	84 22
		Thank You			
				TOTAL	1345 27

Due upon receipt of invoice.
1.5% per month Service Charge (18% Annual Percentage Rate) will be added to past due accounts.

SIGNATURE _____

204

APPENDIX E/ OTHER DOCUMENTATION



Aquifer Parameters by the Bouwer and Rice Slug Test	
Hydraulic Conductivity (ft/s):	2.32e-005
Transmissivity (sq ft/s):	1.92e-004

Luedtke Property MW-1 Slug Out

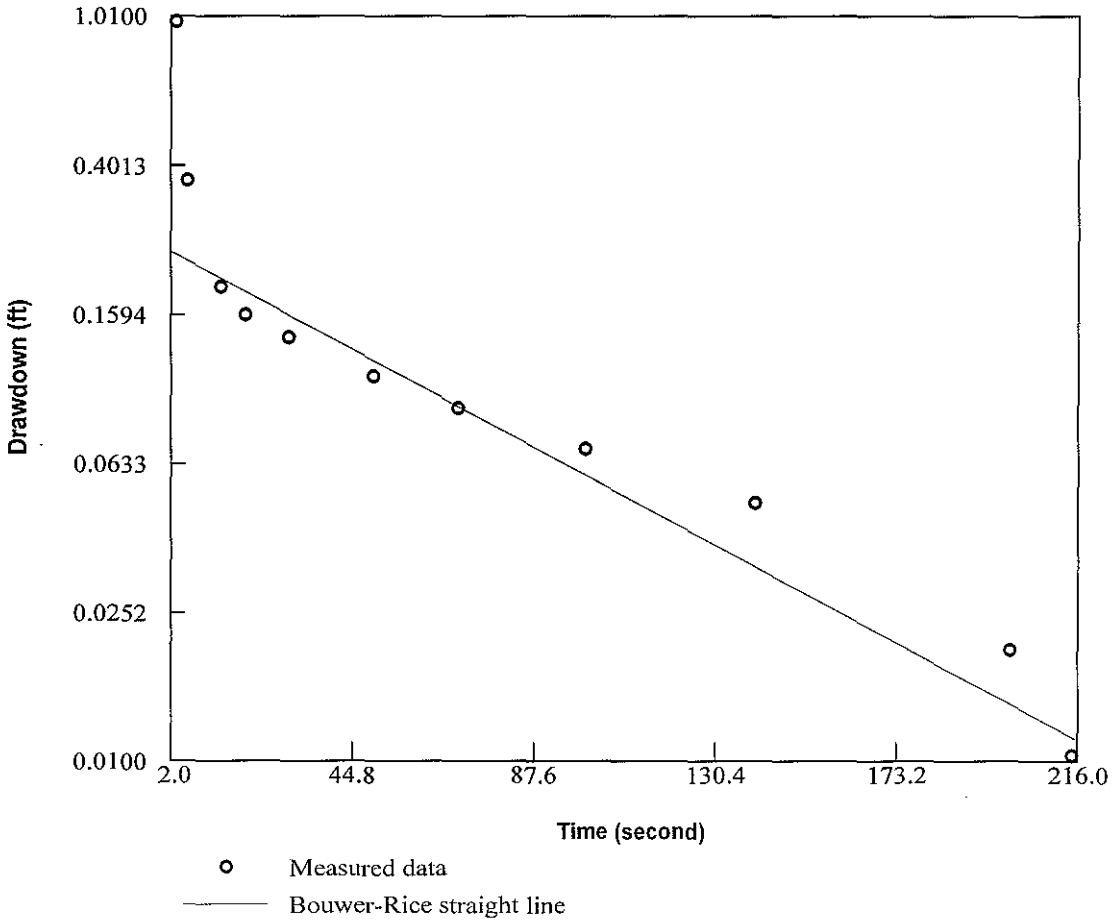
Luedtke Property
MW-1 (Slug Out)

Date/time	Pressure[ft	Temperature[°F]	Time (seconds)	Drawdown
1/29/2018 14:56	41.30605	49.304	0	0.01605
1/29/2018 14:56	40.28953	49.304	2	1.00047
1/29/2018 14:56	40.61133	49.304	4	0.67867
1/29/2018 14:56	40.77975	49.316	6	0.51025
1/29/2018 14:56	40.89403	49.316	8	0.39597
1/29/2018 14:56	40.96921	49.328	10	0.32079
1/29/2018 14:56	41.02636	49.328	12	0.26364
1/29/2018 14:56	41.06545	49.34	14	0.22455
1/29/2018 14:56	41.09252	49.34	16	0.19748
1/29/2018 14:56	41.11056	49.352	18	0.17944
1/29/2018 14:56	41.13162	49.352	20	0.15838
1/29/2018 14:56	41.14966	49.364	22	0.14034
1/29/2018 14:56	41.15868	49.364	24	0.13132
1/29/2018 14:56	41.16771	49.376	26	0.12229
1/29/2018 14:56	41.17974	49.376	28	0.11026
1/29/2018 14:56	41.18876	49.388	30	0.10124
1/29/2018 14:56	41.18876	49.388	32	0.10124
1/29/2018 14:56	41.19778	49.4	34	0.09222
1/29/2018 14:56	41.2068	49.4	36	0.0832
1/29/2018 14:56	41.2068	49.418	38	0.0832
1/29/2018 14:56	41.21582	49.418	40	0.07418
1/29/2018 14:56	41.21582	49.418	42	0.07418
1/29/2018 14:56	41.22485	49.43	44	0.06515
1/29/2018 14:56	41.22485	49.43	46	0.06515
1/29/2018 14:56	41.22485	49.442	48	0.06515
1/29/2018 14:57	41.23688	49.442	50	0.05312
1/29/2018 14:57	41.23688	49.442	52	0.05312
1/29/2018 14:57	41.23688	49.454	54	0.05312
1/29/2018 14:57	41.2459	49.454	56	0.0441
1/29/2018 14:57	41.2459	49.454	58	0.0441
1/29/2018 14:57	41.2459	49.466	60	0.0441
1/29/2018 14:57	41.2459	49.466	62	0.0441
1/29/2018 14:57	41.25492	49.466	64	0.03508
1/29/2018 14:57	41.25492	49.466	66	0.03508
1/29/2018 14:57	41.25793	49.478	68	0.03207
1/29/2018 14:57	41.25793	49.478	70	0.03207
1/29/2018 14:57	41.25793	49.478	72	0.03207
1/29/2018 14:57	41.25793	49.478	74	0.03207
1/29/2018 14:57	41.26394	49.49	76	0.02606
1/29/2018 14:57	41.26394	49.49	78	0.02606
1/29/2018 14:57	41.26394	49.49	80	0.02606
1/29/2018 14:57	41.26394	49.49	82	0.02606
1/29/2018 14:57	41.26394	49.502	84	0.02606
1/29/2018 14:57	41.26394	49.502	86	0.02606
1/29/2018 14:57	41.26394	49.502	88	0.02606
1/29/2018 14:57	41.26394	49.502	90	0.02606

Luedtke Property
MW-1 (Slug Out)

1/29/2018 14:57	41.26394	49.502	92	0.02606
1/29/2018 14:57	41.26394	49.502	94	0.02606
1/29/2018 14:57	41.26394	49.514	96	0.02606
1/29/2018 14:57	41.27297	49.514	98	0.01703
1/29/2018 14:57	41.26394	49.514	100	0.02606
1/29/2018 14:57	41.27297	49.514	102	0.01703
1/29/2018 14:57	41.27297	49.514	104	0.01703
1/29/2018 14:57	41.27297	49.526	106	0.01703
1/29/2018 14:57	41.27297	49.526	108	0.01703
1/29/2018 14:58	41.27297	49.526	110	0.01703
1/29/2018 14:58	41.27297	49.526	112	0.01703
1/29/2018 14:58	41.27297	49.526	114	0.01703
1/29/2018 14:58	41.27297	49.526	116	0.01703
1/29/2018 14:58	41.27297	49.526	118	0.01703
1/29/2018 14:58	41.27297	49.544	120	0.01703
1/29/2018 14:58	41.28199	49.544	122	0.00801
1/29/2018 14:58	41.28199	49.544	124	0.00801
1/29/2018 14:58	41.27297	49.544	126	0.01703
1/29/2018 14:58	41.28199	49.544	128	0.00801
1/29/2018 14:58	41.28199	49.556	130	0.00801
1/29/2018 14:58	41.28199	49.556	132	0.00801
1/29/2018 14:58	41.28199	49.556	134	0.00801
1/29/2018 14:58	41.28199	49.556	136	0.00801
1/29/2018 14:58	41.28199	49.556	138	0.00801
1/29/2018 14:58	41.28199	49.556	140	0.00801
1/29/2018 14:58	41.28199	49.568	142	0.00801
1/29/2018 14:58	41.28199	49.568	144	0.00801
1/29/2018 14:58	41.28199	49.568	146	0.00801
1/29/2018 14:58	41.28199	49.568	148	0.00801
1/29/2018 14:58	41.29402	49.568	150	0.00402
1/29/2018 14:58	41.28199	49.568	152	0.00801
1/29/2018 14:58	41.28199	49.568	154	0.00801
1/29/2018 14:58	41.28199	49.568	156	0.00801
1/29/2018 14:58	41.288	49.58	158	0.002
1/29/2018 14:58	41.29703	49.58	160	0.00703

END OF DATA FILE OF DATALOGGER FOR WINDOWS



Aquifer Parameters by the Bouwer and Rice Slug Test	
Hydraulic Conductivity (ft/s):	1.49e-005
Transmissivity (sq ft/s):	1.13e-004

Luedtke Property MW-8 Slug Out

Luedtke Property
MW-8 (Slug Out)

Date/time	Pressure[ft	Temperature[°F]	Time (seconds)	Drawdown
1/29/2018 15:34	40.08503	49.046	0	0.06503
1/29/2018 15:34	39.00837	49.046	2	1.01163
1/29/2018 15:34	39.36926	49.046	4	0.65074
1/29/2018 15:34	39.65497	49.046	6	0.36503
1/29/2018 15:34	39.76624	49.058	8	0.25376
1/29/2018 15:34	39.79331	49.058	10	0.22669
1/29/2018 15:34	39.82338	49.058	12	0.19662
1/29/2018 15:34	39.82639	49.076	14	0.19361
1/29/2018 15:34	39.84744	49.076	16	0.17256
1/29/2018 15:34	39.84744	49.076	18	0.17256
1/29/2018 15:34	39.85646	49.076	20	0.16354
1/29/2018 15:34	39.86549	49.076	22	0.15451
1/29/2018 15:34	39.88052	49.088	24	0.13948
1/29/2018 15:34	39.88052	49.088	26	0.13948
1/29/2018 15:34	39.88052	49.088	28	0.13948
1/29/2018 15:34	39.88052	49.088	30	0.13948
1/29/2018 15:34	39.88955	49.088	32	0.13045
1/29/2018 15:35	39.88955	49.088	34	0.13045
1/29/2018 15:35	39.88955	49.1	36	0.13045
1/29/2018 15:35	39.88955	49.1	38	0.13045
1/29/2018 15:35	39.89857	49.1	40	0.12143
1/29/2018 15:35	39.89857	49.1	42	0.12143
1/29/2018 15:35	39.90458	49.112	44	0.11542
1/29/2018 15:35	39.90458	49.112	46	0.11542
1/29/2018 15:35	39.90458	49.112	48	0.11542
1/29/2018 15:35	39.9136	49.124	50	0.1064
1/29/2018 15:35	39.9136	49.124	52	0.1064
1/29/2018 15:35	39.9136	49.124	54	0.1064
1/29/2018 15:35	39.9136	49.136	56	0.1064
1/29/2018 15:35	39.9136	49.136	58	0.1064
1/29/2018 15:35	39.9136	49.148	60	0.1064
1/29/2018 15:35	39.92864	49.16	62	0.09136
1/29/2018 15:35	39.92864	49.16	64	0.09136
1/29/2018 15:35	39.92263	49.172	66	0.09737
1/29/2018 15:35	39.92263	49.172	68	0.09737
1/29/2018 15:35	39.93165	49.19	70	0.08835
1/29/2018 15:35	39.93165	49.202	72	0.08835
1/29/2018 15:35	39.93165	49.202	74	0.08835
1/29/2018 15:35	39.93165	49.202	76	0.08835
1/29/2018 15:35	39.93165	49.214	78	0.08835
1/29/2018 15:35	39.93165	49.226	80	0.08835
1/29/2018 15:35	39.93165	49.226	82	0.08835
1/29/2018 15:35	39.94067	49.226	84	0.07933
1/29/2018 15:35	39.94067	49.238	86	0.07933
1/29/2018 15:35	39.94067	49.25	88	0.07933
1/29/2018 15:35	39.94067	49.25	90	0.07933

Luedtke Property
MW-8 (Slug Out)

