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# **GROUNDWATER MONITORING REPORT**

## **DairiConcepts Site**

W888 Chili Road, Chili,  
Clark County, Wisconsin 54420

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AET Project No. 03-05510  
WDNR BRRTS No. 03-10-545212  
PECFA No. 54420-9999-88

### **Date:**

September 23, 2019

### **Prepared for:**

Dairy Farmers of America  
1405 N. 98<sup>th</sup> Street  
Kansas City, KS 66111





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September 23, 2019

Dairy Farmers of America  
1405 N. 98<sup>th</sup> Street  
Kansas City, KS 66111

Attn: Steve Moore & Stacy Doing  
Submitted via Email: [smoore@dfamilk.com](mailto:smoore@dfamilk.com) & [sdoing@dfamilk.com](mailto:sdoing@dfamilk.com)

RE: Groundwater Monitoring Report  
DairiConcepts Site, W888 Chili Road,  
Chili, Clark County, Wisconsin.  
WDNR BRRTS No. 03-10-545212. PECFA No. 54420-9999-88.  
AET Project No. 03-05510.

American Engineering Testing, Inc. has completed Groundwater Monitoring services at the above-referenced property in Chili, Wisconsin. These services were performed in accordance with our approved proposal dated March 28, 2016. On your behalf, we are also forwarding the report to the Wisconsin Department of Natural Resources (WDNR) at this time for review.

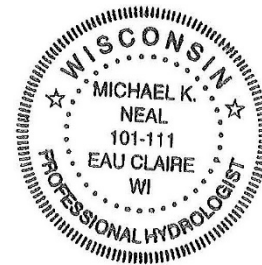
We appreciate the opportunity to serve you on this project. If you have any questions regarding the information presented in this report, or if we can be of additional service, please contact me.

Sincerely,  
**American Engineering Testing, Inc.**

A handwritten signature in blue ink that reads 'michael k neal'.

Michael K. Neal, Professional Hydrologist  
Geomorphologist

Phone: (715) 861-5045, Cellular Phone (715) 894-6455  
E-mail: [mneal@amengtest.com](mailto:mneal@amengtest.com)



cc: Dee Lance, WDNR, 473 Griffith Avenue, Wisconsin Rapids, WI 54494

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**AET PROJECT NO. 03-05510**

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**GROUNDWATER MONITORING REPORT  
DAIRICONCEPTS SITE  
CHILI, WISCONSIN**

**AET PROJECT NO. 03-05510**

**EXECUTIVE SUMMARY**

American Engineering Testing, Inc. (AET) was authorized by Dairy Farmers of America (DFA) to conduct Soil Remediation and Groundwater Monitoring activities for the DairyConcepts plant property located at W888 Chili Road, Chili, Clark County, Wisconsin (the Site). The Wisconsin Department of Natural Resources (WDNR) has directed DFA, the property owner, to investigate and remediate the Site. The responsible party letter was issued on April 4, 2006 after soil and groundwater contamination was encountered at the Site.

The results of our initial site investigation indicated that petroleum impacts to soil were present on the Site in the area of a previous petroleum underground storage tank (UST) system. Petroleum-contaminated soils that exceed the WDNR NR 720 soil to groundwater residual contaminant levels (RCLs) were present in the former tank bed. Soil contamination previously extended from five feet below ground surface (bgs) to the groundwater table (12-15 feet bgs) in an area approximately 110 feet east/west by 30 feet north/south.

AET observed the removal of approximately 1,203 tons of contaminated soil from the area of monitoring well MW-4 and the former tank bed. Excavation soil sampling in the source area indicates that most of the soil contaminated at levels above NR 720 soil to groundwater RCLs has been removed. The presence of an underground fiber optic cable near MW-3A prevented expansion of the excavation to the west. Soil contamination from approximately four to at least 15 feet bgs remains in the area of MW-3A and likely extends beneath the pavement of Chili Road and County Highway Y. In our opinion, remaining soil contamination at the Site is associated with the impacted groundwater smear zone.

Groundwater monitoring shows that petroleum constituents remain on and off the Site at concentrations exceeding the NR 140 enforcement standard (ES). Groundwater contamination extends in a plume approximately 230 feet by 140 feet surrounding monitoring wells MW-3A, MW-4A, MW-4R, MW-5A, and MW-10. The extent of impact is limited and is defined by the lack of contamination in groundwater monitoring wells CMW-1, MW-3, MW-6A, MW-7A, MW-6, and MW-9. AET recommends the remaining groundwater contamination be allowed to naturally attenuate.

The removal of the leaking gasoline UST system, along with the excavation of 1,203 tons of petroleum impacted soil, has removed the source for mobilizing the degraded light non-aqueous phase liquids (LNAPL) at the Site. An assessment of the Site indicates remediation and recovery

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of remaining LNAPL is not feasible due to the soil composition of the smear zone. Grain size distribution testing shows the smear zone is composed of soils that contain greater than 40 percent silt and clay, which are soils having relatively low permeabilities. As a result of the silt and clay composition, LNAPL in the smear zone is essentially immobile due to flow restrictions caused by dual-phase flow through these low permeability soils. Therefore, we conclude the LNAPL at the Site has reached an equilibrium regarding further migration and/or contaminant loading to the groundwater, and the remaining degraded LNAPL is not “free” or readily mobile. Groundwater monitoring has demonstrated the dissolved contaminant plume is stable and decreasing in the presence of the immobile LNAPL that remains at the Site.

Based on these results, AET recommends that this Site be considered for closure. If the WDNR agrees with these recommendations, AET will submit a closure application, GIS Registry packet, and off-site notifications.

## **1.0 INTRODUCTION**

Dairy Farmers of America (DFA) authorized American Engineering Testing, Inc. (AET) to conduct soil remediation and groundwater monitoring activities on their plant property located at W888 Chili Road, Chili, Clark County, Wisconsin (the Site). **Figure 1** shows the Site location, and **Figure 2** shows the current Site layout.

**Appendix A** contains a list of the acronyms and abbreviations used in this report.

### **1.1 Purpose**

We have completed the scope of services for this project as required by the Wisconsin Department of Natural Resources (WDNR). AET's services have been performed in accordance with generally accepted practices of the profession undertaken in similar studies at the same time and in the same geographical area, and for the following purposes:

- To complete a light non-aqueous phase liquid (LNAPL) assessment on the remaining weathered free product on-site, this included:
  - Monitoring free product levels in three groundwater monitoring wells;
  - Installation of two additional groundwater observation wells north and east of monitoring well MW-10 to define the horizontal extent of free product;
  - Collect soil samples across the smear zone and analyze for total organic carbon and grain size analysis; and
  - Collect free product samples for qualitative laboratory fluid analysis (density, viscosity, and surface and interfacial tension parameters).
- To collect four quarterly rounds of groundwater samples to evaluate the effect of soil remediation on groundwater quality, the stability of the groundwater contamination plume, and the feasibility of using natural attenuation as a closure option for the remaining residual contamination; and
- To evaluate the need for further site remediation and/or continued groundwater monitoring.

## **2.0 BACKGROUND**

### **2.1 Site Description and Features**

The address for the Site is W888 Chili Road, and it is located in the southwest quarter of the southwest quarter of Section 23, Township 25 North, Range 1 East, in unincorporated Chili, Town of Fremont, Clark County, Wisconsin. The Site is a 1.06-acre lot located on the east side of County Highway Y, north of Chili Road. The Site operated as a dairy and cheese factory until the 1980s. Currently, the Site is occupied by the DairiConcepts plant, which produces dry cheese products.

The town of Chili is served by potable well water supply and municipal sewer system. The former petroleum underground storage tank (UST) system was used to fuel dairy fleet vehicles and was removed in the 1980s.

At present, neighboring property uses include County Highway Y and commercial property to the west, residential property to the north, Chili Road and residential properties to the south, and municipal property (tennis courts and baseball field) to the east.

## **2.2 Physical Setting**

The Site is located in the Central Plain Physiographic Province of central Wisconsin. Fluvial and glacial processes have been an important geologic agent in determining the surface geology and physiography of the Site, and it is situated on alluvial and glacial deposits.

Soils encountered at the Site are predominantly clayey from the surface to approximately 10 feet below ground surface (bgs). Bedrock was encountered in all of the soil borings, and the excavation completed at the Site, at approximately 10 feet bgs. Regionally, bedrock consists of Cambrian period sandstones.

Bedrock encountered beneath the Site consists of sandstone of the Mount Simon Formation, which according to published geologic maps overlies crystalline rock. The Mount Simon Formation consists predominantly of a medium-grained quartzose sandstone, but does contain some shale beds which are common in the upper part of the formation. At the site, the upper 4 feet of the sandstone is weathered to essentially a soil regolith.

Depth to groundwater in the source area during the last four rounds of monitoring ranges from 7.63 to 13.33 feet bgs in the monitoring wells. Topography at the Site is relatively level. Groundwater elevation data collected from the monitoring wells suggests that the water table is relatively flat, and that groundwater flow is controlled by the pumping of water from a potable supply well in the vicinity of the Site. Historically depth to groundwater has ranged from 7.23 to 15.15 feet bgs in the monitoring wells.

## **2.3 Previous Environmental Reports**

Earth Tech completed a site investigation for the WDNR in response to petroleum detection in a residential potable well located at the former Krueger residence, W887 Chili Road (currently the DairiConcepts office) in the town of Chili. The results of the investigation were included in their reports of Project No. 82060 dated November 15, 2005 and March 2006. Refer to these reports for background and supplemental information. The site investigation was completed to gather sufficient subsurface information to assess permanent potable water supply well replacement

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options for the contaminated Krueger residential well and to confirm the source or sources of contamination that may have contributed to contamination of the residential well. The site investigation was completed from January 2004 to April 2006. The site investigation reports revealed the following:

- Subsurface materials consist of low-permeability clay soils from the ground surface to approximately 10 feet bgs. Sandstone bedrock of varying permeability underlies the clay soil to the termination depth borings at a maximum depth of 20 feet bgs. Granite bedrock underlies the sandstone at depths ranging from 50 to 57 feet, based on logs from private supply wells in the area.
- Soil and groundwater sampling confirmed three potential sources of petroleum contamination that include the former USTs located near the southwest corner of the DairiConcepts plant property, reported USTs in the area directly west of the Wolfe property garage, and the former UST located at the Chili Service garage.
- Wisconsin Administrative Code (WAC) NR 140 enforcement standard (ES) exceedances for benzene, 1,2-dichloroethane (DCA), naphthalene, toluene, and trimethylbenzenes (TMBs) were detected in groundwater samples collected from monitoring wells within and directly downgradient of the identified sources.
- In July 2005, free product was observed in monitoring well MW-4 adjacent to the southwest corner of the DairiConcepts plant property.
- Measured groundwater elevations indicate that the water table in the vicinity of the investigation area is nearly flat, thus generating negligible hydraulic gradient to drive groundwater flow laterally. An apparent east or southeast flow trend was inferred from the measured groundwater elevations however, due to the relatively flat gradient of the water table this groundwater flow direction is inconclusive.
- Measured groundwater elevations indicate a downward vertical gradient between wells MW-7 and PZ-7.
- Private potable well pumping likely has a significant effect on horizontal and vertical groundwater movement within the investigation area. Hydraulic stress, due to water withdrawal within the groundwater cone of depression generated by pumping, would tend to influence groundwater (and contaminant) flow in the vicinity of the potable wells, especially in the absence of significant natural flow.
- Soil gas survey and continued groundwater sampling confirmed contamination from the three previously identified potential sources of petroleum contamination: the former USTs located near the southwest corner of the DairiConcepts property, reported USTs in the area

directly west of the Wolfe property garage, and the former UST located at the Chili Service garage.

- Based on the soil gas survey and groundwater sampling analytical results, any potable well replacement on the former Krueger residential property drawing water from the sandstone aquifer will be at risk of future impacts from past petroleum releases in the area. However, a potable well installed on the southeastern portion of that property and drawing from the underlying fractured granite bedrock would appear to have less risk of future petroleum impacts due to the increased distance of the well from the former UST locations and potential limitations on further downward vertical migration of petroleum contaminated water through the sandstone aquifer. These limitations include the presence of relatively impermeable shale beds within the sandstone, and the presence of relatively impervious feldspar clay (saproelite) at the sandstone/granite bedrock interface.
- Based on Earth Tech's investigation, there was an indication that a release of petroleum to the environment had occurred from three separate UST systems. The WDNR issued Responsible Party letters to DairiConcepts, Mr. Arnold Wolfe, and Chili Service Garage directing them to investigate and remediate their sites on April 4, 2006.

Tetra Tech completed a remedial investigation of the Site, and the results of the investigation are included in their reports of Project No. 1156332427 dated June 11, 2004 and February 11, 2009. Refer to these reports for background and supplemental information. The remedial investigation was completed to determine the degree and extent of soil contamination associated with the former UST system at the Site and to evaluate the potential for groundwater contamination. The remedial investigation reports revealed the following:

- The site investigation began in April 2006 and included the installation of ten soil borings and five groundwater monitoring wells. Five monitoring wells previously installed by Earth Tech were also used in the remedial investigation.
- Petroleum-contaminated soil is present on the Site in the area of the previous petroleum UST system and concentrations exceed the WDNR NR 720 generic residual contaminant levels (RCLs). Soil contamination extends from five feet bgs to the groundwater table (12-15 feet bgs) in an area approximately 110 feet east/west by 30 feet north/south. Soil contamination has affected groundwater quality in monitoring wells MW-3A and MW-4, located near the southwest corner of the Site.
- Active LNAPL removal was conducted in wells MW-3A and MW-4. Product thickness ranging from 5 to 23 inches was observed during removal activities.
- Four quarterly rounds of groundwater sampling confirmed that petroleum-contaminated groundwater is present on the Site in the area of the previous petroleum UST system.

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Groundwater contamination extends off site to the west in the County Highway Y road right of way. Groundwater contamination exceeding the NR 140 ES is present within the sandstone bedrock and extends in a plume approximately 250 feet west-east by 100 feet wide surrounding monitoring wells MW-3A, MW-4, MW-4A, and MW-5A.

- A replacement potable well was installed at the former Krueger residence southeast of the Site. The well was constructed in the granite aquifer at a depth of 250 feet bgs.

AET completed additional remedial investigation activities on the Site, and the results of the additional investigation are included in our reports of Project No. 03-05510 dated July 11, 2013 and August 25, 2015. Refer to these reports for background and supplemental information. Continued remedial investigation was completed to determine the extent of groundwater contamination associated with the UST system and to evaluate the potential for groundwater remediation by natural attenuation. The remedial investigation reports revealed the following:

- Two additional groundwater monitoring wells, MW-6A and MW-7A were installed on the adjacent property to define the extent of groundwater contamination to the west. Five quarterly rounds of groundwater samples were collected from May 2010 to July 2015.
- LNAPL was not observed in wells MW-3A or MW-4.
- Groundwater contamination exceeding the NR 140 ES is present within the sandstone bedrock and extends in a plume approximately 250 feet west-east by 100 feet wide surrounding monitoring wells MW-3A, MW-4, MW-4A, and MW-5A. MW-6A and MW-7A define the western extent of the contaminant impacts.
- The WDNR requested soil excavation in the source area and continued groundwater monitoring to bring the Site to closure.

AET completed a soil remediation and groundwater monitoring report on the Site, and the results are included in our report of Project No. 03-05510 dated September 9, 2016. Refer to that report for background and supplemental information. The purpose of the remedial action was to remove petroleum-contaminated soil in the source area to reduce the potential for continued groundwater impact from the contamination associated with the former UST system. The soil remediation and groundwater monitoring report revealed the following:

- In June 2016, approximately 1,203 tons of contaminated soil were removed from the former tank bed area, resulting in the removal of most of the soil contaminated at levels above NR 720 soil to groundwater and non-industrial direct contact RCLs.
- Residual soil contamination exists from approximately four feet bgs to the groundwater table (10-15 feet bgs) in an area approximately 30 feet east/west by 30 feet north/south and likely extends beneath the County Highway Y and Chili Road pavement. Except in the

limited area around monitoring well MW-3A, remaining soil contamination at the Site is associated with the impacted groundwater smear zone.

- Groundwater monitoring shows that petroleum constituents are present on and off site in the area that includes the previous petroleum UST system. Groundwater contamination extends in a plume approximately 400 feet by 150 feet surrounding monitoring wells MW-2A, MW-3A, MW-4R, MW-4A, MW-5A, MW-5, MW-W (WMW-1), and MW-10.
- Based on these results, AET recommended continued groundwater monitoring on a quarterly basis to determine a stable or decreasing contaminant plume.

As recommended in the September 9, 2016 monitoring report, AET continued with groundwater monitoring at the Site in 2017 and 2018. Monitoring results for these years are included in our reports of Project No. 03-05510 dated June 30, 2017 and August 8, 2018. Refer to these reports for background and supplemental information. The purpose of the monitoring was to evaluate the effect of soil remediation on groundwater quality, and to assess the stability of the groundwater contamination plume and the feasibility of using natural attenuation as a closure option for the remaining residual contamination. The 2017 and 2018 groundwater monitoring reports revealed the following:

- Groundwater monitoring shows that petroleum constituents are present at concentrations exceeding NR 140 ESs in the source area and in the adjacent road right-of-ways in an area approximately 230 feet northwest-southeast and 140 feet wide. The extent of impact is defined by the lack of contamination in groundwater monitoring wells CMW-1, MW-6A, MW-7A, MW-W (WMW-1), MW-E (WPZ-1), MW-6, MW-1A, MW-3, PZ-7, and MW-7.
- Petroleum constituent concentrations in the source wells show variability over time. Concentrations in well MW-3A are generally decreasing, however during two of the last four rounds of sampling LNAPL has been present. Concentrations of benzene and naphthalene in well MW-4A and MW-5A are increasing. LNAPL has also begun to accumulate in monitoring well MW-10. This increase in benzene and naphthalene concentrations, and the occurrence of LNAPL, appears to be associated with the increase and then subsequent decrease of the water table after July 2017. The source of the higher concentrations and LNAPL may be from the lower part of the smear zone where free product is present.
- Based on these results, AET recommended continued groundwater monitoring on a quarterly basis to evaluate the effects of soil remediation and whether a downward trend in groundwater contaminant concentrations has been established to indicate the feasibility of natural attenuation as a remedial measure to attain Site closure. The groundwater



monitoring data will be reviewed to assess the potential effect of the smear zone on contaminant concentrations from fluctuations in the water table.

- The WDNR requested the completion of a LNAPL assessment and continued groundwater monitoring to bring the Site to closure.

### **3.0 GROUNDWATER MONITORING ACTIVITIES**

#### **3.1 Scope of Services**

The scope of this remedial action was initially defined in an approved AET proposal agreement with DFA on March 28, 2016. The implemented scope of services included the following:

- Obtain approval of costs from the WDNR PECFA program for reimbursable expenses to complete the required remedial activities.
- Prepare and administer a site-specific safety plan.
- Complete a LNAPL assessment on the remaining weathered free product on-site, this included:
  - Monitoring free product levels in three groundwater monitoring wells;
  - Installing two additional groundwater observation wells north and east of monitoring well MW-10 to define the horizontal extent of free product;
  - Collecting soil samples across the smear zone and analyze for total organic carbon and grain size analysis;
  - Collecting LNAPL samples for qualitative laboratory fluid analysis (density, viscosity, and surface and interfacial tension parameters);
- Collect four quarterly rounds of groundwater samples from eight groundwater monitoring wells (MW-1A, MW-3A, MW-4A, MW-4R, MW-5A, MW-7, MW-10, & MW-W [WMW-1]). Analyze each sample for petroleum volatile organic compounds (PVOCs) plus naphthalene using EPA Method SW8260B. During each sampling event, collect groundwater elevation measurements from all wells.
- Collect one annual round of groundwater samples from four potable wells (PW-1, PW-4, PW-5, & Strey Well). Analyze each sample for VOCs using EPA Method 524.2.
- Properly abandon monitoring well MW-1 which was originally installed in January 2005 as part of the WDNR's Chili Petroleum Contamination Investigation (BRRTS #02-10-517968) which was closed in December 2014.
- Prepare a groundwater monitoring report to document groundwater sampling results. The report will include groundwater flow maps, updated tables, and updated concentration graphs.

### **3.2 Environmental Sampling Methods**

AET conducted soil and groundwater sampling using the methods described on the Environmental Sampling Methods pages in **Appendix B**.

Soil samples were collected from the smear zone (9-11 & 13-15 feet bgs) during the installation of groundwater observation wells. The samples were obtained from a split-spoon sampler and obvious odors or visual evidence of contamination were not noted for the samples. AET collected four rounds of groundwater samples from eight groundwater monitoring wells by purging each well and collecting a sample using a disposable bailer. Bailer samples were emptied into the appropriately preserved containers, and all samples were packed in a cooler and shipped with the chain of custody record. AET also collected one round of groundwater samples from four potable wells.

AET submitted soil, groundwater, and LNAPL samples to Test America laboratory for chemical analyses. Soil samples were analyzed for total organic carbon and groundwater samples were analyzed for PVOCs plus naphthalene and VOCs by their respective EPA GC methods. Test America also analyzed LNAPL samples for density, viscosity, and surface and interfacial tension parameters. Grain size analysis was completed in AET's soils laboratory. Samples were collected in accordance with AET's Quality Assurance/Quality Control (QA/QC) guidelines.

### **3.3 Reference Standards**

For this report, we compare the analytical results to the baseline environmental regulatory standards in use by the WDNR. The reference standards are included in the results tables for comparison with assessment results. The media-specific standards are described below.

The following reference standards apply to potential contaminant exposures in groundwater:

- WAC NR 140 - Groundwater Quality Standards.

## **4.0 PROJECT RESULTS**

### **4.1 Field Observations**

On October 1, 2018 AET abandoned monitoring well MW-1 according to procedures outlined in Chapter NR 141.25 of the WAC following discovery of the damaged well that should have been abandoned in 2014 when the WDNR's Chili Petroleum Contamination Investigation was closed. A WDNR monitoring well abandonment form (Form 3300-005) is included in **Appendix C**.

On October 1, 2018, AET installed groundwater observation wells OW-11 and OW-12. The wells were installed to a depth of 20 feet and screened from 10 to 20 feet bgs. Each well is within 30 feet

of monitoring well MW-10. Following installation, the top of casings were surveyed to mean sea level (msl). The wells were installed and developed according to Chapter 141 of the WAC. **Appendix C** contains soil boring logs, observation well construction forms (Form 4400-113A), and well development forms (Form 4400-113B).

Quarterly groundwater samples were collected on October 3, 2018, and January 7, April 26, and July 9, 2019. Depth to groundwater was measured prior to purging and sampling each well. Depth to groundwater in the source area ranged from 7.63 to 13.33 feet bgs in the monitoring wells. Groundwater elevation data is summarized in **Table 1**.

From October 2018 to July 2019 the presence of LNAPL was measured and removed, if present, in monitoring wells MW-3A, MW-4R, and MW-10 located in the source area. LNAPL has not been observed in replacement well MW-4R since its installation following soil excavation activities in June 2016. LNAPL was present from October 2018 to April 2019 at thicknesses ranging from approximately 0.25–1.5 inches in groundwater monitoring well MW-3A. LNAPL was observed in MW-10 at thicknesses ranging from 0.5-8 inches. During the latest round of groundwater sampling, LNAPL was measured in MW-10 at 0.5 inches. Historic LNAPL measurements are summarized in **Table 2**.

Drums of petroleum contaminated soil boring cuttings and well purge water were picked up by WRR Environmental Services, Inc., Eau Claire, WI in December 2018. Drums of well purge water were picked up by Advanced Tank Service Inc., Eau Claire, WI in July 2019. No drums are currently stored on-site.

## **4.2 Laboratory Analysis**

**Appendix D** includes the laboratory analytical reports and chains-of-custody for this remedial action. Groundwater sample analytical results are summarized in **Table 3**.

### ***4.2.1 Soil Analytical Results***

Total organic carbon was measured at less than the method detection limit (MDL) of 600 ppm in both soil samples collected from the smear zone of observation well OW-11.

Grain size analysis was performed on two soil boring samples collected from the smear zone in soil boring OW-11 to document the grain size distribution in the samples. The samples were collected in a split-spoon sampler from the depth intervals of 9 to 11 feet, and 13 to 15 feet. These sample depths correspond to material from the weathered sandstone bedrock zone. The grain size analysis included hydrometer analysis to measure the distribution of grain size passing the number 200 sieve size, which corresponds to silt and clay particles. Based on the grain-size analysis results, the samples meet the USCS classification of a clayey sand, with over 40 percent consisting of silt

and clay particles (i.e., over 40 percent passing the number 200 sieve size). Results of the grain-size tests are presented on the graphs in **Appendix D**.

#### ***4.2.2 Groundwater Analytical Results***

The WDNR has established groundwater preventive action limits (PALs) and ESs for selected compounds that are listed in WAC NR 140. If a contaminant concentration exceeds the PAL, the WDNR may require monitoring or additional investigation. If the concentration exceeds the ES, the WDNR may require monitoring or remediation.

The latest round of groundwater samples was collected on July 9, 2019 and contaminant concentrations exceeding ESs were detected in monitoring wells MW-3A, MW-4R, MW-4A, MW-5A, and MW-10.

Benzene concentrations above the ES of five parts per billion (ppb) were detected in monitoring wells MW-3A (150 ppb), MW-4R (760 ppb), MW-4A (32 ppb), MW-5A (6.3 ppb), and MW-10 (570 ppb). Ethylbenzene concentrations above the ES of 700 ppb were detected in monitoring wells MW-4R (1,000 ppb), and MW-10 (1,200 ppb). Naphthalene concentrations above the ES of 100 ppb were detected in monitoring wells MW-4R (1,300 ppb) and MW-10 (1,400 ppb). Toluene concentrations above the ES of 800 ppb were detected in monitoring wells MW-3A (14,000 ppb) and MW-10 (890 ppb). Total TMB concentrations above the ES of 480 ppb were detected in monitoring wells MW-4R (3,990 ppb) and MW-10 (4,100 ppb). Total xylene concentrations above the ES of 2,000 ppb were detected in monitoring wells MW-4R (3,200 ppb) and MW-10 (3,700 ppb).

Several PVOCs or naphthalene were detected in monitoring wells MW-1A, MW-3A, MW-4A, MW-4R, MW-5A, MW-7, and MW-W at concentrations above their respective PALs.

Groundwater analytical results are summarized in **Table 3**, and depicted in **Figures 3, 4, 5, and 6**.

#### ***4.2.3 LNAPL Analytical Results***

A sample of the LNAPL submitted for density was measured at 0.75 g/mL. Viscosity was measured at 0.64 cP. Interfacial tension results are in dynes/cm, 68.2 (air-water), 20.8 (air-oil), and 25.1 (oil-water). LNAPL laboratory analytical results are included in **Appendix D**.

## **5.0 DISCUSSION AND OPINIONS**

### **5.1 Soil Contamination Conditions**

From previous investigations, petroleum-contaminated soil that exceeds the WDNR NR 720 soil to groundwater RCLs remains in the Chili Road and County Highway Y road right-of-ways in the

area of monitoring well MW-3A. We calculated the cumulative hazard and cancer risks using WDNR's NR 720 RCL worksheet and determined that the detected concentration levels are below direct contact concerns. Remaining soil contamination extends from approximately four feet bgs to the groundwater table (7.23-15.15 feet bgs) in an area approximately 30 feet east/west by 30 feet north/south and likely extends beneath the County Highway Y and Chili Road pavement.

Petroleum-contaminated also soil remains on the Site in the area of the previous petroleum UST system. Post remedial soil samples that exceed the WDNR NR 720 soil to groundwater RCLs were collected below the groundwater table and within the sandstone bedrock. Except in the limited area around monitoring well MW-3A, remaining soil contamination at the Site appears to be associated with the impacted groundwater smear zone. Total and residual soil contamination analytical results are summarized in **Tables 4 and 5**. The extent of residual soil contamination is depicted on **Figure 7**.

## **5.2 Groundwater Contamination Conditions**

Petroleum-contaminated groundwater is present on the Site in the area that includes the previous petroleum UST system, the adjacent road right-of-way, and off-site property to the west. Groundwater contamination extends in a plume approximately 230 feet by 140 feet surrounding monitoring wells MW-3A, MW-4A, MW-4R, MW-5A, and MW-10.

Measured groundwater elevations during the last year indicated that the water table is nearly flat with a minimal hydraulic gradient. The total head differential for all monitoring wells measured during each sampling event was 3.81 feet (October 2018), 2.4 feet (January 2019), 1.71 feet (April), and 2.56 (July) with a possible east or west flow trend away from the Site. A downward vertical gradient was observed between wells MW-7/PZ-7 and MW-E/MW-W. The average downward vertical gradient in MW-7/PZ-7 for the year was 0.0725 ft/ft. Historically depth to groundwater has ranged from 7.23 to 15.15 feet bgs in the monitoring wells. The extent of groundwater contamination and elevation data are depicted on **Figures 3, 4, 5, and 6**.

We've reviewed the stability of the groundwater plume at MW-3A, MW-4A, MW-4R, MW-5A, and MW-10 using line graphs showing the concentration trends over time for various petroleum constituents. The line graphs were used to assess trends of the groundwater quality in these wells and the relationship to fluctuations of the water table. Petroleum constituent concentrations in the source wells show great variability over time. Concentrations in well MW-3A, MW-4A, and MW-5A are generally decreasing. Concentrations of benzene, MTBE, and total TMBs in well MW-4R are slightly increasing. Concentrations in well MW-10 are generally decreasing despite the presence of free product. The continued presence of free product in MW-10, appears to be

associated with the increase of the water table after October 2018. **Appendix E** includes concentration verses time graphs to illustrate these trends.

### **5.3 LNAPL Conditions and Assessment**

AET has completed a LNAPL assessment to document the potential for future remediation and recovery of the remaining LNAPL at the site. LNAPL at the site is a historic release from a leaded gasoline UST system that operated to fuel fleet vehicles when the site was an active dairy facility. The USTs were removed in the 1980s, thus removing the LNAPL source. Furthermore, excavation of impacted soils further reduced a source by removing soils containing LNAPL. LNAPL remaining at the site has been subject to degradation processes and since reaching the aquifer smear zone, it has also been subject to the flow limitations associated with dual-phase flow through porous media. These flow limitations can cause degraded LNAPL to become stagnate in the subsurface, as well as making it infeasible to remediate and recover if it resides in a soil of relatively low hydraulic conductivity, such as silts and clays.

AET assessed the feasibility of remediating and recovering degraded LNAPL at the Site following the assessment procedures outlined in the WDNR March 2014 guidance document titled “Assessment Guidance for Sites With Residual Weathered Product” (PUB-RR-787). According to the guidance, soil type has the greatest effect on treatment recovery efficiencies of degraded LNAPL. If a soil type in the smear zone is tested to be predominantly clay or silt, then no further recovery feasibility testing is warranted as recovery model sensitivity results using default and database values indicate a precipitous decline in LNAPL recovery efficiencies from these soils. Consequently, remediation and recovery of LNAPL from a silty and clayey smear zone is not feasible. According to the guidance, clayey and silty soils include soils having 40 percent or more fine-grained constituents (i.e., silts and clays).

Grain-size analysis (gradation testing) of samples collected from the smear zone in soil boring OW-11 indicate a silt and clay size fraction exceeding 40 percent. These samples were collected from the weathered sandstone bedrock zone. The large amount of fines in the sample suggest the possible presence of shale beds in this portion of the formation, or possibly the migration clay into the upper part of the formation from the overlying clayey soils. Based on the percentage of fine-grained constituents indicated by the gradation test, no additional recovery feasibility testing is necessary for the Site as LNAPL remediation and recover is not feasible.