1/29/2018 15:35	39.94067	49.25	92	0.07933
1/29/2018 15:36	39.95571	49.262	94	0.06429
1/29/2018 15:36	39.95571	49.262	96	0.06429
1/29/2018 15:36	39.94969	49.274	98	0.07031
1/29/2018 15:36	39.94969	49.274	100	0.07031
1/29/2018 15:36	39.94969	49.286	102	0.07031
1/29/2018 15:36	39.94969	49.286	104	0.07031
1/29/2018 15:36	39.96172	49.286	106	0.05828
1/29/2018 15:36	39.96473	49.304	108	0.05527
1/29/2018 15:36	39.95571	49.304	110	0.06429
1/29/2018 15:36	39.96473	49.304	112	0.05527
1/29/2018 15:36	39.96172	49.316	114	0.05828
1/29/2018 15:36	39.96172	49.316	116	0.05828
1/29/2018 15:36	39.96172	49.328	118	0.05828
1/29/2018 15:36	39.97075	49.328	120	0.04925
1/29/2018 15:36	39.96172	49.328	122	0.05828
1/29/2018 15:36	39.96172	49.34	124	0.05828
1/29/2018 15:36	39.96172	49.34	126	0.05828
1/29/2018 15:36	39.96172	49.34	128	0.05828
1/29/2018 15:36	39.96172	49.352	130	0.05828
1/29/2018 15:36	39.97075	49.352	132	0.04925
1/29/2018 15:36	39.97075	49.352	134	0.04925
1/29/2018 15:36	39.97075	49.364	136	0.04925
1/29/2018 15:36	39.97075	49.364	138	0.04925
1/29/2018 15:36	39.97075	49.364	140	0.04925
1/29/2018 15:36	39.97075	49.364	142	0.04925
1/29/2018 15:36	39.97075	49.376	144	0.04925
1/29/2018 15:36	39.97977	49.376	146	0.04023
1/29/2018 15:36	39.97977	49.388	148	0.04023
1/29/2018 15:36	39.97977	49.388	150	0.04023
1/29/2018 15:36	39.97977	49.388	152	0.04023
1/29/2018 15:37	39.97977	49.388	154	0.04023
1/29/2018 15:37	39.97977	49.4	156	0.04023
1/29/2018 15:37	39.98879	49.4	158	0.03121
1/29/2018 15:37	39.98879	49.4	160	0.03121
1/29/2018 15:37	39.98879	49.418	162	0.03121
1/29/2018 15:37	39.98879	49.418	164	0.03121
1/29/2018 15:37	39.98879	49.418	166	0.03121
1/29/2018 15:37	39.98879	49.418	168	0.03121
1/29/2018 15:37	39.98879	49.43	170	0.03121
1/29/2018 15:37	39.98879	49.43	172	0.03121
1/29/2018 15:37	39.98879	49.43	174	0.03121
1/29/2018 15:37	39.98879	49.43	176	0.03121
1/29/2018 15:37	39.98879	49.43	178	0.03121
1/29/2018 15:37	39.98879	49.442	180	0.03121
1/29/2018 15:37	39.99781	49.442	182	0.02219
1/29/2018 15:37	39.98879	49.442	184	0.03121

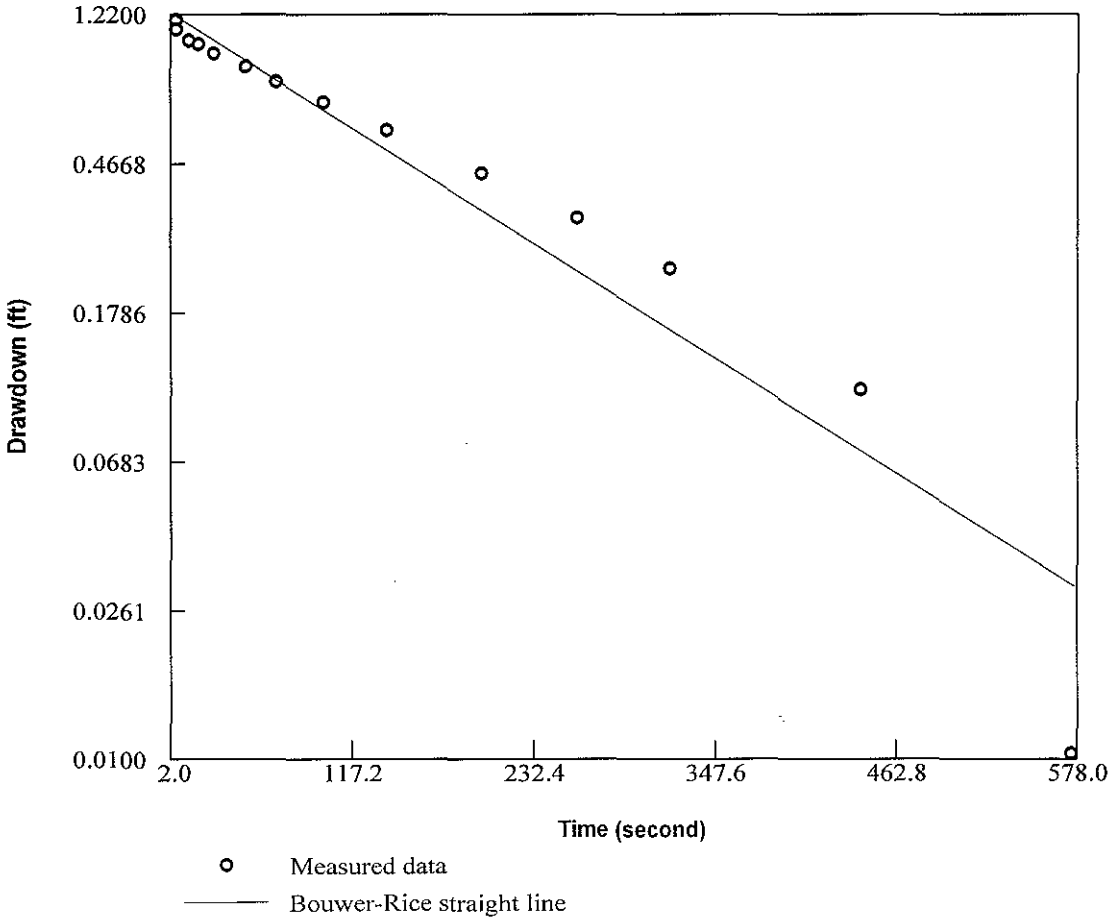
Luedtke Property
MW-8 (Slug Out)

1/29/2018 15:37	39.99781	49.442	186	0.02219
1/29/2018 15:37	39.99781	49.442	188	0.02219
1/29/2018 15:37	39.99781	49.442	190	0.02219
1/29/2018 15:37	39.99781	49.442	192	0.02219
1/29/2018 15:37	39.99781	49.442	194	0.02219
1/29/2018 15:37	39.98879	49.442	196	0.03121
1/29/2018 15:37	39.99781	49.442	198	0.02219
1/29/2018 15:37	39.99781	49.442	200	0.02219
1/29/2018 15:37	39.99781	49.442	202	0.02219
1/29/2018 15:37	39.99781	49.442	204	0.02219
1/29/2018 15:37	40.00684	49.442	206	0.01316
1/29/2018 15:37	39.99781	49.442	208	0.02219
1/29/2018 15:37	39.99781	49.442	210	0.02219
1/29/2018 15:37	39.99781	49.442	212	0.02219
1/29/2018 15:38	39.99781	49.442	214	0.02219
1/29/2018 15:38	40.00684	49.442	216	0.01316
1/29/2018 15:38	40.00684	49.442	218	0.01316
1/29/2018 15:38	40.00684	49.442	220	0.01316
1/29/2018 15:38	40.00684	49.442	222	0.01316
1/29/2018 15:38	40.00684	49.442	224	0.01316
1/29/2018 15:38	40.00684	49.442	226	0.01316
1/29/2018 15:38	40.00684	49.442	228	0.01316
1/29/2018 15:38	40.00684	49.442	230	0.01316
1/29/2018 15:38	40.00684	49.442	232	0.01316
1/29/2018 15:38	40.00684	49.442	234	0.01316
1/29/2018 15:38	40.00684	49.442	236	0.01316
1/29/2018 15:38	40.00684	49.442	238	0.01316
1/29/2018 15:38	40.00684	49.442	240	0.01316
1/29/2018 15:38	40.00684	49.442	242	0.01316
1/29/2018 15:38	40.00684	49.442	244	0.01316
1/29/2018 15:38	40.00684	49.442	246	0.01316
1/29/2018 15:38	40.00684	49.442	248	0.01316
1/29/2018 15:38	40.01886	49.442	250	0.00114
1/29/2018 15:38	40.00684	49.442	252	0.01316
1/29/2018 15:38	40.00684	49.442	254	0.01316
1/29/2018 15:38	40.00684	49.442	256	0.01316
1/29/2018 15:38	40.00684	49.442	258	0.01316
1/29/2018 15:38	40.01886	49.442	260	0.00114
1/29/2018 15:38	40.00684	49.442	262	0.01316
1/29/2018 15:38	40.00684	49.442	264	0.01316
1/29/2018 15:38	40.00684	49.442	266	0.01316
1/29/2018 15:38	40.00684	49.442	268	0.01316
1/29/2018 15:38	40.01886	49.442	270	0.00114
1/29/2018 15:38	40.01886	49.442	272	0.00114
1/29/2018 15:39	40.00684	49.442	274	0.01316
1/29/2018 15:39	40.01886	49.442	276	0.00114
1/29/2018 15:39	40.01886	49.442	278	0.00114

Luedtke Property
MW-8 (Slug Out)

1/29/2018 15:39	40.01886	49.442	280	0.00114
1/29/2018 15:39	40.01886	49.442	282	0.00114
1/29/2018 15:39	40.01886	49.442	284	0.00114
1/29/2018 15:39	40.01886	49.442	286	0.00114
1/29/2018 15:39	40.01886	49.442	288	0.00114
1/29/2018 15:39	40.01886	49.442	290	0.00114
1/29/2018 15:39	40.01886	49.442	292	0.00114
1/29/2018 15:39	40.01886	49.442	294	0.00114
1/29/2018 15:39	40.01886	49.442	296	0.00114
1/29/2018 15:39	40.01886	49.454	298	0.00114
1/29/2018 15:39	40.01886	49.454	300	0.00114
1/29/2018 15:39	40.02789	49.454	302	0.00789

END OF DATA FILE OF DATALOGGER FOR WINDOWS



Aquifer Parameters by the Bouwer and Rice Slug Test	
Hydraulic Conductivity (ft/s):	1.22e-005
Transmissivity (sq ft/s):	2.60e-004

Luedtke Property PZ-1 Slug Out

Luedtke Property
PZ-1 (Slug Out)

Date/time	Pressure[ft	Temperature[°F]	Time (seconds)	Drawdown
1/29/2018 13:53	54.11472	53.324	0	0.24472
1/29/2018 13:54	52.6501	53.324	2	1.2199
1/29/2018 13:54	52.75536	53.324	4	1.11464
1/29/2018 13:54	52.76438	53.324	6	1.10562
1/29/2018 13:54	52.78243	53.324	8	1.08757
1/29/2018 13:54	52.80348	53.324	10	1.06652
1/29/2018 13:54	52.8125	53.324	12	1.0575
1/29/2018 13:54	52.83054	53.324	14	1.03946
1/29/2018 13:54	52.83957	53.324	16	1.03043
1/29/2018 13:54	52.8516	53.324	18	1.0184
1/29/2018 13:54	52.86062	53.324	20	1.00938
1/29/2018 13:54	52.86964	53.324	22	1.00036
1/29/2018 13:54	52.87866	53.324	24	0.99134
1/29/2018 13:54	52.88769	53.324	26	0.98231
1/29/2018 13:54	52.89671	53.324	28	0.97329
1/29/2018 13:54	52.91776	53.324	30	0.95224
1/29/2018 13:54	52.91776	53.324	32	0.95224
1/29/2018 13:54	52.92678	53.324	34	0.94322
1/29/2018 13:54	52.9358	53.324	36	0.9342
1/29/2018 13:54	52.94483	53.324	38	0.92517
1/29/2018 13:54	52.95385	53.324	40	0.91615
1/29/2018 13:54	52.95385	53.324	42	0.91615
1/29/2018 13:54	52.9749	53.324	44	0.8951
1/29/2018 13:54	52.9749	53.324	46	0.8951
1/29/2018 13:54	52.98392	53.324	48	0.88608
1/29/2018 13:54	52.99295	53.324	50	0.87705
1/29/2018 13:54	53.00197	53.324	52	0.86803
1/29/2018 13:54	53.01099	53.324	54	0.85901
1/29/2018 13:54	53.02001	53.324	56	0.84999
1/29/2018 13:54	53.03204	53.324	58	0.83796
1/29/2018 13:54	53.03204	53.336	60	0.83796
1/29/2018 13:55	53.04107	53.324	62	0.82893
1/29/2018 13:55	53.05009	53.324	64	0.81991
1/29/2018 13:55	53.05911	53.324	66	0.81089
1/29/2018 13:55	53.05911	53.324	68	0.81089
1/29/2018 13:55	53.06813	53.324	70	0.80187
1/29/2018 13:55	53.07715	53.324	72	0.79285
1/29/2018 13:55	53.08918	53.336	74	0.78082
1/29/2018 13:55	53.09821	53.324	76	0.77179
1/29/2018 13:55	53.09821	53.324	78	0.77179
1/29/2018 13:55	53.10723	53.324	80	0.76277
1/29/2018 13:55	53.11625	53.324	82	0.75375
1/29/2018 13:55	53.11625	53.324	84	0.75375
1/29/2018 13:55	53.12527	53.324	86	0.74473
1/29/2018 13:55	53.1343	53.324	88	0.7357
1/29/2018 13:55	53.1343	53.336	90	0.7357

Luedtke Property
PZ-1 (Slug Out)

1/29/2018 13:55	53.14633	53.336	92	0.72367
1/29/2018 13:55	53.14633	53.324	94	0.72367
1/29/2018 13:55	53.16437	53.336	96	0.70563
1/29/2018 13:55	53.16437	53.324	98	0.70563
1/29/2018 13:55	53.17339	53.324	100	0.69661
1/29/2018 13:55	53.17339	53.324	102	0.69661
1/29/2018 13:55	53.18241	53.324	104	0.68759
1/29/2018 13:55	53.19144	53.324	106	0.67856
1/29/2018 13:55	53.19144	53.336	108	0.67856
1/29/2018 13:55	53.20347	53.324	110	0.66653
1/29/2018 13:55	53.21249	53.324	112	0.65751
1/29/2018 13:55	53.21249	53.324	114	0.65751
1/29/2018 13:55	53.22151	53.324	116	0.64849
1/29/2018 13:55	53.23053	53.336	118	0.63947
1/29/2018 13:55	53.23956	53.336	120	0.63044
1/29/2018 13:56	53.23956	53.336	122	0.63044
1/29/2018 13:56	53.23956	53.324	124	0.63044
1/29/2018 13:56	53.24858	53.324	126	0.62142
1/29/2018 13:56	53.24858	53.324	128	0.62142
1/29/2018 13:56	53.2576	53.324	130	0.6124
1/29/2018 13:56	53.26963	53.324	132	0.60037
1/29/2018 13:56	53.26963	53.336	134	0.60037
1/29/2018 13:56	53.27865	53.336	136	0.59135
1/29/2018 13:56	53.28767	53.324	138	0.58233
1/29/2018 13:56	53.28767	53.324	140	0.58233
1/29/2018 13:56	53.28767	53.324	142	0.58233
1/29/2018 13:56	53.2967	53.324	144	0.5733
1/29/2018 13:56	53.2967	53.324	146	0.5733
1/29/2018 13:56	53.30572	53.336	148	0.56428
1/29/2018 13:56	53.31474	53.324	150	0.55526
1/29/2018 13:56	53.32677	53.324	152	0.54323
1/29/2018 13:56	53.32677	53.336	154	0.54323
1/29/2018 13:56	53.32677	53.324	156	0.54323
1/29/2018 13:56	53.33579	53.324	158	0.53421
1/29/2018 13:56	53.33579	53.324	160	0.53421
1/29/2018 13:56	53.34482	53.324	162	0.52518
1/29/2018 13:56	53.35384	53.324	164	0.51616
1/29/2018 13:56	53.35384	53.324	166	0.51616
1/29/2018 13:56	53.36286	53.324	168	0.50714
1/29/2018 13:56	53.36286	53.324	170	0.50714
1/29/2018 13:56	53.36286	53.324	172	0.50714
1/29/2018 13:56	53.37188	53.324	174	0.49812
1/29/2018 13:56	53.38391	53.324	176	0.48609
1/29/2018 13:56	53.38391	53.336	178	0.48609
1/29/2018 13:56	53.38391	53.324	180	0.48609
1/29/2018 13:57	53.39294	53.324	182	0.47706
1/29/2018 13:57	53.39294	53.324	184	0.47706

Luedtke Property
PZ-1 (Slug Out)

1/29/2018 13:57	53.40196	53.324	186	0.46804
1/29/2018 13:57	53.40196	53.324	188	0.46804
1/29/2018 13:57	53.40196	53.324	190	0.46804
1/29/2018 13:57	53.41098	53.336	192	0.45902
1/29/2018 13:57	53.42	53.324	194	0.45
1/29/2018 13:57	53.42	53.324	196	0.45
1/29/2018 13:57	53.42902	53.336	198	0.44098
1/29/2018 13:57	53.42902	53.324	200	0.44098
1/29/2018 13:57	53.42902	53.324	202	0.44098
1/29/2018 13:57	53.44105	53.324	204	0.42895
1/29/2018 13:57	53.44105	53.324	206	0.42895
1/29/2018 13:57	53.45008	53.324	208	0.41992
1/29/2018 13:57	53.45008	53.324	210	0.41992
1/29/2018 13:57	53.45008	53.324	212	0.41992
1/29/2018 13:57	53.45008	53.324	214	0.41992
1/29/2018 13:57	53.4591	53.324	216	0.4109
1/29/2018 13:57	53.46812	53.324	218	0.40188
1/29/2018 13:57	53.46812	53.324	220	0.40188
1/29/2018 13:57	53.46812	53.324	222	0.40188
1/29/2018 13:57	53.47714	53.324	224	0.39286
1/29/2018 13:57	53.47714	53.324	226	0.39286
1/29/2018 13:57	53.48617	53.324	228	0.38383
1/29/2018 13:57	53.48617	53.324	230	0.38383
1/29/2018 13:57	53.49519	53.324	232	0.37481
1/29/2018 13:57	53.49519	53.336	234	0.37481
1/29/2018 13:57	53.49519	53.324	236	0.37481
1/29/2018 13:57	53.50722	53.324	238	0.36278
1/29/2018 13:57	53.50722	53.324	240	0.36278
1/29/2018 13:58	53.51624	53.336	242	0.35376
1/29/2018 13:58	53.51624	53.324	244	0.35376
1/29/2018 13:58	53.51624	53.324	246	0.35376
1/29/2018 13:58	53.52526	53.324	248	0.34474
1/29/2018 13:58	53.52526	53.324	250	0.34474
1/29/2018 13:58	53.52526	53.324	252	0.34474
1/29/2018 13:58	53.53428	53.324	254	0.33572
1/29/2018 13:58	53.53428	53.324	256	0.33572
1/29/2018 13:58	53.53428	53.324	258	0.33572
1/29/2018 13:58	53.54331	53.324	260	0.32669
1/29/2018 13:58	53.54331	53.324	262	0.32669
1/29/2018 13:58	53.54331	53.324	264	0.32669
1/29/2018 13:58	53.55233	53.324	266	0.31767
1/29/2018 13:58	53.55233	53.324	268	0.31767
1/29/2018 13:58	53.55233	53.324	270	0.31767
1/29/2018 13:58	53.56436	53.324	272	0.30564
1/29/2018 13:58	53.56436	53.324	274	0.30564
1/29/2018 13:58	53.56436	53.324	276	0.30564
1/29/2018 13:58	53.56436	53.324	278	0.30564

Luedtke Property
PZ-1 (Slug Out)

1/29/2018 13:58	53.57338	53.324	280	0.29662
1/29/2018 13:58	53.57338	53.324	282	0.29662
1/29/2018 13:58	53.57338	53.324	284	0.29662
1/29/2018 13:58	53.5824	53.324	286	0.2876
1/29/2018 13:58	53.5824	53.324	288	0.2876
1/29/2018 13:58	53.59143	53.324	290	0.27857
1/29/2018 13:58	53.59143	53.324	292	0.27857
1/29/2018 13:58	53.59143	53.324	294	0.27857
1/29/2018 13:58	53.60045	53.324	296	0.26955
1/29/2018 13:58	53.60045	53.324	298	0.26955
1/29/2018 13:58	53.60045	53.324	300	0.26955
1/29/2018 13:59	53.60045	53.324	302	0.26955
1/29/2018 13:59	53.60947	53.324	304	0.26053
1/29/2018 13:59	53.60947	53.324	306	0.26053
1/29/2018 13:59	53.60947	53.336	308	0.26053
1/29/2018 13:59	53.60947	53.324	310	0.26053
1/29/2018 13:59	53.6215	53.324	312	0.2485
1/29/2018 13:59	53.6215	53.324	314	0.2485
1/29/2018 13:59	53.6215	53.324	316	0.2485
1/29/2018 13:59	53.63052	53.324	318	0.23948
1/29/2018 13:59	53.63052	53.324	320	0.23948
1/29/2018 13:59	53.63052	53.324	322	0.23948
1/29/2018 13:59	53.63052	53.324	324	0.23948
1/29/2018 13:59	53.63955	53.324	326	0.23045
1/29/2018 13:59	53.63955	53.324	328	0.23045
1/29/2018 13:59	53.63955	53.324	330	0.23045
1/29/2018 13:59	53.64857	53.324	332	0.22143
1/29/2018 13:59	53.64857	53.324	334	0.22143
1/29/2018 13:59	53.65759	53.324	336	0.21241
1/29/2018 13:59	53.65759	53.324	338	0.21241
1/29/2018 13:59	53.65759	53.324	340	0.21241
1/29/2018 13:59	53.65759	53.324	342	0.21241
1/29/2018 13:59	53.65759	53.324	344	0.21241
1/29/2018 13:59	53.66661	53.324	346	0.20339
1/29/2018 13:59	53.66661	53.324	348	0.20339
1/29/2018 13:59	53.66661	53.324	350	0.20339
1/29/2018 13:59	53.66661	53.324	352	0.20339
1/29/2018 13:59	53.67563	53.324	354	0.19437
1/29/2018 13:59	53.67563	53.324	356	0.19437
1/29/2018 13:59	53.67563	53.324	358	0.19437
1/29/2018 13:59	53.68766	53.324	360	0.18234
1/29/2018 14:00	53.68766	53.324	362	0.18234
1/29/2018 14:00	53.68766	53.324	364	0.18234
1/29/2018 14:00	53.68766	53.324	366	0.18234
1/29/2018 14:00	53.68766	53.324	368	0.18234
1/29/2018 14:00	53.69669	53.324	370	0.17331
1/29/2018 14:00	53.69669	53.324	372	0.17331

Luedtke Property
PZ-1 (Slug Out)

1/29/2018 14:00	53.69669	53.324	374	0.17331
1/29/2018 14:00	53.69669	53.324	376	0.17331
1/29/2018 14:00	53.70571	53.324	378	0.16429
1/29/2018 14:00	53.69669	53.324	380	0.17331
1/29/2018 14:00	53.70571	53.336	382	0.16429
1/29/2018 14:00	53.70571	53.336	384	0.16429
1/29/2018 14:00	53.70571	53.324	386	0.16429
1/29/2018 14:00	53.70571	53.324	388	0.16429
1/29/2018 14:00	53.70571	53.336	390	0.16429
1/29/2018 14:00	53.71473	53.336	392	0.15527
1/29/2018 14:00	53.71473	53.336	394	0.15527
1/29/2018 14:00	53.71473	53.336	396	0.15527
1/29/2018 14:00	53.71473	53.336	398	0.15527
1/29/2018 14:00	53.71473	53.324	400	0.15527
1/29/2018 14:00	53.71473	53.336	402	0.15527
1/29/2018 14:00	53.71473	53.336	404	0.15527
1/29/2018 14:00	53.72375	53.336	406	0.14625
1/29/2018 14:00	53.73278	53.336	408	0.13722
1/29/2018 14:00	53.73278	53.336	410	0.13722
1/29/2018 14:00	53.73278	53.336	412	0.13722
1/29/2018 14:00	53.73278	53.336	414	0.13722
1/29/2018 14:00	53.73278	53.336	416	0.13722
1/29/2018 14:00	53.73278	53.336	418	0.13722
1/29/2018 14:00	53.73278	53.324	420	0.13722
1/29/2018 14:01	53.74481	53.336	422	0.12519
1/29/2018 14:01	53.74481	53.336	424	0.12519
1/29/2018 14:01	53.74481	53.336	426	0.12519
1/29/2018 14:01	53.74481	53.324	428	0.12519
1/29/2018 14:01	53.74481	53.336	430	0.12519
1/29/2018 14:01	53.74481	53.336	432	0.12519
1/29/2018 14:01	53.74481	53.336	434	0.12519
1/29/2018 14:01	53.75383	53.336	436	0.11617
1/29/2018 14:01	53.75383	53.336	438	0.11617
1/29/2018 14:01	53.76285	53.336	440	0.10715
1/29/2018 14:01	53.76285	53.336	442	0.10715
1/29/2018 14:01	53.76285	53.336	444	0.10715
1/29/2018 14:01	53.76285	53.336	446	0.10715
1/29/2018 14:01	53.76285	53.336	448	0.10715
1/29/2018 14:01	53.76285	53.336	450	0.10715
1/29/2018 14:01	53.76285	53.336	452	0.10715
1/29/2018 14:01	53.76285	53.336	454	0.10715
1/29/2018 14:01	53.77187	53.336	456	0.09813
1/29/2018 14:01	53.77187	53.336	458	0.09813
1/29/2018 14:01	53.77187	53.336	460	0.09813
1/29/2018 14:01	53.77187	53.336	462	0.09813
1/29/2018 14:01	53.78089	53.336	464	0.08911
1/29/2018 14:01	53.78089	53.324	466	0.08911

Luedtke Property
PZ-1 (Slug Out)

1/29/2018 14:01	53.78089	53.336	468	0.08911
1/29/2018 14:01	53.78089	53.336	470	0.08911
1/29/2018 14:01	53.78089	53.336	472	0.08911
1/29/2018 14:01	53.78089	53.336	474	0.08911
1/29/2018 14:01	53.78992	53.336	476	0.08008
1/29/2018 14:01	53.78992	53.336	478	0.08008
1/29/2018 14:01	53.78992	53.336	480	0.08008
1/29/2018 14:02	53.78992	53.336	482	0.08008
1/29/2018 14:02	53.78992	53.336	484	0.08008
1/29/2018 14:02	53.78992	53.336	486	0.08008
1/29/2018 14:02	53.80195	53.336	488	0.06805
1/29/2018 14:02	53.80195	53.336	490	0.06805
1/29/2018 14:02	53.80195	53.336	492	0.06805
1/29/2018 14:02	53.80195	53.336	494	0.06805
1/29/2018 14:02	53.80195	53.336	496	0.06805
1/29/2018 14:02	53.80195	53.336	498	0.06805
1/29/2018 14:02	53.80195	53.336	500	0.06805
1/29/2018 14:02	53.81097	53.336	502	0.05903
1/29/2018 14:02	53.80195	53.336	504	0.06805
1/29/2018 14:02	53.81097	53.336	506	0.05903
1/29/2018 14:02	53.81097	53.336	508	0.05903
1/29/2018 14:02	53.81097	53.336	510	0.05903
1/29/2018 14:02	53.81097	53.336	512	0.05903
1/29/2018 14:02	53.81097	53.336	514	0.05903
1/29/2018 14:02	53.81999	53.324	516	0.05001
1/29/2018 14:02	53.81999	53.336	518	0.05001
1/29/2018 14:02	53.81999	53.336	520	0.05001
1/29/2018 14:02	53.81999	53.336	522	0.05001
1/29/2018 14:02	53.82901	53.336	524	0.04099
1/29/2018 14:02	53.81999	53.336	526	0.05001
1/29/2018 14:02	53.81999	53.336	528	0.05001
1/29/2018 14:02	53.81999	53.336	530	0.05001
1/29/2018 14:02	53.82901	53.336	532	0.04099
1/29/2018 14:02	53.81999	53.336	534	0.05001
1/29/2018 14:02	53.82901	53.336	536	0.04099
1/29/2018 14:02	53.82901	53.336	538	0.04099
1/29/2018 14:02	53.82901	53.336	540	0.04099
1/29/2018 14:03	53.82901	53.336	542	0.04099
1/29/2018 14:03	53.83804	53.336	544	0.03196
1/29/2018 14:03	53.82901	53.336	546	0.04099
1/29/2018 14:03	53.82901	53.324	548	0.04099
1/29/2018 14:03	53.83804	53.336	550	0.03196
1/29/2018 14:03	53.83804	53.336	552	0.03196
1/29/2018 14:03	53.83804	53.336	554	0.03196
1/29/2018 14:03	53.83804	53.336	556	0.03196
1/29/2018 14:03	53.84706	53.336	558	0.02294
1/29/2018 14:03	53.83804	53.336	560	0.03196

Luedtke Property
PZ-1 (Slug Out)