Based on the relatively low hydraulic conductivity properties of the fine-grained constituents in the smear zone, the remaining degraded LNAPL at the Site can be expected to be virtually immobile. This lack of mobility is suggested by the absence of LNAPL in observation wells OW-11 and OW-12 installed within 30 feet of groundwater monitoring well MW-10 where LNAPL is

consistently present. Also, the historical presence of LNAPL in well MW-3A, but its absence in nearby wells MW-4R, and MW-5A further suggests the degraded LNAPL at the site is immobile. According to the WDNR guidance, natural attenuation may be shown to be sufficient to offset the dissolved contaminant flux generated from the immobile LNAPL, which based on groundwater sampling analysis at the Site appears to be the case. Consequently, the presence of degraded LNAPL does not mean the groundwater contaminant plume is unstable, and in this regard, immobile LNAPL may be no more of a risk than contaminated soil.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

Soil sampling results obtained during the source removal has indicated that most of the soil contaminated at levels above NR 720 soil to groundwater RCLs has been removed. Soil contamination from approximately four to at least 15 feet bgs remains in the area of MW-3A and likely extends beneath the pavement of Chili Road and County Highway Y. In our opinion, remaining soil contamination at the Site is associated with the impacted groundwater smear zone.

Groundwater monitoring shows that petroleum constituents remain on and off the Site at concentrations exceeding the NR 140 ES. Groundwater contamination extends in a plume approximately 230 feet by 140 feet surrounding monitoring wells MW-3A, MW-4A, MW-4R, MW-5A, and MW-10. The extent of impact is limited and is defined by the lack of contamination in groundwater monitoring wells CMW-1, MW-3, MW-6A, MW-7A, MW-6, and MW-9. AET recommends the remaining groundwater contamination be allowed to naturally attenuate.

The removal of the leaking gasoline UST system, along with the excavation of 1,203 tons of petroleum impacted soil, has removed the source for mobilizing the degraded LNAPL at the Site. An assessment of the Site indicates remediation and recovery of remaining LNAPL is not feasible due to the soil composition of the smear zone. Grain size distribution testing shows the smear zone is composed of soils that contain greater than 40 percent silt and clay, which are soils having relatively low permeabilities. As a result of the silt and clay composition, LNAPL in the smear zone is essentially immobile due to flow restrictions caused by dual-phase flow through these low permeability soils. Therefore, we conclude the LNAPL at the Site has reached an equilibrium regarding further migration and/or contaminant loading to the groundwater, and the remaining degraded LNAPL is not “free” or readily mobile. Groundwater monitoring has demonstrated the dissolved contaminant plume is stable and decreasing in the presence of the immobile LNAPL that remains at the Site.

Based on these results, AET recommends that this Site be considered for closure. If the WDNR agrees with these recommendations, AET will submit a closure application, GIS Registry packet, and off-site notifications.

## **7.0 REPORT CLOSURE**

### **7.1 Reliance**

AET has prepared this report for the exclusive use of the User for specific application to the Site. Written authorization by AET is necessary for other parties to rely on this report.

Because site uses and environmental conditions can change over time, this report must be considered time-sensitive. AET should be consulted if 180 days have elapsed since the report date or the passage of time results in uncertainty about the continuing applicability of this report.

### **7.2 Standard of Care**

AET has endeavored to perform services for this project in a manner consistent with the level of skill and care ordinarily exercised by other members of the profession currently practicing in this area, under similar budgetary and time constraints. No warranty, express or implied, is made.

This report is based on our current understanding of the project and conditions at the Site. If conditions differing from our original understanding or findings are identified, AET should be consulted to determine if there are material impacts on our conclusions or recommendations.

### **7.3 Methodology**

This investigation has been conducted under the supervision of an Environmental Professional and for the objectives described in the Purpose section of this report. AET's findings, opinions, conclusions, and recommendations are based on the Scope of Services defined in this report and are not intended to address non-scope considerations.

### **7.4 Remarks**

The data derived through this investigation has been used to develop professional opinions about the subsurface and environmental conditions at the Site. However, we recognize that not all critical information may have become known to AET and that no exploration program can fully reveal what is in the subsurface. As a result, there may be impacted locations or media that were not detected, and there may be contaminants present other than those for which we tested given the Purpose and Scope of Services for this investigation.

## **8.0 QUALIFICATIONS AND SIGNATURES**

"I, Michael K. Neal, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct



**Groundwater Monitoring Report**

DairiConcepts Site, Chili, WI

September 23, 2019

AET Report No. 03-05510

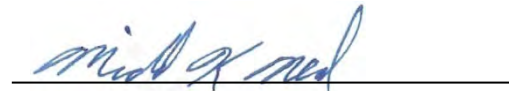
AMERICAN  
ENGINEERING  
TESTING, INC.

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and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.”

“I, Robert J. Wahlstrom, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A–E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A–E 8, Wis. Adm. Code; and that, to the best of my knowledge, all 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.”

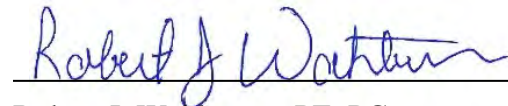
Report Prepared By:



Michael K. Neal

Professional Hydrologist/Geomorphologist

Report Reviewed By:



Robert J. Wahlstrom, PE, PG

Principal Engineer/Geologist

# Tables

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**TABLE 1 (page 1 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-1A	August 9, 2006	20.00	1234.83	13.60	1221.23
	April 12, 2007		1235.38	12.90	1221.93
	November 16, 2007		10.50	1224.33	
	October 17, 2008		14.10	1220.73	
	May 20, 2010		11.90	1222.93	
	November 29, 2012		14.00	1220.83	
	April 30, 2013		9.95	1224.88	
	April 27, 2015		9.45	1225.38	
	July 7, 2015		9.65	1225.18	
	July 11, 2016		10.07	1225.31	
	October 17, 2016		7.59	1227.79	
	March 22, 2017		8.71	1226.67	
	June 1, 2017		7.94	1227.44	
	September 8, 2017		10.94	1224.44	
	December 4, 2017		11.09	1224.29	
	April 30, 2018		9.73	1225.65	
	July 9, 2018		10.69	1224.69	
	October 3, 2018		11.91	1223.47	
January 7, 2019	10.42	1224.96			
April 26, 2019	8.80	1226.58			
July 9, 2019	8.03	1227.35			
MW-2A	August 9, 2006	20.00	1235.38	14.10	1221.28
	April 12, 2007			14.00	1221.38
	November 16, 2007			11.00	1224.38
	October 17, 2008			14.55	1220.83
	May 20, 2010			12.35	1223.03
	November 29, 2012			14.40	1220.98
	April 30, 2013			10.40	1224.98
	April 27, 2015			9.65	1225.73
	July 7, 2015			9.85	1225.53
	July 11, 2016			10.36	1225.02
	October 17, 2016			7.99	1227.39
	March 22, 2017			8.98	1226.40
May 24, 2017	8.51	1226.87			

**TABLE 1 (page 2 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-3	January 21, 2005	21.10	1233.54	12.99	1220.55
	January 27, 2005			13.29	1220.25
	June 21, 2005			10.04	1223.50
	July 21, 2005			11.40	1222.14
	January 23, 2006			12.95	1220.59
	August 9, 2006			12.45	1221.09
	April 12, 2007			11.65	1221.89
	November 16, 2007			9.10	1224.44
	October 17, 2008			12.80	1220.74
	May 20, 2010			10.50	1223.04
	November 29, 2012			12.55	1220.99
	April 30, 2013			8.40	1225.14
	April 27, 2015			7.80	1225.74
	July 7, 2015			8.00	1225.54
	July 11, 2016			8.54	1225.00
	October 17, 2016			6.08	1227.46
	March 22, 2017			7.15	1226.39
	June 1, 2017			6.35	1227.19
	September 8, 2017			9.35	1224.19
	December 4, 2017			9.50	1224.04
April 30, 2018	8.11	1225.43			
July 9, 2018	9.09	1224.45			
October 3, 2018	10.33	1223.21			
January 7, 2019	8.84	1224.70			
April 26, 2019	7.15	1226.39			
July 9, 2019	6.42	1227.12			
MW-3A	August 9, 2006	20.00	1235.89	13.60	1222.29
	April 12, 2007			13.70	1222.19
	November 16, 2007			10.75	1225.14
	October 17, 2008			14.50	1221.39
	May 20, 2010			11.70	1224.19
	November 29, 2012			14.20	1221.69
	April 30, 2013			10.10	1225.79
	April 27, 2015			8.70	1227.19
	July 7, 2015			8.70	1227.19
	July 11, 2016			8.55	1227.34
	October 17, 2016			7.23	1228.66
	March 22, 2017			7.82	1228.07
	June 1, 2017			7.50	1228.39
	September 8, 2017			9.65	1226.24
	December 4, 2017			10.95	1224.94
	April 30, 2018			10.45	1225.44
	July 9, 2018			10.59	1225.30
October 3, 2018	11.79	1224.10			
January 7, 2019	9.75	1226.14			
April 26, 2019	9.10	1226.79			
July 9, 2019	7.63	1228.26			

**TABLE 1 (page 3 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-4	January 21, 2005	21.20	1235.80	15.15	1220.65
	January 27, 2005			15.50	1220.30
	June 21, 2005			12.26	1223.54
	April 12, 2007			13.90	1221.90
	November 16, 2007			11.30	1224.50
	October 17, 2008			14.70	1221.10
	May 20, 2010			12.20	1223.60
	November 29, 2012			14.60	1221.20
	April 30, 2013			9.50	1226.30
	April 27, 2015			8.35	1227.45
	July 7, 2015			9.65	1226.15
	June 7, 2016			9.33	1226.47
MW-4R	July 11, 2016	20.00	1236.65	11.06	1225.59
	October 17, 2016		1236.83	9.09	1227.74
	March 22, 2017		10.01	1226.82	
	June 1, 2017		9.23	1227.60	
	September 8, 2017		12.23	1224.60	
	December 4, 2017		12.46	1224.37	
	April 30, 2018		11.17	1225.66	
	July 9, 2018		11.92	1224.91	
	October 3, 2018		13.33	1223.50	
	January 7, 2019		11.75	1225.08	
	April 26, 2019		10.13	1226.70	
	July 9, 2019		9.24	1227.59	
MW-4A	November 16, 2007	18.00	1235.58	10.75	1224.83
	October 17, 2008			13.35	1222.23
	May 20, 2010			12.20	1223.38
	November 29, 2012			14.40	1221.18
	April 30, 2013			10.70	1224.88
	April 27, 2015			9.60	1225.98
	July 7, 2015			9.65	1225.93
	July 11, 2016			10.15	1225.43
	October 17, 2016			7.68	1227.90
	March 22, 2017			8.78	1226.80
	June 1, 2017			7.83	1227.75
	September 8, 2017			11.15	1224.43
	December 4, 2017			11.43	1224.15
	April 30, 2018			10.15	1225.43
	July 9, 2018			10.83	1224.75
	October 3, 2018			12.32	1223.26
	January 7, 2019			10.47	1225.11
	April 26, 2019			9.22	1226.36
July 9, 2019	8.19	1227.39			

**TABLE 1 (page 4 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-5	April 29, 2005	21.70	1238.67	15.81	1222.86
	June 21, 2005			14.97	1223.70
	July 21, 2005			16.26	1222.41
	January 23, 2006			17.90	1220.77
	July 7, 2015			11.50	1227.17
	July 11, 2016			11.78	1226.89
	October 17, 2016			9.96	1228.71
	March 22, 2017			10.35	1228.32
	June 1, 2017			10.18	1228.49
	September 8, 2017			12.57	1226.10
	December 4, 2017			13.45	1225.22
	April 30, 2018			11.36	1227.31
	July 9, 2018			12.21	1226.46
	October 3, 2018			12.20	1226.47
	January 7, 2019			12.12	1226.55
	April 26, 2019			11.41	1227.26
July 9, 2019	10.10	1228.57			
MW-5A	November 16, 2007	18.00	1236.41	10.85	1225.56
	October 17, 2008			14.40	1222.01
	May 20, 2010			11.60	1224.81
	November 29, 2012			13.50	1222.91
	April 30, 2013			10.10	1226.31
	April 27, 2015			9.20	1227.21
	July 7, 2015			8.80	1227.61
	July 11, 2016			8.95	1227.46
	October 17, 2016			7.60	1228.81
	March 22, 2017			8.71	1227.70
	June 1, 2017			7.65	1228.76
	September 8, 2017			10.01	1226.40
	December 4, 2017			10.93	1225.48
	April 30, 2018			9.90	1226.51
	July 9, 2018			9.98	1226.43
	October 3, 2018			12.10	1224.31
January 7, 2019	10.15	1226.26			
April 26, 2019	9.23	1227.18			
July 9, 2019	7.75	1228.66			

**TABLE 1 (page 5 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-6	April 29, 2005	21.10	1236.90	14.72	1222.18
	June 21, 2005			13.32	1223.58
	July 21, 2005			14.60	1222.30
	January 23, 2006			16.30	1220.60
	November 29, 2012			15.80	1221.10
	April 30, 2013			11.80	1225.10
	April 27, 2015			11.00	1225.90
	July 7, 2015			11.20	1225.70
	July 11, 2016			11.70	1225.20
	October 17, 2016			9.24	1227.66
	March 22, 2017			10.29	1226.61
	June 1, 2017			9.52	1227.38
	September 8, 2017			12.51	1224.39
	December 4, 2017			13.41	1223.49
	April 30, 2018			11.35	1225.55
	July 9, 2018			12.20	1224.70
	October 3, 2018			13.41	1223.49
	January 7, 2019			11.92	1224.98
April 26, 2019	10.32	1226.58			
July 9, 2019	9.51	1227.39			
MW-6A	July 7, 2015	15.00	1236.27	9.50	1226.77
	July 11, 2016			9.83	1226.44
	October 17, 2016			7.55	1228.72
	March 22, 2017			8.63	1227.64
	June 1, 2017			9.52	1226.75
	September 8, 2017			10.86	1225.41
	December 4, 2017			11.14	1225.13
	April 30, 2018			10.56	1225.71
	July 9, 2018			10.42	1225.85
	October 3, 2018			11.88	1224.39
	January 7, 2019			10.25	1226.02
	April 26, 2019			9.53	1226.74
	July 9, 2019			7.71	1228.56

**TABLE 1 (page 6 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-7	April 29, 2005	19.80	1233.49	9.51	1223.98
	June 21, 2005			9.75	1223.74
	July 21, 2005			11.17	1222.32
	January 23, 2006			12.69	1220.80
	August 9, 2006			12.20	1221.29
	April 12, 2007			11.40	1222.09
	November 16, 2007			8.95	1224.54
	October 17, 2008			12.50	1220.99
	May 20, 2010			10.00	1223.49
	November 29, 2012			12.10	1221.39
	April 30, 2013			8.00	1225.49
	April 27, 2015			7.20	1226.29
	July 7, 2015			7.65	1225.84
	July 11, 2016			8.09	1225.40
	October 17, 2016			5.76	1227.73
	March 22, 2017			6.71	1226.78
	June 1, 2017			5.89	1227.60
	September 8, 2017			8.96	1224.53
	December 4, 2017			9.15	1224.34
	April 30, 2018			7.66	1225.83
	July 9, 2018			8.61	1224.88
	October 3, 2018			9.95	1223.54
January 7, 2019	8.53	1224.96			
April 26, 2019	6.71	1226.78			
July 9, 2019	5.90	1227.59			
MW-7A	July 7, 2015	15.00	1234.37	8.40	1225.97
	July 11, 2016			8.62	1225.75
	October 17, 2016			6.11	1228.26
	March 22, 2017			7.11	1227.26
	June 1, 2017			6.18	1228.19
	September 8, 2017			9.18	1225.19
	December 4, 2017			9.46	1224.91
	April 30, 2018			8.19	1226.18
	July 9, 2018			8.89	1225.48
	October 3, 2018			10.35	1224.02
	January 7, 2019			8.72	1225.65
	April 26, 2019			7.09	1227.28
July 9, 2019	6.22	1228.15			



**TABLE 1 (page 7 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
PZ-7	April 29, 2005	46.30	1233.59	15.60	1217.99
	June 21, 2005			13.54	1220.05
	July 21, 2005			13.81	1219.78
	January 23, 2006			15.98	1217.61
	August 9, 2006			14.96	1218.63
	April 12, 2007			13.25	1220.34
	November 16, 2007			11.65	1221.94
	October 17, 2008			15.10	1218.49
	May 20, 2010			12.75	1220.84
	November 29, 2012			14.45	1219.14
	April 30, 2013			10.45	1223.14
	April 27, 2015			9.50	1224.09
	July 7, 2015			10.25	1223.34
	July 11, 2016			11.02	1222.57
	October 17, 2016			8.68	1224.91
	March 22, 2017			9.49	1224.10
	June 1, 2017			6.89	1226.70
	September 8, 2017			11.54	1222.05
	December 4, 2017			11.65	1221.94
	April 30, 2018			10.94	1222.65
	July 9, 2018			11.44	1222.15
	October 3, 2018			12.50	1221.09
	January 7, 2019			11.08	1222.51
April 26, 2019	9.51	1224.08			
July 9, 2019	8.73	1224.86			
MW-9	April 29, 2005	16.10	1231.65	8.32	1223.33
	June 21, 2005			7.49	1224.16
	July 21, 2005			9.14	1222.51
	January 23, 2006			10.52	1221.13
	August 9, 2006			10.00	1221.65
	April 12, 2007			8.80	1222.85
	November 16, 2007			6.75	1224.90
	October 17, 2008			10.50	1221.15
	May 20, 2010			7.90	1223.75
	November 29, 2012			10.00	1221.65
	April 30, 2013			5.40	1226.25
	April 27, 2015			5.00	1226.65
	July 7, 2015			5.55	1226.10
	July 11, 2016			5.95	1225.70
	October 17, 2016			4.05	1227.60
	March 22, 2017			4.43	1227.22
	June 1, 2017			3.52	1228.13
	September 8, 2017			6.73	1224.92
	December 4, 2017			6.88	1224.77
	April 30, 2018			5.16	1226.49
	July 9, 2018			6.49	1225.16
	October 3, 2018			7.47	1224.18
	January 7, 2019			6.25	1225.40
April 26, 2019	4.24	1227.41			
July 9, 2019	3.65	1228.00			

**TABLE 1 (page 8 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-10	June 16, 2016	20.00	1240.87	15.54	1225.33
	July 11, 2016			15.30	1225.57
	October 17, 2016			12.99	1227.88
	March 22, 2017			13.95	1226.92
	June 1, 2017			13.18	1227.69
	September 8, 2017			16.10	1224.77
	December 4, 2017			16.21	1224.66
	April 30, 2018				1240.87
	June 5, 2018				1240.87
	July 9, 2018			15.87	1225.00
	September 11, 2018				1240.87
	September 21, 2018				1240.87
	September 24, 2018				1240.87
	October 1, 2018				1240.87
	October 3, 2018			17.45	1223.42
	October 10, 2018				1240.87
	October 24, 2018				1240.87
	November 14, 2018				1240.87
	November 30, 2018				1240.87
	January 7, 2019			15.76	1225.11
	February 22, 2019			17.61	1223.26
	April 9, 2019			15.82	1225.05
	April 26, 2019			14.29	1226.58
May 17, 2019	14.02	1226.85			
May 23, 2019	13.71	1227.16			
May 31, 2019	13.33	1227.54			
June 21, 2019	13.72	1227.15			
July 9, 2019	12.31	1228.56			
CMW-1	April 5, 2007	18.00	1234.64	12.57	1222.07
	July 3, 2007			11.96	1222.68
	November 1, 2007			8.38	1226.26
	January 17, 2008			10.63	1224.01
	December 19, 2008			13.72	1220.92
	May 21, 2010			10.88	1223.76
	November 29, 2012			13.10	1221.54
	April 30, 2013			9.15	1225.49
	April 27, 2015			8.30	1226.34
	July 7, 2015			8.30	1226.34
	July 11, 2016			8.70	1225.94
	October 17, 2016			6.38	1228.26
	March 22, 2017			7.47	1227.17
	June 1, 2017			6.43	1228.21
	September 8, 2017			9.69	1224.95
	December 4, 2017			9.97	1224.67
	April 30, 2018			8.80	1225.84
	July 9, 2018			9.39	1225.25
	October 3, 2018			10.37	1224.27
	January 7, 2019			7.81	1226.83
April 26, 2019	6.57	1228.07			
July 9, 2019	4.96	1229.68			

**TABLE 1 (page 9 of 9)**  
**GROUNDWATER ELEVATIONS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
Street MW-East (WPZ-1)	July 7, 2015	32.00	1237.41	11.80	1225.61
	July 11, 2016			12.33	1225.08
	October 17, 2016			9.90	1227.51
	March 22, 2017			10.91	1226.50
	June 1, 2017			10.16	1227.25
	September 8, 2017			13.19	1224.22
	December 4, 2017			14.09	1223.32
	April 30, 2018			11.96	1225.45
	July 9, 2018			12.95	1224.46
	October 3, 2018			14.47	1222.94
	January 7, 2019			14.04	1223.37
	April 26, 2019			11.05	1226.36
	July 9, 2019			11.63	1225.78
Street MW-West (WMW-1)	July 7, 2015	21.00	1237.55	9.55	1228.00
	July 11, 2016			9.90	1227.65
	October 17, 2016			8.57	1228.98
	March 22, 2017			9.45	1228.10
	June 1, 2017			8.70	1228.85
	September 8, 2017			10.78	1226.77
	December 4, 2017			11.69	1225.86
	April 30, 2018			10.60	1226.95
	July 9, 2018			10.41	1227.14
	October 3, 2018			11.03	1226.52
	January 7, 2019			10.60	1226.95
	April 26, 2019			10.43	1227.12
	July 9, 2019			8.95	1228.60
Quonset Hut Well (WMW-4)	July 7, 2015	21.00	1240.83	12.75	1228.08
	July 11, 2016			12.96	1227.87
	October 17, 2016			12.00	1228.83
	March 22, 2017			12.10	1228.73
	June 1, 2017			11.49	1229.34
	September 8, 2017			13.60	1227.23
	December 4, 2017			14.43	1226.40
	April 30, 2018			13.53	1227.30
	July 9, 2018			13.27	1227.56
	October 3, 2018			13.81	1227.02
	January 7, 2019			13.73	1227.10
	April 26, 2019			13.02	1227.81
	July 9, 2019			11.71	1229.12
OMW-11 North	October 3, 2018	20.00	1240.12	16.73	1223.39
	January 7, 2019			15.11	1225.01
	April 26, 2019			13.59	1226.53
	July 9, 2019			12.65	1227.47
OMW-12 East	October 3, 2018	20.00	1240.13	16.78	1223.35
	January 7, 2019			15.16	1224.97
	April 26, 2019			13.55	1226.58
	July 9, 2019			12.67	1227.46

Wells MW-E (WPZ-1) & MW-Wt (WMW-1) were installed during the Site investigation of the Wolfe Property in February 2007 (BRRTS No. 03-10-545213/09-10-545213).

**TABLE 2**  
**HISTORIC FREE PRODUCT MEASUREMENTS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Date	MW-3A		MW-4		MW-10	
	Product Thickness (in)	Gallons Removed	Product Thickness (in)	Gallons Removed	Product Thickness (in)	Gallons Removed
May 3, 2006	---	---	6	10	---	---
May 19, 2006	---	---	12	10	---	---
July 28, 2006	---	---	23	10	---	---
August 8, 2006	--	--	4	10	---	---
August 9, 2006	---	---	1.5	10	---	---
September 27, 2006	0	0	7	10	---	---
November 1, 2006	0	0	0.5	10	---	---
April 12, 2007	5	10	0.5	5	---	---
July 13, 2007	27	2	24	2	---	---
July 20, 2007	17	2	8	1.5	---	---
August 3, 2007	8.75	1	3.5	0.5	---	---
August 13, 2007	2.5	0.5	2	0.5	---	---
August 24, 2007	0.5	0.5	1.25	0.5	---	---
August 31, 2007	14	2	0.5	0	---	---
September 7, 2007	20.5	3	0.5	0	---	---
September 14, 2007	19	2.5	0.3	0	---	---
September 24, 2007	18	2.5	0.5	0	---	---
October 5, 2007	22	3.5	0.3	0	---	---
October 8, 2007	3.5	5	0	0	---	---
October 15, 2007	35	5	---	---	---	---
November 2, 2007	33	3.5	0	0	---	---
November 16, 2007	21	2	0	0	---	---
May 16, 2008	29	4	18	4	---	---
June 27, 2008	40	4.5	23.5	2.5	---	---
July 18, 2008	40	4.5	37	2	---	---
July 19, 2008	32	1.5	---	---	---	---
August 7, 2008	35	3.5	24	1	---	---
August 27, 2008	33	3.5	16	1	---	---
September 19, 2008	18	2	4	1	---	---
October 17, 2008	8	5	5	5	---	---
May 27, 2009	28	2	---	---	---	---
June 12, 2009	34	2	25	2	---	---
June 26, 2009	42	2.5	20	1.5	---	---
July 2, 2009	38	2.5	13	1.5	---	---
July 10, 2009	26	3	13	1.5	---	---
July 27, 2009	17	2	7	1	---	---
August 14, 2009	11	1	---	---	---	---
August 21, 2009	8	1.5	---	---	---	---
September 4, 2009	8	1	7	1	---	---
September 11, 2009	7	1	7	1	---	---
September 18, 2009	10	1.5	5	1	---	---
September 25, 2009	5	1	1	0.5	---	---
October 9, 2009	3	0.5	1	0.5	---	---

**TABLE 2  
HISTORIC FREE PRODUCT MEASUREMENTS  
DAIRICONCEPTS SITE, CHILI, WISCONSIN  
AET PROJECT NO. 03-05510**

	<b>MW-3A</b>		<b>MW-4</b>		<b>MW-10</b>	
Date	Product Thickness (in)	Gallons Removed	Product Thickness (in)	Gallons Removed	Product Thickness (in)	Gallons Removed
October 16, 2009	3	0.5	0.5	0.5	---	---
November 13, 2009	13	1	0.5	0.5	---	---
November 25, 2009	18	1	0.5	0.5	---	---
April 2, 2010	16	1	20	1	---	---
April 10, 2010	4.5	0.5	12	0.5	---	---
April 19, 2010	5	0.5	15	1.5	---	---
April 29, 2010	9	1	24	2	---	---
May 7, 2010	9	1	20	1	---	---
May 20, 2010	24	2	18	2	---	---
May 11, 2012	0	0	3	1	---	---
June 6, 2012	0	0	0.5	0.5	---	---
June 26, 2012	0	0	0.5	0.5	---	---
July 11, 2012	0	0	0.5	0.5	---	---
July 24, 2012	0	0	0	0	---	---
August 10, 2012	0	0	0.25	0.5	---	---
August 31, 2012	0	0	0.5	0.5	---	---
September 11, 2012	0	0	0	0	---	---
September 25, 2012	0	0	0.25	0.5	---	---
November 29, 2012						
April 30, 2013						
April 27, 2015						
July 7, 2015						
July 11, 2016	0	0	MW-4 abandoned 6-6-2016		---	---
October 17, 2016						
March 22, 2017						
June 1, 2017						
September 8, 2017	0	0	---	---	4	5
December 4, 2017	0	0	---	---	15	15
April 30, 2018	1	10	---	---	4	15
June 5, 2018	0.5	15	---	---	4	15
July 9, 2018	0	0	---	---	3	15
September 11, 2018	0.5	0.5	---	---	1.8	4
September 21, 2018	0.5	0	---	---	0.5	0
September 24, 2018	0.5	0.5	---	---	0.5	1
October 1, 2018	0.5	0	---	---	1	1
October 3, 2018	0.5	1	---	---	0.5	1
October 10, 2018	0.25	0	---	---	5	1
October 24, 2018	0	0	---	---	3	0.5
November 14, 2018	0	0	---	---	0.5	0.5
November 30, 2018	---	---	---	---	3	1
January 7, 2019	0.25	5	---	---	0.5	10
February 22, 2019	0	0	---	---	8	1
April 9, 2019	1.5	1	---	---	0.75	1
April 26, 2019	0	0	---	---	0.5	4
May 17, 2019	0	0	---	---	2.5	1

**TABLE 2**  
**HISTORIC FREE PRODUCT MEASUREMENTS**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

	<b>MW-3A</b>		<b>MW-4</b>		<b>MW-10</b>	
Date	Product Thickness (in)	Gallons Removed	Product Thickness (in)	Gallons Removed	Product Thickness (in)	Gallons Removed
May 23, 2019	0	0	---	---	1	2
May 31, 2019	0	0	---	---	0.5	2
June 21, 2019	0	0	---	---	3	2
July 9, 2019	0	0	---	---	0.5	5

TABLE 3 (page 1 of 20)

ANALYTICAL RESULTS - GROUNDWATER

DAIRICONCEPTS SITE, CHILI, WISCONSIN

AET PROJECT NO. 03-05510

MW-1A																					NR 140 Remedial Action Limits		
Date	8/9/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	12/4/17	4/30/18	7/9/18	10/3/18	1/7/19	4/26/19			7/9/19
Elevation (ft)	1221.23	1221.93	1224.33	1220.73	1222.93	1220.83	1224.88	1225.38	1225.18	1225.31	1227.79	1228.07	1227.44	1224.44	1224.29	1225.65	1224.69	1223.47	1224.96	1226.58	1227.35		
ANALYTE																					ES	PAL	
VOCs/PVOCs (ppb)																							
Benzene	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	<b>1.9</b>	<b>4.2</b>	<b>3.5</b>	<b>6</b>	< 0.15	2.5	3.7	0.78	< 0.36	0.41*	1.2	5	0.5
1,2-DCA	<i>1.12</i>	<i>0.8</i>	<i>0.7</i>	< 0.3	<i>0.81</i>	<i>1.4</i>	<i>1.8</i>	<i>2.4</i>	<i>1.1</i>	<i>1.3</i>	<i>1.8</i>	<i>3.5</i>	<i>1.5</i>	< 0.39	< 0.39	3.3	1.8	---	---	---	---	5	0.5
EDB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.39	< 0.39	---	---	---	---	0.05	0.005
Ethylbenzene	< 0.1	< 0.5	< 0.5	< 0.5	0.28	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.19	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.37	< 0.37	< 0.37	< 0.37	700	140
MTBE	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.17	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.24	0.25*	< 0.24	0.35*	60	12
Naphthalene	< 1	< 0.25	< 0.25	< 0.25	< 1	< 0.21	< 0.16	< 0.21	< 0.16	< 0.34	< 0.21	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 2.4	< 2.4	< 2.4	< 2.4	100	10
Toluene	0.53	< 0.2	< 0.2	< 0.2	< 4	0.36	< 0.11	< 0.17	< 0.11	< 0.15	< 0.17	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	0.38	< 0.33	< 0.33	< 0.33	< 0.33	800	160
1,2,4- & 1,3,5-TMB	0.26	< 0.2	< 0.2	< 0.2	0.21	< 0.18	< 0.18	< 0.17	< 0.18	< 0.36	< 0.17	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.3	< 0.3	< 0.3	< 0.3	480	96
Total Xylenes	0.1	< 0.5	< 0.5	< 0.5	< 4	0.5	< 0.068	< 0.38	< 0.068	< 0.22	< 0.58	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.58	< 0.58	< 0.58	< 0.58	2,000	400

--- = not analyzed or no standard    DCA = dichloroethane    EDB = 1,2-dibromoethane    MTBE = methyl-tert-butylether    ppb = parts per billion    TMB = trimethylbenzene

\* = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.  
*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Well Depth (feet): 20  
 TOC Elevation (feet): 1235.38  
 Date Installed: 8-Aug-06  
 Screen Length (feet): 10

TABLE 3 (page 2 of 20)

ANALYTICAL RESULTS - GROUNDWATER

DAIRICONCEPTS SITE, CHILI, WISCONSIN

AET PROJECT NO. 03-05510

MW-2A													NR 140 Remedial Action Limits	
Date	8/9/06	4/12/07	11/16/07	10/17/08	5/10/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17		
Elevation (ft)	1221.28	1221.38	1224.38	1220.83	1223.03	1220.98	1224.98	1225.73	1225.53	1225.02	1227.39	1226.40	ES	PAL
ANALYTE														
VOCs/PVOCs (ppb)														
Benzene	<b>632</b>	< 0.2	3.8	<b>113</b>	2.1	<b>49</b>	5	<b>6.3</b>	<b>8.7</b>	<b>8.9</b>	< 0.36	< 0.15	5	0.5
1,2-DCA	<b>85.2</b>	<i>0.74</i>	2.2	< 3	<i>0.92</i>	<b>5.4</b>	< 0.28	< 0.2	< 0.28	< 0.39	---	< 0.39	5	0.5
1,2-Dichloropropane	<i>1.82</i>	< 0.5	< 0.5	< 3	---	---	---	---	---	---	---	---	5	0.5
Ethylbenzene	26.3	< 0.5	< 0.5	11.4	< 0.2	0.23	< 0.13	< 0.19	< 0.13	< 0.18	< 0.37	< 0.18	700	140
Isopropylbenzene	5.29	< 0.2	< 0.2	1.5	---	---	---	---	---	---	---	---	---	---
MTBE	< 1	< 0.5	< 0.5	< 5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.24	< 0.39	60	12
Naphthalene	< 10	< 0.25	< 0.25	< 10	< 1	0.82	< 0.16	< 0.21	< 0.16	< 0.34	< 2.4	< 0.34	100	10
Toluene	24.2	< 0.2	0.52	11	< 0.4	0.69	< 0.11	< 0.17	< 0.11	< 0.15	< 0.33	< 0.15	800	160
1,2,4- & 1,3,5-TMB	3.29	< 0.25	< 0.25	4.8	< 0.2	< 0.17	< 0.18	< 0.17	< 0.18	< 0.36	< 0.3	< 0.36	480	96
Total Xylenes	20.35	< 0.5	< 0.5	23	< 0.4	1.2	< 0.068	< 0.38	< 0.068	< 0.22	< 0.58	< 0.22	2,000	400

--- = not analyzed or no standard DCA = dichloroethane MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 20

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1235.38

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 9-Aug-06

MW-2A was damaged and abandoned following street resurfacing activities on May 24, 2017.



TABLE 3 (page 3 of 20)

ANALYTICAL RESULTS - GROUNDWATER

DAIRICONCEPTS SITE, CHILI, WISCONSIN

AET PROJECT NO. 03-05510

MW-3																	NR 140 Remedial Action Limits		
Date	1/27/05	6/21/05	7/21/05	1/23/06	8/8/06	4/12/07	11/16/07	10/17/08	5/10/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	3/22/17	9/8/17			4/30/18
Elevation (ft)	1220.55	1223.50	1222.14	1220.59	1221.09	1221.89	1224.44	1220.74	1223.04	1220.99	1225.14	1225.74	1225.54	1225.00	1226.39	1224.19	1225.43		
ANALYTE																		ES	PAL
VOCs/PVOCs (ppb)																			
Benzene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	< 0.15	< 0.15	< 0.15	<b>5</b>	<i>0.5</i>
1,2-DCA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.15	< 0.15	< 0.2	< 0.2	< 0.3	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	< 0.39	< 0.39	< 0.39	<b>5</b>	<i>0.5</i>
EDB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.39	<i>0.05</i>	<i>0.005</i>
Ethylbenzene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.1	< 0.1	< 0.2	< 0.2	< 0.3	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.18	< 0.18	< 0.18	<b>700</b>	<i>140</i>
MTBE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.39	< 0.39	< 0.39	<b>60</b>	<i>12</i>
Naphthalene	< 0.3	< 0.3	< 0.3	< 0.3	< 1	< 1	< 0.25	< 0.25	< 1	< 0.21	< 0.16	< 0.21	< 0.16	< 0.34	< 0.34	< 0.34	< 0.34	<b>100</b>	<i>10</i>
Toluene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.4	< 0.2	< 0.2	< 0.4	0.24	< 0.11	< 0.17	< 0.11	< 0.15	< 0.15	< 0.15	< 0.15	<b>800</b>	<i>160</i>
1,2,4- & 1,3,5-TMB	< 0.3	< 0.3	< 0.3	< 0.3	< 0.5	< 0.5	< 0.2	< 0.2	< 0.2	< 0.17	< 0.18	< 0.17	< 0.18	< 0.36	< 0.36	< 0.36	< 0.36	<b>480</b>	<i>96</i>
Total Xylenes	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.4	< 0.5	< 0.5	< 0.4	< 0.18	< 0.068	< 0.38	< 0.068	< 0.22	< 0.22	< 0.22	< 0.22	<b>2,000</b>	<i>400</i>

--- = not analyzed or no standard      DCA = dichloroethane      EDB = 1,2-dibromoethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 21.1

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1233.54

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 19-Jan-05

MW-3 was installed during the WDNR's Chili Petroleum Contamination Investigation in April 2005 (BRRTS No. 02-10-517968). DairiConcepts accepted responsibility for this well in June 2011.

Screen Length (feet): 15

TABLE 3 (page 4 of 20)  
 ANALYTICAL RESULTS - GROUNDWATER  
 DAIRICONCEPTS SITE, CHILI, WISCONSIN  
 AET PROJECT NO. 03-05510

MW-3A																					NR 140 Remedial Action Limits		
Date	8/9/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	12/4/17	4/30/18	7/9/18	10/3/18	1/7/19	4/26/19			7/9/19
Elevation (ft)	1222.29	1222.19	1225.14	1221.39	1224.19	1221.69	1225.79	1227.19	1227.19	1227.34	1228.66	1228.07	1228.39	1226.24	1224.94	1225.44	1225.30	1224.10	1226.14	1226.79	1228.26		
ANALYTE																					ES	PAL	
VOCs/PVOCs (ppb)																							
Benzene	<b>11,100</b>	<b>12,000</b>	<b>8,400</b>	<b>5,230</b>	<b>3,220</b>	<b>1,600</b>	<b>2,500</b>	<b>3,600</b>	<b>8,300</b>	<b>4,000</b>	<b>3,000</b>	<b>2,900</b>	<b>3,200</b>	<b>2,200</b>	<b>1,700</b>	<b>2,900</b>	<b>2,100</b>	<b>1,400</b>	<b>2,800</b>	<b>2,700</b>	<b>150</b>	5	0.5
Bromomethane	< 50	< 50	<b>160</b>	< 500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	1
n-Butylbenzene	34	740	740	1,830	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
sec-Butylbenzene	7.2	160	160	< 150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chloromethane	< 50	< 50	<b>170</b>	< 200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	0.3
2-Chlorotoluene	82	< 120	< 250	< 150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	< 50	< 50	< 250	< 150	<b>121</b>	< 0.2	< 28	<b>150</b>	< 140	< 7.8	< 20	< 7.8	< 3.9	< 7.8	< 7.8	< 7.8	< 2	---	---	---	---	5	0.5
EDB	---	<b>300</b>	<b>160</b>	< 150	---	---	---	---	---	---	---	<b>56</b>	<b>45</b>	< 7.7	---	< 7.7	<b>37</b>	---	---	---	---	0.05	0.005
Ethylbenzene	<b>1,260</b>	<b>4,400</b>	<b>1,900</b>	<b>2,990</b>	<b>1,470</b>	<b>610</b>	<b>1,100</b>	<b>1,600</b>	<b>21,000</b>	<b>1,600</b>	<b>1,500</b>	<b>1,200</b>	<b>1,600</b>	<b>1,700</b>	<b>3,600</b>	<b>2,600</b>	<b>1,500</b>	<b>1,000</b>	<b>1,400</b>	<b>1,500</b>	120	700	140
Isopropylbenzene	49.1	380	100	286	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
p-Isopropyltoluene	20	160	< 100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 1	< 120	< 250	< 250	< 50	< 0.12	< 24	< 8.5	< 120	< 7.9	< 17	< 7.9	< 3.9	< 7.9	< 7.9	< 7.9	< 2	45	<b>270</b>	<b>580</b>	15	60	12
Naphthalene	<b>218</b>	<b>1,500</b>	<b>320</b>	<b>807</b>	<b>897</b>	<b>150</b>	<b>840</b>	<b>280</b>	<b>6,000</b>	<b>530</b>	<b>400</b>	<b>260</b>	<b>450</b>	<b>340</b>	<b>1,700</b>	<b>750</b>	<b>110</b>	<b>1,100</b>	<b>580</b>	<b>1,800</b>	90	100	10
Propylbenzene	100	1,200	< 250	< 50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
sec-Butylbenzene	7.18	< 120	< 250	< 150	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	<b>14,800</b>	<b>30,000</b>	<b>18,000</b>	<b>14,300</b>	<b>6,480</b>	<b>4,900</b>	<b>7,000</b>	<b>13,000</b>	<b>68,000</b>	<b>16,000</b>	<b>11,000</b>	<b>11,000</b>	<b>12,000</b>	<b>15,000</b>	<b>11,000</b>	<b>18,000</b>	<b>9,500</b>	<b>7,700</b>	<b>11,000</b>	<b>9,400</b>	<b>14,000</b>	800	160
1,2,4- & 1,3,5-TMB	<b>944</b>	<b>9,800</b>	<b>1,940</b>	<b>6,250</b>	<b>4,820</b>	<b>1,300</b>	<b>14,000</b>	<b>2,070</b>	<b>56,000</b>	<b>2,470</b>	<b>1,670</b>	<b>1,790</b>	<b>2,430</b>	<b>1,840</b>	<b>10,900</b>	<b>4,600</b>	<b>2,350</b>	<b>10,300</b>	<b>2,350</b>	<b>3,430</b>	335	480	96
Total Xylenes	<b>5,720</b>	<b>22,000</b>	<b>9,300</b>	<b>15,800</b>	<b>8,320</b>	<b>4,600</b>	<b>13,000</b>	<b>8,000</b>	<b>110,000</b>	<b>11,000</b>	<b>8,100</b>	<b>6,300</b>	<b>8,100</b>	<b>8,700</b>	<b>17,000</b>	<b>16,000</b>	<b>7,900</b>	<b>9,600</b>	<b>8,300</b>	<b>8,000</b>	680	2,000	400

--- = not analyzed or no standard

DCA = dichloroethane

EDB = 1,2-dibromoethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 20

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1235.89

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 9-Aug-06

Screen Length (feet): 10

TABLE 3 (page 5 of 20)  
 ANALYTICAL RESULTS - GROUNDWATER  
 DAIRICONCEPTS SITE, CHILI, WISCONSIN  
 AET PROJECT NO. 03-05510

MW-4/4R																						NR 140 Remedial Action Limits		
Date	1/27/05	6/21/05	4/16/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	12/4/17	4/30/18	7/9/18	10/3/18	1/7/19	4/26/19			7/9/19
Elevation (ft)	1220.30	1223.54	1221.90	1224.50	1221.10	1223.60	1221.20	1226.30	1227.45	1226.15	1225.59	1227.74	1226.82	1227.60	1224.60	1224.37	1225.66	1224.91	1223.50	1225.08	1226.70	1227.59		
ANALYTE																						ES	PAL	
VOCs/PVOCs (ppb)																								
Benzene	<b>1,660</b>	<b>164</b>	<b>110</b>	<b>1,900</b>	<b>1,780</b>	<b>1,430</b>	<b>190</b>	<b>64</b>	<b>300</b>	<b>2,400</b>	<b>1,900</b>	<b>700</b>	<b>740</b>	<b>780</b>	<b>660</b>	<b>450</b>	<b>350</b>	<b>300</b>	<b>440</b>	<b>440</b>	<b>310</b>	<b>760</b>	5	0.5
n-Butylbenzene	< 0.3	34.1	36	100	< 40	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	< 10	< 10	10	23	< 30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	< 0.3	< 10	< 10	< 20	< 30	< 30	<b>8.4</b>	< 5.6	< 10	< 56	<b>89</b>	< 10	< 2	< 0.78	< 2	<b>22</b>	< 0.78	---	---	---	---	---	5	0.5
EDB	< 8	< 8	< 8	<b>23</b>	< 30	---	---	---	---	---	---	---	< 1.9	< 0.77	---	---	< 0.77	---	---	---	---	---	0.05	0.005
Ethylbenzene	355	79.2	<b>770</b>	<b>1,000</b>	<b>1,310</b>	<b>1,220</b>	140	<i>210</i>	<i>210</i>	<b>4,200</b>	<b>1,800</b>	<b>1,000</b>	<b>1,100</b>	<b>1,400</b>	<b>1,200</b>	<b>1,200</b>	<b>1,200</b>	<b>1,100</b>	<b>1,100</b>	<b>970</b>	<b>810</b>	<b>1,000</b>	700	140
Isopropylbenzene	< 10	11.6	60	91	78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
p-Isopropyltoluene	< 10	< 10	10	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 20	< 20	< 20	< 20	< 50	< 50	< 0.12	< 4.8	< 8.5	< 48	< 3.9	< 8.5	< 2	< 0.79	< 2	< 3.9	< 0.79	< 0.79	<b>87</b>	<b>160</b>	26	<b>540</b>	60	12
Naphthalene	< 30	30	<b>180</b>	<b>400</b>	<b>284</b>	<b>249</b>	63	< 3.2	87	<b>1,800</b>	<b>430</b>	<b>500</b>	<b>190</b>	<b>360</b>	<b>320</b>	<b>320</b>	<b>340</b>	14	<b>380</b>	<b>440</b>	<b>1,300</b>	<b>1,300</b>	100	10
n-Propylbenzene	< 10	16.7	150	240	< 10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	<b>1,890</b>	269	<i>750</i>	<b>3,600</b>	<b>2,560</b>	<b>4,430</b>	220	100	<i>260</i>	<b>2,900</b>	<b>6,200</b>	<b>2,600</b>	<b>2,400</b>	<b>2,300</b>	<b>2,200</b>	<b>1,700</b>	<b>1,300</b>	<i>740</i>	<b>960</b>	<i>760</i>	48	<i>230</i>	<i>800</i>	<i>160</i>
1,2,4- & 1,3,5-TMB	277	150	<b>1,220</b>	<b>1,960</b>	<b>1,587</b>	<b>1,287</b>	<b>750</b>	<b>1,820</b>	<b>590</b>	<b>16,300</b>	<b>2,180</b>	<b>1,550</b>	<b>1,290</b>	<b>1,770</b>	<b>1,620</b>	<b>1,680</b>	<b>1,850</b>	<b>2,320</b>	<b>2,500</b>	<b>1,530</b>	<b>2,880</b>	<b>3,990</b>	480	96
Total Xylenes	<i>1,195</i>	<i>437</i>	<b>3,200</b>	<b>4,500</b>	<b>4,970</b>	<b>5,140</b>	<i>540</i>	<i>800</i>	<i>850</i>	<b>14,000</b>	<b>7,200</b>	<b>3,900</b>	<b>4,000</b>	<b>4,800</b>	<b>4,800</b>	<b>4,300</b>	<b>4,600</b>	<b>3,700</b>	<b>3,700</b>	<b>3,200</b>	<b>2,500</b>	<b>3,200</b>	<i>2,000</i>	<i>400</i>

--- = not analyzed or no standard DCA = dichloroethane EDB = 1,2-Dibromoethane  
**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.  
*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

MW-4 was abandoned during soil excavation activities on June 6, 2016 and replaced with MW-4R.

MW-4 was installed during the WDNR's Chili Petroleum Contamination Investigation in April 2005 (BRRTS No. 02-10-517968). DairiConcepts accepted responsibility for this well in June 2011.

Well Depth (feet): 20  
 TOC Elevation (feet): 1236.83  
 Date Installed: 16-Jun-16  
 Screen Length (feet): 15

TABLE 3 (page 6 of 20)

ANALYTICAL RESULTS - GROUNDWATER

DAIRICONCEPTS SITE, CHILI, WISCONSIN

AET PROJECT NO. 03-05510

	MW-4A																		NR 140 Remedial Action Limits		
Date	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	12/4/17	4/30/18	7/9/18	10/3/18	1/7/19	4/26/19			7/9/19
Elevation (ft)	1224.83	1222.23	1223.38	1221.18	1224.88	1225.98	1225.93	1225.43	1227.90	1226.80	1227.75	1224.43	1224.15	1225.43	1224.75	1223.26	1225.11	1226.36	1227.39		
<u>ANALYTE</u>																				ES	PAL
VOCs/PVOCs (ppb)																					
Benzene	<b>1,600</b>	<b>1,850</b>	<b>1,840</b>	<b>1,000</b>	<b>600</b>	<b>24</b>	<b>28</b>	<b>28</b>	<b>36</b>	<b>13</b>	< 0.36	<b>66</b>	<b>180</b>	<b>21</b>	<b>110</b>	<b>310</b>	<b>220</b>	<b>120</b>	<b>32</b>	5	0.5
cis-1,2-Dichloroethylene	< 10	37.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70	7
1,2-DCA	< 10	< 50	< 30	< 0.2	< 1.4	< 0.2	< 0.28	< 0.28	---	< 0.39	< 0.28	< 2	< 0.39	< 0.78	---	---	---	---	---	5	0.5
EDB	< 8	<b>60.7</b>	---	---	---	---	---	---	---	< 0.39	---	---	---	< 0.77	---	---	---	---	---	0.05	0.005
Ethylbenzene	200	610	492	290	180	77	28	22	53	34	34	74	66	16	57	80	<b>440</b>	49	50	700	140
Isopropylbenzene	21	29.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 20	< 50	< 50	< 0.12	< 1.2	< 0.17	< 0.24	< 0.39	58	< 0.39	< 0.24	< 2	< 0.39	< 0.79	< 0.39	29	<b>220</b>	17	14	60	12
Naphthalene	72	<b>144</b>	<b>111</b>	<b>140</b>	26	8.7	10	8.2	32	5.9	<b>44</b>	20	12	2.5	19	37	<b>300</b>	39	58	100	10
n-Propylbenzene	34	< 10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	160	441	332	75	84	31	6.6	4.5	12	6.4	8.6	8.9	5.9	6.9	9.1	11	80	20	15	800	160
1,2,4- & 1,3,5-TMB	200	<b>437</b>	<b>491</b>	347	181	175	81	21.8	65	54	67	54	26	19	65	109	<b>1,150</b>	33	54	480	96
Total Xylenes	300	781	897	380	320	110	46	34	71	42	39	88	57	30	82	97	1,100	67	67	2,000	400

--- = not analyzed or no standard DCA = dichloroethane EDB = 1,2-Dibromoethane

MTBE = methyl-tert-butylether TMB = trimethylbenzene

Well Depth (feet): 18

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1235.58

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 12-Nov-07

Screen Length (feet): 10

TABLE 3 (page 7 of 20)  
 ANALYTICAL RESULTS - GROUNDWATER  
 DAIRICONCEPTS SITE, CHILI, WISCONSIN  
 AET PROJECT NO. 03-05510

	MW-5								MW-6A					MW-7A					NR 140 Remedial Action Limits		
Date	6/21/05	7/21/05	1/23/06	7/7/15	7/11/16	3/22/17	9/8/17	4/30/18	7/7/15	7/11/16	3/22/17	9/8/17	4/30/18	7/7/15	7/11/16	3/22/17	9/8/17	4/30/18			
Elevation (ft)	1223.70	1222.41	1220.77	1227.17	1226.89	1228.32	1226.10	1227.31	1226.77	1226.44	1227.64	1225.41	1225.71	1225.97	1225.75	1227.26	1225.19	1226.18			
ANALYTE																			ES	PAL	
VOCs/PVOCs (ppb)																					
Benzene	<b>186</b>	<b>202</b>	<b>262</b>	2.1	<b>5.4</b>	3.5	<b>7.9</b>	2.8	< 0.074	< 0.15	< 0.15	< 0.15	< 0.15	< 0.074	< 0.15	< 0.15	Sample Broke	< 0.15	5	0.5	
n-Butylbenzene	9.26	12.2	18.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	2.69	3.87	5.78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	<b>11.2</b>	<b>11.6</b>	<b>14.5</b>	< 0.28	< 0.39	< 0.39	< 0.39	< 0.39	< 0.28	< 0.39	< 0.39	< 0.39	< 0.39	< 0.28	< 0.39	< 0.39	---	< 0.39	5	0.5	
EDB	---	---	---	---	---	---	---	< 0.39	---	---	---	---	< 0.39	---	---	---	---	< 0.39	<i>0.05</i>	<i>0.005</i>	
Ethylbenzene	28.4	34.6	19.7	1.8	1.8	1.7	2.2	0.36	< 0.13	< 0.18	< 0.18	< 0.18	< 0.18	< 0.13	< 0.18	< 0.18	---	< 0.18	700	140	
Isopropylbenzene	28.4	34.6	19.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	---	---	---	< 0.24	< 0.39	< 0.39	< 0.39	< 0.39	< 0.24	< 0.39	< 0.39	< 0.39	< 0.39	< 0.24	< 0.39	< 0.39	---	< 0.39	60	12	
Naphthalene	<b>24.1</b>	<b>26.2</b>	<b>31.1</b>	2.9	9.7	2.4	8.3	1.4	< 0.16	< 0.34	< 0.34	< 0.34	< 0.34	< 0.16	< 0.34	< 0.34	---	< 0.34	100	10	
n-Propylbenzene	7.06	9.91	9.48	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	5.78	8.59	8.94	< 0.11	0.43	0.26	< 0.15	0.42	< 0.11	< 0.15	< 0.15	< 0.15	< 0.15	< 0.11	< 0.15	< 0.15	---	0.66	800	160	
1,2,4- & 1,3,5-TMB	45.24	61.6	91.3	17	31.73	15.44	29	0.72	< 0.18	< 0.36	< 0.36	< 0.36	< 0.36	< 0.18	< 0.36	< 0.36	---	0.56	480	96	
Total Xylenes	73.2	98.8	117.2	20	33	17	26	1.7	< 0.068	< 0.22	< 0.22	< 0.22	< 0.22	< 0.068	< 0.22	< 0.22	---	0.6	2,000	400	

--- = not analyzed or no standard      DCA = 1,2-Dichloroethane      EDB = 1,2-Dibromoethane      MTBE = methyl-tert-butylether      TMB = trimethylbenzene

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.  
*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

MW-5 was installed during the WDNR's Chili Petroleum Contamination Investigation in April 2005 (BRRS No. 02-10-517968).

TABLE 3 (page 8 of 20)

ANALYTICAL RESULTS - GROUNDWATER  
DAIRICONCEPTS SITE, CHILI, WISCONSIN  
AET PROJECT NO. 03-05510

MW-5A																			NR 140 Remedial Action Limits		
Date	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	12/4/17	4/30/18	7/9/18	10/3/18	1/7/19	4/26/19			7/9/19
Elevation (ft)	1225.56	1222.01	1224.81	1222.91	1226.31	1227.21	1227.61	1227.46	1228.81	1227.70	1228.76	1226.40	1225.48	1226.51	1226.43	1224.31	1226.26	1227.18	1228.66		
ANALYTE																			ES	PAL	
VOCs/PVOCs (ppb)																					
Benzene	< 200	<b>143</b>	<b>393</b>	<b>77</b>	<b>63</b>	<b>53</b>	<b>42</b>	<b>30</b>	<b>6</b>	<b>51</b>	<b>16</b>	<b>32</b>	<b>46</b>	<b>5.6</b>	<b>48</b>	<b>53</b>	<b>210</b>	<b>89</b>	<b>6.3</b>	5	0.5
n-Butylbenzene	4,500	< 40	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	600	< 30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	< 200	< 30	< 300	< 0.2	< 0.56	< 10	< 1.4	< 7.8	< 1	< 2	< 7.8	<b>3.6</b>	< 0.78	< 0.39	---	---	---	---	---	5	0.5
EDB	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.39	---	---	---	---	---	0.05	0.005
Ethylbenzene	<b>1,200</b>	<b>809</b>	<b>3,800</b>	<b>710</b>	620	520	510	220	55	470	150	290	470	140	460	350	390	72	6.8	700	140
Isopropylbenzene	500	78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
p-Isopropyltoluene	550	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 500	< 50	< 500	< 0.12	< 0.48	< 8.5	< 1.2	< 7.9	< 0.85	< 2	<b>300</b>	< 0.39	< 0.79	< 0.39	< 0.39	<b>84</b>	<b>190</b>	<b>62</b>	4.7	60	12
Naphthalene	<b>4,200</b>	<b>203</b>	<b>2,640</b>	<b>190</b>	<b>200</b>	<b>160</b>	<b>150</b>	<b>180</b>	38	<b>110</b>	96	92	<b>200</b>	65	<b>140</b>	<b>230</b>	<b>260</b>	<b>140</b>	40	100	10
n-Propylbenzene	2,400	< 10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	<b>1,400</b>	<b>1,300</b>	<b>5,590</b>	<b>1,100</b>	<b>800</b>	<b>280</b>	<b>220</b>	72	12	120	42	49	84	11	46	84	65	6.2	0.78	800	160
1,2,4- & 1,3,5-TMB	<b>30,500</b>	<b>1,767</b>	<b>16,470</b>	<b>1,840</b>	<b>1,130</b>	<b>1,900</b>	<b>2,020</b>	<b>1,400</b>	332	<b>1,390</b>	283	<b>620</b>	<b>940</b>	<b>560</b>	<b>910</b>	<b>1,700</b>	<b>1,060</b>	<b>720</b>	55	480	96
Total Xylenes	<b>4,900</b>	<b>2,902</b>	<b>15,530</b>	<b>2,900</b>	<i>1,900</i>	<i>1,800</i>	<i>1,900</i>	960	180	330	440	760	920	320	890	1,300	1,000	390	22	2,000	400

--- = not analyzed or no standard DCA = dichloroethane EDB = 1,2-Dibromoethane

MTBE = methyl-tert-butylether TMB = trimethylbenzene

Well Depth (feet): 18

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1236.41

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 12-Nov-07

Screen Length (feet): 10

**TABLE 3 (page 9 of 20)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

MW-6												NR 140 Remedial Action Limits	
Date	6/21/05	7/21/05	1/23/06	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	3/22/17	9/8/17	4/30/18		
Elevation (ft)	1223.58	1222.30	1220.60	1221.10	1225.10	1225.90	1225.70	1225.20	1226.61	1224.39	1225.55		
<b>ANALYTE</b>													
<b>VOCs/PVOCs (ppb)</b>													
Benzene	< 0.31	< 0.31	< 0.31	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	< 0.15	< 0.15	< 0.15	5	0.5
1,2-DCA	< 0.4	< 0.4	< 0.4	<b>0.59</b>	< 0.28	< 0.2	< 0.28	< 0.39	< 0.39	<b>0.76</b>	< 0.39	5	0.5
EDB	---	---	---	---	---	---	---	---	---	---	< 0.39	<i>0.05</i>	<i>0.005</i>
Ethylbenzene	< 0.5	< 0.5	< 0.5	< 0.19	< 0.13	< 0.19	0.52	< 0.18	< 0.18	< 0.18	< 0.18	700	140
MTBE	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.39	< 0.39	< 0.39	60	12
Naphthalene	< 0.8	< 0.8	< 0.8	< 0.21	< 0.16	< 0.21	2.2	< 0.34	< 0.34	< 0.34	< 0.34	100	10
Toluene	< 0.3	< 0.3	< 0.3	0.22	< 0.11	< 0.17	0.98	< 0.15	< 0.15	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	< 0.71	< 0.71	< 0.71	< 0.17	< 0.18	< 0.17	5.7	< 0.36	< 0.36	< 0.36	< 0.36	480	96
Total Xylenes	< 0.92	< 0.92	< 0.92	< 0.18	< 0.068	< 0.38	2.9	< 0.22	< 0.22	< 0.22	< 0.22	2,000	400

--- = not analyzed or no standard

DCA = dichloroethane

EDB = 1,2-Dibromoethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 21.1

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

TOC Elevation (feet): 1236.90

Date Installed: 20-Apr-05

MW-6 was installed during the WDNR's Chili Petroleum Contamination Investigation in April 2005 (BRRTS No. 02-10-517968). DairiConcepts accepted responsibility for this well in June 2011.

Screen Length (feet): 10

TABLE 3 (page 10 of 20)

ANALYTICAL RESULTS - GROUNDWATER

DAIRICONCEPTS SITE, CHILI, WISCONSIN

AET PROJECT NO. 03-05510

		MW-7																							NR 140 Remedial Action Limits	
Date	6/21/05	7/21/05	1/23/06	8/8/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	12/4/17	4/30/18	7/9/18	10/3/18	1/7/19	4/26/19	7/9/19		
Elevation (ft)	1223.74	1222.32	1220.80	1221.29	1222.09	1224.54	1220.99	1223.49	1221.39	1225.49	1226.29	1225.84	1225.40	1227.73	1226.78	1227.60	1224.53	1224.34	1225.83	1224.88	1223.54	1224.96	1226.78	1227.59		
ANALYTE																										
VOCs/PVOCs (ppb)																										
Benzene	1.99	1.51	< 0.2	0.31	0.4	2.2	< 0.2	1.99	< 0.2	<b>5.6</b>	1.6	4.4	0.64	< 0.36	0.72	0.65	Sample Broke	< 0.15	4.8	4.4	<b>6.9</b>	< 0.36	<b>5.6</b>	3.2	5	0.5
1,2-DCA	0.66	0.98	1.14	1.81	0.77	0.66	1.52	0.64	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	---	0.95	< 0.39	---	0.73	1.7	1.6	---	---	---	---	5	0.5
EDB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.39	< 0.39	---	---	---	---	0.05	0.005
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.2	< 0.13	< 0.19	4	< 0.18	< 0.37	< 0.18	< 0.18	---	< 0.18	< 0.18	< 0.18	< 0.37	< 0.37	< 0.37	< 0.37	700	140
MTBE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.24	< 0.39	< 0.39	---	< 0.39	< 0.39	< 0.39	< 0.24	< 0.24	< 0.24	0.27*	60	12
Naphthalene	< 1	< 1	< 1	< 1	< 0.25	< 0.25	< 1	< 1	< 0.21	< 0.16	< 0.21	8	< 0.34	< 2.4	< 0.34	< 0.34	---	0.58	< 0.34	< 0.34	< 2.4	< 2.4	< 2.4	< 2.4	100	10
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.4	< 0.4	0.29	< 0.11	< 0.17	6.3	< 0.15	< 0.33	< 0.15	< 0.15	---	0.17	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	800	160
1,2,4- & 1,3,5-TMB	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	0.92	< 0.17	< 0.18	< 0.17	33.3	< 0.39	< 0.3	< 0.36	< 0.36	---	< 0.36	< 0.36	< 0.39	< 0.3	< 0.3	< 0.3	< 0.3	480	96
Total Xylenes	< 0.4	< 0.4	< 0.4	< 0.4	< 0.5	< 0.5	< 0.4	0.45	< 0.18	< 0.068	< 0.38	26	< 0.22	< 0.58	< 0.22	< 0.22	---	< 0.22	< 0.22	< 0.22	< 0.58	< 0.58	< 0.58	< 0.58	2,000	400

--- = not analyzed or no standard    DCA = dichloroethane    EDB = 1,2-Dibromoethane    MTBE = methyl-tert-butylether    TMB = trimethylbenzene

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.  
*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

\* = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

Well Depth (feet): 19.8  
 TOC Elevation (feet): 1233.49  
 Date Installed: 21-Apr-05  
 Screen Length (feet): 10

MW-7 was installed during the WDNR's Chili Petroleum Contamination Investigation in April 2005 (BRRTS No. 02-10-517968). DairiConcepts accepted responsibility for this well in June 2011.