1/29/2018 14:03	53.83804	53.336	562	0.03196
1/29/2018 14:03	53.83804	53.336	564	0.03196
1/29/2018 14:03	53.84706	53.336	566	0.02294
1/29/2018 14:03	53.84706	53.336	568	0.02294
1/29/2018 14:03	53.84706	53.336	570	0.02294
1/29/2018 14:03	53.84706	53.336	572	0.02294
1/29/2018 14:03	53.84706	53.336	574	0.02294
1/29/2018 14:03	53.84706	53.336	576	0.02294
1/29/2018 14:03	53.85909	53.336	578	0.01091
1/29/2018 14:03	53.85909	53.336	580	0.01091
1/29/2018 14:03	53.85909	53.336	582	0.01091
1/29/2018 14:03	53.85909	53.336	584	0.01091
1/29/2018 14:03	53.85909	53.336	586	0.01091
1/29/2018 14:03	53.85909	53.336	588	0.01091
1/29/2018 14:03	53.85909	53.336	590	0.01091
1/29/2018 14:03	53.86811	53.336	592	0.00189
1/29/2018 14:03	53.86811	53.336	594	0.00189
1/29/2018 14:03	53.86811	53.336	596	0.00189
1/29/2018 14:03	53.86811	53.336	598	0.00189
1/29/2018 14:03	53.86811	53.336	600	0.00189
1/29/2018 14:04	53.86811	53.336	602	0.00189
1/29/2018 14:04	53.86811	53.336	604	0.00189
1/29/2018 14:04	53.86811	53.336	606	0.00189
1/29/2018 14:04	53.86811	53.336	608	0.00189
1/29/2018 14:04	53.86811	53.336	610	0.00189
1/29/2018 14:04	53.86811	53.336	612	0.00189
1/29/2018 14:04	53.86811	53.336	614	0.00189
1/29/2018 14:04	53.87713	53.336	616	0.00713

END OF DATA FILE OF DATALOGGER FOR WINDOWS

Petroleum Substance Discharged	Analysis of Samples Collected for UST Tank Closure Assessments	Solid Waste Program Requirements for Soils to be landfilled[5]	Site Investigation, Pretreatment and Posttreatment Sample Analysis[11]
Regular Gasoline	GRO[2]	Free Liquids[6] GRO Benzene[7] Pb[7] Haz. Waste Deter.[8]	GRO VOC/PVOC[15] Pb[12]
Unleaded Gasoline; Grades 80 100, and 100 LL (Low Lead) Aviation Fuel	GRO[2]	Free Liquids[6] GRO Benzene[7] Pb[7] Haz. Waste Deter.[8]	GRO PVOC
Diesel; Jet Fuels; and No's 1, 2, and 4 Fuel Oil	DRO[3]	Free Liquids[6] DRO Benzene[7] Haz. Waste Deter.[8]	DRO[3] PVOC PAH[13 14]
Crude Oil; Lubricating Oils; No. 6 Fuel Oil	DRO[3]	Free Liquids[6] DRO Haz. Waste Deter.[8]	DRO[3] PAH[13 14]
Unknown Petroleum	GRO[7] and DRO[3 4]	Free Liquids[6] GRO and DRO Pb, Cd[7] Haz. Waste Deter.[8] CN[19] S[2 10]	GRO and DRO[3 4] VOC/PVOC[15] PAH[13 14] Pb, Cd[12]
Waste Oil	DRO[3]	Free Liquids[6] DRO Pb, Cd[7] Haz. Waste Deter.[8] CN[19] S[2 10]	DRO[3] VOC/PVOC[15] PAH[13 14] PCBs[16] Pb, Cd[12]

Abbreviations:

GRO - Gasoline Range Organics, Determined by the Wisconsin Modified GRO Method

DRO - Diesel Range Organics, Determined by the Wisconsin Modified DRO Method

VOC - Volatile Organic Compounds (See Section 11.1 for a list of VOC compounds)

PVOC - Petroleum Organic Compounds (See Section 11.2 for a list of PVOC compounds)

PAH - Polynuclear Aromatic Hydrocarbons (See Section 11.3 for a list of the PAH compounds)

PCBs - Polychlorinated Biphenyls

Pb - Lead

SYNERGY ENVIRONMENTAL LAB – Sample Bottle Requirements

TABLE 1
SAMPLE & PRESERVATION REQUIREMENTS FOR WATER and DRINKING WATER SAMPLES

Test	Original Sample Container	Preserved	Holding Time to Analysis
WET CHEMISTRY			
Alkalinity SM2320B/EPA 310.2	250 mL HDPE	4°C	14 days
Ammonia EPA 350.1	250 mL HDPE	4°C, pH<2 with H_2SO_4	28 days
BOD, cBOD SM5210B	500 ml HDPE	4°C	48 hrs.
COD EPA 410.4	500 ml HDPE	4°C, pH<2 with H_2SO_4	28 days
Chloride EPA 300.0/EPA 325.2	250 mL HDPE	4°C	28 days
Cyanide SW846 9012A/SM4500-CN-C	1000 mL HDPE	4°C, pH>12 with NaOH	14 days
Flashpoint SW846 1010	250 mL HDPE	4°C	28 days
Fluoride EPA 300.0	250 mL HDPE	4°C	28 days
Hardness SW846 6010B	250 mL HDPE	4°C, pH<2 with HNO_3	180 days
TKN EPA 351.2	1 Liter HDPE	4°C, pH<2 with H_2SO_4	28 days
Nitrate EPA 300.0	250 mL HDPE	4°C	48 hours
Nitrate+Nitrite EPA 300.0	250 mL HDPE	4°C, pH<2 with H_2SO_4	28 days
Nitrite EPA 300.0	250 mL HDPE	4°C	48 hours
Oil & Grease EPA 1664	1 Liter Glass	4°C, pH<2 with H_2SO_4	28 days
Organic Carbon SW846 9060/ EPA 415.1	40 ml Glass	4°C, pH<2 with H_2SO_4 or HCL	28 days
Phenol, Total EPA 420.1	1 Liter Glass	4°C, pH<2 with H_2SO_4	28 days
Phosphorus, Total EPA 365.3	250 mL HDPE	4°C, pH<2 with H_2SO_4	28 days
Sulfate EPA 300.0	250 mL HDPE	4°C	28 days
Total Dissolved Solids EPA 160.1	250 ml HDPE	4°C	7 days
Total Solids EPA 160.3	250 ml HDPE	4°C	7 days
Total Suspended Solids EPA 160.2	250 mL HDPE	4°C	7 days
METALS			
Metals	250 mL HDPE	4°C, pH<2 with HNO_3	6 months
Mercury SW8467470/EPA 245.1	250 mL HDPE	4°C, pH<2 with HNO_3	28 days
ORGANICS			
Semivolatiles SW846 8270C	1 Liter amber glass, collect 2 for one of the samples submitted .	4°C	7 days extr. 40 days following extr
PAH SW846 8270C	1 Liter amber glass, collect 2 for one of the samples submitted	4°C	7 days extr. 40 days following extr
PCB SW846 8082	1 Liter amber glass, collect 2 for one of the samples submitted.	4°C	7 days extr. 40 days following extr
DRO, Modified DNR Sep 95	1 Liter amber glass with Teflon lined cap	4°C, 5 mL 50% HCl	7 days extr. 40 days following extr
VOC'S SW846 8260B/EPA524.2	(3) 40 mL glass vials with Teflon lined septum caps	4°C, 0.5 mL 50% HCl, No Headspace	14 days
GRO/VOC	(4) 40 mL glass vials with Teflon lined septum caps	4°C, 0.5 mL 50% HCl prior to adding sample to jar	14 days
GRO, Modified DNR Sep 95	(2) 40 mL glass vials with Teflon lined septum caps	4°C, 0.5 mL 50% HCl prior to adding sample to jar	14 days
GRO/PVOC	(2) 40 mL glass vials with Teflon lined septum caps	4°C, 0.5 mL 50% HCl prior to adding sample to jar	14 days
PVOC	(2) 40 mL glass vials with Teflon lined septum caps	4°C, 0.5 mL 50% HCl prior to adding sample to jar	14 days

All samples are to be cooled to 4°C until tested.
HDPE = High Density Polyethylene.

SYNERGY ENVIRONMENTAL LAB – Sample Bottle Requirements

TABLE 2
SAMPLE & PRESERVATION REQUIREMENTS FOR SOIL SAMPLES

Test	Original Sample Container	Preserved	Holding Times from Date and Time of Collection			
			Solvent Addition	Shipping	Extraction	Analysis
METALS						
Metals	2 oz glass or soil cup	4°C	NA	NA	NA	180 days
Mercury SW846 7471	2 oz glass or soil cup	4°C	NA	NA	NA	28 days
Chromium Hexavalent SM3500-Cr	2 oz glass or soil cup	4°C	NA	NA	NA	24 hours
ORGANICS						
Any combinations of GRO, VOC, PVOC	1- tared VOC vial with 10 mls methanol, 13 grams of soil collected with syringe	4°C, 1:1 with methanol	Immediately	4 days	21 days	21 days
DRO, Modified	1- tared VOC vial, 13 grams of soil collected with syringe jar	4°C, Hexane	10 days	4 days	47 days	47 days
PAH, SW846 8270C	2 oz glass untared	4°C	NA	NA	14 days	40 days
Semivolatile SW846 8270C	2 oz glass untared	4°C	NA	NA	14 days	40 days
PCB SW846 8082	2 oz glass untared	4°C	NA	NA	14 days	40 days

All samples are to be cooled to 4°C until tested.

Residential setting. Not-To-Exceed D-C RCLs from web-calculator at: *http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search* (Chicago as climatic zone).
Not-to-Exceed D-C RCL defaults to 100,000 mg/kg if web-calculator result or Csat exceeds 10% by weight (the ceiling limit concentration defined in EPA RSL Users Guide).
Basis: ca = cancer; nc = non-cancer; Csat = soil saturation concentration; ceiling = 10%.
Background threshold values are non-outlier trace element maximum levels in Wisconsin surface soils from the USGS Report at: *http://pubs.usgs.gov/sir/2011/5202/*.

1. *Enter data in yellow cells.* Numeric-only values under "INPUT Site Data." For ND, use detection limit. Do not type '-', 'NA' nor 'space bar.' Leave purple cells "as is."
2. *After completing data entry, see Summary in Row 924.*

A.7 Other

Site Name:

Sample ID:

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-to-Exceed D-C RCL (mg/kg)	Basis	Background Threshold Value (mg/kg)	INPUT Site Data (mg/kg)	Flag E = Individual Exceedance	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
								Comparison / Hazard Index / Cumulative Cancer Risk		Target CR used: 1.00E-05
Benzene	71-43-2	106.000	1.600	1.600	ca					
Ethylbenzene	100-41-4	4,080.000	8.020	8.020	ca					
Toluene	108-88-3	5,240.000	-	818.000	Csat					
Xylenes	1330-20-7	816.000	-	260.000	Csat					
Methyl tert-Butyl Ether (MTBE)	1634-04-4	22,100.000	63.800	63.800	ca					
Dichloroethane, 1,2-	107-06-2	43.700	.652	.652	ca					
Dibromoethane, 1,2-	106-93-4	100.000	.050	.050	ca					
Trichloroethylene	79-01-6	5.680	1.300	1.300	ca					
Tetrachloroethylene	127-18-4	109.000	33.000	33.000	ca					
Vinyl Chloride	75-01-4	89.200	.067	.067	ca					
Dichloroethylene, 1,1-	75-35-4	320.000	-	320.000	nc					
Dichloroethylene, 1,2-trans-	156-60-5	1,560.000	-	1,560.000	nc					
Dichloroethylene, 1,2-cis-	156-59-2	156.000	-	156.000	nc					
Trichloroethane, 1,1,1-	71-55-6	11,500.000	-	640.000	Csat					
Carbon Tetrachloride	56-23-5	131.000	.916	.916	ca					
Trimethylbenzene, 1,2,4-	95-63-6	373.000	-	219.000	Csat					
Trimethylbenzene, 1,3,5-	108-67-8	339.000	-	182.000	Csat					
Naphthalene	91-20-3	178.000	5.520	5.520	ca					
Benzo[a]pyrene	50-32-8	17.800	.115	.115	ca					
Acenaphthene	83-32-9	3,590.000	-	3,590.000	nc					
Acenaphthylene	208-96-8	-	-							
Anthracene	120-12-7	17,900.000	-	17,900.000	nc					
Benz[a]anthracene	56-55-3	-	1.140	1.140	ca					
Benzo(j)fluoranthene	205-82-3	-	.424	.424	ca					
Benzo[b]fluoranthene	205-99-2	-	1.150	1.150	ca					
Benzo[g,h,i]perylene	191-24-2	-	-							
Benzo[k]fluoranthene	207-08-9	-	11.500	11.500	ca					
Chrysene	218-01-9	-	115.000	115.000	ca					
Dibenz[a,h]anthracene	53-70-3	-	.115	.115	ca					
Dibenzo(a,e)pyrene	192-65-4	-	.042	.042	ca					
Dimethylbenz(a)anthracene, 7,12-	57-97-6	-	4.59E-04	4.59E-04	ca					
Fluoranthene	206-44-0	2,390.000	-	2,390.000	nc					
Fluorene	86-73-7	2,390.000	-	2,390.000	nc					
Indeno[1,2,3-cd]pyrene	193-39-5	-	1.150	1.150	ca					
Methylnaphthalene, 1-	90-12-0	4,180.000	17.600	17.600	ca					
Methylnaphthalene, 2-	91-57-6	239.000	-	239.000	nc					
Nitropyrene, 4-	57835-92-4	-	.424	.424	ca					
Perylene	198-55-0	-	-							
Phenanthrene	85-01-8	-	-							
Pyrene	129-00-0	1,790.000	-	1,790.000	nc					
Lead and Compounds	7439-92-1	400.000	-	400.000		52				
Bromobenzene	108-86-1	342.000	-	342.000	nc					
Bromodichloromethane	75-27-4	1,560.000	.418	.418	ca					
Bromoform	75-25-2	1,560.000	25.400	25.400	ca					
Butylbenzene, n-	104-51-8	3,910.000	-	108.000	Csat					
Butylbenzene, sec-	135-98-8	7,820.000	-	145.000	Csat					
Butylbenzene, tert-	98-06-6	7,820.000	-	183.000	Csat					
Chlorobenzene	108-90-7	370.000	-	370.000	nc					
Chloroform	67-66-3	259.000	.454	.454	ca					
Chloromethane	74-87-3	159.000	-	159.000	nc					
Chlorotoluene, o-	95-49-8	1,560.000	-	907.000	Csat					
Chlorotoluene, p-	106-43-4	1,560.000	-	253.000	Csat					
Dibromo-3-chloropropane, 1,2-	96-12-8	5.960	.008	.008	ca					
Dibromochloromethane	124-48-1	1,560.000	8.280	8.280	ca					
Dichlorobenzene, 1,2-	95-50-1	2,350.000	-	376.000	Csat					
Dichlorobenzene, 1,3-	541-73-1	-	-	297.000	Csat					
Dichlorobenzene, 1,4-	106-46-7	3,810.000	3.740	3.740	ca					
Dichlorodifluoromethane	75-71-8	126.000	-	126.000	nc					
Dichloroethane, 1,1-	75-34-3	15,600.000	5.060	5.060	ca					
Dichloropropane, 1,2-	78-87-5	22.600	.406	.406	ca					
Dichloropropane, 1,3-	142-28-9	1,560.000	-	1,490.000	Csat					
Dichloropropane, 2,2-	594-20-7	-	-	191.000	Csat					
Diisopropyl Ether	108-20-3	3,220.000	-	2,260.000	Csat					
Hexachlorobutadiene	87-68-3	78.200	1.630	1.630	ca					
Isopropyltoluene, p-	99-87-6	-	-	162.000	Csat					
Methylene Chloride	75-09-2	379.000	61.800	61.800	ca					
Tetrachloroethane, 1,1,1,2-	630-20-6	2,350.000	2.780	2.780	ca					
Tetrachloroethane, 1,1,2,2-	79-34-5	1,560.000	.810	.810	ca					
Trichlorobenzene, 1,2,3-	87-61-6	62.600	-	62.600	nc					
Trichlorobenzene, 1,2,4-	120-82-1	80.800	24.000	24.000	ca					
Trichloroethane, 1,1,2-	79-00-5	2.160	1.590	1.590	ca					
Trichlorofluoromethane	75-69-4	23,500.000	-	1,230.000	Csat					
Test1Chem(DRO)	Wis. DRO									
Test2Chem(GRO)	Wis. GRO									
Test3Chem(TPH)	TPH									

Type BRRTS No. Here (If Known)

	Exceedance Count	HI	Cumulative CR
Exceedance Count / Hazard Index / Cumulative Cancer Risk:	0	0.00E+00	0.00E+00
To Pass, data must meet all these criteria:	Exceedance Count = 0	≤ 1.0	≤ 1e-05

Bottom-Line:

Soil Data Entry Needed!

DRAFT

Residual Contaminant Levels Protective of Groundwater Quality

(Soil-to-Groundwater Scenario Results from: *http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search*)

NR140 Substance	NR 140 CAS	Fed MCL (ug/l) (If Red, MCL>ES)	NR 140 ES (ug/l)	RCL-gw (mg/kg) DF=1	Use 2, or input the calculated site-specific DF -->	2.00	INPUT NUMERIC Site Data Max (mg/kg)	Flag E = Individual Exceedance	*Type BRRTS No. Here (If Known). Assess groundwate levels separately.*
Acetochlor	34256-82-1	-	7	5.58E-03		1.12E-02			
Acetone	67-64-1	-	9000	1.85E+00		3.69E+00			
Alachlor	15972-60-8	2	2	1.65E-03		3.30E-03			
Aldicarb	116-06-3	3	10	2.49E-03		4.99E-03			
Aluminum	7429-90-5	-	200	3.01E+02		6.01E+02			
Antimony	7440-36-0	6	6	2.71E-01		5.42E-01			
Anthracene	120-12-7	-	3000	9.84E+01		1.97E+02			
Arsenic	7440-38-2	10	10	2.92E-01		5.84E-01			
Atrazine, total chlorinated residues	1912-24-9	3	3	1.95E-03		3.90E-03			
Barium	7440-39-3	2000	2000	8.24E+01		1.65E+02			
Bentazon	25057-89-0	-	300	6.59E-02		1.32E-01			
Benzene	71-43-2	5	5	2.56E-03		5.12E-03			
Benzo(a)pyrene (PAH)	50-32-8	0.2	0.2	2.35E-01		4.70E-01			
Benzo(b)fluoranthene (PAH)	205-99-2	-	0.2	2.40E-01		4.80E-01			
Beryllium	7440-41-7	4	4	3.16E+00		6.32E+00			
Boron	7440-42-8	-	1000	3.20E+00		6.40E+00			
Bromodichloromethane (THM)	75-27-4	80	0.6	1.63E-04		3.26E-04			
Bromoform (THM)	75-25-2	80	4.4	1.17E-03		2.33E-03			
Bromomethane	74-83-9	-	10	2.53E-03		5.06E-03			
Butylate	2008-41-5	-	400	3.88E-01		7.76E-01			
Cadmium	7440-43-9	5	5	3.76E-01		7.52E-01			
Carbaryl	63-25-2	-	40	3.64E-02		7.27E-02			
Carbofuran	1563-66-2	40	40	1.56E-02		3.12E-02			
Carbon disulfide	75-15-0	-	1000	2.97E-01		5.93E-01			
Carbon tetrachloride	56-23-5	5	5	1.94E-03		3.88E-03			
Chloramben	133-90-4	-	150	3.63E-02		7.27E-02			
Chlorodifluoromethane	75-45-6	-	7000	2.89E+00		5.79E+00			
Chloroethane	75-00-3	-	400	1.13E-01		2.27E-01			
Chloroform (THM)	67-66-3	80	6	1.67E-03		3.33E-03			
Chlorpyrifos	2921-88-2	-	2	2.95E-02		5.90E-02			
Chloromethane	74-87-3	-	30	7.76E-03		1.55E-02			
Chromium (total)	7440-47-3	100	100	1.80E+05		3.60E+05			Re-assess if Cr-VI present
Chrysene (PAH)	218-01-9	-	0.2	7.25E-02		1.45E-01			
Cobalt	7440-48-4	-	40	1.81E+00		3.62E+00			
Copper	7440-50-8	1300	1300	4.58E+01		9.16E+01			
Cyanazine	21725-46-2	-	1	4.68E-04		9.37E-04			
Cyanide, free	57-12-5	200	200	2.02E+00		4.04E+00			
Dacthal (DCPA)	1861-32-1	-	70	8.56E-02		1.71E-01			
1,2-Dibromoethane	106-93-4	0.05	0.05	1.41E-05		2.82E-05			
Dibromochloromethane (THM)	124-48-1	80	60	1.60E-02		3.20E-02			
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	0.2	8.64E-05		1.73E-04			
Dibutyl phthalate	84-74-2	-	1000	2.52E+00		5.04E+00			
Dicamba	1918-00-9	-	300	7.76E-02		1.55E-01			
1,2-Dichlorobenzene	95-50-1	600	600	5.84E-01		1.17E+00			
1,3-Dichlorobenzene	541-73-1	-	600	5.76E-01		1.15E+00			
1,4-Dichlorobenzene	106-46-7	75	75	7.20E-02		1.44E-01			
Dichlorodifluoromethane	75-71-8	-	1000	1.54E+00		3.08E+00			
1,1-Dichloroethane	75-34-3	-	850	2.42E-01		4.84E-01			
1,2-Dichloroethane	107-06-2	5	5	1.42E-03		2.84E-03			
1,1-Dichloroethylene	75-35-4	7	7	2.51E-03		5.02E-03			
1,2-Dichloroethylene (cis)	156-59-2	70	70	2.06E-02		4.12E-02			
1,2-Dichloroethylene (trans)	156-60-5	100	100	2.94E-02		5.88E-02			
2,4-Dichlorophenoxyacetic acid (2,4-D)	94-75-7	70	70	1.81E-02		3.62E-02			
1,2-Dichloropropane	78-87-5	5	5	1.66E-03		3.32E-03			
1,3-Dichloropropene (cis/trans) (Telone)	542-75-6	-	0.4	1.43E-04		2.85E-04			
DI (2-ethylhexyl) phthalate	117-81-7	6	6	1.44E+00		2.88E+00			
Dimethoate	60-51-5	-	2	4.51E-04		9.02E-04			
2,4-Dinitrotoluene	121-14-2	-	0.05	6.76E-05		1.35E-04			
2,6-Dinitrotoluene	606-20-2	-	0.05	6.88E-05		1.38E-04			
Dinitrotoluene, Total Residues	25321-14-6	-	0.05	6.89E-05		1.38E-04			
Dinoseb	88-85-7	7	7	6.15E-02		1.23E-01			
1,4-Dioxane (p-dioxane)	123-91-1	-	3	6.18E-04		1.24E-03			
Dioxin (2,3,7,8-TCDD)	1746-01-6	0	0	1.50E-05		3.00E-05			
Endrin	72-20-8	2	2	8.08E-02		1.62E-01			
EPTC	759-94-4	-	250	1.32E-01		2.64E-01			
Ethylbenzene	100-41-4	700	700	7.85E-01		1.57E+00			
Ethyl Ether (Diethyl Ether)	60-29-7	-	1000	2.24E-01		4.47E-01			
Ethylene glycol	107-21-1	-	14000	2.82E+00		5.64E+00			
Fluoranthene	206-44-0	-	400	4.44E+01		8.88E+01			
Fluorene (PAH)	86-73-7	-	400	7.41E+00		1.48E+01			

No RSL result for: Asbestos; Bacteria; 1,3-DCB; Hydrogen Sulfide; Nitrate/Nitrite; Tetrahydrofuran; Perchlorate.

DRAFT

Residual Contaminant Levels Protective of Groundwater Quality

(Soil-to-Groundwater Scenario Results from: *http://epa-prgs.ornl.gov/cgi-bin/chemicals/csf_search*)

NR140 Substance	NR 140 CAS	Fed MCL (ug/l) (If Red, MCL>ES)	NR 140 ES (ug/l)	RCL-gw (mg/kg) DF=1	Use 2, or input the calculated site-specific DF -->	2.00	INPUT NUMERIC Site Data Max (mg/kg)	Flag E = Individual Exceedance!
Fluoride	7782-41-4	4000	4000	6.01E+02		1.20E+03		
Fluorotrichloromethane	75-69-4	-	3490	2.23E+00		4.47E+00		
Formaldehyde	50-00-0	-	1000	2.02E-01		4.04E-01		
Heptachlor	76-44-8	0.4	0.4	3.31E-02		6.62E-02		
Heptachlor epoxide	1024-57-3	0.2	0.2	4.08E-03		8.16E-03		
Hexachlorobenzene	118-74-1	1	1	1.26E-02		2.52E-02		
n-Hexane	110-54-3	-	600	4.22E+00		8.44E+00		
Lead	7439-92-1	15	15	1.35E+01		2.70E+01		
Lindane	58-89-9	0.2	0.2	1.16E-03		2.32E-03		
Manganese	7439-96-5	-	300	1.96E+01		3.91E+01		
Mercury	7439-97-6	2	2	1.04E-01		2.08E-01		
Methanol	67-56-1	-	5000	1.01E+00		2.03E+00		
Methoxychlor	72-43-5	40	40	2.16E+00		4.32E+00		
Methylene chloride	75-09-2	5	5	1.28E-03		2.56E-03		
Methyl ethyl ketone (MEK)	78-93-3	-	4000	8.39E-01		1.68E+00		
Methyl isobutyl ketone (MIBK)	108-10-1	-	500	1.13E-01		2.26E-01		
Methyl tert-butyl ether (MTBE)	1634-04-4	-	60	1.35E-02		2.70E-02		
Metolachlor/s-Metolachlor	51218-45-2	-	100	1.17E-01		2.34E-01		
Metribuzin	21087-64-9	-	70	2.14E-02		4.28E-02		
Molybdenum	7439-98-7	-	40	8.08E-01		1.62E+00		
Monochlorobenzene	108-90-7	100	100	6.79E-02		1.36E-01		
Naphthalene	91-20-3	-	100	3.29E-01		6.59E-01		
Nickel	7440-02-0	-	100	6.50E+00		1.30E+01		
N-Nitrosodiphenylamine (NDPA)	86-30-6	-	7	3.82E-02		7.64E-02		
Pentachlorophenol (PCP)	87-86-5	1	1	1.01E-02		2.02E-02		
Phenol	108-95-2	-	2000	1.15E+00		2.30E+00		
Picloram	1918-02-1	500	500	1.39E-01		2.78E-01		
Polychlorinated biphenyls (PCBs)	1336-36-3	0.5	0.03	4.69E-03		9.38E-03		
Prometon	1610-18-0	-	100	4.75E-02		9.49E-02		
Propazine	139-40-2	-	10	8.86E-03		1.77E-02		
Pyrene (PAH)	129-00-0	-	250	2.72E+01		5.45E+01		
Pyridine	110-86-1	-	10	3.44E-03		6.87E-03		
Selenium	7782-49-2	50	50	2.60E-01		5.20E-01		
Silver	7440-22-4	-	50	4.25E-01		8.50E-01		
Simazine	122-34-9	4	4	1.97E-03		3.94E-03		
Styrene	100-42-5	100	100	1.10E-01		2.20E-01		
Tertiary Butyl Alcohol (TBA)	75-65-0	-	12	2.45E-03		4.90E-03		
1,1,1,2-Tetrachloroethane	630-20-6	-	70	2.67E-02		5.33E-02		
1,1,2,2-Tetrachloroethane	79-34-5	-	0.2	7.80E-05		1.56E-04		
Tetrachloroethylene (PCE)	127-18-4	5	5	2.27E-03		4.54E-03		
Tetrahydrofuran	109-99-9	-	50	1.11E-02		2.22E-02		
Thallium	7440-28-0	2	2	1.42E-01		2.84E-01		
Toluene	108-88-3	1000	800	5.54E-01		1.11E+00		
Toxaphene	8001-35-2	3	3	4.64E-01		9.28E-01		
1,2,4-Trichlorobenzene	120-82-1	70	70	2.04E-01		4.08E-01		
1,1,1-Trichloroethane	71-55-6	200	200	7.01E-02		1.40E-01		
1,1,2-Trichloroethane	79-00-5	5	5	1.62E-03		3.24E-03		
Trichloroethylene (TCE)	79-01-6	5	5	1.79E-03		3.58E-03		
[illegible]	93-72-1	50	50	2.75E-02		5.50E-02		
1,2,3-Trichloropropane	96-18-4	-	60	2.60E-02		5.20E-02		
Trifluralin	1582-09-8	-	7.5	2.48E-01		4.95E-01		
[illegible]	95-63-6 / 108-67-8	-	480	6.90E-01		1.38E+00		
Vanadium	7440-62-2							
Vinyl chloride	75-01-4	2	0.2	6.90E-05		1.38E-04		
Xylenes (m-, o-, p- combined)	1330-20-7	10000	2000	1.97E+00		3.94E+00		

Type BRRTS No Here (If Known). Assess groundwa levels separately

No RSL result for: Asbestos; Bacteria; 1,3-DCB; Hydrogen Sulfide; Nitrate/Nitrite; Tetrahydrofuran; Perchlorate.