TABLE 3 (page 11 of 20)

ANALYTICAL RESULTS - GROUNDWATER

DAIRICONCEPTS SITE, CHILI, WISCONSIN

AET PROJECT NO. 03-05510

PZ-7																	NR 140 Remedial Action Limits	
Date	6/21/05	7/21/05	1/23/06	8/8/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	3/22/17	9/8/17	4/30/18		
Elevation (ft)	1220.05	1219.78	1217.61	1218.64	1220.34	1221.94	1221.94	1220.84	1219.14	1223.14	1224.09	1223.34	1222.57	1224.10	1222.05	1222.65		
ANALYTE																	ES	PAL
VOCs/PVOCs (ppb)																		
Benzene	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	< 0.15	< 0.15	< 0.15	<b>5</b>	<i>0.5</i>
1,2-DCA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.3	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	< 0.39	< 0.39	< 0.39	<b>5</b>	<i>0.5</i>
EDB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.39	<i>0.05</i>	<i>0.005</i>
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.2	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.18	< 0.18	< 0.18	<b>700</b>	<i>140</i>
MTBE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.39	< 0.39	< 0.39	<b>60</b>	<i>12</i>
Naphthalene	< 1	< 1	< 1	< 1	< 0.25	< 0.25	< 0.25	< 1	< 0.21	< 0.16	<b>2</b>	< 0.16	< 0.34	< 0.34	< 0.34	< 0.34	<b>100</b>	<i>10</i>
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.2	< 0.4	0.23	< 0.11	< 0.17	0.43	< 0.15	< 0.15	< 0.15	< 0.15	<b>800</b>	<i>160</i>
1,2,4- & 1,3,5-TMB	< 0.15	< 0.15	< 0.15	< 0.15	< 0.25	< 0.2	< 0.2	< 0.3	< 0.17	< 0.18	0.59	1.3	< 0.39	< 0.39	< 0.39	< 0.39	<b>480</b>	<i>96</i>
Total Xylenes	< 0.4	< 0.4	< 0.4	< 0.4	< 0.5	< 0.5	< 0.5	< 0.4	< 0.18	< 0.068	< 0.38	0.74	< 0.22	< 0.22	< 0.22	< 0.22	<b>2,000</b>	<i>400</i>

--- = not analyzed or no stan

DCA = dichloroethane

EDB = 1,2-Dibromoethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 46.3

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1233.59

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 21-Apr-05

PZ-7 was installed during the WDNR's Chili Petroleum Contamination Investigation in April 2005 (BRRTS No. 02-10-517968). DairiConcepts accepted responsibility for this well in June 2011.

Screen Length (feet): 5

TABLE 3 (page 12 of 20)

ANALYTICAL RESULTS - GROUNDWATER

DAIRICONCEPTS SITE, CHILI, WISCONSIN

AET PROJECT NO. 03-05510

MW-9																	NR 140 Remedial Action Limits	
Date	6/21/05	7/21/05	1/23/06	8/8/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	3/22/17	9/8/17	4/30/18		
Elevation (ft)	1224.16	1222.51	1221.13	1221.65	1222.85	1224.90	1221.15	1223.75	1221.65	1226.25	1226.65	1226.10	1225.70	1227.22	1224.92	1226.49		
<b>ANALYTE</b>																		
VOCs/PVOCs (ppb)																		
Benzene	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	< 0.15	< 0.15	< 0.15	5	0.5
1,2-DCA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.3	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	< 0.39	< 0.39	< 0.39	5	0.5
EDB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.39	0.05	0.005
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.2	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.18	< 0.18	< 0.18	700	140
MTBE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.39	< 0.39	< 0.39	60	12
Naphthalene	< 1	< 1	< 1	< 1	< 0.25	< 0.25	< 0.25	< 1	< 0.21	< 0.16	0.82	< 0.16	< 0.34	< 0.34	< 0.34	< 0.34	100	10
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.2	< 0.2	0.22	< 0.11	< 0.17	< 0.11	< 0.15	< 0.15	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	< 0.25	< 0.25	< 0.25	0.26	< 0.25	< 0.2	< 0.2	< 0.3	< 0.17	< 0.18	< 0.17	0.87	< 0.39	< 0.39	< 0.39	< 0.39	480	96
Total Xylenes	< 0.4	< 0.4	< 0.4	< 0.4	< 0.5	< 0.5	< 0.5	< 0.4	< 0.18	< 0.068	< 0.38	< 0.068	< 0.22	< 0.22	< 0.22	0.5	2,000	400

--- = not analyzed or no standard

DCA = dichloroethane

EDB = 1,2-Dibromoethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 16.1

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1231.65

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 21-Apr-05

MW-9 was installed during the WDNR's Chili Petroleum Contamination Investigation in April 2005 (BRRTS No. 02-10-517968). DairiConcepts accepted responsibility for this well in June 2011.

Screen Length (feet): 10

TABLE 3 (page 13 of 20)  
 ANALYTICAL RESULTS - GROUNDWATER  
 DAIRICONCEPTS SITE, CHILI, WISCONSIN  
 AET PROJECT NO. 03-05510

MW-10													NR 140 Remedial Action Limits	
Date	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	12/4/17	4/30/18	7/9/18	10/3/18	1/7/19	4/26/19	7/9/19		
Elevation (ft)	1225.57	1227.88	1226.92	1227.69	1224.77	1224.66	---	1225.00	1223.42	1225.11	1226.58	1228.56		
<b>ANALYTE</b>														
<b>VOCs/PVOCs (ppb)</b>														
Benzene	<b>49</b>	< 2	<b>54</b>	<b>87</b>	<b>64</b>	<b>210</b>	<b>100</b>	<b>340</b>	<b>140</b>	<b>1,400</b>	<b>1,100</b>	<b>570</b>	5	0.5
n-Butylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	< 2	< 2	< 2	< 2	< 2	< 3.9	<b>21</b>	< 7.8	---	---	---	---	5	0.5
EDB	---	---	---	---	---	---	< 7.7	< 7.7	---	---	---	---	0.05	0.005
Ethylbenzene	<b>790</b>	<b>1,700</b>	<i>590</i>	<b>740</b>	<b>670</b>	<b>1,200</b>	<b>1,400</b>	<b>1,000</b>	<b>960</b>	<b>2,100</b>	<b>1,800</b>	<b>1,200</b>	700	140
Isopropylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 2	< 1.7	< 2	<b>2,100</b>	< 2	< 3.9	< 7.9	< 7.9	<b>130</b>	<b>1,700</b>	<b>320</b>	<b>460</b>	60	12
Naphthalene	<b>210</b>	<b>820</b>	<i>97</i>	<b>360</b>	<b>180</b>	<b>540</b>	<b>530</b>	<b>1,100</b>	<b>510</b>	<b>2,300</b>	<b>2,100</b>	<b>1,400</b>	100	10
n-Propylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	<i>300</i>	<i>440</i>	<i>420</i>	<b>890</b>	<i>730</i>	<b>1,000</b>	<b>1,000</b>	<b>1,200</b>	<b>1,100</b>	<b>2,200</b>	<b>1,500</b>	<b>890</b>	800	160
1,2,4- & 1,3,5-TMB	<b>1,130</b>	<b>2,930</b>	<b>960</b>	<b>960</b>	<b>1,160</b>	<b>3,190</b>	<b>3,780</b>	<b>1,820</b>	<b>2,900</b>	<b>6,900</b>	<b>6,300</b>	<b>4,100</b>	480	96
Total Xylenes	<i>1,900</i>	<i>1,500</i>	<i>1,300</i>	<i>1,900</i>	<b>2,300</b>	<b>3,600</b>	<b>4,500</b>	<b>3,000</b>	<b>2,900</b>	<b>6,400</b>	<b>6,100</b>	<b>3,700</b>	2,000	400

--- = not analyzed or no standard      DCA = 1,2-Dichloroethane      EDB = 1,2-Dibromoethane      MTBE = methyl-tert-butylether      TMB = trimethylbenzene

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.  
*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Well Depth (feet): 20  
 TOC Elevation (feet): 1240.87  
 Date Installed: 16-Jun-16  
 Screen Length (feet): 15

**TABLE 3 (page 14 of 20)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Street MW-West (WMW-1)												NR 140 Remedial Action Limits	
Date	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	4/30/18	10/3/18	1/7/19	4/26/19	7/9/19		
Elevation (ft)	1228.00	1227.65	1228.98	1228.10	1228.85	1226.77	1226.95	1226.52	1226.95	1227.12	1228.60		
<b>ANALYTE</b>													
VOCs/PVOCs (ppb)													
Benzene	2.3	<b>5.6</b>	0.89	1.3	< 0.36	<b>5.2</b>	2	<b>6.6</b>	1.5	2.6	0.65	5	0.5
n-Butylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	< 0.28	< 0.39	---	< 0.39	---	< 0.39	< 0.39	---	---	---	---	5	0.5
EDB	---	---	---	---	---	---	< 0.39	---	---	---	---	0.05	0.005
Ethylbenzene	< 0.13	1.8	< 0.37	< 0.18	< 0.37	< 0.18	< 0.18	< 0.37	< 0.37	< 0.37	< 0.37	700	140
Isopropylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 0.24	< 0.39	< 0.24	< 0.39	0.69	< 0.39	< 0.39	0.33*	< 0.24	1.7	< 0.24	60	12
Naphthalene	< 0.16	< 0.34	< 2.4	< 0.34	< 2.4	< 0.34	< 0.34	< 2.4	< 2.4	< 2.4	< 2.4	100	10
n-Propylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	0.39	0.35	< 0.33	< 0.15	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	800	160
1,2,4- & 1,3,5-TMB	0.66	2.54	< 0.3	< 0.36	< 0.3	< 0.36	< 0.36	0.96	< 0.3	< 0.3	< 0.3	480	96
Total Xylenes	0.63	4.5	< 0.58	< 0.22	< 0.58	1.3	0.57	0.93*	< 0.58	< 0.58	< 0.58	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 21

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.  
*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

TOC Elevation (feet): 1237.55

Date Installed: 26-Feb-07

Street well MW West (WMW-1) was installed during the Site investigation of the Wolfe Property in February 2007 (BRRS No. 03-10-545213/09-10-545213).

Screen Length (feet): 10

Sample results prior to July 2015 for well Street MW West (WMW-1) was not available.

\* = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

**TABLE 3 (page 15 of 20)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

	Street MW-East (WPZ-1)							NR 140 Remedial Action Limits	
Date	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	4/30/18		
Elevation (ft)	1225.61	1225.08	1227.51	1226.50	1227.25	1224.22	1225.45		
ANALYTE								ES	PAL
VOCs/PVOCs (ppb)									
Benzene	< 0.074	< 0.15	< 0.36	< 0.15	< 0.36	< 0.15	< 0.15	5	0.5
n-Butylbenzene	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	---	---	---	---	---	---	---	---	---
1,2-DCA	< 0.28	< 0.39	---	< 0.39	---	< 0.39	< 0.39	5	0.5
EDB	---	---	---	---	---	---	< 0.39	0.05	0.005
Ethylbenzene	1.3	< 0.18	< 0.37	< 0.18	< 0.37	< 0.18	< 0.18	700	140
Isopropylbenzene	---	---	---	---	---	---	---	---	---
MTBE	< 0.24	< 0.39	< 0.24	< 0.39	< 0.24	< 0.39	< 0.39	60	12
Naphthalene	1.8	< 0.34	< 2.4	< 0.34	< 2.4	< 0.34	1.2	100	10
n-Propylbenzene	---	---	---	---	---	---	---	---	---
Toluene	2.2	< 0.15	< 0.33	< 0.15	< 0.33	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	7	< 0.36	< 0.3	< 0.36	< 0.3	< 0.36	< 0.36	480	96
Total Xylenes	6.7	< 0.22	< 0.58	< 0.22	< 0.58	< 0.22	< 0.22	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

Well Depth (feet): 32

EDB = 1,2-Dibromoethane

MTBE = methyl-tert-butylether

TOC Elevation (feet): 1237.41

TMB = trimethylbenzene

Date Installed: 26-Feb-07

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

Screen Length (feet): 5

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Well Street MW East (WPZ-1) was installed during the Site investigation of the Wolfe Property in February 2007 (BRRTS No. 03-10-545213/09-10-545213).

Sample results prior to July 2015 for well Street MW East (WPZ-1) was not available.

**TABLE 3 (page 16 of 20)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

CMW-1																	NR 140 Remedial Action Limits	
Date	4/5/07	7/3/07	11/1/07	1/17/08	12/19/08	5/21/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	9/8/17	4/30/18		
Depth to Water (ft)	1222.07	1222.68	1226.26	12.24.01	1220.92	1223.76	1221.54	1225.49	1226.34	1226.34	1225.94	1228.26	1227.17	1228.21	1224.95	1225.84		
<b>ANALYTE</b>																		
VOCs/PVOCs (ppb)																		
Benzene	0.41	0.40	<b>7.11</b>	2.65	2.14	< 0.2	0.24	0.28	< 0.2	< 0.074	< 0.15	< 0.36	< 0.15	< 0.36	< 0.15	< 0.15	5	0.5
1,2-DCA	0.93	---	---	---	---	---	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	---	< 0.39	---	< 0.39	< 0.39	5	0.5
EDB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	< 0.39	0.05	0.005
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.37	< 0.18	< 0.37	< 0.18	< 0.18	700	140
MTBE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.24	< 0.39	< 0.24	< 0.39	< 0.39	60	12
Naphthalene	< 1	---	---	---	---	---	< 0.21	< 0.16	< 0.21	< 0.16	< 0.34	< 2.4	< 0.34	< 2.4	< 0.34	< 0.34	100	10
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.17	< 0.11	< 0.17	0.36	< 0.15	< 0.33	< 0.15	< 0.33	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.17	< 0.18	< 0.17	0.83	< 0.39	< 0.3	< 0.39	< 0.3	< 0.39	< 0.36	480	96
Total Xylenes	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.18	< 0.068	< 0.38	0.59	< 0.22	< 0.58	< 0.22	< 0.58	< 0.22	< 0.22	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 18

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1234.64

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 28-Feb-07

CMW-1 was installed during the Site Investigation of the Chili Sevice site in Feburary 2007 (BRRTS No. 03-10-545214). DairiConcepts accepted responsibility for this well in June 2011.

Screen Length (feet): 10

TABLE 3 (page 17 of 20)  
 ANALYTICAL RESULTS - GROUNDWATER  
 DAIRICONCEPTS SITE, CHILI, WISCONSIN  
 AET PROJECT NO. 03-05510

	CMW-2						CMW-3						NR 140 Remedial Action Limits	
Date	4/5/07	7/3/07	11/1/07	1/17/08	12/19/08	5/21/10	4/5/07	7/3/07	11/1/07	1/17/08	12/19/08	5/21/10		
Elevation (ft)	1225.11	1225.15	1228.76	1226.90	1223.45	1226.36	1224.63	1225.28	1228.92	1226.65	1223.49	1226.60		
ANALYTE													ES	PAL
Lead (ppb)	< 0.6	0.81	---	---	---	---	< 0.6	< 0.6	---	---	---	---	15	1.5
VOCs/PVOCs (ppb)														
Benzene	< 0.2	< 0.2	< 0.2	< 0.2	< 0.31	< 0.31	<b>482</b>	<b>690</b>	<b>14.4</b>	<b>459</b>	<b>161</b>	<b>60.2</b>	5	0.5
sec- Butylbenzene	< 0.2	---	---	---	---	---	4.69	---	---	---	---	---	---	---
Chloromethane	< 0.3	---	---	---	---	---	9.5	---	---	---	---	---	30	3
1,2-DCA	< 0.2	---	---	---	---	---	<b>17.3</b>	<b>45.1</b>	< 2	< 3	<b>7.03</b>	<b>7.61</b>	5	0.5
Dichlorodifluoromethane	7.64	---	---	---	---	---	< 3	---	---	---	---	---	1,000	200
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.2	< 0.5	< 0.5	31.6	12.7	< 1	10.8	< 2	< 1	700	140
Isopropylbenzene	< 0.1	---	---	---	---	---	6.19	---	---	---	---	---	---	---
MTBE	< 0.2	< 0.2	< 0.2	< 0.5	< 0.3	< 0.3	< 2	< 2	< 2	< 5	< 5	< 2.5	60	12
Propylbenzene	< 0.1	---	---	---	---	---	10.4	---	---	---	---	---	---	---
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.3	< 0.37	6.61	7.27	< 4	7.97	< 4	< 2	800	160
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.84	7.27	< 4.66	< 4	< 10.99	< 4	< 2.09	480	96
Total Xylenes	< 0.6	< 0.6	< 0.6	< 0.6	< 0.36	< 1.39	< 8.52	8.5	< 6	< 6	< 2	< 3	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

ppb = parts per billion

TMB = trimethylbenzene

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

CMW-2 was installed during the Site Investigation of the Chili Sevice site in Feburary 2007 (BRRTS No. 03-10-545214) and abandoned after site closure in July 2011.

CMW-3 was installed during the Site Investigation of the Chili Sevice site in Feburary 2007 (BRRTS No. 03-10-545214). DairiConcepts accepted responsibility for this well in June 2011, however the well was abandoned in July 2011.

**TABLE 3 (page 18 of 20)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

	CMW-4							MW-8							NR 140 Remedial Action Limits			
Date	4/5/07	7/3/07	11/1/07	1/17/08	12/19/08	5/21/10	8/17/10	6/21/05	7/21/05	1/23/06	4/5/07	7/3/07	11/1/07	1/17/08			12/19/08	5/21/10
Elevation (ft)	1224.76	1225.24	1228.96	1226.64	1222.47	1226.56	1230.53	1223.91	1222.59	1220.82	---	---	---	---	---	---		
<b>ANALYTE</b>																	<i>ES</i>	<i>PAL</i>
Lead (ppb)	< 0.6	< 0.6	---	---	---	---	---	---	---	---	5.94	8.02	---	---	---	---	15	1.5
VOCs/PVOCs (ppb)																		
Benzene	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	<b>1,480</b>	<b>1,310</b>	<b>1,800</b>	<b>364</b>	<b>341</b>	<b>600</b>	<b>708</b>	<b>439</b>	<b>482</b>	5	0.5
n-Butylbenzene	< 0.2	---	---	---	---	---	---	160	112	112	---	---	---	---	---	---	---	---
sec-Butylbenzene	< 0.2	---	---	---	---	---	---	< 4	< 20	28.3	< 20	---	---	---	---	---	---	---
tert-Butylbenzene	< 0.2	---	---	---	---	---	---	< 4	< 20	< 20	26	---	---	---	---	---	---	---
1,2-DCA	< 0.2	---	---	---	---	---	---	<b>28.5</b>	< 20	<b>33.2</b>	< 20	< 20	< 20	< 3	< 6	<b>24.3</b>	5	0.5
Dichlorodifluoromethane	4.03	---	---	---	---	---	---	< 4	< 20	< 10	< 30	---	---	---	---	---	1,000	200
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.2	< 0.2	< 0.2	< 0.2	651	501	491	178	<b>792</b>	179	238	609	118	700	140
Isopropylbenzene	< 0.1	---	---	---	---	---	---	73.9	57.7	65.7	31.4	---	---	---	---	---	---	---
p-Isopropyltoluene	< 0.2	---	---	---	---	---	---	16.4	< 25	< 10	21.8	---	---	---	---	---	---	---
MTBE	< 0.2	< 0.2	< 0.2	< 0.5	< 0.5	< 0.5	< 0.5	< 4	< 20	< 20	< 20	< 20	< 20	< 5	< 10	< 5	60	12
Naphthalene	< 1	---	---	---	---	---	---	<b>319</b>	<b>266</b>	<b>273</b>	< 100	---	---	---	---	---	100	10
PCE	<b>17.5</b>	<b>8.33</b>	<b>7.89</b>	<b>8.28</b>	<b>9.67</b>	<i>4.65</i>	<i>2.84</i>	< 4	< 20	< 20	< 30	---	---	---	---	---	5	0.5
n-Propylbenzene	< 0.1	---	---	---	---	---	---	108	83.1	83.1	< 10	---	---	---	---	---	---	---
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	526	520	236	212	709	172	552	<b>884</b>	206	800	160
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	<b>1,099</b>	<b>978</b>	<b>745</b>	<b>629</b>	<b>3,730</b>	472	<b>552</b>	<b>884</b>	206	480	96
Total Xylenes	< 0.6	< 0.6	< 0.6	< 0.6	< 0.2	< 0.6	< 0.6	1,197	1,149	834.3	796	<b>2,399</b>	455	474	<b>1,082</b>	255.7	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

PCE = tetrachloroethylene

ppb = parts per billion

TMB = trimethylbenzene

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

CMW-4 was installed during the Site Investigation of the Chili Sevice site in Febuary 2007 (BRRTS No. 03-10-545214) and abandoned after site closure in July 2011.

MW-8 was installed during the WDNR's Chili Petroleum Contamination Investigation in April 2005 (BRRTS No. 02-10-517968), used by Chili Service, and abandoned after site closure in July 2011.



TABLE 3 (page 19 of 20)

ANALYTICAL RESULTS - GROUNDWATER

DAIRICONCEPTS SITE, CHILI, WISCONSIN

AET PROJECT NO. 03-05510

Date	PW-1									PW-5					Strey Well							NR 140 Remedial Action Limits	
	8/9/06	11/29/12	5/8/13	4/27/15	7/7/15	7/11/16	9/8/17	10/3/18	7/9/19	4/27/15	7/7/15	7/11/16	9/8/17	7/9/19	12/10/03	6/15/05	1/23/06	7/3/07	7/11/16	9/8/17	7/9/19	ES	PAL
<b>ANALYTE</b>																							
VOCs/PVOCs (ppb)																							
Acetone	< 0.15	< 0.2	< 0.074	< 0.2	< 0.13	< 0.13	< 0.13	1.1*	2.5*	< 0.2	< 0.13	< 0.13	< 0.13	1.5*	< 0.15	< 0.15	< 0.13	> 0.13	< 0.13	< 0.13	1.8*	9,000	1,800
Benzene	< 0.15	< 0.2	< 0.074	< 0.2	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.2	< 0.13	< 0.13	< 0.13	< 0.13	1.5	0.347	0.322	0.43	< 0.13	< 0.13	< 0.13	5	0.5
Chloroform	< 0.15	< 0.2	< 0.074	< 0.2	< 0.13	< 0.13	< 0.13	2.5	0.28*	< 0.2	< 0.13	< 0.13	< 0.13	< 0.13	< 0.15	< 0.15	< 0.13	> 0.13	< 0.13	< 0.13	< 0.13	6	0.6
1,2-DCA	< 0.1	< 0.2	< 0.28	< 0.2	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.2	< 0.14	< 0.14	< 0.14	< 0.14	< 0.15	0.15	0.185	---	< 0.14	< 0.14	< 0.14	5	0.5
Ethylbenzene	< 0.1	< 0.19	< 0.13	< 0.19	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.19	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.4	< 0.4	< 0.1	< 0.11	< 0.11	< 0.11	700	140
MTBE	< 0.4	< 0.12	< 0.24	< 0.17	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.17	< 0.12	< 0.12	< 0.12	< 0.12	< 0.15	< 0.4	< 0.4	< 0.2	< 0.15	< 0.15	< 0.15	60	12
Naphthalene	< 1	< 0.21	< 0.16	< 0.21	< 0.06	< 0.06	< 0.06	< 0.15	< 0.15	< 0.21	< 0.06	< 0.06	< 0.06	< 0.06	< 0.15	< 1	< 1	---	< 0.15	< 0.15	< 0.15	100	10
Toluene	< 0.4	< 0.17	< 0.11	< 0.17	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.17	< 0.1	< 0.1	< 0.1	< 0.1	< 0.15	< 0.4	< 0.4	< 0.4	< 0.1	< 0.1	< 0.1	800	160
Trihalomethanes, Total	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	---	---
1,2,4- & 1,3,5-TMB	< 0.4	0.48	< 0.18	< 0.17	1.65	< 0.13	0.59	1.13*	< 0.13	< 0.17	< 0.09	< 0.09	< 0.13	< 0.13	< 0.3	< 0.3	< 0.3	< 0.4	< 0.13	< 0.13	< 0.13	480	96
Total Xylenes	< 1	< 0.18	< 0.068	< 0.38	< 0.2	< 0.2	< 0.12	< 0.12	< 0.12	< 0.38	< 0.2	< 0.2	< 0.12	< 0.12	< 0.3	< 0.5	< 0.5	< 0.6	< 0.12	< 0.12	< 0.12	2,000	400

--- = not analyzed or no standard      DCA = 1,2-Dichloroethane      MTBE = methyl-tert-butylether      TMB = trimethylbenzene

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

PW-1 represents a sample collected from the on site potable well at the DairiConcepts facility (ID #IY805).

PW-5 represents a sample collected from the new (installed 9-25-13) on site potable well at the DairiConcepts facility (ID #XH461).

Strey Well represents a sample collected from the Strey Residence potable well, N5696 County Highway Y.

\* = Result is < the Reporting Limit but > or equal to the Method Detection Limit and the concentration is an approximate value.

**TABLE 3 (page 20 of 20)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Date	PW-4													NR 140 Remedial Action Limits		
	11/1/06	1/10/07	3/2/07	1/11/08	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	9/8/17	7/9/19	ES	PAL	
ANALYTE														ES	PAL	
VOCs/PVOCs (ppb)																
Acetone	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	2*	9,000	1,800
Benzene	<b>5.97</b>	2.2	<i>0.52</i>	0.27	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.13	< 0.13	< 0.13	< 0.13	5	0.5	
Bromobenzene	0.1	< 0.1	< 0.1	< 0.2	< 0.2	---	---	---	---	< 0.13	< 0.13	< 0.13	< 0.13	---	---	
Bromodichloromethane	<b>1.65</b>	<i>0.37</i>	< 0.1	< 0.2	< 0.2	---	---	---	---	< 0.11	< 0.11	< 0.11	< 0.11	0.6	0.06	
Chloroethane	< 0.6	0.1	< 0.6	< 0.6	< 0.6	---	---	---	---	< 0.07	< 0.07	< 0.07	< 0.07	400	80	
Chloroform	<b>19.6</b>	<b>4.4</b>	< 0.1	< 0.1	< 0.1	---	---	---	---	< 0.14	< 0.14	< 0.14	< 0.14	6	0.6	
Chloromethane	< 0.2	0.12	< 0.2	< 0.2	< 0.2	---	---	---	---	< 0.063	< 0.063	< 0.063	< 0.063	3	0.3	
1,4-Dichlorobenzene	< 0.1	< 0.05	1.13	< 0.8	< 0.8	---	---	---	---	< 0.13	< 0.13	< 0.13	< 0.13	75	15	
1,2-DCA	< 0.1	0.15	< 0.1	< 0.2	< 0.2	< 0.3	< 0.2	< 0.28	< 0.2	< 0.14	< 0.14	< 0.14	< 0.14	5	0.5	
1,2-Dichloropropane	<i>0.39</i>	< 0.1	< 0.1	< 0.2	< 0.2	---	---	---	---	< 0.11	< 0.11	< 0.11	< 0.11	5	0.05	
Ethylbenzene	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.2	< 0.19	< 0.13	< 0.19	< 0.11	< 0.11	< 0.11	< 0.11	700	140	
Methylene Chloride	< 0.4	0.91	< 0.4	< 0.4	< 0.4	---	---	---	---	< 0.25	< 0.25	< 0.25	< 0.25	---	---	
MTBE	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.5	0.29	< 0.24	< 0.17	< 0.12	< 0.12	< 0.12	< 0.12	60	12	
Naphthalene	< 1	< 1	< 1	< 1	< 1	< 1	< 0.21	< 0.16	< 0.21	< 0.06	< 0.06	< 0.06	< 0.06	100	10	
Toluene	< 0.4	0.44	< 0.4	11.9	0.86	< 0.4	< 0.17	< 0.11	< 0.17	< 0.1	< 0.1	< 0.1	< 0.1	800	160	
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.17	< 0.18	< 0.17	< 0.043	< 0.043	< 0.043	< 0.043	480	96	
Total Xylenes	< 1	< 0.05	< 1	< 1	< 1	< 0.4	< 0.18	< 0.068	< 0.38	< 0.2	< 0.2	< 0.12	< 0.12	2,000	400	

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

**Bold** numbers indicate concentrations above the ES outlined in NR 140.10.

\* = Result is < the Reporting Limit but > or equal to the Method Detection Limit and the concentration is an approximate value.

*Italic* numbers indicate concentrations above the PAL outlined in NR 140.10.

PW-4 represents a sample collected from the new potable well at W887 Chili Road (former Krueger Residence) (TY722).

**TABLE 4 (1 of 3)**  
**ANALYTICAL RESULTS - SOIL**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Soil RCLs (ppm) Calculated: 7-24-19					Samples											
					MW-4	BS-1A	BS-1B	BS-2A	BS-2B	BS-3A	BS-3B	BS-4A	BS-4B	BS-4C	BS-5A	BS-5B
Date	Non-Industrial Direct Contact	Industrial Direct Contact	Soil to GW	Surficial Background Threshold Value	1/19/05	8/8/06				8/9/06						
Depth (feet)					8.5-9.5	2-4	12-14	2-4	12-14	2-4	12-14	2-4	12-14	16-18	2-4	12-14
Soil Boring					MW-4	B-1/MW-1A		B-2/MW-2A		B-3/MW-3A		B-4			B-5	
PID (Instrument units)					---	< 1	< 1	< 1	< 1	110	25	< 1	275	135	< 1	120
Depth to Water Table (ft bgs)					7.23-15.15											
Soil Type					silty clay											
PAHs (ppm)	Variable	Variable	Variable	---	< 0.001	---	---	---	---	---	---	---	---	---	---	---
Lead (ppm)	400	800	27	52	---	< 3	< 3	< 3	< 3	3.45	< 3	< 3	< 3	< 3	< 3	< 3
VOCs (ppm)																
Benzene	1.6	7.07	0.0051	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	<b>0.372</b>	0.049	< 0.025	4.53	0.218	< 0.025	0.146
Ethylbenzene	8.02	35.4	1.57	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.503	0.025	< 0.025	21.2	0.098	< 0.025	0.069
MTBE	63.8	282	0.027	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Naphthalene	5.52	24.1	0.6582	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.603	< 0.025	< 0.025	7.33	< 0.025	< 0.025	< 0.025
n-Butylbenzene	108	108	---	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	1.11	< 0.025	< 0.025	8.98	< 0.025	< 0.025	< 0.025
sec-Butylbenzene	145	145	---	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	1.35	< 0.025	< 0.025	4.92	< 0.025	< 0.025	< 0.025
n-Propylbenzene	264	264	---	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.896	< 0.025	< 0.025	10.4	< 0.025	< 0.025	< 0.025
Toluene	818	818	1.1072	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	<b>1.72</b>	0.049	< 0.025	39.6	0.547	< 0.025	0.083
1,2,4-TMB	219	219	---	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	3.78	< 0.025	< 0.025	53.1	0.082	< 0.025	0.045
1,3,5-TMB	182	182	---	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	2.21	< 0.025	< 0.025	16.1	< 0.025	< 0.025	0.025
Total TMB	---	---	1.3787	---	---	---	---	---	---	<b>5.99</b>	---	---	69.2	0.082	---	0.07
Total Xylenes	260	260	3.96	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	<b>6.06</b>	0.05	< 0.025	93.9	0.354	< 0.025	0.115
No. of Individual Exceedances (DC)					NA	0	NA	0	NA	0	NA	0	NA	NA	0	NA
Cumulative Hazard Index (DC)					NA	0.0004	NA	0.0004	NA	0.0588	NA	0.0004	NA	NA	0.0004	NA
Cumulative Cancer Risk (DC)					NA	1.30E-07	NA	1.30E-07	NA	4.30E-06	NA	1.30E-07	NA	NA	1.30E-07	NA

--- = not analyzed or no standard

MTBE = methyl-tert-butyl ether

PAH = polynuclear aromatic hydrocarbons

ppm = parts per million

TMB = trimethylbenzene

VOC = volatile organic compounds

**Bold** areas indicate soil contaminant concentrations exceed Non-Industrial Direct Contact RCLs.  
Underline areas indicate soil contaminant concentrations exceed Industrial Direct Contact RCLs.  
*Italic* areas indicate soil contaminant concentrations exceed Groundwater RCL.