Site-specific

Resident Equation Inputs for Soil

Variable	Value
THQ (target hazard quotient) unitless	1
TR (target risk) unitless	1.0E-6
LT (lifetime) year	70
ET_{res} (exposure time) hour	24
ET_{res-c} (child exposure time) hour	24
ET_{res-a} (adult exposure time) hour	24
ET_{0-1} (mutagenic exposure time) hour	24
ET_{1-6} (mutagenic exposure time) hour	24
ET_{6-16} (mutagenic exposure time) hour	24
ET_{16-26} (mutagenic exposure time) hour	24
ED_{res} (exposure duration) year	26
ED_{res-c} (exposure duration - child) year	6
ED_{res-a} (exposure duration - adult) year	20
ED_{0-1} (mutagenic exposure duration) year	2
ED_{1-6} (mutagenic exposure duration) year	4
ED_{6-16} (mutagenic exposure duration) year	10
ED_{16-26} (mutagenic exposure duration) year	10
BW_{res-c} (body weight - child) kg	15
BW_{res-a} (body weight - adult) kg	80
BW_{0-1} (mutagenic body weight) kg	15
BW_{1-6} (mutagenic body weight) kg	15
BW_{6-16} (mutagenic body weight) kg	80
BW_{16-26} (mutagenic body weight) kg	80
SA_{res-c} (skin surface area - child) cm^2/day	2373
SA_{res-a} (skin surface area - adult) cm^2/day	6032
SA_{0-2} (mutagenic skin surface area) cm^2/day	2373
SA_{2-6} (mutagenic skin surface area) cm^2/day	2373
SA_{6-16} (mutagenic skin surface area) cm^2/day	6032
SA_{16-26} (mutagenic skin surface area) cm^2/day	6032
EF_{res} (exposure frequency) day/year	350
EF_{res-c} (exposure frequency - child) day/year	350
EF_{res-a} (exposure frequency - adult) day/year	350
EF_{0-2} (mutagenic exposure frequency) day/year	350

Site-specific

Resident Equation Inputs for Soil

Variable	Value
EF_{1-6} (mutagenic exposure frequency) day/year	350
EF_{6-16} (mutagenic exposure frequency) day/year	350
EF_{16-26} (mutagenic exposure frequency) day/year	350
$IFS_{res-adj}$ (age-adjusted soil ingestion factor) mg/kg	36750
$IFSM_{res-adj}$ (mutagenic age-adjusted soil ingestion factor) mg/kg	166833.33
IRS_{res-c} (soil intake rate - child) mg/day	200
IRS_{res-a} (soil intake rate - adult) mg/day	100
IRS_{0-1} (mutagenic soil intake rate) mg/day	200
IRS_{1-6} (mutagenic soil intake rate) mg/day	200
IRS_{6-16} (mutagenic soil intake rate) mg/day	100
IRS_{16-26} (mutagenic soil intake rate) mg/day	100
AF_{res-a} (skin adherence factor - adult) mg/cm ^{2}	0.07
AF_{res-c} (skin adherence factor - child) mg/cm ^{2}	0.2
AF_{0-2} (mutagenic skin adherence factor) mg/cm ^{2}	0.2
AF_{2-6} (mutagenic skin adherence factor) mg/cm ^{2}	0.2
AF_{6-16} (mutagenic skin adherence factor) mg/cm ^{2}	0.07
AF_{16-26} (mutagenic skin adherence factor) mg/cm ^{2}	0.07
$DFS_{res-adj}$ (age-adjusted soil dermal factor) mg/kg	103390
$DFSM_{res-adj}$ (mutagenic age-adjusted soil dermal factor) mg/kg	428260
City (Climate Zone) PEF Selection	Chicago, IL (7)
A_s (acres)	.5
Q/C_{wp} (g/m^2-s per kg/m^3)	98.430714368855
PEF (particulate emission factor) m ^{3}/kg	1560521176.9649
A (PEF Dispersion Constant)	16.8653
B (PEF Dispersion Constant)	18.7848
C (PEF Dispersion Constant)	215.0624
V (fraction of vegetative cover) unitless	0.5
U_m (mean annual wind speed) m/s	4.65
U_t (equivalent threshold value)	11.32
F(x) (function dependant on U_m/U_t) unitless	0.182
City (Climate Zone) VF Selection	Chicago, IL (7)
A_s (acres)	.5
Q/C_{vol} (g/m^2-s per kg/m^3)	98.430714368855

Site-specific

Resident Equation Inputs for Soil

Variable	Value
foc (fraction organic carbon in soil) g/g	0.006
ρ$_b$ (dry soil bulk density) g/cm ^{3}	1.5
ρ$_s$ (soil particle density) g/cm ^{3}	2.65
n (total soil porosity) L_{pore}/L_{soil}	0.43396
θ$_a$ (air-filled soil porosity) L_{air}/L_{soil}	0.28396
θ$_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15
T (exposure interval) s	819936000
A (VF Dispersion Constant)	16.8653
B (VF Dispersion Constant)	18.7848
C (VF Dispersion Constant)	215.0624
City (Climate Zone) VF $_{sl}$ Selection	Chicago, IL (7)
VF_s (volitization factor) m ^{3}/kg	.
Q/C_{vol} (g/m^2-s per kg/m^3)	98.430714368855
A_s (acres)	.5
T (exposure interval) yr	26
d_s (depth of source) m	.
ρ$_b$ (dry soil bulk density) g/cm ^{3}	1.5
A (VF Dispersion Constant - Mass Limit)	16.8653
B (VF Dispersion Constant - Mass Limit)	18.7848
C (VF Dispersion Constant - Mass Limit)	215.0624

Site-specific

Resident Screening Levels (RSL) for Soil

ca=Cancer, nc=Noncancer, ca* (Where nc SL < 100 x ca SL),
ca** (Where nc SL < 10 x ca SL), max=SL exceeds ceiling limit (see User's Guide), sat=SL exceeds csat,
Smax=Soil SL exceeds ceiling limit and has been substituted with the max value (see User's Guide).
Ssat=Soil inhalation SL exceeds csat and has been substituted with the csat

Chemical	CAS Number	Mutagen?	VOC?	Ingestion SF (mg/kg-day)$^{-1}$	SFO Ref	Inhalation Unit Risk (ug/m^3)$^{-1}$	IUR Ref	Chronic RfD (mg/kg-day)	Chronic RfD Ref	Chronic RfC (mg/m^3)	Chronic RfC Ref
Benzene	71-43-2	No	Yes	5.50E-02	I	7.80E-06	I	4.00E-03	I	3.00E-02	I
Dibromoethane, 1,2-	106-93-4	No	Yes	2.00E+00	I	6.00E-04	I	9.00E-03	I	9.00E-03	I
Dichloroethane, 1,2-	107-06-2	No	Yes	9.10E-02	I	2.60E-05	I	6.00E-03	S	7.00E-03	P
Ethylbenzene	100-41-4	No	Yes	1.10E-02	C	2.50E-06	C	1.00E-01	I	1.00E+00	I
Lead and Compounds	7439-92-1	No	No	-		-		-		-	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	No	Yes	1.80E-03	C	2.60E-07	C	-		3.00E+00	I
Acenaphthene	83-32-9	No	Yes	-		-		6.00E-02	I	-	
Anthracene	120-12-7	No	Yes	-		-		3.00E-01	I	-	
Benz[a]anthracene	56-55-3	Yes	Yes	7.30E-01	W	1.10E-04	C	-		-	
Benzo(j)fluoranthene	205-82-3	No	No	1.20E+00	C	1.10E-04	C	-		-	
Benzo[a]pyrene	50-32-8	Yes	No	7.30E+00	I	1.10E-03	C	-		-	
Benzo[b]fluoranthene	205-99-2	Yes	No	7.30E-01	W	1.10E-04	C	-		-	
Benzo[k]fluoranthene	207-08-9	Yes	No	7.30E-02	W	1.10E-04	C	-		-	
Chrysene	218-01-9	Yes	No	7.30E-03	W	1.10E-05	C	-		-	
Dibenz[a,h]anthracene	53-70-3	Yes	No	7.30E+00	W	1.20E-03	C	-		-	
Dibenzo(a,e)pyrene	192-65-4	No	No	1.20E+01	C	1.10E-03	C	-		-	
Dimethylbenz(a)anthracene, 7,12-	57-97-6	Yes	No	2.50E+02	C	7.10E-02	C	-		-	
Fluoranthene	206-44-0	No	No	-		-		4.00E-02	I	-	
Fluorene	86-73-7	No	Yes	-		-		4.00E-02	I	-	
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	No	7.30E-01	W	1.10E-04	C	-		-	
Methylnaphthalene, 1-	90-12-0	No	Yes	2.90E-02	P	-		7.00E-02	A	-	
Methylnaphthalene, 2-	91-57-6	No	Yes	-		-		4.00E-03	I	-	
Naphthalene	91-20-3	No	Yes	-		3.40E-05	C	2.00E-02	I	3.00E-03	I
Nitropyrene, 4-	57835-92-4	No	No	1.20E+00	C	1.10E-04	C	-		-	
Pyrene	129-00-0	No	Yes	-		-		3.00E-02	I	-	
Toluene	108-88-3	No	Yes	-		-		8.00E-02	I	5.00E+00	I
Trimethylbenzene, 1,2,4-	95-63-6	No	Yes	-		-		-		7.00E-03	P
Trimethylbenzene, 1,3,5-	108-67-8	No	Yes	-		-		1.00E-02	S	-	
Xylenes	1330-20-7	No	Yes	-		-		2.00E-01	I	1.00E-01	I

Site-specific

Resident Screening Levels (RSL) for Soil

ca=Cancer, nc=Noncancer, ca* (Where nc SL < 100 x ca SL).
ca** (Where nc SL < 10 x ca SL), max=SL exceeds ceiling limit (see User's Guide), sat=SL exceeds csat,
Smax=Soil SL exceeds ceiling limit and has been substituted with the max value (see User's Guide).
Ssat=Soil inhalation SL exceeds csat and has been substituted with the csat

Chemical	GIABS	ABS	RBA	Volatilization Factor (m^3/kg)	Soil Saturation Concentration (mg/kg)	Particulate Emission Factor (m^3/kg)	Ingestion SL TR=1.0E-6 (mg/kg)	Dermal SL TR=1.0E-6 (mg/kg)	Inhalation SL TR=1.0E-6 (mg/kg)	Carcinogenic SL TR=1.0E-6 (mg/kg)
Benzene	1	-	1	5.10E+03	1.82E+03	1.56E+09	1.26E+01	-	1.84E+00	1.60E+00
Dibromoethane, 1,2-	1	-	1	1.25E+04	1.34E+03	1.56E+09	3.48E-01	-	5.84E-02	5.00E-02
Dichloroethane, 1,2-	1	-	1	6.60E+03	2.98E+03	1.56E+09	7.64E+00	-	7.13E-01	6.52E-01
Ethylbenzene	1	-	1	8.18E+03	4.80E+02	1.56E+09	6.32E+01	-	9.19E+00	8.02E+00
Lead and Compounds	1	-	1	-	-	1.56E+09	-	-	-	-
Methyl tert-Butyl Ether (MTBE)	1	-	1	7.08E+03	8.87E+03	1.56E+09	3.86E+02	-	7.64E+01	6.38E+01
Acenaphthene	1	0.13	1	2.03E+05	-	1.56E+09	-	-	-	-
Anthracene	1	0.13	1	7.56E+05	-	1.56E+09	-	-	-	-
Benz[a]anthracene	1	0.13	1	6.37E+06	-	1.56E+09	2.10E-01	6.29E-01	5.85E+01	1.57E-01
Benzo(j)fluoranthene	1	0.13	1	-	-	1.56E+09	5.79E-01	1.58E+00	3.98E+04	4.24E-01
Benzo[a]pyrene	1	0.13	1	-	-	1.56E+09	2.10E-02	6.29E-02	1.44E+03	1.57E-02
Benzo[b]fluoranthene	1	0.13	1	-	-	1.56E+09	2.10E-01	6.29E-01	1.44E+04	1.57E-01
Benzo[k]fluoranthene	1	0.13	1	-	-	1.56E+09	2.10E+00	6.29E+00	1.44E+04	1.57E+00
Chrysene	1	0.13	1	-	-	1.56E+09	2.10E+01	6.29E+01	1.44E+05	1.57E+01
Dibenz[a,h]anthracene	1	0.13	1	-	-	1.56E+09	2.10E-02	6.29E-02	1.32E+03	1.57E-02
Dibenzo(a,e)pyrene	1	0.13	1	-	-	1.56E+09	5.79E-02	1.58E-01	3.98E+03	4.24E-02
Dimethylbenz(a)anthracene, 7,12-	1	0.13	1	-	-	1.56E+09	6.13E-04	1.84E-03	2.23E+01	4.59E-04
Fluoranthene	1	0.13	1	-	-	1.56E+09	-	-	-	-
Fluorene	1	0.13	1	4.06E+05	-	1.56E+09	-	-	-	-
Indeno[1,2,3-cd]pyrene	1	0.13	1	-	-	1.56E+09	2.10E-01	6.29E-01	1.44E+04	1.57E-01
Methylnaphthalene, 1-	1	0.13	1	8.46E+04	3.94E+02	1.56E+09	2.40E+01	6.55E+01	-	1.76E+01
Methylnaphthalene, 2-	1	0.13	1	8.37E+04	-	1.56E+09	-	-	-	-
Naphthalene	1	0.13	1	6.69E+04	-	1.56E+09	-	-	5.52E+00	5.52E+00
Nitropyrene, 4-	1	0.13	1	-	-	1.56E+09	5.79E-01	1.58E+00	3.98E+04	4.24E-01
Pyrene	1	0.13	1	3.43E+06	-	1.56E+09	-	-	-	-
Toluene	1	-	1	6.19E+03	8.18E+02	1.56E+09	-	-	-	-
Trimethylbenzene, 1,2,4-	1	-	1	1.14E+04	2.19E+02	1.56E+09	-	-	-	-
Trimethylbenzene, 1,3,5-	1	-	1	9.54E+03	1.82E+02	1.56E+09	-	-	-	-
Xylenes	1	-	1	8.28E+03	2.60E+02	1.56E+09	-	-	-	-