**TABLE 4 (2 of 3)**  
**ANALYTICAL RESULTS - SOIL**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Soil RCLs (ppm) Calculated: 7-24-19					Samples											
					BS-6A	BS-6B	BS-7	BS-8	BS-9	BS-10	CF-1	CF-2	CF-3	S-1	S-2	S-3
Date	<i>Non-Industrial Direct Contact</i>	<i>Industrial Direct Contact</i>	<i>Soil to GW</i>	<i>Surficial Background Threshold Value</i>	8/9/06			11/12/07			6/7/16					
Depth (feet)					2-4	12-14	10-12			10	13	15	15	14	18	
Soil Boring					B-6		B-7	B-8	B-9	B-10	Confirmation samples taken to landfill			SE Wall	NE Wall	NE Floor
PID (Instrument units)					< 1	45	< 1	15	< 1	35	110	255	314	< 1	< 1	5
Depth to Water Table (ft bgs)	7.23-15.15															
Soil Type	silty clay						sand/rock			sandy clay			clay			
Lead (ppm)	<i>400</i>	<i>800</i>	<i>27</i>	<i>52</i>	< 3	< 3	---	---	---	---	---	---	---	---	---	---
VOCs/PVOCs (ppm)																
Benzene	<i>1.6</i>	<i>7.07</i>	<i>0.0051</i>	---	< 0.025	0.119	< 0.027	0.031	< 0.028	0.15	< 0.049	0.2	1.8	< 0.046	< 0.046	0.92
1,2-DCA	<i>0.652</i>	<i>2.87</i>	<i>0.005</i>	---	< 0.025	< 0.025	---	---	---	---	< 0.049	< 0.046	< 0.043	< 0.046	< 0.046	< 0.051
Ethylbenzene	<i>8.02</i>	<i>35.4</i>	<i>1.57</i>	---	< 0.025	0.047	< 0.027	0.04	< 0.028	0.043	< 0.049	1.3	18	< 0.046	< 0.046	0.49
MTBE	<i>63.8</i>	<i>282</i>	<i>0.027</i>	---	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.073	< 0.067	< 0.064	< 0.067	< 0.068	< 0.075
Naphthalene	<i>5.52</i>	<i>24.1</i>	<i>0.6582</i>	---	< 0.025	< 0.025	< 0.055	< 0.054	< 0.055	< 0.057	< 0.12	0.5	10	< 0.11	< 0.12	< 0.13
Toluene	<i>818</i>	<i>818</i>	<i>1.1072</i>	---	< 0.025	0.081	< 0.027	0.04	< 0.028	0.26	< 0.054	1.4	17	< 0.05	< 0.05	1.5
1,2,4-TMB	<i>219</i>	<i>219</i>	---	---	< 0.025	0.032	< 0.027	0.071	< 0.028	0.041	< 0.073	3.7	71	< 0.067	< 0.068	0.34
1,3,5-TMB	<i>182</i>	<i>182</i>	---	---	< 0.025	< 0.025	< 0.027	< 0.027	< 0.028	< 0.029	< 0.055	1.2	23	< 0.051	< 0.051	0.097
Total TMB	---	---	<i>1.3787</i>	---	---	0.032	---	0.071	---	0.041	---	4.9	94	---	---	0.437
Total Xylenes	<i>260</i>	<i>260</i>	<i>3.96</i>	---	< 0.025	0.097	< 0.082	< 0.081	< 0.083	0.21	< 0.09	5.2	71	< 0.083	< 0.084	1.6
No. of Individual Exceedances (DC)					0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cumulative Hazard Index (DC)					0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cumulative Cancer Risk (DC)					1.30E-07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

--- = not analyzed or no standard      DCA = dichloroethane      MTBE = methyl-tert-butyl ether      PAH = polynuclear aromatic hydrocarbons      ppm = parts per million      TMB = trimethylbenzene  
VOC/PVOC = volatile organic compounds/ petroleum volatile organic compounds

<b>Bold</b> areas indicate soil contaminant concentrations exceed Non-Industrial Direct Contact RCLs.
<u>Underline</u> areas indicate soil contaminant concentrations exceed Industrial Direct Contact RCLs.
<i>Italic</i> areas indicate soil contaminant concentrations exceed Groundwater RCL.

**TABLE 4 (3 of 3)**  
**ANALYTICAL RESULTS - SOIL**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

Soil RCLs (ppm) Calculated: 7-24-19					Samples												
					S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	S-13	S-14	S-15	S-16
Date	Non-Industrial Direct Contact	Industrial Direct Contact	Soil to GW	Surficial Background Threshold Value	6/7/16												
Depth (feet)					18	15	14	18		15	14	15		18			
Soil Boring					SE Floor	SE Wall	N Wall E	Floor	Floor	Floor	N Wall	S Wall	NW Wall	W Wall	Floor		
PID (Instrument units)					< 1	< 1	< 1	15	12	5	< 1	< 1	< 1	< 1	25	268	110
Depth to Water Table (ft bgs)					7.23-15.15												
Soil Type					sand	sandy clay		sand/rock			sandy clay				sand/rock		
VOCs/PVOCs (ppm)																	
Benzene	<i>1.6</i>	<i>7.07</i>	<i>0.0051</i>	---	< 0.039	< 0.049	< 0.049	0.37	0.11	0.08	< 0.043	< 0.04	< 0.05	< 0.049	0.3	1.6	0.16
1,2-DCA	<u>0.652</u>	<u>2.87</u>	<u>0.005</u>	---	< 0.039	< 0.049	< 0.049	< 0.044	< 0.045	< 0.041	< 0.043	< 0.04	< 0.05	< 0.049	< 0.042	< 0.04	< 0.048
Ethylbenzene	<u>8.02</u>	<u>35.4</u>	<u>1.57</u>	---	0.2	< 0.049	< 0.049	1.1	< 0.045	< 0.041	< 0.043	< 0.04	< 0.05	< 0.049	0.11	15	5.9
MTBE	<u>63.8</u>	<u>282</u>	<u>0.027</u>	---	< 0.057	< 0.071	< 0.073	< 0.064	< 0.066	< 0.061	< 0.063	< 0.058	< 0.073	< 0.072	< 0.062	< 0.058	< 0.07
Naphthalene	<u>5.52</u>	<u>24.1</u>	<u>0.6582</u>	---	< 0.097	< 0.12	< 0.12	0.62	< 0.11	< 0.1	< 0.11	< 0.099	< 0.12	< 0.12	< 0.1	4.2	3.4
Toluene	<u>818</u>	<u>818</u>	<u>1.1072</u>	---	< 0.042	< 0.053	< 0.054	1.5	< 0.049	< 0.045	< 0.047	< 0.043	< 0.054	< 0.054	0.58	34	3.4
1,2,4-TMB	<u>219</u>	<u>219</u>	---	---	0.61	< 0.071	< 0.073	3.1	< 0.066	< 0.061	< 0.063	< 0.058	< 0.073	0.081	0.11	28	16
1,3,5-TMB	<u>182</u>	<u>182</u>	---	---	0.19	< 0.054	< 0.055	0.9	< 0.05	< 0.046	< 0.048	< 0.044	< 0.056	< 0.055	< 0.047	8.6	5.8
Total TMB	---	---	<u>1.3787</u>	---	0.8	---	---	4	---	---	---	---	---	0.081	0.11	36.6	21.8
Total Xylenes	<u>260</u>	<u>260</u>	<u>3.96</u>	---	0.6	< 0.089	< 0.089	4.1	< 0.081	< 0.076	< 0.078	< 0.072	< 0.091	< 0.09	0.44	37	19
No. of Individual Exceedances (DC)					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cumulative Hazard Index (DC)					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cumulative Cancer Risk (DC)					NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

--- = not analyzed or no standard    DCA = dichloroethane    MTBE = methyl-tert-butyl ether    PAH = polynuclear aromatic hydrocarbons    ppm = parts per million    TMB = trimethylbenzene

VOC/PVOC = volatile organic compounds/ petroleum volatile organic compounds

<b>Bold</b> areas indicate soil contaminant concentrations exceed Non-Industrial Direct Contact RCLs.
<u>Underline</u> areas indicate soil contaminant concentrations exceed Industrial Direct Contact RCLs.
<i>Italic</i> areas indicate soil contaminant concentrations exceed Groundwater RCL.

**TABLE 5**  
**RESIDUAL SOIL CONTAMINATION**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**  
**AET PROJECT NO. 03-05510**

<i>Soil RCLs (ppm) Calculated: 8-5-19</i>					Samples
					<b>BS-3A</b>
Date	<i>Non-Industrial Direct Contact</i>	<i>Industrial Direct Contact</i>	<i>Soil to GW</i>	<i>Surficial Background Threshold Value</i>	8/9/06
Depth (feet)					2-4
Soil Boring					B-3/MW-3A
PID (Instrument units)					110
Depth to Water Table (ft bgs)					7.23-15.15
Soil Type					silty clay
Lead (ppm)	400	800	27	52	3.45
<b>VOCs (ppm)</b>					
Benzene	1.6	7.07	0.0051	---	0.372
Ethylbenzene	8.02	35.4	1.57	---	0.503
MTBE	63.8	282	0.027	---	< 0.025
Naphthalene	5.52	24.1	0.6582	---	0.603
n-Butylbenzene	108	108	---	---	1.11
sec-Butylbenzene	145	145	---	---	1.35
n-Propylbenzene	264	264	---	---	0.896
Toluene	818	818	1.1072	---	1.72
1,2,4-TMB	219	219	---	---	3.78
1,3,5-TMB	182	182	---	---	2.21
Total TMB	---	---	1.3787	---	5.99
Total Xylenes	260	260	3.96	---	6.06
No. of Individual Exceedances (DC)					0
Cumulative Hazard Index (DC)					0.0321
Cumulative Cancer Risk (DC)					4.00E-07

--- = not analyzed or no standard    MTBE = methyl-tert-butyl ether    ppm = parts per million  
TMB = trimethylbenzene    VOC = volatile organic compounds

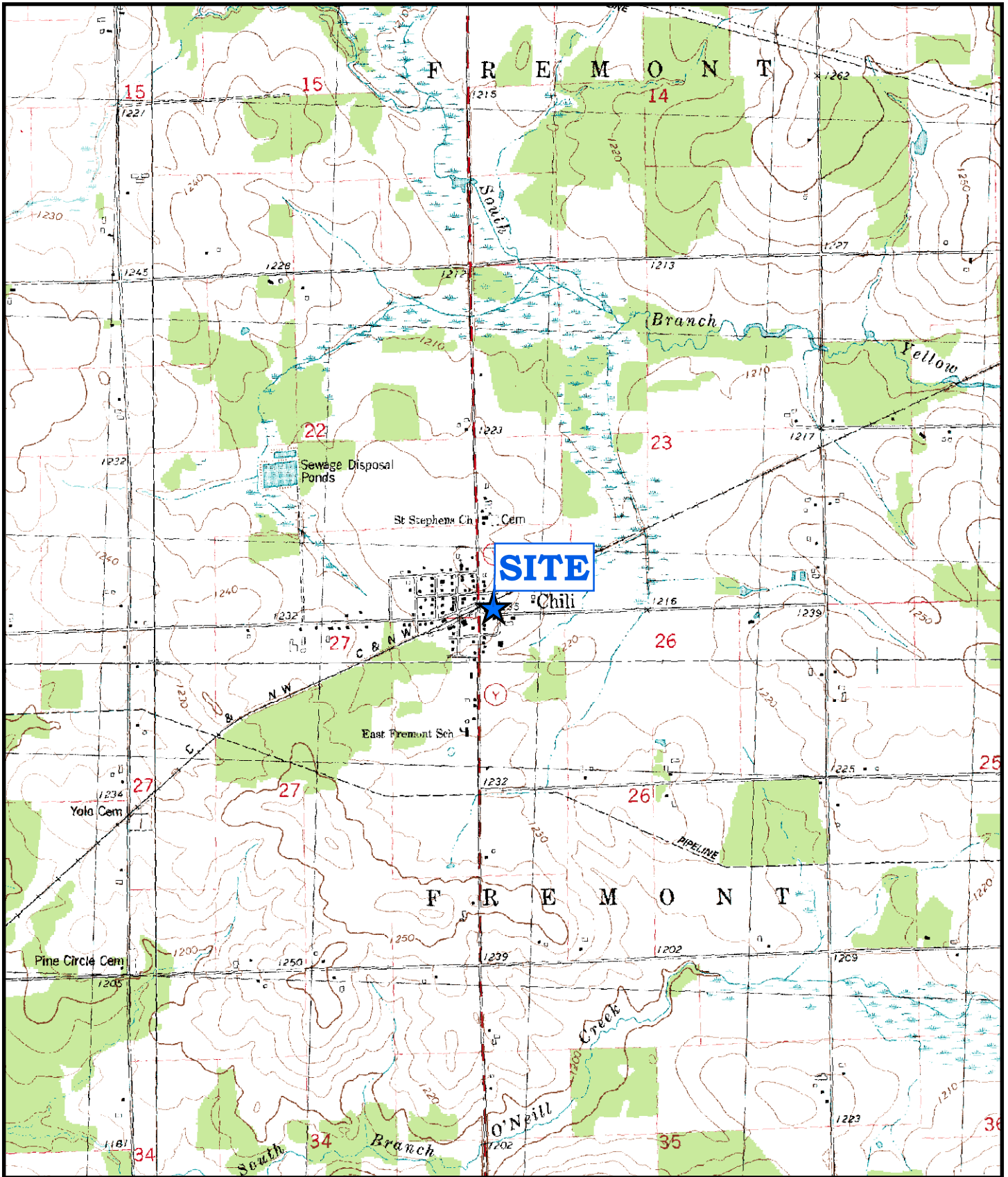
**Bold** areas indicate soil contaminant concentrations exceed Non-Industrial Direct Contact RCLs.

Underline areas indicate soil contaminant concentrations exceed Industrial Direct Contact RCLs.

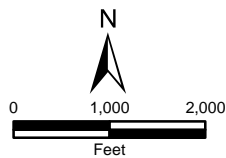
*Italic* areas indicate soil contaminant concentrations exceed Groundwater RCL.

# Figures

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Map Reference: USGS 7.5" Quadrangles, Spencer South, Loyal East, Lindsey, and Granton, Wisconsin



**Figure 1**  
Site Location Map

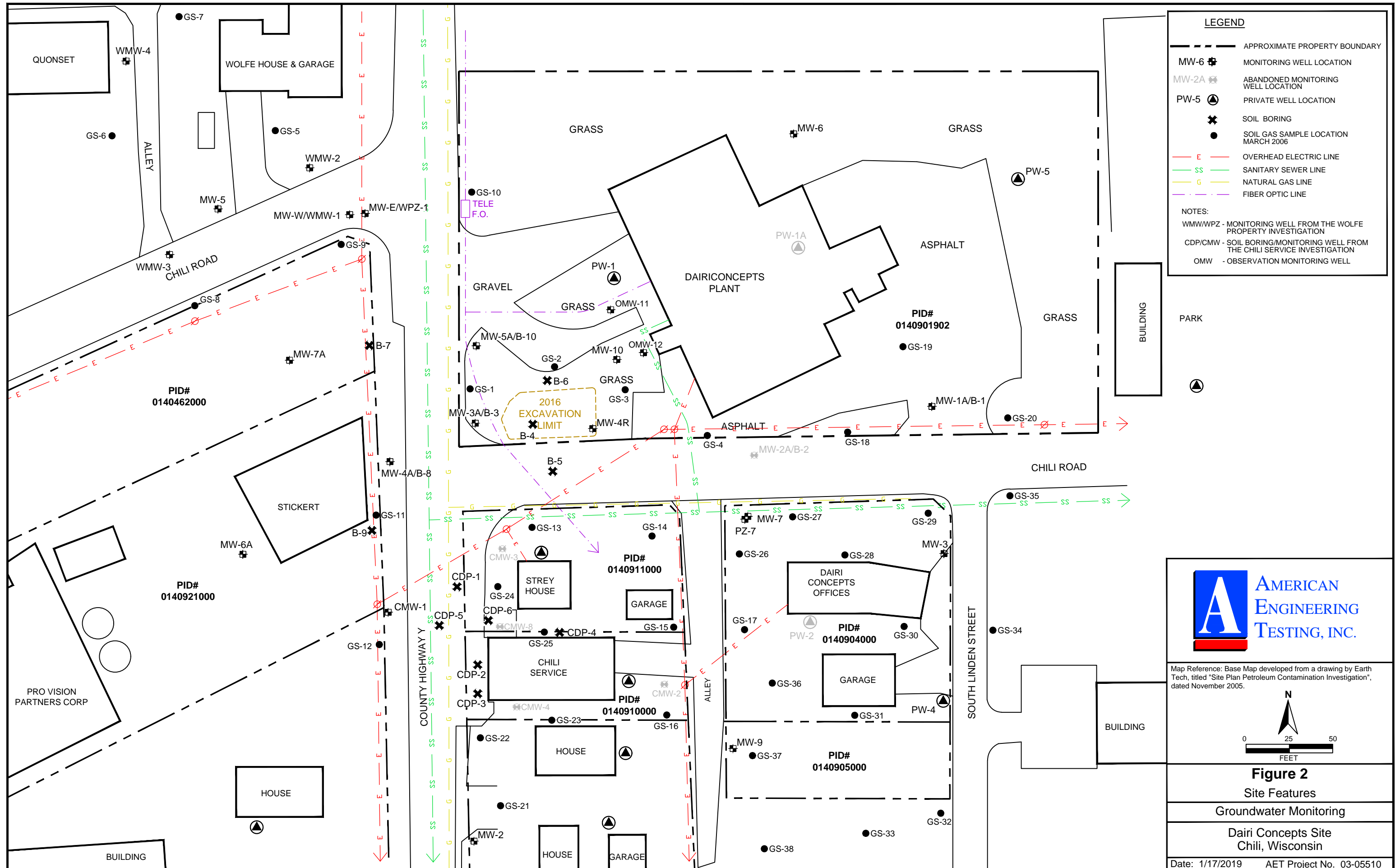
Groundwater Monitoring Report

Dairi Concepts Site  
Chili, Wisconsin

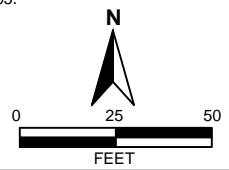
Date: 08/16/2016

AET Project No. 03-05510

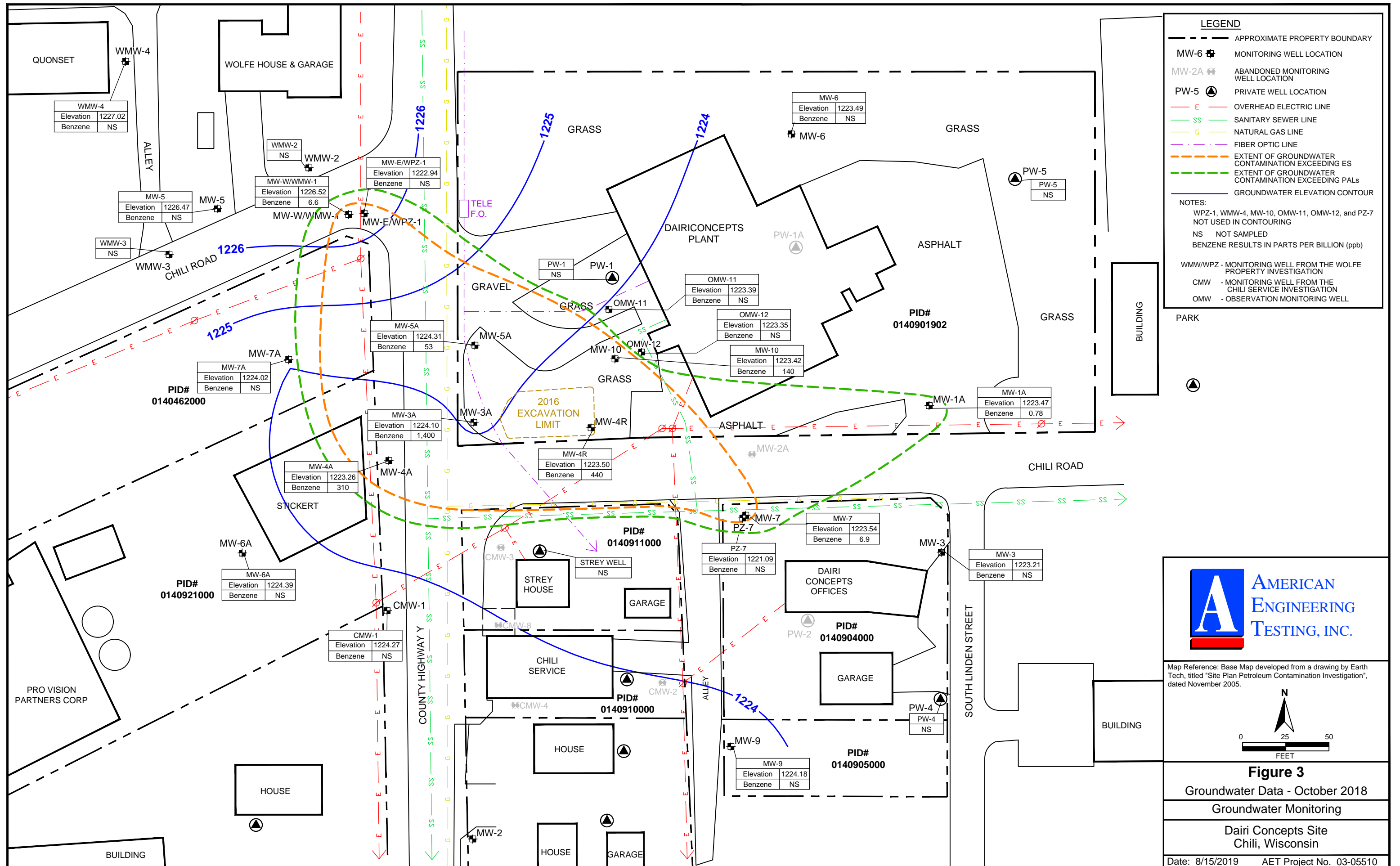




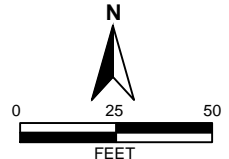
Map Reference: Base Map developed from a drawing by Earth Tech, titled "Site Plan Petroleum Contamination Investigation", dated November 2005.



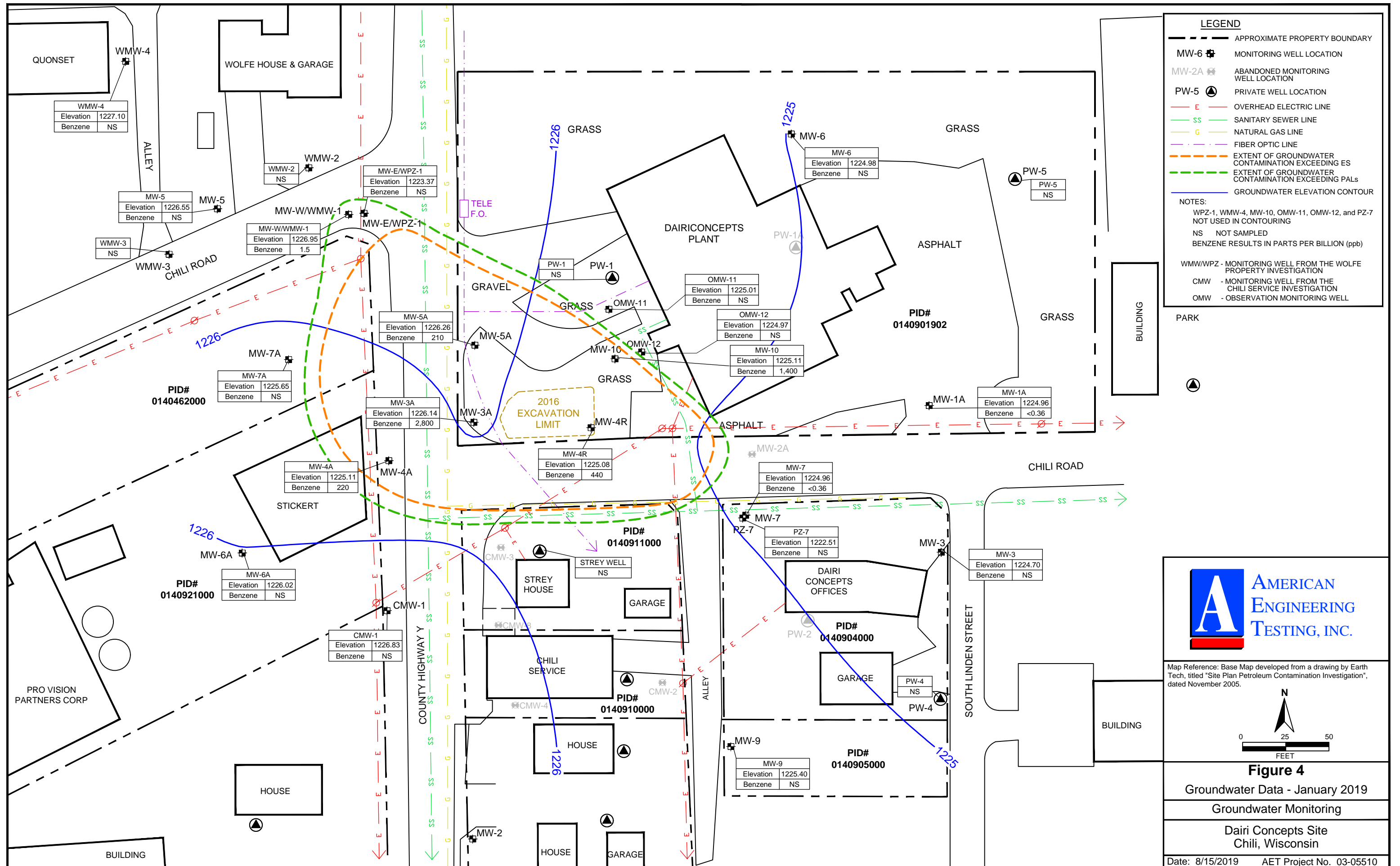
**Figure 2**  
 Site Features  
 Groundwater Monitoring  
 Dairi Concepts Site  
 Chili, Wisconsin  
 Date: 1/17/2019 AET Project No. 03-05510



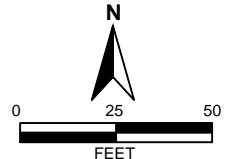
Map Reference: Base Map developed from a drawing by Earth Tech, titled "Site Plan Petroleum Contamination Investigation", dated November 2005.



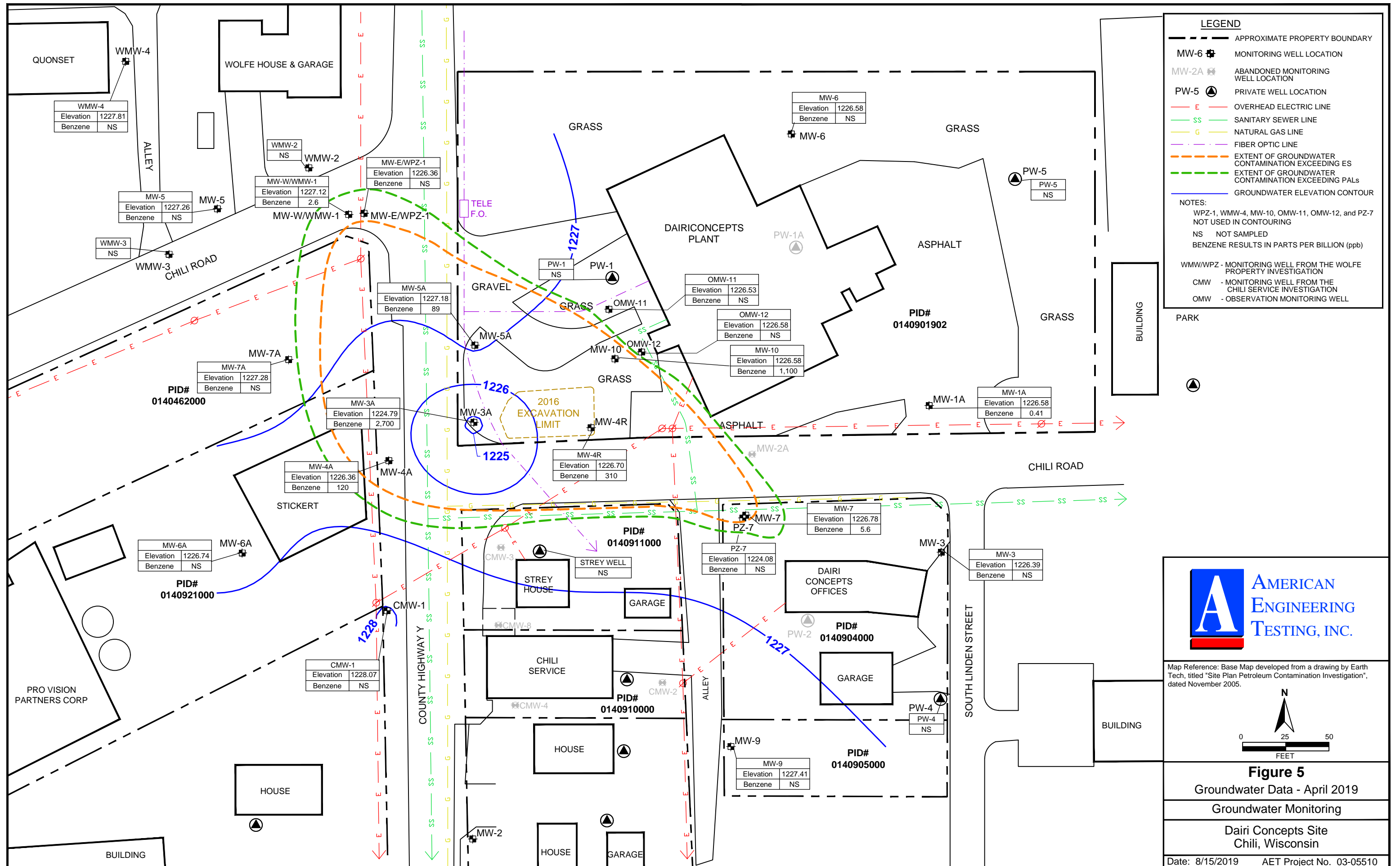
**Figure 3**  
 Groundwater Data - October 2018  
 Groundwater Monitoring  
 Dairi Concepts Site  
 Chili, Wisconsin  
 Date: 8/15/2019 AET Project No. 03-05510



Map Reference: Base Map developed from a drawing by Earth Tech, titled "Site Plan Petroleum Contamination Investigation", dated November 2005.



**Figure 4**  
 Groundwater Data - January 2019  
 Groundwater Monitoring  
 Dairi Concepts Site  
 Chili, Wisconsin  
 Date: 8/15/2019 AET Project No. 03-05510



**LEGEND**

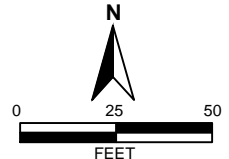
- APPROXIMATE PROPERTY BOUNDARY
- MW-6 MONITORING WELL LOCATION
- MW-2A ABANDONED MONITORING WELL LOCATION
- PW-5 PRIVATE WELL LOCATION
- E --- OVERHEAD ELECTRIC LINE
- SS --- SANITARY SEWER LINE
- G --- NATURAL GAS LINE
- FIBER OPTIC LINE
- - - - - EXTENT OF GROUNDWATER CONTAMINATION EXCEEDING ES
- - - - - EXTENT OF GROUNDWATER CONTAMINATION EXCEEDING PALs
- GROUNDWATER ELEVATION CONTOUR

**NOTES:**

- WPZ-1, WMW-4, MW-10, OMW-11, OMW-12, and PZ-7 NOT USED IN CONTOURING
- NS NOT SAMPLED
- BENZENE RESULTS IN PARTS PER BILLION (ppb)
- WMW/WPZ - MONITORING WELL FROM THE WOLFE PROPERTY INVESTIGATION
- CMW - MONITORING WELL FROM THE CHILI SERVICE INVESTIGATION
- OMW - OBSERVATION MONITORING WELL

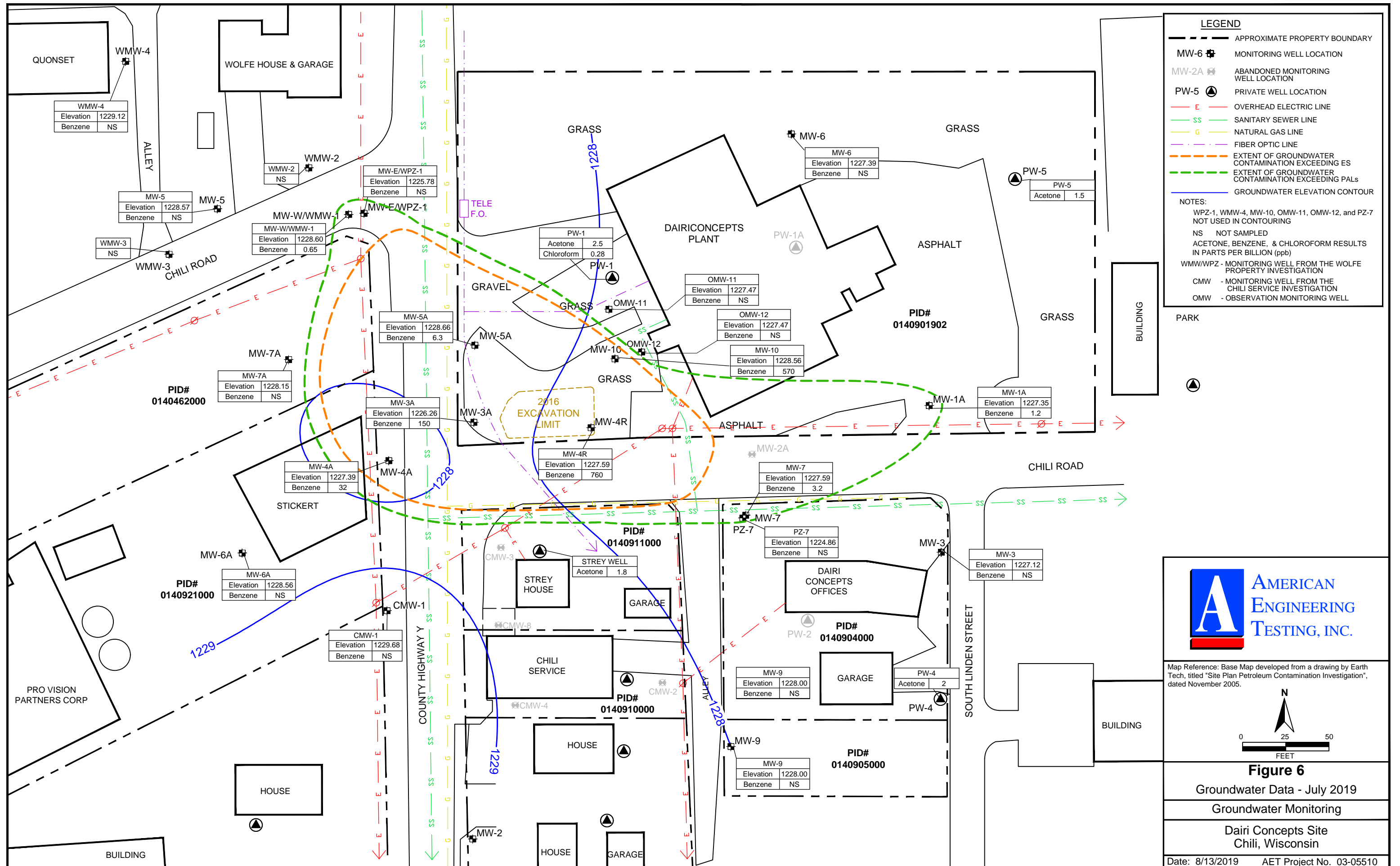


Map Reference: Base Map developed from a drawing by Earth Tech, titled "Site Plan Petroleum Contamination Investigation", dated November 2005.

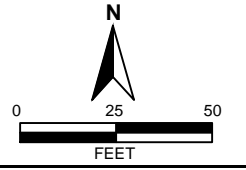


**Figure 5**  
 Groundwater Data - April 2019  
 Groundwater Monitoring  
 Dairi Concepts Site  
 Chili, Wisconsin  
 Date: 8/15/2019 AET Project No. 03-05510

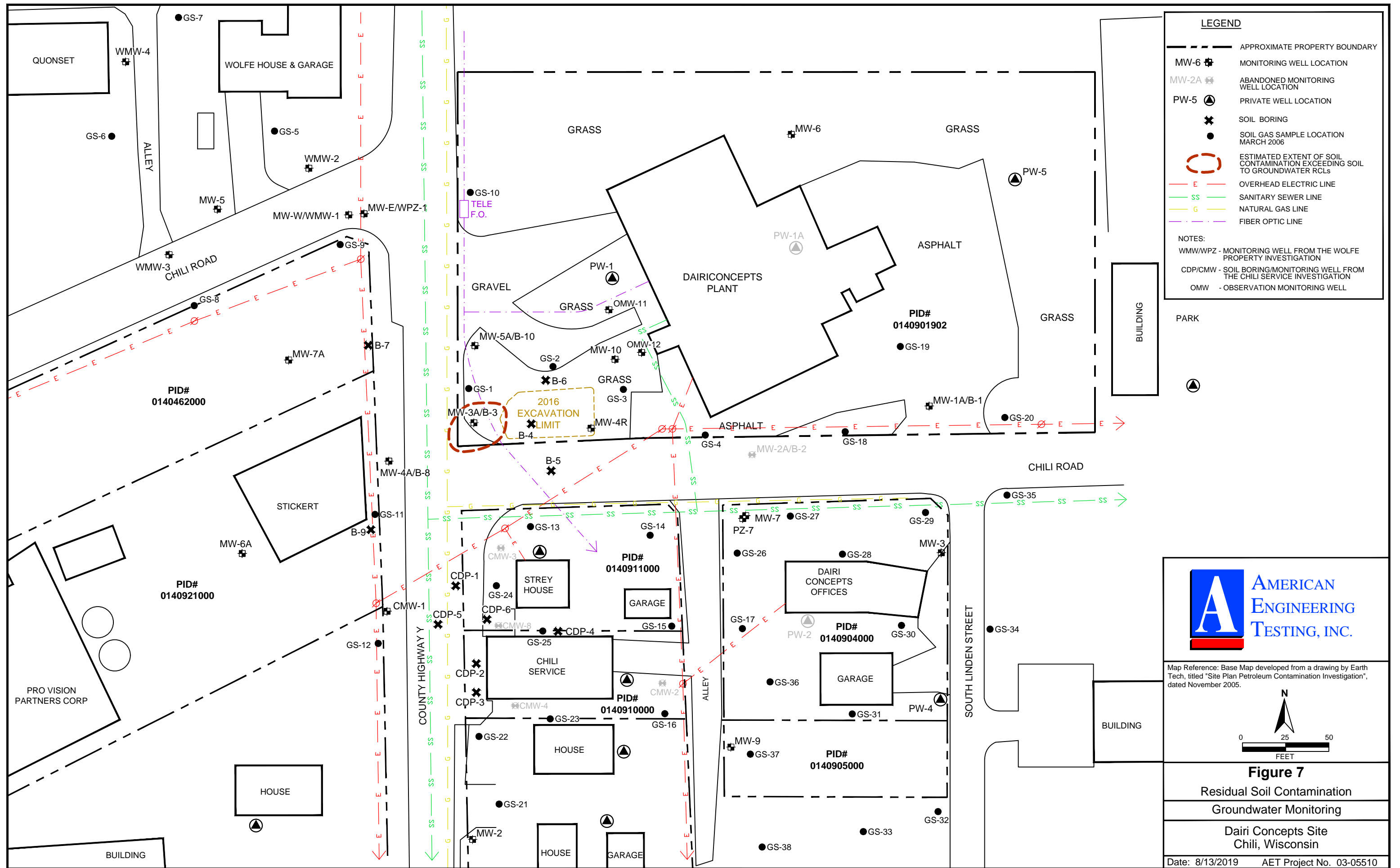




Map Reference: Base Map developed from a drawing by Earth Tech, titled "Site Plan Petroleum Contamination Investigation", dated November 2005.



**Figure 6**  
 Groundwater Data - July 2019  
 Groundwater Monitoring  
 Dairi Concepts Site  
 Chili, Wisconsin  
 Date: 8/13/2019 AET Project No. 03-05510



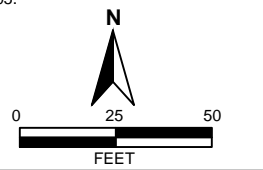
**LEGEND**

- APPROXIMATE PROPERTY BOUNDARY
- MW-6 MONITORING WELL LOCATION
- MW-2A ABANDONED MONITORING WELL LOCATION
- PW-5 PRIVATE WELL LOCATION
- SOIL BORING
- SOIL GAS SAMPLE LOCATION MARCH 2006
- ESTIMATED EXTENT OF SOIL CONTAMINATION EXCEEDING SOIL TO GROUNDWATER RCLs
- OVERHEAD ELECTRIC LINE
- SANITARY SEWER LINE
- NATURAL GAS LINE
- FIBER OPTIC LINE

NOTES:  
 WMW/WPZ - MONITORING WELL FROM THE WOLFE PROPERTY INVESTIGATION  
 CDP/CMW - SOIL BORING/MONITORING WELL FROM THE CHILI SERVICE INVESTIGATION  
 OMW - OBSERVATION MONITORING WELL



Map Reference: Base Map developed from a drawing by Earth Tech, titled "Site Plan Petroleum Contamination Investigation", dated November 2005.



**Figure 7**  
 Residual Soil Contamination  
 Groundwater Monitoring  
 Dairi Concepts Site  
 Chili, Wisconsin  
 Date: 8/13/2019 AET Project No. 03-05510

# Appendix A

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Acronyms and Abbreviations

## AET Standard List

°C	degrees Celsius
°F	degrees Fahrenheit
%	percent
AAI	EPA All Appropriate Inquiry (§312.10 of 40 CFR 312)
ACM	asbestos containing material
ACBM	asbestos containing building material
AET	American Engineering Testing, Inc.
AHERA	Asbestos Hazard Emergency Response Act
AST	aboveground storage tank
ASTM	American Society for Testing and Materials (now known only by acronym)
AUL	activity and use limitation
BETX	benzene, ethylbenzene, toluene, xylene
bgs	below ground surface
BRRTS	Bureau of Remediation and Redevelopment Tracking System
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response, Compensation, Liability Act (Superfund)
CERCLIS	Comprehensive Environmental Response, Compensation, Liability Information System
CESQG	RCRA Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CLEAN	Contaminated Lands Environmental Action Network
CoC	contaminant of concern
c.o.c.	chain of custody
CORRACTS	RCRA Corrective Actions Information System
cPAH	carcinogenic polynuclear aromatic hydrocarbon
CVOC	chlorinated volatile organic compound
cy or CY	cubic yards
DRO	diesel range organics
EC	engineering control
EIS	Environmental Impact Statement
EP	Environmental Professional (§312.10 of 40 CFR 312)
EPA	Environmental Protection Agency (also USEPA)
ES	enforcement standard
ERNS	Emergency Response Notification System (federal)
ESA	Environmental Site Assessment
f/cc	fibers per cubic centimeter
ft	feet
GC	gas chromatography
GC/MS	gas chromatography/mass spectroscopy
GEN	RCRA Generator



## AET Standard List

GIS	geographic information system
GPS	global positioning system
GRO	gasoline range organics
HASP	Health and Safety Plan
HIG	Historical Information Gatherers, Inc.
HREC	historical recognized environmental condition
IC	institutional control
LLP	landowner liability protection
LQG	RCRA Large Quantity Generator
LOQ	limit of quantitation
LSI	Limited Site Investigation
LUST	leaking underground storage tank
MCL	EPA Maximum Contaminant Level
MDL	method detection limit.
mg/kg	milligrams per kilogram (ppm)
mg/L	milligrams per liter (ppm)
MTBE	methyl tert-butyl ether
NA	not assigned or not applicable
ND	no detection
NEPA	National Environmental Protection Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NLR	RCRA No Longer Regulated Information System
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List (federal Superfund)
NR	not recorded
ODI	EPA Open Dump Inventory
OSHA	Occupational Safety and Health Administration
PECFA	Petroleum Environmental Clean-Up Fund Act
PAH	polynuclear aromatic hydrocarbon
PAL	preventive action limit
PEL	OSHA Permissible Exposure Limit
PCB	polychlorinated biphenyl
pcm	point count method
PE	Professional Engineer
PG	Professional Geologist
PID	photoionization detector
PLM	polarized light microscopy

## AET Standard List

PLP	Permanent List of Priorities (state Superfund)
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
PVOC	petroleum volatile organic compound
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RACM	regulated asbestos containing material
RAP	Response Action Plan
RCRA	Resource Conservation Recovery Act
RCL	residual contaminant level
REC	recognized environmental condition
RI	Remedial Investigation
RL	laboratory reporting limit
ROD	EPA Record of Decision
RP	responsible party
SDS	safety data sheet
SOP	standard operating procedure
SPILLS	WDNR Spills inventory
SQG	RCRA Small Quantity Generator
SREC	suspect recognized environmental condition
SSP	Site Safety Plan
SVE	soil vapor extraction
SVOC	semi-volatile organic compound
SWF/LF	WDNR Solid Waste Facilities/Landfill Sites
TCLP	Toxicity Characteristic Leaching Procedure
TMB	trimethylbenzene
TPH	total petroleum hydrocarbons
TRIS	EPA Toxic Release Inventory System
TSCA	Toxic Substances Control Act
TSD	RCRA Transportation Storage and Disposal inventory
µg/kg	micrograms per kilogram (ppb)
µg/l or µg/L	micrograms per liter (ppb)
µg/m <sup>3</sup>	micrograms per cubic meter
USEPA	United States Environmental Protection Agency (also EPA)
USGS	United States Geological Survey
UST	underground storage tank
VIC	Voluntary Investigation and Cleanup Program

### AET Standard List

VOC	volatile organic compound
WAC	Wisconsin Administrative Code
WDATCP	Wisconsin Department of Agriculture, Trade, and Consumer Protection
WDHS	Wisconsin Department of Health Services
WDNR	Wisconsin Department of Natural Resources
WDOT	Wisconsin Department of Transportation
WGNHS	Wisconsin Geological and Natural History Survey
WCA	Wetland Conservation Act
WPDES	Wisconsin Pollution Discharge Elimination System
WRRD	Wisconsin Remediation and Redevelopment Database
XRF	x-ray fluorescence

### DEFINITIONS

Controlled recognized environmental condition (CREC): a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

De minimus condition: a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies. Conditions determined to be de minimus conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

Historical recognized environmental condition (HREC): a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

Recognized environmental condition (REC): the presence or likely presence of hazardous substances or petroleum products in, on, or at a property: 1) due to release to the environment; 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment.

# Appendix B

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Environmental Sampling Methods

**ENVIRONMENTAL SAMPLING METHODS – GENERAL:  
EXCAVATIONS/TEST PITS, HAND AUGERS, SURFICIAL SOILS, STOCKPILES**

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**Site Safety Issues**

Safety is of paramount importance on construction, demolition, or other high-traffic sites with potentially unstable ground. Frequent visual and verbal contact is maintained with operators of heavy equipment in the sampling vicinity. Care is taken not to enter depressions or scale mounds that would constitute confined spaces, where engulfment, immersion, or falls are possible, or where harmful vapors may collect. Most observations and soil collection are performed from a stable and level ground surface with the help of heavy equipment operated by an excavation contractor.

**Contamination Reduction**

Sampling devices (except heavy equipment in most cases) are cleaned between sampling points to minimize cross contamination. The cleaning procedure may consist of an alconox detergent-water wash using a brush, followed by a tap water rinse. Certain types of projects may entail more or less stringent decontamination procedures.

**Soil Collection**

Most soil samples from excavations or test pits are collected directly from heavy equipment (e.g., excavation bucket, loader, or bulldozer), giving preference to soils that have not touched the equipment. A hand auger is used to complete shallow soil borings in locations of limited vehicle access. Hand auger borings are advanced manually, typically in 6" to 12" depth intervals. Soils are collected directly from the hollow auger barrel. A spade shovel is used to collect surficial soils (i.e., up to 6" depth). In many cases, soil samples can be collected by hand without added equipment.

Impacted soils or buried debris may be present in the ground that are not observed due to the spacing and depths of sampling points. Best judgment determinations, based on known site conditions and past experience in similar situations, do not guarantee identification or removal of all impacts.

**Soil Classification**

As the samples are obtained in the field, they are visually and manually classified by the field staff. Representative portions of the samples may be returned to the laboratory for further examination and for verification of the field classification. Soil classifications, visual/odor observations, and information on any groundwater encountered are reported on the Soil Screening Data Sheet or other field notes.

**Soil Sample Vapor Screening**

Soil samples collected directly or from equipment are screened with a photoionization detector (PID) for the presence of organic vapors with ionization potentials less than the lamp voltage. The PID is calibrated for direct reading in parts-per-million-volume (PPMv) of a benzene equivalent. Soil samples are collected and screened according to the bag-headspace field screening procedure, which consists of placing freshly collected soil into a polyethylene Whirl-Pak or freezer "baggie" (i.e., bag), sealing the bag to contain an air pocket (i.e., headspace), and allowing 10 to 20 minutes for vapors to disperse from the soil to the headspace. The highest reading upon inserting the PID probe into the bag headspace – typically attained within two to five seconds of probe insertion – is recorded on the Soil Screening Data Sheet or other field notes. Excessive moisture, temperature extremes, ambient vapors, or other unusual field circumstances can affect screening results.

**Other Field Screening**

For certain sites, field screening may be conducted for additional parameters in accordance with AET's Field Screening Methods Supplemental information sheet.

**Soil Sampling for Chemical Analysis**

Soil samples obtained for chemical analysis are collected directly or from the sampling device into laboratory-prepared containers with appropriate preservatives, according to laboratory protocols. The samples are delivered to the analytical laboratory within prescribed holding times, accompanied by proper chain-of-custody forms.

## ENVIRONMENTAL SAMPLING METHODS – HSA/PUSH PROBE SOIL BORINGS

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### **Contamination Reduction**

The hollow-stem auger (HSA) drill rig and down hole tooling are steam cleaned prior to mobilization. The split-spoon sampler is cleaned between samples to minimize cross contamination. The push-probe down hole tooling is steam cleaned prior to mobilization. New clear plastic liners are used for each drive, and the tooling is cleaned between borings to minimize cross contamination. The cleaning procedure consists of an alconox detergent-water wash using a brush, followed by a tapwater rinse. The alconox wash and rinse water are changed regularly – typically between borings. Certain types of projects may entail more stringent decontamination procedures.

### **Soil Boring Advancement and Limitations**

Split-spoon soil sampling in the standard-penetration soil borings is performed using hollow-stem auger techniques in general accordance with ASTM:D1586, with a modified hammer weight calibrated by pile driving analyzer (PDA). Using this procedure, a 2" outer-diameter (OD) split-spoon soil sampler is driven into the soil by a hammer weight with 60%-65% energy of a 140-lb. weight falling 30". After an initial set of 6", the number of blows required to drive the sampler an additional 12" is known as the penetration resistance or N value, an index of the relative density of cohesionless soils and the consistency of cohesive soils. Samples are typically collected in distinct 18" or 24" depth intervals separated by 12" or 6" depth intervals, using drive rods to extend the boring deeper beneath the ground surface. The split-spoon sampler is opened to expose distinct 18" or 24" sections of soil for classification and sampling.

Soil sampling in the soil borings is performed using a Geoprobe® system. Soil borings are advanced using a vehicle-mounted, hydraulically-powered, soil probing machine, which uses static force (vehicle weight) and percussion to advance small-diameter sampling tools into the subsurface for collecting soil core, soil gas, or groundwater samples. Using this system, a 2" outer-diameter (OD) MacroCore® soil sampler containing a 1.75" OD clear plastic liner is driven into the soil in distinct 48" depth intervals, except where subsurface conditions limit the equipment to shorter drive lengths. In cases where soil recovery is poor, typically due to grain-size or moisture, a smaller "discrete" soil sampler (1.5" OD containing a 1.0" OD clear plastic liner) with a retractable piston tip may be used to collect soil in distinct 24" depth intervals. Probe rods are added to extend borings deeper beneath the surface. The plastic liner is removed from the sampler and cut lengthwise to expose discrete sections of soil for classification and sampling.

Unless actually observed, contacts between soil layers are estimated based on the spacing of samples and the action of the drilling tools. Cobbles, boulders, and other large objects generally cannot be recovered from soil borings, and may be present in the ground even if they are not noted on the boring logs. Impacted soils or buried debris may be present that are not observed due to the spacing and depths of sampling points. Best judgment determinations, based on known site conditions and past experience in similar situations, do not guarantee identification of all impacts.

### **Soil Classification**

As the samples are obtained in the field, they are visually and manually classified by the field staff following the Unified Soil Classification (USC) system in general accordance with ASTM:D2488. Representative portions of the samples may be returned to the laboratory for further observation and for verification of the field identification. Logs of the borings are prepared indicating the depth and identification of the various strata, water level information, and other pertinent information regarding the method of maintaining and advancing the borings.

Boring logs include judgments of the geologic depositional origin. This judgment is primarily based on observations of the soil samples, which can be limited. Observations of the surrounding topography, vegetation, and development can sometimes aid this judgment. Visual/odor observations may aid in assessing impacts but are not relied on exclusively.

### **Soil Sample Vapor Screening**

Soil samples collected directly from the soil samplers are screened with a photoionization detector (PID) for the presence of organic vapors with ionization potentials less than the lamp voltage. The PID is calibrated for direct reading in parts-per-million-volume (PPMv) of a benzene equivalent. Soil samples are collected and screened according to the bag-headspace field screening procedure, which consists of placing freshly collected soil into a polyethylene Whirl-Pak or freezer "baggie" (i.e., bag), sealing the bag to contain an air pocket (i.e., headspace), and allowing 10 to 20 minutes for vapors to disperse from the soil to the headspace. The highest reading upon inserting the PID probe into the bag

## ENVIRONMENTAL SAMPLING METHODS – HSA/PUSH PROBE SOIL BORINGS

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headspace – typically attained within two to five seconds of probe insertion – is recorded on the boring log. Excessive moisture, temperature extremes, ambient vapors, or other unusual field circumstances can affect screening results.

### **Other Field Screening**

For certain sites, field screening may be conducted for additional parameters in accordance with AET's Field Screening Methods Supplemental information sheet.

### **Soil Sampling for Chemical Analysis**

Soil samples obtained for chemical analysis are collected directly from the soil samplers and placed into laboratory-prepared containers with appropriate preservatives, according to laboratory protocols. The samples are delivered to the analytical laboratory within prescribed holding times, accompanied by proper chain-of-custody forms.

### **Water Level Measurements**

The groundwater level measurements are shown at the bottom of the boring logs. The following information appears under Water Level Measurements on the logs:

- Date and time of measurement
- Sampled Depth: greatest depth of soil sampling at the time of measurement
- Casing Depth: depth to bottom of casing or hollow-stem auger at time of measurement
- Cave-in Depth: tape-measured depth of borehole
- Water Level: tape-measured depth of free water in the borehole

The true depth of the water table at the boring locations may be different from the water levels measured in the boreholes. This is possible because several factors can affect the water-level measurements in the borehole such as permeability of each soil layer in profile, presence of perched water, amount of time between water level readings, and weather conditions.

### **Groundwater Sampling for Chemical Analysis**

Groundwater samples obtained for chemical analysis are collected directly from each borehole/temporary monitoring well by one of two techniques: (1) A new dedicated teflon bailer is lowered down the borehole/temporary monitoring well with new nylon rope or decontaminated downrigger cable; (2) Using a peristaltic pump or check-valve assembly, samples are pumped directly from the borehole/temporary monitoring well through new polyethylene tubing extended to depth through the casing. Samples are collected in laboratory-prepared containers with appropriate preservatives, according to laboratory protocols. For analyses in which field-filtering is required, samples are vacuum-filtered through a new dedicated plastic filter with 0.45- $\mu$ m pores. The samples are delivered to the analytical laboratory within prescribed holding times, accompanied by proper chain-of-custody forms.

Because boreholes/temporary monitoring wells are not typically in equilibrium with groundwater, results provide qualitative groundwater data. Purging additional water prior to sampling may improve the data representativeness somewhat. Monitoring wells are necessary to obtain more accurate quantitative groundwater data.

### **Surveying and Abandonment**

Following sampling, ground surface elevations at boring locations are typically measured to the nearest 0.1 foot. If a permanent benchmark of known elevation is unavailable, the measurement is referenced to a nearby temporary benchmark given the arbitrary reference elevation of 100.0 feet. Horizontal location control is typically based on tape measurements from fixed site features. Certain types of projects may entail more stringent measures such as global positioning systems (GPS) or contracting registered surveyors.

Boreholes/temporary monitoring wells are completely backfilled with bentonite and abandoned according to procedures outlined in Chapter NR 141.25 of the Wisconsin Administrative Code A WDNR Borehole Abandonment (3300-5W) form is completed for each soil boring not completed as a monitoring well.

## ENVIRONMENTAL SAMPLING METHODS – MONITORING WELLS

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### **Contamination Reduction**

The sampling downrigger and electronic water-level indicator are cleaned prior to sampling and between sampling from different monitoring wells. The cleaning procedure consists of an alconox detergent-water wash and distilled water rinse from spray dispensers. New disposable bailers are used for each well.

### **Monitoring Well Installation and Development**

Groundwater monitoring wells and piezometers are constructed and developed in accordance with Wisconsin Administrative Code – Chapter NR 141 requirements. Monitoring Well Construction (4400-113A) and Monitoring Well Development (4400-113B) forms are completed for each well. Typically, monitoring wells are installed in hollow-stem auger (HSA) soil boreholes that have been sampled for environmental parameters.

Monitoring wells are developed by removing a minimum of three to five borehole volumes, until water appears clear.

### **Groundwater Elevation Measurements**

Following monitoring well installation, the top-of-riser elevations are surveyed to the nearest 0.01 feet. If a permanent benchmark of known elevation is unavailable, the survey is referenced to a nearby temporary benchmark given the arbitrary reference elevation of 100.00 feet.

Groundwater elevations are determined by using an electronic water-level indicator. Measurements are obtained by lowering the probe into each well until the groundwater surface is encountered. Measurements, referenced to the top-of-riser elevations, are reported to the nearest 0.01 feet.

### **Groundwater Sampling for Chemical Analysis**

Groundwater samples obtained for chemical analysis are collected directly from each monitoring well using a new disposable bailer lowered down the well with new nylon rope or decontaminated downrigger cable. Samples are decanted directly from the bailer into laboratory-prepared containers with appropriate preservatives. Alternatively, samples may be drawn directly from the submersible pump discharge tubing. For analyses in which field-filtering is required, samples are vacuum-filtered through a new dedicated plastic filter with 0.45- $\mu$ m pores. The samples are delivered to the analytical laboratory within prescribed holding times, accompanied by proper chain-of-custody forms.

### **Free Product Removal Procedures**

We conducted free product removal procedure as follows:

- Remove well cover and scrape away excess dirt.
- Carefully remove test well plug, bailer, & sock from well casing. Remember that bailer and absorbent socks are tied to the plug.
- Set bailer aside and squeeze product from sock into bucket. After squeezing out sock set aside to dry.
- Measure depth to water/product with a product/groundwater interface probe. Record depth to product, groundwater, and thickness of product in feet.
- Secure bailer to rope or string and insert into well casing. Lower the bailer until contact with water table is made. Allow bailer to drop into the water for no more than one foot. Remove bailer and estimate product thickness. Empty contents of bailer into bucket and record product thickness.
- Continue to lower bailer into well and drop to the water table. Allow bailer to fill with no more than one foot of water/product. Remove bailer and empty contents into bucket. Continue fill bucket. Transfer filled buckets to drum.
- Repeat this process until thickness of free product is less than one inch. Record amount of water/product removed.
- If a groundwater sample will be collected use a new disposable bailer to obtain a water sample. Insert the bailers bottom emptying device and use to fill the appropriate sample bottle.
- Reattach string/rope to well plug, replace bailer and sock into well and cap with well plug. Replace well cover. Replace socks as needed.
- Secure cover on 55-gasllon drum.



# Appendix C

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Soil Boring Logs and Monitoring Well Construction and  
Development Forms



**AMERICAN  
ENGINEERING  
TESTING, INC.**

# SUBSURFACE BORING LOG

AET JOB NO: **03-05510**

LOG OF BORING NO. **MW-11 (p. 1 of 1)**

PROJECT: **Dairi Concepts Site; W888 Chili Road; Chili, Wisconsin**

DEPTH IN FEET	SURFACE ELEVATION: _____ MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS														
							WC	DEN	LL	PL	PID (ppm)										
1	Sandy LEAN CLAY with organics, dark brown, moist (OL)	TOPSOIL																			
2	Sandy LEAN CLAY, reddish brown, moist, very loose to loose (CL)	MIXED ALLUVIUM	5	M	SS	14														<1	
3			4	M	SS	14														<1	
4																					
5			10	M	SS	19															<1
6																					
7																					
8			8	M	SS	20															<1
9																					
10	Weathered sandstone	WEATHERED SANDSTONE	21	M	SS	20															<1
11																					
12																					
13			21	M	SS	14															<1
14	Sandstone	SANDSTONE																			
15			57/.9	M	SS	12															<1
16																					
17																					
18	Sample taken from auger cuttings																				25
19																					
20	End of boring at 20.0 feet - Boring converted to monitoring well																				

AET\_CORP 03-05510 - DAIRI CONCEPTS SITE.GPJ AET+CPT+WELL.GDT 10/4/18

DEPTH: <b>0-20.0'</b>	DRILLING METHOD: <b>4.25" HSA</b>	WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		<b>10/1/18</b>	<b>1100</b>	<b>N/A</b>	<b>20.0</b>	<b>20.0</b>	<b>None</b>	<b>19.5</b>	
BORING COMPLETED: <b>10/1/18</b>									
DR: <b>GM</b> LG: <b>MH</b> Rig: <b>67</b>									

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 <b>Dairy Concepts</b>	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.	Well Name <b>MW-11</b>
Facility License, Permit or Monitoring No. <b>61005802</b>	Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/> Lat. " Long. " or	Wis. Unique Well No. <b>WAS62</b> DNR Well ID No.
Facility ID <b>61005802</b>	St. Plane ft. N. ft. E. S/C/N	Date Well Installed <b>10/01/2018</b> m m d d y y y y
Type of Well Well Code <b>1</b>	Section Location of Waste/Source <b>SW 1/4 of SW 1/4 of Sec. 23, T. 25 N, R. 1</b> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: Name (first, last) and Firm <b>GM AET</b>
Distance from Waste/Source ft.	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input checked="" type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

- 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 ----- ft.