Site-specific

Resident Screening Levels (RSL) for Soil

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ca** (Where nc SL < 10 x ca SL), max=SL exceeds ceiling limit (see User's Guide), sat=SL exceeds csat,
Smax=Soil SL exceeds ceiling limit and has been substituted with the max value (see User's Guide),
Ssat=Soil inhalation SL exceeds csat and has been substituted with the csat

Chemical	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Benzene	3.13E+02	-	1.60E+02	1.06E+02	3.34E+03	-	1.60E+02	1.52E+02	1.60E+00 ca
Dibromoethane, 1,2-	7.04E+02	-	1.17E+02	1.00E+02	7.51E+03	-	1.17E+02	1.15E+02	3.00E-02 ca
Dichloroethane, 1,2-	4.69E+02	-	4.82E+01	4.37E+01	5.01E+03	-	4.82E+01	4.77E+01	6.52E-01 ca
Ethylbenzene	7.82E+03	-	8.53E+03	4.08E+03	8.34E+04	-	8.53E+03	7.74E+03	4.02E+00 ca
Lead and Compounds	-	-	-	-	-	-	-	-	4.00E+02 nc
Methyl tert-Butyl Ether (MTBE)	-	-	2.21E+04	2.21E+04	-	-	2.21E+04	2.21E+04	6.38E-01 ca
Acenaphthene	4.69E+03	1.52E+04	-	3.59E+03	5.01E+04	9.12E+04	-	3.23E+04	3.59E+02 nc
Anthracene	2.35E+04	7.61E+04	-	1.79E+04	2.50E+05	4.56E+05	-	1.62E+05	1.79E+04 nc
Benz[a]anthracene	-	-	-	-	-	-	-	-	1.5xE-01 ca
Benzo(j)fluoranthene	-	-	-	-	-	-	-	-	2.21E-01 ca
Benzo[a]pyrene	-	-	-	-	-	-	-	-	1.5E-02 ca
Benzo[b]fluoranthene	-	-	-	-	-	-	-	-	1.5E-01 ca
Benzo[k]fluoranthene	-	-	-	-	-	-	-	-	1.5E-01 ca
Chrysene	-	-	-	-	-	-	-	-	1.5E-01 ca
Dibenz[a,h]anthracene	-	-	-	-	-	-	-	-	1.5E-02 ca
Dibenzo(a,e)pyrene	-	-	-	-	-	-	-	-	1.2E-02 ca
Dimethylbenz(a)anthracene, 7,12-	-	-	-	-	-	-	-	-	2.5E-01 ca
Fluoranthene	3.13E+03	1.01E+04	-	2.39E+03	3.34E+04	6.08E+04	-	2.15E+04	2.39E+03 nc
Fluorene	3.13E+03	1.01E+04	-	2.39E+03	3.34E+04	6.08E+04	-	2.15E+04	2.39E+03 nc
Indeno[1,2,3-cd]pyrene	-	-	-	-	-	-	-	-	1.5E-01 ca
Methylnaphthalene, 1-	5.48E+03	1.77E+04	-	4.18E+03	5.84E+04	1.06E+05	-	3.77E+04	4.76E+01 ca
Methylnaphthalene, 2-	3.13E+02	1.01E+03	-	2.39E+02	3.34E+03	6.08E+03	-	2.15E+03	2.39E+02 nc
Naphthalene	1.56E+03	5.07E+03	2.09E+02	1.78E+02	1.67E+04	3.04E+04	2.09E+02	2.05E+02	3.52E-01 ca
Nitropyrene, 4-	-	-	-	-	-	-	-	-	1.2E-01 ca
Pyrene	2.35E+03	7.61E+03	-	1.79E+03	2.50E+04	4.56E+04	-	1.62E+04	1.79E+03 nc
Toluene	6.26E+03	-	3.23E+04	5.24E+03	6.67E+04	-	3.23E+04	2.18E+04	5.24E+03 sat
Trimethylbenzene, 1,2,4-	-	-	8.34E+01	8.34E+01	-	-	8.34E+01	8.34E+01	8.34E+01 nc
Trimethylbenzene, 1,3,5-	7.82E+02	-	-	7.82E+02	8.34E+03	-	-	8.34E+03	7.82E+02 sat
Xylenes	1.56E+04	-	8.64E+02	8.18E+02	1.67E+05	-	8.64E+02	8.59E+02	8.18E+02 sat

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(22) "Wastewater and sludge storage or treatment lagoon" means a natural or man−made containment structure, constructed primarily of earthen materials for the treatment or storage of wastewater or sludge, which is not a land disposal system.

History: Cr. Register, September, 1985, No. 357, eff. 10−1−85; cr. (1m), am. (7), (17) and (18), Register, October, 1988, No. 394, eff. 11−1−88; am. (6), cr. (20h) and (20m), Register, March, 1994, No. 459, eff. 4−1−94; cr. (1s), (10e), (10s), (20k), r. and recr. (12), (13), Register, August, 1995, No. 476, eff. 9−1−95; cr. (14m), Register, October, 1996, No. 490, eff. 11−1−96; am. (20), Register, December, 1998, No. 516, eff. 1−1−99; correction in (9) made under s. 13.93 (2m) (b) 7., Stats., Register, April, 2001, No. 544; CR 02−134: cr. (1u), (1w), (1y) and (20s) Register June 2003 No. 570, eff. 7−1−03; correction in (20) made under s. 13.92 (4) (b) 6., Stats., Register January 2012 No. 673.

Subchapter II — Groundwater Quality Standards

NR 140.10 Public health related groundwater standards. The groundwater quality standards for substances of public health concern are listed in Table 1.

Note: For all substances that have carcinogenic, mutagenic or teratogenic properties or interactive effects, the preventive action limit is 10% of the enforcement standard. The preventive action limit is 20% of the enforcement standard for all other substances that are of public health concern. Enforcement standards and preventive action limits for additional substances will be added to Table 1 as recommendations are developed pursuant to ss. 160.07, 160.13 and 160.15, Stats.

Table 1
Public Health Groundwater Quality Standards

Substance[1]	Enforcement Standard (micrograms per liter − except as noted)	Preventive Action Limit (micrograms per liter − except as noted)
Acetochlor	7	0.7
Acetochlor ethane sulfonic acid + oxanilic acid (Acetochlor − ESA + OXA)	230	46
Acetone	9 mg/l	1.8 mg/l
Alachlor	2	0.2
Alachlor ethane sulfonic acid (Alachlor − ESA)	20	4
Aldicarb	10	2
Aluminum	200	40
Ammonia (as N)	9.7 mg/l	0.97 mg/l
Antimony	6	1.2
Anthracene	3000	600
Arsenic	10	1
Asbestos	7 million fibers per liter (MFL)	0.7 MFL
Atrazine, total chlorinated residues	3[2]	0.3[2]
Bacteria, Total Coliform	0[3]	0[3]
Barium	2 milligrams/liter (mg/l)	0.4 mg/l
Bentazon	300	60
Benzene	5	0.5
Benzo(b)fluoranthene	0.2	0.02
Benzo(a)pyrene	0.2	0.02
Beryllium	4	0.4
Boron	1000	200
Bromodichloromethane	0.6	0.06
Bromoform	4.4	0.44
Bromomethane	10	1
Butylate	400	80
Cadmium	5	0.5
Carbaryl	40	4
Carbofuran	40	8
Carbon disulfide	1000	200
Carbon tetrachloride	5	0.5
Chloramben	150	30
Chlordane	2	0.2
Chlorodifluoromethane	7 mg/l	0.7 mg/l
Chloroethane	400	80
Chloroform	6	0.6
Chlorpyrifos	2	0.4
Chloromethane	30	3
Chromium (total)	100	10
Chrysene	0.2	0.02

Table 1 – Continued
Public Health Groundwater Quality Standards

Substance[1]	Enforcement Standard (micrograms per liter – except as noted)	Preventive Action Limit (micrograms per liter – except as noted)
Cobalt	40	8
Copper	1300	130
Cyanazine	1	0.1
Cyanide, free[4]	200	40
Dacthal	70	14
1,2–Dibromoethane (EDB)	0.05	0.005
Dibromochloromethane	60	6
1,2–Dibromo–3–chloropropane (DBCP)	0.2	0.02
Dibutyl phthalate	1000	100
Dicamba	300	60
1,2–Dichlorobenzene	600	60
1,3–Dichlorobenzene	600	120
1,4–Dichlorobenzene	75	15
Dichlorodifluoromethane	1000	200
1,1–Dichloroethane	850	85
1,2–Dichloroethane	5	0.5
1,1–Dichloroethylene	7	0.7
1,2–Dichloroethylene (cis)	70	7
1,2–Dichloroethylene (trans)	100	20
2,4–Dichlorophenoxyacetic Acid (2,4–D)	70	7
1,2–Dichloropropane	5	0.5
1,3–Dichloropropene (cis/trans)	0.4	0.04
Di (2–ethylhexyl) phthalate	6	0.6
Dimethenamid/Dimethenamid–P	50	5
Dimethoate	2	0.4
2,4–Dinitrotoluene	0.05	0.005
2,6–Dinitrotoluene	0.05	0.005
Dinitrotoluene, Total Residues[5]	0.05	0.005
Dinoseb	7	1.4
1,4–Dioxane	3	0.3
Dioxin (2, 3, 7, 8–TCDD)	0.00003	0.000003
Endrin	2	0.4
EPTC	250	50
Ethylbenzene	700	140
Ethyl ether	1000	100
Ethylene glycol	14 mg/l	2.8 mg/l
Fluoranthene	400	80
Fluorene	400	80
Fluoride	4 mg/l	0.8 mg/l
Fluorotrichloromethane	3490	698
Formaldehyde	1000	100
Heptachlor	0.4	0.04
Heptachlor epoxide	0.2	0.02
Hexachlorobenzene	1	0.1
N–Hexane	600	120
Hydrogen sulfide	30	6
Lead	15	1.5
Lindane	0.2	0.02
Manganese	300	60
Mercury	2	0.2

Table 1 – Continued
Public Health Groundwater Quality Standards

Substance[1]	Enforcement Standard (micrograms per liter – except as noted)	Preventive Action Limit (micrograms per liter – except as noted)
Methanol	5000	1000
Methoxychlor	40	4
Methylene chloride	5	0.5
Methyl ethyl ketone (MEK)	4 mg/l	0.8 mg/l
Methyl isobutyl ketone (MIBK)	500	50
Methyl tert-butyl ether (MTBE)	60	12
Metolachlor/s-Metolachlor	100	10
Metolachlor ethane sulfonic acid + oxanilic acid (Metolachlor – ESA + OXA)	1.3 mg/l	0.26 mg/l
Metribuzin	70	14
Molybdenum	40	8
Monochlorobenzene	100	20
Naphthalene	100	10
Nickel	100	20
Nitrate (as N)	10 mg/l	2 mg/l
Nitrate + Nitrite (as N)	10 mg/l	2 mg/l
Nitrite (as N)	1 mg/l	0.2 mg/l
N-Nitrosodiphenylamine	7	0.7
Pentachlorophenol (PCP)	1	0.1
Perchlorate	1	0.1
Phenol	2 mg/l	0.4 mg/l
Picloram	500	100
Polychlorinated biphenyls (PCBs)	0.03	0.003
Prometon	100	20
Propazine	10	2
Pyrene	250	50
Pyridine	10	2
Selenium	50	10
Silver	50	10
Simazine	4	0.4
Styrene	100	10
Tertiary Butyl Alcohol (TBA)	12	1.2
1,1,1,2-Tetrachloroethane	70	7
1,1,2,2-Tetrachloroethane	0.2	0.02
Tetrachloroethylene	5	0.5
Tetrahydrofuran	50	10
Thallium	2	0.4
Toluene	800	160
Toxaphene	3	0.3
1,2,4-Trichlorobenzene	70	14
1,1,1-Trichloroethane	200	40
1,1,2-Trichloroethane	5	0.5
Trichloroethylene (TCE)	5	0.5
2,4,5-Trichlorophenoxy-propionic acid (2,4,5-TP)	50	5
1,2,3-Trichloropropane	60	12
Trifluralin	7.5	0.75
Trimethylbenzenes (1,2,4- and 1,3,5- combined)	480	96
Vanadium	30	6

Table 1 – Continued
Public Health Groundwater Quality Standards

Substance[1]	Enforcement Standard (micrograms per liter – except as noted)	Preventive Action Limit (micrograms per liter – except as noted)
Vinyl chloride	0.2	0.02
Xylene[6]	2 mg/l	0.4 mg/l

[1] Appendix I contains Chemical Abstract Service (CAS) registry numbers, common synonyms and trade names for most substances listed in Table 1.

[2] Total chlorinated atrazine residues includes parent compound and the following metabolites of health concern: 2-chloro-4-amino-6-isopropylamino-s-triazine (formerly deethylatrazine), 2-chloro-4-amino-6-ethylamino-s-triazine (formerly deisopropylatrazine) and 2-chloro-4,6-diamino-s-triazine (formerly diaminoatrazine).

[3] Total coliform bacteria may not be present in any 100 ml sample using either the membrane filter (MF) technique, the presence-absence (P-A) coliform test, the minimal medium ONPG-MUG (MMO-MUG) test or not present in any 10 ml portion of the 10-tube multiple tube fermentation (MTF) technique.

[4] "Cyanide, free" refers to the simple cyanides (HCN, CN^-) and/or readily dissociable metal-cyanide complexes. Free cyanide is regulatorily equivalent to cyanide quantified by approved analytical methods for "amenable cyanide" or "available cyanide".

[5] Dinitrotoluene, Total Residues includes the dinitrotoluene (DNT) isomers: 2,3-DNT, 2,4-DNT, 2,5-DNT, 2,6-DNT, 3,4-DNT and 3,5-DNT.

[6] Xylene includes meta-, ortho-, and para-xylene combined.

History: Cr. Register, September, 1985, No. 357, eff. 10-1-85; am. table 1, Register, October, 1988, No. 394, eff. 11-1-88; am. table 1, Register, September, 1990, No. 417, eff. 10-1-90; am. Register, January, 1992, No. 433, eff. 2-1-92; am. Table 1, Register, March, 1994, No. 459, eff. 4-1-94; am. Table 1, Register, August, 1995, No. 476, eff. 9-1-95; am. Table 1, Register, December, 1998, No. 516, eff. 1-1-99; am. Table 1, boron, Register, December, 1998, No. 516, eff. 12-31-99; am. Table 1, Register, March, 2000, No. 531, eff. 4-1-00; CR 03-063: am Table 1, Register February 2004 No. 578, eff. 3-1-04; CR 02-095: am. Table 1, Register November 2006 No. 611, eff. 12-1-06; reprinted to correct errors in Table 1, Register January 2007 No. 613; CR 07-054: am. Table 1 Register January 2008 No. 625, eff. 2-1-08; CR 09-102: am. Table 1 Register December 2010 No. 660, eff. 1-1-11.

NR 140.12 Public welfare related groundwater standards. The groundwater quality standards for substances of public welfare concern are listed in Table 2.

Note: For each substance of public welfare concern, the preventive action limit is 50% of the established enforcement standard.

Table 2
Public Welfare Groundwater Quality Standards

Substance	Enforcement Standard (milligrams per liter – except as noted)	Preventive Action Limit (milligrams per liter – except as noted)
Chloride	250	125
Color	15 color units	7.5 color units
Foaming agents MBAS (Methylene-Blue Active Substances)	0.5	0.25
Iron	0.3	0.15
Manganese	0.05	0.025
Odor	3 (Threshold Odor No.)	1.5 (Threshold Odor No.)
Sulfate	250	125
Zinc	5	2.5

History: Cr. Register, September, 1985, No. 357, eff. 10-1-85; am. table 2, Register, October, 1990, No. 418, eff. 11-1-90; am. Table 2, Register, March, 1994, No. 459, eff. 4-1-94.

NR 140.14 Statistical procedures. (1) If a preventive action limit or an enforcement standard for a substance listed in Table 1 or 2, an alternative concentration limit issued in accordance with s. NR 140.28 or a preventive action limit for an indicator parameter established according to s. NR 140.20 (2) is attained or exceeded at a point of standards application:

(a) The owner or operator of the facility, practice or activity at which a standard is attained or exceeded shall notify the appropriate regulatory agency that a standard has been attained or exceeded; and

(b) The regulatory agency shall require a response in accordance with the rules promulgated under s. 160.21, Stats. No response shall be required if it is demonstrated to the satisfaction of the appropriate regulatory agency that a scientifically valid determination cannot be made that the preventive action limit or enforcement standard for a substance in Table 1 or 2 has been attained or exceeded based on consideration of sampling procedures or laboratory precision and accuracy, at a significance level of 0.05.

(2) The regulatory agency shall use one or more valid statistical procedures to determine if a change in the concentration of a substance has occurred. A significance level of 0.05 shall be used for all tests.

(3) In addition to sub. (2), the following applies when a preventive action limit or enforcement standard is equal to or less than the limit of quantitation:

(a) If a substance is not detected in a sample, the regulatory agency may not consider the preventive action limit or enforcement standard to have been attained or exceeded.

(b) If the preventive action limit or enforcement standard is less than the limit of detection, and the concentration of a substance is reported between the limit of detection and the limit of quantitation, the regulatory agency shall consider the preventive action limit or enforcement standard to be attained or exceeded only if:

1. The substance has been analytically confirmed to be present in the same sample using an equivalently sensitive analytical method or the same analytical method, and

2. The substance has been statistically confirmed to be present above the preventive action limit or enforcement standard, determined by an appropriate statistical test with sufficient samples at a significance level of 0.05.

(c) If the preventive action limit or enforcement standard is between the limit of detection and the limit of quantitation, the regulatory agency shall consider the preventive action limit or

APPENDIX F/ QUALIFICATIONS OF METCO PERSONNEL

Ronald J. Anderson, P.G.

Professional Titles

- Senior Hydrogeologist
- Project Manager

Credentials

- Licensed Professional Geologist in Wisconsin
- Licensed Professional Geologist in Minnesota
- Recognized by the State of Wisconsin Department of Natural Resources (Chapter NR712) as a qualified Hydrogeologist
- Certified by State of Wisconsin to conduct PECFA-funded LUST projects
- Certified tank closure site assessor (#41861) in Wisconsin
- Member of the Wisconsin Groundwater Association
- Member of the Minnesota Groundwater Association
- Member of the Federation of Environmental Technologist, Inc.

Education

Includes a BA in Earth Science from the University of Minnesota-Duluth. Applicable courses successfully completed include Hydrogeology, Applied Hydrogeology, Environmental Geology, Geological Field Methods, Geology Field Camp, Geomorphology, Structural Geology, Stratigraphy/Tectonics, Mineralogy/Petrology, Glacial/Quaternary Geology, Geology of North America, Oceanography, General Chemistry, Organic Chemistry, and Environmental Conservation.

Post-Graduate Education

Includes Personnel Protection and Safety, Conducting Comprehensive Environmental Property Assessments, Groundwater Flow and Well Hydraulics, Effective Techniques for Contaminated Groundwater Treatment, and numerous other continuing education classes and conferences.

Work Experience

Includes nine months with the Wisconsin Department of Natural Resources Leaking Underground Storage Tank Program regulating LUST sites and since June 1990, with METCO as a Hydrogeologist and Project Manager. Duties have included: managing, conducting, and reporting tank closure assessments; property assessment, LUST investigations; spill investigations; agricultural chemical investigations, dry cleaning chemical investigations, general geotechnical/environmental investigations; Geoprobe projects (soil, groundwater, soil gas sampling); drilling projects (soil boring and monitoring wells); and remedial projects. Since 1989, METCO has sampled/consulted over 1,465 environmental sites.

Jason T. Powell

Professional Title

- Staff Scientist

Credentials

- Recognized by the State of Wisconsin Department of Natural Resources (Chapter NR712) as a qualified Scientist.

Education

Includes a BS in Groundwater Management from the University of Wisconsin- Stevens Point. Applicable courses successfully completed include Hydrogeology, Applied Hydrogeology, Environmental Geology, Hydrogeology-Groundwater Flow Modeling, Groundwater Management, Structural Geology, Mineralogy, Glacial Geology, Soils, Soil Physics, Hydrology, Geochemistry, Water Chemistry, Organic Chemistry, General Chemistry, Environmental Issues.

Post-Graduate Education

40-hour OSHA Hazardous Materials Safety Training course with 8-hour refresher course.

Work Experience

With METCO since May 1992 as a Geoprobe Assistant and Geoprobe Operator. In June 1995 to July 1996 as a Environmental Technician. In July 1996 as a Staff Scientist. Duties have included: LUST investigations; general geotechnical/environmental investigations; Geoprobe projects (soil, groundwater sampling); drilling projects (soil boring and monitoring wells); remedial projects (sampling, pilot tests, system operation/maintenance) and project management.

Eric J. Dahl

Professional Title

- Hydrogeologist

Credentials

- Recognized by the State of Wisconsin Department of Natural Resources (Chapter NR712) as a qualified Hydrogeologist.
- Registered through the Wisconsin Department of Safety and Professional Services as a PECFA consultant (#823519).

Education

Includes B.S. in Geology from the University of Wisconsin-Eau Claire. Applicable courses successfully completed include Environmental Geology, Physical Hydrogeology, Chemical Hydrogeology, Computer Modeling in Hydrogeology, Aqueous Geochemistry, Field Geology I and II, Mineralogy and Petrology I and II, Sedimentology and Stratigraphy, Petroleum and Economic Geology, Earth Resources, Earth History, and Structural Geology.

Post-Graduate Education

40-hour OSHA Hazardous Materials Safety Training course with 8-hour refresher course.

Work Experience

With METCO since November 1999 as a Hydrogeologist. Duties have included: Site Investigations, Phase I and Phase II Environmental Site Assessments, Case Closure Requests/GIS Registry, Geoprobe projects (oversight, direction, and sampling), drilling projects/monitoring well installation (oversight, direction, and sampling), soil excavation projects (oversight, direction, and sampling), Geoprobe operation, and operation and maintenance of remedial systems.

Thomas P. Pignet, P.E.

Professional Titles

- Chemical Engineer
- Industrial Engineer

Credentials

- Licensed Professional Engineer in Wisconsin

Education

Undergraduate: B.S. in Chemical Engineering from the University of Wisconsin. Applicable courses include the standard chemistry curriculum - basic, physical, organic, etc. - plus engineering transport phenomena, chemical unit operations (e.g. separations), fluid mechanics, etc.

Post-Graduate Education

Ph.D. in Chemical Engineering from the University of Minnesota - with applicable special training in absorption & catalysis; M.S. in Industrial Engineering from the University of Wisconsin - Milwaukee - with special emphasis on statistical techniques and data analysis. Applicable further training: continuing education, semester-length courses in [1] Understanding Environmental & Safety Regulation; [2] Hazardous & Toxic Waste Management; plus a number of 1-2 day workshops - Fire & Explosion Safety; Small Quantity Generations of Hazardous Waste.

Work Experience

Includes ten years as a research chemical engineer with a large chemical manufacturer; one year as process development engineer and demonstration-scale test analyst on a unique coal gasification project; ten years in association with UW-M, teaching and consulting to industry on energy efficiency, waste minimization and productivity improvement. One year working with a small engineering consulting firm on energy, environmental, and process improvement projects, including LUST Investigations and Remediations. With METCO since February 2000. Duties include Remedial Action Plan preparation, pilot test design and performance, remedial systems design and implementation, and general management of METCO's remedial projects.

Jon Jensen

Professional Title

- Staff Scientist

Credentials

- Registered through the Wisconsin Department of Safety and Professional Services as a PECFA consultant (#1294924).

Education

Includes B.S. in Geography with and Environmental Science minor from University of Wisconsin – La Crosse: Applicable courses successfully completed include Interpretation of Aerial Photographs, Intro to GIS, Advanced Remote Sensing, Fundamentals of Cartography, Biogeography, and Conservation of Global Environments.

Work Experience

With METCO since July, 2014 as Staff Scientist. Duties include: soil and groundwater sampling, operation and maintenance of remedial systems, Geoprobe projects (oversight, direction, and sampling), site mapping, data reduction and analysis, and reporting.

Tyler Woodke

Professional Title

- Staff Scientist

Credentials

- Registered through the Wisconsin Department of Safety and Professional Services as a PECFA consultant (#396413).

Education

Includes B.S. in Geography with an Environmental Studies minor from the University of Wisconsin-La Crosse. Applicable courses successfully completed include: Introduction to Biology, Introduction to Environmental Studies, Earth Environments, Conservation of Global Environments, Introduction to GIS, History of Environmental Policies in the U.S., Interpretation of Aerial Photographs, Fundamentals of Cartography, Environmental Hazards/Land Use, Remote Sensing, Water Resources, Environmental Sustainability, and Environmental Ethics, Outdoor Recreation and Natural Resources.

Work Experience

With METCO since February, 2018 as Staff Scientist. Duties include: soil and groundwater sampling, operation and maintenance of remedial systems, Geoprobe projects (oversight, direction, and sampling), site mapping, data reduction and analysis, and reporting.

Kaylin D. Felix

Professional Title

- Hydrogeologist

Credentials

- Registered through the Wisconsin Department of Safety and Professional Services as a PECFA consultant (#1564301).

Education

Includes B.S. in Geology (Hydrogeology) from the University of Wisconsin- Oshkosh. Applicable courses successfully completed include Physical Hydrogeology, Chemical Hydrogeology, Applied Geologic Field Methods, Field Geology, Mineralogy, Sedimentology, Lithology, Evolution of Earth, Physical Geology, Structural Geology and Tectonics, Glacial Geology, Geophysics and Geotectonics, Geochemistry, Water Resource Management and Geographic Informational Systems.

Work Experience

With METCO since April, 2018 as Hydrogeologist. Duties include: soil and groundwater sampling, operation and maintenance of remedial systems, Geoprobe projects (oversight, direction, and sampling), site mapping, data reduction and analysis, and reporting.

Maxwell Wannow

Professional Title

- Hydrogeologist

Credentials

- Registered through the Wisconsin Department of Safety and Professional Services as a PECFA consultant (#1564301).

Education

Includes B.S. in Geology (Hydrogeology) from the University of Wisconsin- Oshkosh. Applicable courses successfully completed include Physical Hydrogeology, Chemical Hydrogeology, Applied Geologic Field Methods, Field Geology, Mineralogy, Sedimentology, Lithology, Evolution of Earth, Physical Geology, Structural Geology and Tectonics, Glacial Geology, Geophysics and Geotectonics, Geochemistry, Water Resource Management and Geographic Informational Systems.

Work Experience

With METCO since June, 2018 as Hydrogeologist. Duties include: soil and groundwater sampling, operation and maintenance of remedial systems, Geoprobe projects (oversight, direction, and sampling), site mapping, data reduction and analysis, and reporting.

APPENDIX G/ STANDARD OF CARE

STANDARD OF CARE

The analysis and conclusions expressed in this report are based upon data obtained from the indicated subsurface locations and from other sources discussed in this report. Actual subsurface conditions may vary and may not become evident without further assessment.

All work conducted by METCO is in accordance with currently accepted hydrogeologic and engineering practices and they neither imply nor intend warranty.

We appreciate the opportunity to be of service to you. If you have any questions or require additional information, please do not hesitate to contact us.

"I Jason T. Powell, hereby certify that I am a scientist as that term is defined in s.NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Jason T. Powell
Staff Scientist

7/23/18
Date

"I Ronald J. Anderson, hereby certify that I am a hydrogeologist as that term is defined in s.NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Ronald J. Anderson PG
Senior Hydrogeologist/Project Manager

7/23/18
Date