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

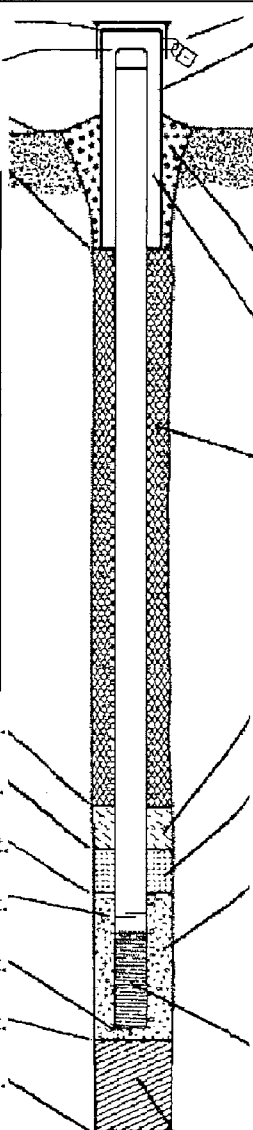
13. Sieve analysis performed?  Yes  No

14. Drilling method used: Rotary  5 0  
 Hollow Stem Auger  4 1  
 Other

15. Drilling fluid used: Water  0 2 Air  0 1  
 Drilling Mud  0 3 None  9 9

16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_

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



- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: **std pipe** 3 in.
  - b. Length: 5 ft.
  - c. Material: Steel  0 4  
Other
  - d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_
- 3. Surface seal: Bentonite  3 0  
Concrete  0 1  
Other
- 4. Material between well casing and protective pipe: Bentonite  3 0  
Other
- 5. Annular space seal:
  - a. Granular/Chipped Bentonite  3 3
  - b. \_\_\_\_\_ Lbs/gal mud weight . . . Bentonite-sand slurry  3 5
  - c. \_\_\_\_\_ Lbs/gal mud weight . . . . . Bentonite slurry  3 1
  - d. \_\_\_\_\_ % Bentonite . . . . . Bentonite-cement grout  5 0
  - e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above
  - f. How installed: Tremie  0 1  
Tremie pumped  0 2  
Gravity  0 8
- 6. Bentonite seal:
  - a. Bentonite granules  3 3
  - b.  1/4 in.  3/8 in.  1/2 in. Bentonite chips  3 2
  - c. \_\_\_\_\_ Other
- 7. Fine sand material: Manufacturer, product name & mesh size  
 a. **Red Flint 4.5-55**  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size  
 a. **Red Flint 30**  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>
- 9. Well casing: Flush threaded PVC schedule 40  2 3  
 Flush threaded PVC schedule 80  2 4  
 Other
- 10. Screen material:
  - a. Screen type: Factory cut  1 1  
Continuous slot  0 1  
Other
  - b. Manufacturer **PVC**
  - c. Slot size: 0.010 in.
  - d. Slotted length: 1.0 ft.
- 11. Backfill material (below filter pack): None  1 4  
Other

- E. Bentonite seal, top ----- ft. MSL or 1 ft.
- F. Fine sand, top ----- ft. MSL or 7 ft.
- G. Filter pack, top ----- ft. MSL or 8 ft.
- H. Screen joint, top ----- ft. MSL or 10 ft.
- I. Well bottom ----- ft. MSL or 20 ft.
- J. Filter pack, bottom ----- ft. MSL or 20 ft.
- K. Borehole, bottom ----- ft. MSL or 20 ft.
- L. Borehole, diameter 4 1/4 in.
- M. O.D. well casing 2 3/5 in.
- N. I.D. well casing 2 0/2 in.

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

Signature: *[Handwritten Signature]* Firm: **AET**

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  Other

Facility/Project Name <u>Dairy Concepts</u>	County Name <u>Clark</u>	Well Name <u>MW-11</u>
Facility License, Permit or Monitoring Number	County Code <u>10</u>	Wis. Unique Well Number <u>WA562</u>
		DNR Well ID Number

1. Can this well be purged dry?  Yes  No

2. Well development method
- surged with bailer and bailed  4 1
  - surged with bailer and pumped  6 1
  - surged with block and bailed  4 2
  - surged with block and pumped  6 2
  - surged with block, bailed and pumped  7 0
  - compressed air  2 0
  - bailed only  1 0
  - pumped only  5 1
  - pumped slowly  5 0
  - Other

3. Time spent developing well 45 min.

4. Depth of well (from top of well casing) 20.0 ft.

5. Inside diameter of well 2.02 in.

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

7. Volume of water removed from well 20.0 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added \_\_\_\_\_

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

17. Additional comments on development:

Before Development After Development

11. Depth to Water (from top of well casing) a. 16.23 ft. 17.09 ft.

Date b. 10/03/2018 10/03/2018  
m m d d y y y y m m d d y y y y

Time c. 10:00  a.m.  p.m. 10:45  a.m.  p.m.

12. Sediment in well bottom 1.0 inches 0.1 inches

13. Water clarity Clear  1 0 Turbid  1 5  
(Describe) (Describe)

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: M. Last Name: Neal

Firm: AET

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Stacy Last Name: Doring

Facility/Firm: DFA

Street: W888 Chili Road

City/State/Zip: Chili, WI 54420

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

Signature: [Signature]

Print Name: Michael K. Neal

Firm: AET



**AMERICAN  
ENGINEERING  
TESTING, INC.**

# SUBSURFACE BORING LOG

AET JOB NO: **03-05510**

LOG OF BORING NO. **MW-12 (p. 1 of 1)**

PROJECT: **Dairi Concepts Site; W888 Chili Road; Chili, Wisconsin**

DEPTH IN FEET	SURFACE ELEVATION: _____ MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					
							WC	DEN	LL	PL	PID (ppm)	
1	Sandy LEAN CLAY with organics, dark brown, moist (OL) Sandy LEAN CLAY, reddish brown, moist (CL)	TOPSOIL MIXED ALLUVIUM										<1
2												
3												<1
4												
5												<1
6												
7												<1
8												
9												<1
10	Weathered sandstone	WEATHERED SANDSTONE										<1
11												
12												<1
13												
14	Sandstone	SANDSTONE										<1
15												
16												<1
17												
18												25
19												
20	End of boring at 20.0 feet - Boring converted to monitoring well											

AET\_CORP 03-05510 - DAIRI CONCEPTS SITE.GPJ AET+CPT+WELL.GDT 10/4/18

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
0-20.0'	4.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
		10/1/18	1300	N/A	20.0	20.0	None	19.5	
BORING COMPLETED:	10/1/18								
DR:	GM LG: MH Rig: 67								

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 <b>Dairi Concepts</b>		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <b>MW-12</b>	
Facility License, Permit or Monitoring No.		Local Grid Origin (estimated: <input type="checkbox"/> ) or Well Location <input type="checkbox"/>		Wis. Unique Well No. <b>WA563</b> DNR Well ID No.	
Facility ID <b>61005802</b>		St. Plane _____ ft. N. _____ ft. E. S/C/N		Date Well Installed <b>10/01/2018</b> m m d d y y v v y	
Type of Well Well Code <b>/</b>		Section Location of Waste/Source <b>SW 1/4 of SW 1/4 of Sec. 23, T. 25 N, R. 1</b> <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm <b>GM AET</b>	
Distance from Waste/Source _____ ft.		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number	

A. Protective pipe, top elevation _____ ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL		2. Protective cover pipe: a. Inside diameter: <b>std pipe</b> _____ in. b. Length: _____ ft. c. Material: Steel <input checked="" type="checkbox"/> 0 4 Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL		d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom _____ ft. MSL or _____ ft.		3. Surface seal: Bentonite <input checked="" type="checkbox"/> 3 0 Concrete <input type="checkbox"/> 0 1 Other <input type="checkbox"/>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>		4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 3 0 Other <input type="checkbox"/>
13. Sieve analysis performed? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: a. Granular/Chipped Bentonite <input type="checkbox"/> 3 3 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 3 5 c. _____ Lbs/gal mud weight . . . . . Bentonite slurry <input type="checkbox"/> 3 1 d. _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 5 0 e. _____ Ft <sup>3</sup> volume added for any of the above	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 3 3 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 3 2 c. _____ Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 5 0 Hollow Stem Auger <input type="checkbox"/> 4 1 Other <input type="checkbox"/>	7. Fine sand material: Manufacturer, product name & mesh size a. <b>Red Flint 45-55</b> b. Volume added _____ ft <sup>3</sup>	8. Filter pack material: Manufacturer, product name & mesh size a. <b>Red Flint 30</b> b. Volume added _____ ft <sup>3</sup>
15. Drilling fluid used: Water <input type="checkbox"/> 0 2 Air <input type="checkbox"/> 0 1 Drilling Mud <input type="checkbox"/> 0 3 None <input type="checkbox"/> 9 9	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2 3 Flush threaded PVC schedule 80 <input type="checkbox"/> 2 4 Other <input type="checkbox"/>	10. Screen material: a. Screen type: Factory cut <input type="checkbox"/> 1 1 Continuous slot <input type="checkbox"/> 0 1 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No Describe _____	b. Manufacturer <b>PVC</b> c. Slot size: 0.010 in. d. Slotted length: 1.0 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 1 4 Other <input type="checkbox"/>
17. Source of water (attach analysis, if required): _____	E. Bentonite seal, top _____ ft. MSL or <b>1</b> ft.	
F. Fine sand, top _____ ft. MSL or <b>7</b> ft.	F. Fine sand, top _____ ft. MSL or <b>7</b> ft.	
G. Filter pack, top _____ ft. MSL or <b>8</b> ft.	G. Filter pack, top _____ ft. MSL or <b>8</b> ft.	
H. Screen joint, top _____ ft. MSL or <b>10</b> ft.	H. Screen joint, top _____ ft. MSL or <b>10</b> ft.	
I. Well bottom _____ ft. MSL or <b>20</b> ft.	I. Well bottom _____ ft. MSL or <b>20</b> ft.	
J. Filter pack, bottom _____ ft. MSL or <b>20</b> ft.	J. Filter pack, bottom _____ ft. MSL or <b>20</b> ft.	
K. Borehole, bottom _____ ft. MSL or <b>20</b> ft.	K. Borehole, bottom _____ ft. MSL or <b>20</b> ft.	
L. Borehole, diameter <b>4 1/4</b> in.	L. Borehole, diameter <b>4 1/4</b> in.	
M. O.D. well casing <b>2.35</b> in.	M. O.D. well casing <b>2.35</b> in.	
N. I.D. well casing <b>2.02</b> in.	N. I.D. well casing <b>2.02</b> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
Signature: *[Signature]* Firm: **AET**

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  Other

Facility/Project Name <u>Dairy Concepts</u>	County Name <u>CLARK</u>	Well Name <u>MW-12</u>
Facility License, Permit or Monitoring Number	County Code <u>10</u>	Wis. Unique Well Number <u>WAS63</u>
		DNR Well ID Number _____

1. Can this well be purged dry?  Yes  No

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

3. Time spent developing well 45 min.

4. Depth of well (from top of well casing) 20.0 ft.

5. Inside diameter of well 2.02 in.

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

7. Volume of water removed from well 20.0 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added \_\_\_\_\_

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

17. Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>16.78</u> ft.	<u>17.05</u> ft.
Date	b. <u>10/03/2018</u> m m d d y y y y	<u>10/03/2018</u> m m d d y y y y
Time	c. <u>11:15</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>12:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>1.0</u> inches	<u>0.1</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____

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: M. Last Name: Neal

Firm: AET

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Stacy Last Name: Doiug

Facility/Firm: DFA

Street: W888 Chili Road

City/State/Zip: Chili, WI 54420

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

Signature: [Signature]

Print Name: Michael K. Neal

Firm: AET

State of Wis., Dept. of Natural Resources  
dnr.wi.gov

# Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

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 chs. NR 141 and 812, 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 DNR Bureau:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

## 1. Well Location Information

County: Clark      WI Unique Well # of Removed Well: PP805      Hicap #: \_\_\_\_\_

Latitude / Longitude (see instructions): \_\_\_\_\_ N      Format Code:  DD      Method Code:  GPS008

\_\_\_\_\_ W       DDM       SCR002

\_\_\_\_\_       OTH001

1/4 NW      1/4 SW      Section: 26      Township: 25 N      Range: 1       E       W

or Gov't Lot # \_\_\_\_\_

Well Street Address \_\_\_\_\_

Well City, Village or Town: Chili - Fremont      Well ZIP Code: 54420

Subdivision Name \_\_\_\_\_      Lot # \_\_\_\_\_

Reason for Removal from Service: Site closed      WI Unique Well # of Replacement Well: \_\_\_\_\_

## 2. Facility / Owner Information

Facility Name: Chili Contaminant Investigation

Facility ID (FID or PWS): 02-10-517968

License/Permit/Monitoring #: MW-1

Original Well Owner \_\_\_\_\_

Present Well Owner \_\_\_\_\_

Mailing Address of Present Owner \_\_\_\_\_

City of Present Owner: Chili      State: WI      ZIP Code: 54420

## 3. Filled & Sealed Well / Drillhole / Borehole Information

Monitoring Well      Original Construction Date (mm/dd/yyyy): 01-18-2005

Water Well

Borehole / Drillhole

If a Well Construction Report is available, please attach. \_\_\_\_\_

Construction Type:

Drilled       Driven (Sandpoint)       Dug

Other (specify): \_\_\_\_\_

Formation Type:

Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.): 23      Casing Diameter (in.): 2

Lower Drillhole Diameter (in.): \_\_\_\_\_      Casing Depth (ft.): \_\_\_\_\_

Was well annular space grouted?  Yes       No       Unknown

If yes, to what depth (feet)? \_\_\_\_\_      Depth to Water (feet): 12.34

## 4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes       No       N/A

Liner(s) removed?  Yes       No       N/A

Liner(s) perforated?  Yes       No       N/A

Screen removed?  Yes       No       N/A

Casing left in place?  Yes       No       N/A

Was casing cut off below surface?  Yes       No       N/A

Did sealing material rise to surface?  Yes       No       N/A

Did material settle after 24 hours?  Yes       No       N/A

If yes, was hole retopped?  Yes       No       N/A

If bentonite chips were used, were they hydrated with water from a known safe source?  Yes       No       N/A

Required Method of Placing Sealing Material:

Conductor Pipe-Gravity       Conductor Pipe-Pumped

Screened & Poured (Bentonite Chips)       Other (Explain): \_\_\_\_\_

Sealing Materials:

Neat Cement Grout       Concrete

Sand-Cement (Concrete) Grout       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.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<u>Bentonite Chips</u>	<u>Surface</u>	<u>23</u>	<u>1 Bag</u>	

## 6. Comments

\_\_\_\_\_

## 7. Supervision of Work

Supervision of Work			DNR Use Only	
Name of Person or Firm Doing Filling & Sealing: <u>AET</u>	License #: _____	Date of Filling & Sealing or Verification (mm/dd/yyyy): <u>10-1-18</u>	Date Received: _____	Noted By: _____
Street or Route: <u>1837 CTH 00</u>	Telephone Number: <u>(715) 8615045</u>	Comments: _____		
City: <u>Chippewa Falls</u>	State: <u>WI</u>	ZIP Code: <u>54729</u>	Signature of Person Doing Work: <u>[Signature]</u>	Date Signed: <u>10-3-18</u>



# Appendix D

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Laboratory Reports and Chains of Custody

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

TestAmerica Job ID: 500-152758-1  
Client Project/Site: Dairi Concepts - 03-05510

For:  
American Engineering Testing Inc.  
1837 Cty Hwy OO  
Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal



Authorized for release by:  
10/16/2018 1:53:52 PM

Sandie Fredrick, Project Manager II  
(920)261-1660

[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

**REVIEWED**

**By mneal at 2:19 pm, Oct 16, 2018**

### LINKS

Review your project results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

- 1
- 2
- 3
- 4
- 5
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- 7
- 8
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- 10
- 11
- 12
- 13
- 14
- 15



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## Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

---

### Job ID: 500-152758-1

---

Laboratory: TestAmerica Chicago

#### Narrative

---

#### Job Narrative 500-152758-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/6/2018 11:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3° C.

#### GC/MS VOA

Method(s) 524.2: The low level laboratory control sample (LLCS) for analytical batch 480-439231 recovered outside control limits for the following analytes: Methylene Chloride. These analytes were biased high in the LLCS and were not detected in the associated samples; therefore, the data have been reported. The following sample is impacted: PW-1 (500-152758-10)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

### Client Sample ID: MW-1A

### Lab Sample ID: 500-152758-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.78		0.50	0.36	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-3A

### Lab Sample ID: 500-152758-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	3900		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	6400		13	7.5	ug/L	25		WDNR	Total/NA
Benzene	1400		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	1000		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	45		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	1100		50	24	ug/L	10		WDNR	Total/NA
Toluene	7700		13	8.3	ug/L	25		WDNR	Total/NA
Xylenes, Total	9600		15	5.8	ug/L	10		WDNR	Total/NA

### Client Sample ID: MW-4R

### Lab Sample ID: 500-152758-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1300		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	1200		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	440		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	1100		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	87		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	380		50	24	ug/L	10		WDNR	Total/NA
Toluene	960		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	3700		15	5.8	ug/L	10		WDNR	Total/NA

### Client Sample ID: MW-4A

### Lab Sample ID: 500-152758-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	36		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	73		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	310		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	80		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	29		0.50	0.24	ug/L	1		WDNR	Total/NA
Naphthalene	37		5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	11		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	97		1.5	0.58	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-5A

### Lab Sample ID: 500-152758-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	860		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	840		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	53		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	350		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	84		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	230		50	24	ug/L	10		WDNR	Total/NA
Toluene	84		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	1300		15	5.8	ug/L	10		WDNR	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

### Client Sample ID: MW-7

### Lab Sample ID: 500-152758-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.9		0.50	0.36	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-W

### Lab Sample ID: 500-152758-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.96		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	6.6		0.50	0.36	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	0.33	J	0.50	0.24	ug/L	1		WDNR	Total/NA
Xylenes, Total	0.93	J	1.5	0.58	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-10

### Lab Sample ID: 500-152758-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1400		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	1500		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	140		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	960		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	130		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	510		50	24	ug/L	10		WDNR	Total/NA
Toluene	1100		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	2900		15	5.8	ug/L	10		WDNR	Total/NA

### Client Sample ID: Trip Blank

### Lab Sample ID: 500-152758-9

No Detections.

### Client Sample ID: PW-1

### Lab Sample ID: 500-152758-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.73		0.50	0.090	ug/L	1		524.2	Total/NA
1,3,5-Trimethylbenzene	0.40	J	0.50	0.13	ug/L	1		524.2	Total/NA
Acetone	1.1	J	5.0	1.0	ug/L	1		524.2	Total/NA
Chloroform	2.5		0.50	0.14	ug/L	1		524.2	Total/NA
Trihalomethanes, Total	2.5		2.0	1.0	ug/L	1		524.2	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

## Method Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL BUF
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH

### Protocol References:

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.  
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.  
WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600  
TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-152758-1	MW-1A	Water	10/03/18 09:30	10/06/18 11:30
500-152758-2	MW-3A	Water	10/03/18 11:30	10/06/18 11:30
500-152758-3	MW-4R	Water	10/03/18 11:15	10/06/18 11:30
500-152758-4	MW-4A	Water	10/03/18 11:00	10/06/18 11:30
500-152758-5	MW-5A	Water	10/03/18 10:30	10/06/18 11:30
500-152758-6	MW-7	Water	10/03/18 09:00	10/06/18 11:30
500-152758-7	MW-W	Water	10/03/18 10:00	10/06/18 11:30
500-152758-8	MW-10	Water	10/03/18 12:00	10/06/18 11:30
500-152758-9	Trip Blank	Water	10/03/18 00:00	10/06/18 11:30
500-152758-10	PW-1	Water	10/03/18 12:30	10/06/18 11:30



## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Client Sample ID: MW-1A

Date Collected: 10/03/18 09:30

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-1

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 10:43	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 10:43	1
<b>Benzene</b>	<b>0.78</b>		0.50	0.36	ug/L			10/10/18 10:43	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/10/18 10:43	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/10/18 10:43	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/10/18 10:43	1
Toluene	<0.33		0.50	0.33	ug/L			10/10/18 10:43	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/10/18 10:43	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-Trifluorotoluene</i>	93		80 - 120					10/10/18 10:43	1

## Client Sample ID: MW-3A

Date Collected: 10/03/18 11:30

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-2

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>3900</b>		5.0	3.0	ug/L			10/10/18 21:18	10
<b>1,3,5-Trimethylbenzene</b>	<b>6400</b>		13	7.5	ug/L			10/10/18 22:20	25
<b>Benzene</b>	<b>1400</b>		5.0	3.6	ug/L			10/10/18 21:18	10
<b>Ethylbenzene</b>	<b>1000</b>		5.0	3.7	ug/L			10/10/18 21:18	10
<b>Methyl tert-butyl ether</b>	<b>45</b>		5.0	2.4	ug/L			10/10/18 21:18	10
<b>Naphthalene</b>	<b>1100</b>		50	24	ug/L			10/10/18 21:18	10
<b>Toluene</b>	<b>7700</b>		13	8.3	ug/L			10/10/18 22:20	25
<b>Xylenes, Total</b>	<b>9600</b>		15	5.8	ug/L			10/10/18 21:18	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-Trifluorotoluene</i>	97		80 - 120					10/10/18 21:18	10
<i>a,a,a-Trifluorotoluene</i>	82		80 - 120					10/10/18 22:20	25

## Client Sample ID: MW-4R

Date Collected: 10/03/18 11:15

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-3

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>1300</b>		5.0	3.0	ug/L			10/10/18 15:06	10
<b>1,3,5-Trimethylbenzene</b>	<b>1200</b>		5.0	3.0	ug/L			10/10/18 15:06	10
<b>Benzene</b>	<b>440</b>		5.0	3.6	ug/L			10/10/18 15:06	10
<b>Ethylbenzene</b>	<b>1100</b>		5.0	3.7	ug/L			10/10/18 15:06	10
<b>Methyl tert-butyl ether</b>	<b>87</b>		5.0	2.4	ug/L			10/10/18 15:06	10
<b>Naphthalene</b>	<b>380</b>		50	24	ug/L			10/10/18 15:06	10
<b>Toluene</b>	<b>960</b>		5.0	3.3	ug/L			10/10/18 15:06	10
<b>Xylenes, Total</b>	<b>3700</b>		15	5.8	ug/L			10/10/18 15:06	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-Trifluorotoluene</i>	95		80 - 120					10/10/18 15:06	10

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Client Sample ID: MW-4A

Date Collected: 10/03/18 11:00

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-4

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	36		0.50	0.30	ug/L			10/10/18 14:04	1
1,3,5-Trimethylbenzene	73		0.50	0.30	ug/L			10/10/18 14:04	1
Benzene	310		0.50	0.36	ug/L			10/10/18 14:04	1
Ethylbenzene	80		0.50	0.37	ug/L			10/10/18 14:04	1
Methyl tert-butyl ether	29		0.50	0.24	ug/L			10/10/18 14:04	1
Naphthalene	37		5.0	2.4	ug/L			10/10/18 14:04	1
Toluene	11		0.50	0.33	ug/L			10/10/18 14:04	1
Xylenes, Total	97		1.5	0.58	ug/L			10/10/18 14:04	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	113		80 - 120					10/10/18 14:04	1

## Client Sample ID: MW-5A

Date Collected: 10/03/18 10:30

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-5

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	860		5.0	3.0	ug/L			10/10/18 18:43	10
1,3,5-Trimethylbenzene	840		5.0	3.0	ug/L			10/10/18 18:43	10
Benzene	53		5.0	3.6	ug/L			10/10/18 18:43	10
Ethylbenzene	350		5.0	3.7	ug/L			10/10/18 18:43	10
Methyl tert-butyl ether	84		5.0	2.4	ug/L			10/10/18 18:43	10
Naphthalene	230		50	24	ug/L			10/10/18 18:43	10
Toluene	84		5.0	3.3	ug/L			10/10/18 18:43	10
Xylenes, Total	1300		15	5.8	ug/L			10/10/18 18:43	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	116		80 - 120					10/10/18 18:43	10

## Client Sample ID: MW-7

Date Collected: 10/03/18 09:00

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-6

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 13:02	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 13:02	1
Benzene	6.9		0.50	0.36	ug/L			10/10/18 13:02	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/10/18 13:02	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/10/18 13:02	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/10/18 13:02	1
Toluene	<0.33		0.50	0.33	ug/L			10/10/18 13:02	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/10/18 13:02	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	92		80 - 120					10/10/18 13:02	1

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Client Sample ID: MW-W

Date Collected: 10/03/18 10:00

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-7

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	0.96		0.50	0.30	ug/L			10/10/18 13:33	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 13:33	1
Benzene	6.6		0.50	0.36	ug/L			10/10/18 13:33	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/10/18 13:33	1
Methyl tert-butyl ether	0.33	J	0.50	0.24	ug/L			10/10/18 13:33	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/10/18 13:33	1
Toluene	<0.33		0.50	0.33	ug/L			10/10/18 13:33	1
Xylenes, Total	0.93	J	1.5	0.58	ug/L			10/10/18 13:33	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	95		80 - 120					10/10/18 13:33	1

## Client Sample ID: MW-10

Date Collected: 10/03/18 12:00

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-8

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1400		5.0	3.0	ug/L			10/10/18 23:53	10
1,3,5-Trimethylbenzene	1500		5.0	3.0	ug/L			10/10/18 23:53	10
Benzene	140		5.0	3.6	ug/L			10/10/18 23:53	10
Ethylbenzene	960		5.0	3.7	ug/L			10/10/18 23:53	10
Methyl tert-butyl ether	130		5.0	2.4	ug/L			10/10/18 23:53	10
Naphthalene	510		50	24	ug/L			10/10/18 23:53	10
Toluene	1100		5.0	3.3	ug/L			10/10/18 23:53	10
Xylenes, Total	2900		15	5.8	ug/L			10/10/18 23:53	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	97		80 - 120					10/10/18 23:53	10

## Client Sample ID: Trip Blank

Date Collected: 10/03/18 00:00

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-9

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 10:04	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 10:04	1
Benzene	<0.36		0.50	0.36	ug/L			10/10/18 10:04	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/10/18 10:04	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/10/18 10:04	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/10/18 10:04	1
Toluene	<0.33		0.50	0.33	ug/L			10/10/18 10:04	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/10/18 10:04	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	94		80 - 120					10/10/18 10:04	1

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

Client Sample ID: PW-1

Lab Sample ID: 500-152758-10

Date Collected: 10/03/18 12:30

Matrix: Water

Date Received: 10/06/18 11:30

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.14		0.50	0.14	ug/L			10/13/18 05:10	1
1,1,1-Trichloroethane	<0.21		0.50	0.21	ug/L			10/13/18 05:10	1
1,1,2,2-Tetrachloroethane	<0.070		0.50	0.070	ug/L			10/13/18 05:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.17		0.50	0.17	ug/L			10/13/18 05:10	1
1,1,2-Trichloroethane	<0.17		0.50	0.17	ug/L			10/13/18 05:10	1
1,1-Dichloroethane	<0.18		0.50	0.18	ug/L			10/13/18 05:10	1
1,1-Dichloroethene	<0.16		0.50	0.16	ug/L			10/13/18 05:10	1
1,1-Dichloropropene	<0.063		0.50	0.063	ug/L			10/13/18 05:10	1
1,2,3-Trichlorobenzene	<0.16		0.50	0.16	ug/L			10/13/18 05:10	1
1,2,3-Trichloropropane	<0.12		0.50	0.12	ug/L			10/13/18 05:10	1
1,2,4-Trichlorobenzene	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
<b>1,2,4-Trimethylbenzene</b>	<b>0.73</b>		0.50	0.090	ug/L			10/13/18 05:10	1
1,2-Dichlorobenzene	<0.16		0.50	0.16	ug/L			10/13/18 05:10	1
1,2-Dichloroethane	<0.14		0.50	0.14	ug/L			10/13/18 05:10	1
1,2-Dichloropropane	<0.11		0.50	0.11	ug/L			10/13/18 05:10	1
<b>1,3,5-Trimethylbenzene</b>	<b>0.40 J</b>		0.50	0.13	ug/L			10/13/18 05:10	1
1,3-Dichlorobenzene	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
1,3-Dichloropropane	<0.15		0.50	0.15	ug/L			10/13/18 05:10	1
1,4-Dichlorobenzene	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
2,2-Dichloropropane	<0.35		0.50	0.35	ug/L			10/13/18 05:10	1
2-Butanone (MEK)	<1.0		5.0	1.0	ug/L			10/13/18 05:10	1
2-Chlorotoluene	<0.12		0.50	0.12	ug/L			10/13/18 05:10	1
2-Hexanone	<1.0		5.0	1.0	ug/L			10/13/18 05:10	1
4-Chlorotoluene	<0.15		0.50	0.15	ug/L			10/13/18 05:10	1
4-Isopropyltoluene	<0.063		0.50	0.063	ug/L			10/13/18 05:10	1
4-Methyl-2-pentanone (MIBK)	<1.0		5.0	1.0	ug/L			10/13/18 05:10	1
<b>Acetone</b>	<b>1.1 J</b>		5.0	1.0	ug/L			10/13/18 05:10	1
Acrylonitrile	<2.2		10	2.2	ug/L			10/13/18 05:10	1
Allyl chloride	<0.22		0.50	0.22	ug/L			10/13/18 05:10	1
Benzene	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
Bromobenzene	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
Bromochloromethane	<0.11		0.50	0.11	ug/L			10/13/18 05:10	1
Bromoform	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
Bromomethane	<0.23		0.50	0.23	ug/L			10/13/18 05:10	1
Carbon disulfide	<0.15		0.50	0.15	ug/L			10/13/18 05:10	1
Carbon tetrachloride	<0.21		0.50	0.21	ug/L			10/13/18 05:10	1
Chlorobenzene	<0.12		0.50	0.12	ug/L			10/13/18 05:10	1
Chlorodibromomethane	<0.16		0.50	0.16	ug/L			10/13/18 05:10	1
Chloroethane	<0.20		0.50	0.20	ug/L			10/13/18 05:10	1
<b>Chloroform</b>	<b>2.5</b>		0.50	0.14	ug/L			10/13/18 05:10	1
Chloromethane	<0.17		0.50	0.17	ug/L			10/13/18 05:10	1
cis-1,2-Dichloroethene	<0.12		0.50	0.12	ug/L			10/13/18 05:10	1
cis-1,3-Dichloropropene	<0.080		0.50	0.080	ug/L			10/13/18 05:10	1
Dibromomethane	<0.17		0.50	0.17	ug/L			10/13/18 05:10	1
Dichlorobromomethane	<0.14		0.50	0.14	ug/L			10/13/18 05:10	1
Dichlorodifluoromethane	<0.15		0.50	0.15	ug/L			10/13/18 05:10	1
Dichlorofluoromethane	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
Ethyl ether	<0.12		0.50	0.12	ug/L			10/13/18 05:10	1
Ethylbenzene	<0.11		0.50	0.11	ug/L			10/13/18 05:10	1

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

Client Sample ID: PW-1

Lab Sample ID: 500-152758-10

Date Collected: 10/03/18 12:30

Matrix: Water

Date Received: 10/06/18 11:30

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.11		0.50	0.11	ug/L			10/13/18 05:10	1
Iodomethane	<0.15		0.50	0.15	ug/L			10/13/18 05:10	1
Isopropylbenzene	<0.16		0.50	0.16	ug/L			10/13/18 05:10	1
Methyl tert-butyl ether	<0.12		0.50	0.12	ug/L			10/13/18 05:10	1
Methylene Chloride	<0.99	*	2.5	0.99	ug/L			10/13/18 05:10	1
m-Xylene & p-Xylene	<0.30		1.0	0.30	ug/L			10/13/18 05:10	1
Naphthalene	<0.15		0.50	0.15	ug/L			10/13/18 05:10	1
n-Butylbenzene	<0.081		0.50	0.081	ug/L			10/13/18 05:10	1
N-Propylbenzene	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
o-Xylene	<0.12		0.50	0.12	ug/L			10/13/18 05:10	1
sec-Butylbenzene	<0.068		0.50	0.068	ug/L			10/13/18 05:10	1
Styrene	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
t-Butanol	<2.5		10	2.5	ug/L			10/13/18 05:10	1
tert-Butylbenzene	<0.060		0.50	0.060	ug/L			10/13/18 05:10	1
Tetrachloroethene	<0.20		0.50	0.20	ug/L			10/13/18 05:10	1
Toluene	<0.10		0.50	0.10	ug/L			10/13/18 05:10	1
trans-1,2-Dichloroethene	<0.13		0.50	0.13	ug/L			10/13/18 05:10	1
trans-1,3-Dichloropropene	<0.10		0.50	0.10	ug/L			10/13/18 05:10	1
trans-1,4-Dichloro-2-butene	<1.3		2.5	1.3	ug/L			10/13/18 05:10	1
Trichloroethene	<0.18		0.50	0.18	ug/L			10/13/18 05:10	1
Trichlorofluoromethane	<0.19		0.50	0.19	ug/L			10/13/18 05:10	1
<b>Trihalomethanes, Total</b>	<b>2.5</b>		2.0	1.0	ug/L			10/13/18 05:10	1
Vinyl acetate	<0.45		2.5	0.45	ug/L			10/13/18 05:10	1
Vinyl chloride	<0.18		0.50	0.18	ug/L			10/13/18 05:10	1
Xylenes, Total	<0.12		1.0	0.12	ug/L			10/13/18 05:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	105		80 - 120		10/13/18 05:10	1
4-Bromofluorobenzene (Surr)	94		80 - 120		10/13/18 05:10	1

## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.

#### GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

**QC Association Summary**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

**GC/MS VOA****Analysis Batch: 439231**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-152758-10	PW-1	Total/NA	Water	524.2	
MB 480-439231/6	Method Blank	Total/NA	Water	524.2	
LCS 480-439231/3	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-439231/8	Lab Control Sample Dup	Total/NA	Water	524.2	
LLCS 480-439231/5	Lab Control Sample	Total/NA	Water	524.2	

**GC VOA****Analysis Batch: 548867**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-152758-1	MW-1A	Total/NA	Water	WDNR	
500-152758-2	MW-3A	Total/NA	Water	WDNR	
500-152758-2	MW-3A	Total/NA	Water	WDNR	
500-152758-3	MW-4R	Total/NA	Water	WDNR	
500-152758-4	MW-4A	Total/NA	Water	WDNR	
500-152758-5	MW-5A	Total/NA	Water	WDNR	
500-152758-6	MW-7	Total/NA	Water	WDNR	
500-152758-7	MW-W	Total/NA	Water	WDNR	
500-152758-8	MW-10	Total/NA	Water	WDNR	
500-152758-9	Trip Blank	Total/NA	Water	WDNR	
MB 490-548867/5	Method Blank	Total/NA	Water	WDNR	
LCS 490-548867/4	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-548867/37	Lab Control Sample Dup	Total/NA	Water	WDNR	
500-152758-1 MS	MW-1A	Total/NA	Water	WDNR	
500-152758-1 MSD	MW-1A	Total/NA	Water	WDNR	

## Surrogate Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

### Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCZ (80-120)	BFB (80-120)
500-152758-10	PW-1	105	94
LCS 480-439231/3	Lab Control Sample	101	99
LCSD 480-439231/8	Lab Control Sample Dup	101	98
LLCS 480-439231/5	Lab Control Sample	102	97
MB 480-439231/6	Method Blank	103	94

#### Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4

BFB = 4-Bromofluorobenzene (Surr)

### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT
		(80-120)
500-152758-1	MW-1A	93
500-152758-1 MS	MW-1A	97
500-152758-1 MSD	MW-1A	94
500-152758-2	MW-3A	97
500-152758-2	MW-3A	82
500-152758-3	MW-4R	95
500-152758-4	MW-4A	113
500-152758-5	MW-5A	116
500-152758-6	MW-7	92
500-152758-7	MW-W	95
500-152758-8	MW-10	97
500-152758-9	Trip Blank	94
LCS 490-548867/4	Lab Control Sample	93
LCSD 490-548867/37	Lab Control Sample Dup	94
MB 490-548867/5	Method Blank	96

#### Surrogate Legend

TFT = a,a,a-Trifluorotoluene



## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-439231/6

Matrix: Water

Analysis Batch: 439231

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.14		0.50	0.14	ug/L			10/12/18 20:40	1
1,1,1-Trichloroethane	<0.21		0.50	0.21	ug/L			10/12/18 20:40	1
1,1,2,2-Tetrachloroethane	<0.070		0.50	0.070	ug/L			10/12/18 20:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.17		0.50	0.17	ug/L			10/12/18 20:40	1
1,1,2-Trichloroethane	<0.17		0.50	0.17	ug/L			10/12/18 20:40	1
1,1-Dichloroethane	<0.18		0.50	0.18	ug/L			10/12/18 20:40	1
1,1-Dichloroethene	<0.16		0.50	0.16	ug/L			10/12/18 20:40	1
1,1-Dichloropropene	<0.063		0.50	0.063	ug/L			10/12/18 20:40	1
1,2,3-Trichlorobenzene	<0.16		0.50	0.16	ug/L			10/12/18 20:40	1
1,2,3-Trichloropropane	<0.12		0.50	0.12	ug/L			10/12/18 20:40	1
1,2,4-Trichlorobenzene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
1,2,4-Trimethylbenzene	<0.090		0.50	0.090	ug/L			10/12/18 20:40	1
1,2-Dichlorobenzene	<0.16		0.50	0.16	ug/L			10/12/18 20:40	1
1,2-Dichloroethane	<0.14		0.50	0.14	ug/L			10/12/18 20:40	1
1,2-Dichloropropane	<0.11		0.50	0.11	ug/L			10/12/18 20:40	1
1,3,5-Trimethylbenzene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
1,3-Dichlorobenzene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
1,3-Dichloropropane	<0.15		0.50	0.15	ug/L			10/12/18 20:40	1
1,4-Dichlorobenzene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
2,2-Dichloropropane	<0.35		0.50	0.35	ug/L			10/12/18 20:40	1
2-Butanone (MEK)	<1.0		5.0	1.0	ug/L			10/12/18 20:40	1
2-Chlorotoluene	<0.12		0.50	0.12	ug/L			10/12/18 20:40	1
2-Hexanone	<1.0		5.0	1.0	ug/L			10/12/18 20:40	1
4-Chlorotoluene	<0.15		0.50	0.15	ug/L			10/12/18 20:40	1
4-Isopropyltoluene	<0.063		0.50	0.063	ug/L			10/12/18 20:40	1
4-Methyl-2-pentanone (MIBK)	<1.0		5.0	1.0	ug/L			10/12/18 20:40	1
Acetone	<1.0		5.0	1.0	ug/L			10/12/18 20:40	1
Acrylonitrile	<2.2		10	2.2	ug/L			10/12/18 20:40	1
Allyl chloride	<0.22		0.50	0.22	ug/L			10/12/18 20:40	1
Benzene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
Bromobenzene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
Bromochloromethane	<0.11		0.50	0.11	ug/L			10/12/18 20:40	1
Bromoform	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
Bromomethane	<0.23		0.50	0.23	ug/L			10/12/18 20:40	1
Carbon disulfide	<0.15		0.50	0.15	ug/L			10/12/18 20:40	1
Carbon tetrachloride	<0.21		0.50	0.21	ug/L			10/12/18 20:40	1
Chlorobenzene	<0.12		0.50	0.12	ug/L			10/12/18 20:40	1
Chlorodibromomethane	<0.16		0.50	0.16	ug/L			10/12/18 20:40	1
Chloroethane	<0.20		0.50	0.20	ug/L			10/12/18 20:40	1
Chloroform	<0.14		0.50	0.14	ug/L			10/12/18 20:40	1
Chloromethane	<0.17		0.50	0.17	ug/L			10/12/18 20:40	1
cis-1,2-Dichloroethene	<0.12		0.50	0.12	ug/L			10/12/18 20:40	1
cis-1,3-Dichloropropene	<0.080		0.50	0.080	ug/L			10/12/18 20:40	1
Dibromomethane	<0.17		0.50	0.17	ug/L			10/12/18 20:40	1
Dichlorobromomethane	<0.14		0.50	0.14	ug/L			10/12/18 20:40	1
Dichlorodifluoromethane	<0.15		0.50	0.15	ug/L			10/12/18 20:40	1
Dichlorofluoromethane	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
Ethyl ether	<0.12		0.50	0.12	ug/L			10/12/18 20:40	1

TestAmerica Chicago

### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

#### Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-439231/6  
 Matrix: Water  
 Analysis Batch: 439231

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.11		0.50	0.11	ug/L			10/12/18 20:40	1
Hexachlorobutadiene	<0.11		0.50	0.11	ug/L			10/12/18 20:40	1
Iodomethane	<0.15		0.50	0.15	ug/L			10/12/18 20:40	1
Isopropylbenzene	<0.16		0.50	0.16	ug/L			10/12/18 20:40	1
Methyl tert-butyl ether	<0.12		0.50	0.12	ug/L			10/12/18 20:40	1
Methylene Chloride	<0.99		2.5	0.99	ug/L			10/12/18 20:40	1
m-Xylene & p-Xylene	<0.30		1.0	0.30	ug/L			10/12/18 20:40	1
Naphthalene	<0.15		0.50	0.15	ug/L			10/12/18 20:40	1
n-Butylbenzene	<0.081		0.50	0.081	ug/L			10/12/18 20:40	1
N-Propylbenzene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
o-Xylene	<0.12		0.50	0.12	ug/L			10/12/18 20:40	1
sec-Butylbenzene	<0.068		0.50	0.068	ug/L			10/12/18 20:40	1
Styrene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
t-Butanol	<2.5		10	2.5	ug/L			10/12/18 20:40	1
tert-Butylbenzene	<0.060		0.50	0.060	ug/L			10/12/18 20:40	1
Tetrachloroethene	<0.20		0.50	0.20	ug/L			10/12/18 20:40	1
Toluene	<0.10		0.50	0.10	ug/L			10/12/18 20:40	1
trans-1,2-Dichloroethene	<0.13		0.50	0.13	ug/L			10/12/18 20:40	1
trans-1,3-Dichloropropene	<0.10		0.50	0.10	ug/L			10/12/18 20:40	1
trans-1,4-Dichloro-2-butene	<1.3		2.5	1.3	ug/L			10/12/18 20:40	1
Trichloroethene	<0.18		0.50	0.18	ug/L			10/12/18 20:40	1
Trichlorofluoromethane	<0.19		0.50	0.19	ug/L			10/12/18 20:40	1
Trihalomethanes, Total	<1.0		2.0	1.0	ug/L			10/12/18 20:40	1
Vinyl acetate	<0.45		2.5	0.45	ug/L			10/12/18 20:40	1
Vinyl chloride	<0.18		0.50	0.18	ug/L			10/12/18 20:40	1
Xylenes, Total	<0.12		1.0	0.12	ug/L			10/12/18 20:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	103		80 - 120		10/12/18 20:40	1
4-Bromofluorobenzene (Surr)	94		80 - 120		10/12/18 20:40	1

Lab Sample ID: LCS 480-439231/3  
 Matrix: Water  
 Analysis Batch: 439231

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	4.00	4.33		ug/L		108	70 - 130
1,1,1-Trichloroethane	4.00	3.90		ug/L		98	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.93		ug/L		98	70 - 130
1,1,2-Trichloroethane	4.00	4.02		ug/L		101	70 - 130
1,1-Dichloroethane	4.00	3.51		ug/L		88	70 - 130
1,1-Dichloroethene	4.00	3.76		ug/L		94	70 - 130
1,1-Dichloropropene	4.00	3.66		ug/L		91	70 - 130
1,2,3-Trichlorobenzene	4.00	3.88		ug/L		97	70 - 130
1,2,3-Trichloropropane	4.00	3.86		ug/L		97	70 - 130
1,2,4-Trichlorobenzene	4.00	3.77		ug/L		94	70 - 130
1,2,4-Trimethylbenzene	4.00	3.76		ug/L		94	70 - 130
1,2-Dichlorobenzene	4.00	3.91		ug/L		98	70 - 130

TestAmerica Chicago

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-439231/3

Matrix: Water

Analysis Batch: 439231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	4.00	3.76		ug/L		94	70 - 130
1,2-Dichloropropane	4.00	4.03		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	4.00	3.85		ug/L		96	70 - 130
1,3-Dichlorobenzene	4.00	3.88		ug/L		97	70 - 130
1,3-Dichloropropane	4.00	3.80		ug/L		95	70 - 130
1,4-Dichlorobenzene	4.00	3.87		ug/L		97	70 - 130
2,2-Dichloropropane	4.00	3.80		ug/L		95	70 - 130
2-Butanone (MEK)	20.0	20.0		ug/L		100	70 - 130
2-Chlorotoluene	4.00	3.85		ug/L		96	70 - 130
2-Hexanone	20.0	20.2		ug/L		101	70 - 130
4-Chlorotoluene	4.00	3.73		ug/L		93	70 - 130
4-Isopropyltoluene	4.00	3.76		ug/L		94	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	19.3		ug/L		97	70 - 130
Acetone	20.0	23.9		ug/L		119	70 - 130
Benzene	4.00	3.73		ug/L		93	70 - 130
Bromobenzene	4.00	3.75		ug/L		94	70 - 130
Bromochloromethane	4.00	3.80		ug/L		95	70 - 130
Bromoform	4.00	3.26		ug/L		82	70 - 130
Bromomethane	4.00	3.69		ug/L		92	70 - 130
Carbon disulfide	4.00	3.46		ug/L		86	70 - 130
Carbon tetrachloride	4.00	4.26		ug/L		107	70 - 130
Chlorobenzene	4.00	3.87		ug/L		97	70 - 130
Chlorodibromomethane	4.00	4.31		ug/L		108	70 - 130
Chloroethane	4.00	3.67		ug/L		92	70 - 130
Chloroform	4.00	3.74		ug/L		93	70 - 130
Chloromethane	4.00	3.49		ug/L		87	70 - 130
cis-1,2-Dichloroethene	4.00	3.75		ug/L		94	70 - 130
cis-1,3-Dichloropropene	4.00	3.97		ug/L		99	70 - 130
Dibromomethane	4.00	3.77		ug/L		94	70 - 130
Dichlorobromomethane	4.00	4.15		ug/L		104	70 - 130
Dichlorodifluoromethane	4.00	3.01		ug/L		75	70 - 130
Ethylbenzene	4.00	3.77		ug/L		94	70 - 130
Hexachlorobutadiene	4.00	3.86		ug/L		97	70 - 130
Isopropylbenzene	4.00	3.74		ug/L		94	70 - 130
Methyl tert-butyl ether	4.00	3.67		ug/L		92	70 - 130
Methylene Chloride	4.00	4.34		ug/L		108	70 - 130
Naphthalene	4.00	3.61		ug/L		90	70 - 130
n-Butylbenzene	4.00	3.71		ug/L		93	70 - 130
N-Propylbenzene	4.00	3.80		ug/L		95	70 - 130
sec-Butylbenzene	4.00	3.72		ug/L		93	70 - 130
Styrene	4.00	3.63		ug/L		91	70 - 130
tert-Butylbenzene	4.00	3.75		ug/L		94	70 - 130
Tetrachloroethene	4.00	3.81		ug/L		95	70 - 130
Toluene	4.00	3.82		ug/L		96	70 - 130
trans-1,2-Dichloroethene	4.00	3.84		ug/L		96	70 - 130
trans-1,3-Dichloropropene	4.00	3.82		ug/L		96	70 - 130
Trichloroethene	4.00	3.83		ug/L		96	70 - 130
Trichlorofluoromethane	4.00	3.74		ug/L		94	70 - 130

TestAmerica Chicago

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-439231/3

Matrix: Water

Analysis Batch: 439231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	4.00	3.47		ug/L		87	70 - 130
Xylenes, Total	8.00	7.46		ug/L		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichlorobenzene-d4	101		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120

Lab Sample ID: LCSD 480-439231/8

Matrix: Water

Analysis Batch: 439231

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.00	4.11		ug/L		103	70 - 130	5	20
1,1,1-Trichloroethane	4.00	3.68		ug/L		92	70 - 130	6	20
1,1,1,2,2-Tetrachloroethane	4.00	3.88		ug/L		97	70 - 130	1	20
1,1,2-Trichloroethane	4.00	3.92		ug/L		98	70 - 130	3	20
1,1-Dichloroethane	4.00	3.61		ug/L		90	70 - 130	3	20
1,1-Dichloroethene	4.00	3.43		ug/L		86	70 - 130	9	20
1,1-Dichloropropene	4.00	3.43		ug/L		86	70 - 130	6	20
1,2,3-Trichlorobenzene	4.00	3.65		ug/L		91	70 - 130	6	20
1,2,3-Trichloropropane	4.00	3.96		ug/L		99	70 - 130	3	20
1,2,4-Trichlorobenzene	4.00	3.55		ug/L		89	70 - 130	6	20
1,2,4-Trimethylbenzene	4.00	3.49		ug/L		87	70 - 130	7	20
1,2-Dichlorobenzene	4.00	3.70		ug/L		92	70 - 130	6	20
1,2-Dichloroethane	4.00	3.75		ug/L		94	70 - 130	0	20
1,2-Dichloropropane	4.00	3.81		ug/L		95	70 - 130	6	20
1,3,5-Trimethylbenzene	4.00	3.52		ug/L		88	70 - 130	9	20
1,3-Dichlorobenzene	4.00	3.66		ug/L		91	70 - 130	6	20
1,3-Dichloropropane	4.00	3.73		ug/L		93	70 - 130	2	20
1,4-Dichlorobenzene	4.00	3.66		ug/L		92	70 - 130	6	20
2,2-Dichloropropane	4.00	3.68		ug/L		92	70 - 130	3	20
2-Butanone (MEK)	20.0	20.5		ug/L		103	70 - 130	3	20
2-Chlorotoluene	4.00	3.53		ug/L		88	70 - 130	8	20
2-Hexanone	20.0	20.6		ug/L		103	70 - 130	2	20
4-Chlorotoluene	4.00	3.58		ug/L		90	70 - 130	4	20
4-Isopropyltoluene	4.00	3.52		ug/L		88	70 - 130	6	20
4-Methyl-2-pentanone (MIBK)	20.0	19.4		ug/L		97	70 - 130	0	20
Acetone	20.0	23.7		ug/L		118	70 - 130	1	20
Benzene	4.00	3.57		ug/L		89	70 - 130	4	20
Bromobenzene	4.00	3.57		ug/L		89	70 - 130	5	20
Bromochloromethane	4.00	3.81		ug/L		95	70 - 130	0	20
Bromoform	4.00	3.40		ug/L		85	70 - 130	4	20
Bromomethane	4.00	3.69		ug/L		92	70 - 130	0	20
Carbon disulfide	4.00	3.26		ug/L		82	70 - 130	6	20
Carbon tetrachloride	4.00	4.09		ug/L		102	70 - 130	4	20
Chlorobenzene	4.00	3.69		ug/L		92	70 - 130	5	20
Chlorodibromomethane	4.00	4.24		ug/L		106	70 - 130	2	20
Chloroethane	4.00	3.63		ug/L		91	70 - 130	1	20

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## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-439231/8

Matrix: Water

Analysis Batch: 439231

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform	4.00	3.59		ug/L		90	70 - 130	4	20
Chloromethane	4.00	3.49		ug/L		87	70 - 130	0	20
cis-1,2-Dichloroethene	4.00	3.58		ug/L		90	70 - 130	5	20
cis-1,3-Dichloropropene	4.00	3.86		ug/L		97	70 - 130	3	20
Dibromomethane	4.00	3.60		ug/L		90	70 - 130	5	20
Dichlorobromomethane	4.00	3.86		ug/L		97	70 - 130	7	20
Dichlorodifluoromethane	4.00	3.06		ug/L		77	70 - 130	2	20
Ethylbenzene	4.00	3.44		ug/L		86	70 - 130	9	20
Hexachlorobutadiene	4.00	3.63		ug/L		91	70 - 130	6	20
Isopropylbenzene	4.00	3.51		ug/L		88	70 - 130	6	20
Methyl tert-butyl ether	4.00	3.60		ug/L		90	70 - 130	2	20
Methylene Chloride	4.00	4.34		ug/L		108	70 - 130	0	20
Naphthalene	4.00	3.53		ug/L		88	70 - 130	2	20
n-Butylbenzene	4.00	3.40		ug/L		85	70 - 130	9	20
N-Propylbenzene	4.00	3.52		ug/L		88	70 - 130	8	20
sec-Butylbenzene	4.00	3.41		ug/L		85	70 - 130	9	20
Styrene	4.00	3.49		ug/L		87	70 - 130	4	20
tert-Butylbenzene	4.00	3.43		ug/L		86	70 - 130	9	20
Tetrachloroethene	4.00	3.62		ug/L		90	70 - 130	5	20
Toluene	4.00	3.59		ug/L		90	70 - 130	6	20
trans-1,2-Dichloroethene	4.00	3.61		ug/L		90	70 - 130	6	20
trans-1,3-Dichloropropene	4.00	3.74		ug/L		93	70 - 130	2	20
Trichloroethene	4.00	3.53		ug/L		88	70 - 130	8	20
Trichlorofluoromethane	4.00	3.68		ug/L		92	70 - 130	2	20
Vinyl chloride	4.00	3.38		ug/L		84	70 - 130	3	20
Xylenes, Total	8.00	7.01		ug/L		88	70 - 130	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichlorobenzene-d4	101		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

Lab Sample ID: LLCS 480-439231/5

Matrix: Water

Analysis Batch: 439231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.500	0.478	J	ug/L		96	50 - 150
1,1,1-Trichloroethane	0.500	0.428	J	ug/L		86	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.447	J	ug/L		89	50 - 150
1,1,2-Trichloroethane	0.500	0.416	J	ug/L		83	50 - 150
1,1-Dichloroethane	0.500	0.450	J	ug/L		90	50 - 150
1,1-Dichloroethene	0.500	0.405	J	ug/L		81	50 - 150
1,1-Dichloropropene	0.500	0.414	J	ug/L		83	50 - 150
1,2,3-Trichlorobenzene	0.500	0.419	J	ug/L		84	50 - 150
1,2,3-Trichloropropane	0.500	0.459	J	ug/L		92	50 - 150
1,2,4-Trichlorobenzene	0.500	0.416	J	ug/L		83	50 - 150
1,2,4-Trimethylbenzene	0.500	0.383	J	ug/L		77	50 - 150
1,2-Dichlorobenzene	0.500	0.427	J	ug/L		85	50 - 150

TestAmerica Chicago

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-439231/5

Matrix: Water

Analysis Batch: 439231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	0.500	0.443	J	ug/L		89	50 - 150
1,2-Dichloropropane	0.500	0.450	J	ug/L		90	50 - 150
1,3,5-Trimethylbenzene	0.500	0.381	J	ug/L		76	50 - 150
1,3-Dichlorobenzene	0.500	0.455	J	ug/L		91	50 - 150
1,3-Dichloropropane	0.500	0.422	J	ug/L		84	50 - 150
1,4-Dichlorobenzene	0.500	0.435	J	ug/L		87	50 - 150
2,2-Dichloropropane	0.500	0.721		ug/L		144	50 - 150
2-Butanone (MEK)	2.50	2.32	J	ug/L		93	50 - 150
2-Chlorotoluene	0.500	0.414	J	ug/L		83	50 - 150
2-Hexanone	2.50	2.16	J	ug/L		86	50 - 150
4-Chlorotoluene	0.500	0.414	J	ug/L		83	50 - 150
4-Isopropyltoluene	0.500	0.372	J	ug/L		74	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.10	J	ug/L		84	50 - 150
Acetone	2.50	2.92	J	ug/L		117	50 - 150
Benzene	0.500	0.425	J	ug/L		85	50 - 150
Bromobenzene	0.500	0.441	J	ug/L		88	50 - 150
Bromochloromethane	0.500	0.425	J	ug/L		85	50 - 150
Bromoform	0.500	0.341	J	ug/L		68	50 - 150
Bromomethane	0.500	0.446	J	ug/L		89	50 - 150
Carbon disulfide	0.500	0.368	J	ug/L		74	50 - 150
Carbon tetrachloride	0.500	0.454	J	ug/L		91	50 - 150
Chlorobenzene	0.500	0.429	J	ug/L		86	50 - 150
Chlorodibromomethane	0.500	0.423	J	ug/L		85	50 - 150
Chloroethane	0.500	0.477	J	ug/L		95	50 - 150
Chloroform	0.500	0.457	J	ug/L		91	50 - 150
Chloromethane	0.500	0.472	J	ug/L		94	50 - 150
cis-1,2-Dichloroethene	0.500	0.448	J	ug/L		90	50 - 150
cis-1,3-Dichloropropene	0.500	0.398	J	ug/L		80	50 - 150
Dibromomethane	0.500	0.397	J	ug/L		79	50 - 150
Dichlorobromomethane	0.500	0.432	J	ug/L		86	50 - 150
Dichlorodifluoromethane	0.500	0.338	J	ug/L		68	50 - 150
Ethylbenzene	0.500	0.393	J	ug/L		79	50 - 150
Hexachlorobutadiene	0.500	0.426	J	ug/L		85	50 - 150
Isopropylbenzene	0.500	0.385	J	ug/L		77	50 - 150
Methyl tert-butyl ether	0.500	0.426	J	ug/L		85	50 - 150
Methylene Chloride	0.500	1.00	J *	ug/L		200	50 - 150
Naphthalene	0.500	0.383	J	ug/L		77	50 - 150
n-Butylbenzene	0.500	0.372	J	ug/L		74	50 - 150
N-Propylbenzene	0.500	0.392	J	ug/L		78	50 - 150
sec-Butylbenzene	0.500	0.383	J	ug/L		77	50 - 150
Styrene	0.500	0.379	J	ug/L		76	50 - 150
tert-Butylbenzene	0.500	0.381	J	ug/L		76	50 - 150
Tetrachloroethene	0.500	0.418	J	ug/L		84	50 - 150
Toluene	0.500	0.429	J	ug/L		86	50 - 150
trans-1,2-Dichloroethene	0.500	0.454	J	ug/L		91	50 - 150
trans-1,3-Dichloropropene	0.500	0.375	J	ug/L		75	50 - 150
Trichloroethene	0.500	0.438	J	ug/L		88	50 - 150
Trichlorofluoromethane	0.500	0.415	J	ug/L		83	50 - 150

TestAmerica Chicago

### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

#### Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-439231/5  
 Matrix: Water  
 Analysis Batch: 439231

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.500	0.432	J	ug/L		86	50 - 150
Xylenes, Total	1.00	0.795	J	ug/L		80	50 - 150
<b>LLCS LLCS</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
1,2-Dichlorobenzene-d4	102		80 - 120				
4-Bromofluorobenzene (Surr)	97		80 - 120				

#### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-548867/5  
 Matrix: Water  
 Analysis Batch: 548867

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 09:33	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/10/18 09:33	1
Benzene	<0.36		0.50	0.36	ug/L			10/10/18 09:33	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/10/18 09:33	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/10/18 09:33	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/10/18 09:33	1
Toluene	<0.33		0.50	0.33	ug/L			10/10/18 09:33	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/10/18 09:33	1
<b>MB MB</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>			
a,a,a-Trifluorotoluene	96		80 - 120		10/10/18 09:33	1			

Lab Sample ID: LCS 490-548867/4  
 Matrix: Water  
 Analysis Batch: 548867

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	19.8		ug/L		99	60 - 131
1,3,5-Trimethylbenzene	20.0	19.5		ug/L		98	70 - 130
Benzene	20.0	18.4		ug/L		92	69 - 129
Ethylbenzene	20.0	19.6		ug/L		98	70 - 130
Methyl tert-butyl ether	20.0	19.2		ug/L		96	57 - 138
Naphthalene	20.0	18.2		ug/L		91	69 - 133
Toluene	20.0	19.1		ug/L		96	66 - 127
Xylenes, Total	60.0	58.3		ug/L		97	
<b>LCS LCS</b>							
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
a,a,a-Trifluorotoluene	93		80 - 120				



### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

#### Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCSD 490-548867/37

Matrix: Water

Analysis Batch: 548867

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	19.6		ug/L		98	60 - 131	1	43
1,3,5-Trimethylbenzene	20.0	19.3		ug/L		97	70 - 130	1	20
Benzene	20.0	18.2		ug/L		91	69 - 129	1	33
Ethylbenzene	20.0	19.1		ug/L		96	70 - 130	2	35
Methyl tert-butyl ether	20.0	19.2		ug/L		96	57 - 138	0	40
Naphthalene	20.0	18.0		ug/L		90	69 - 133	1	48
Toluene	20.0	18.9		ug/L		95	66 - 127	1	34
Xylenes, Total	60.0	57.9		ug/L		97		1	

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
a,a,a-Trifluorotoluene	94		80 - 120

Lab Sample ID: 500-152758-1 MS

Matrix: Water

Analysis Batch: 548867

Client Sample ID: MW-1A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	<0.30		20.0	18.9		ug/L		95	40 - 165
1,3,5-Trimethylbenzene	<0.30		20.0	18.6		ug/L		93	60 - 140
Benzene	0.78		20.0	18.1		ug/L		86	29 - 176
Ethylbenzene	<0.37		20.0	18.7		ug/L		94	30 - 170
Methyl tert-butyl ether	<0.24		20.0	17.5		ug/L		88	23 - 165
Naphthalene	<2.4		20.0	16.0		ug/L		80	10 - 175
Toluene	<0.33		20.0	18.1		ug/L		91	30 - 167
Xylenes, Total	<0.58		60.0	55.5		ug/L		93	

Surrogate	MS %Recovery	MS Qualifier	MS Limits
a,a,a-Trifluorotoluene	97		80 - 120

Lab Sample ID: 500-152758-1 MSD

Matrix: Water

Analysis Batch: 548867

Client Sample ID: MW-1A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	<0.30		20.0	21.7		ug/L		109	40 - 165	14	43
1,3,5-Trimethylbenzene	<0.30		20.0	21.4		ug/L		107	60 - 140	14	20
Benzene	0.78		20.0	20.8		ug/L		100	29 - 176	14	33
Ethylbenzene	<0.37		20.0	21.7		ug/L		109	30 - 170	15	35
Methyl tert-butyl ether	<0.24		20.0	20.7		ug/L		103	23 - 165	16	40
Naphthalene	<2.4		20.0	19.6		ug/L		98	10 - 175	20	48
Toluene	<0.33		20.0	21.0		ug/L		105	30 - 167	15	34
Xylenes, Total	<0.58		60.0	63.7		ug/L		106		14	

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
a,a,a-Trifluorotoluene	94		80 - 120



# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

## Client Sample ID: MW-1A

Date Collected: 10/03/18 09:30

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	548867	10/10/18 10:43	S1S	TAL NSH

## Client Sample ID: MW-3A

Date Collected: 10/03/18 11:30

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	548867	10/10/18 21:18	S1S	TAL NSH
Total/NA	Analysis	WDNR		25	548867	10/10/18 22:20	S1S	TAL NSH

## Client Sample ID: MW-4R

Date Collected: 10/03/18 11:15

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	548867	10/10/18 15:06	S1S	TAL NSH

## Client Sample ID: MW-4A

Date Collected: 10/03/18 11:00

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	548867	10/10/18 14:04	S1S	TAL NSH

## Client Sample ID: MW-5A

Date Collected: 10/03/18 10:30

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	548867	10/10/18 18:43	S1S	TAL NSH

## Client Sample ID: MW-7

Date Collected: 10/03/18 09:00

Date Received: 10/06/18 11:30

## Lab Sample ID: 500-152758-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	548867	10/10/18 13:02	S1S	TAL NSH

# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

**Client Sample ID: MW-W**

**Date Collected: 10/03/18 10:00**

**Date Received: 10/06/18 11:30**

**Lab Sample ID: 500-152758-7**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	548867	10/10/18 13:33	S1S	TAL NSH

**Client Sample ID: MW-10**

**Date Collected: 10/03/18 12:00**

**Date Received: 10/06/18 11:30**

**Lab Sample ID: 500-152758-8**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	548867	10/10/18 23:53	S1S	TAL NSH

**Client Sample ID: Trip Blank**

**Date Collected: 10/03/18 00:00**

**Date Received: 10/06/18 11:30**

**Lab Sample ID: 500-152758-9**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	548867	10/10/18 10:04	S1S	TAL NSH

**Client Sample ID: PW-1**

**Date Collected: 10/03/18 12:30**

**Date Received: 10/06/18 11:30**

**Lab Sample ID: 500-152758-10**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	439231	10/13/18 05:10	LCH	TAL BUF

### Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Accreditation/Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152758-1

### Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19

### Laboratory: TestAmerica Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-19
California	State Program	9	2931	04-01-19
Connecticut	State Program	1	PH-0568	09-30-20
Florida	NELAP	4	E87672	06-30-19
Georgia	State Program	4	10026 (NY)	03-31-19
Georgia	State Program	4	956	03-31-19
Illinois	NELAP	5	200003	09-30-18 *
Iowa	State Program	7	374	03-01-19
Kansas	NELAP	7	E-10187	01-31-19
Kentucky (DW)	State Program	4	90029	12-31-18
Kentucky (UST)	State Program	4	30	03-31-19
Kentucky (WW)	State Program	4	90029	12-31-18
Louisiana	NELAP	6	02031	06-30-19
Maine	State Program	1	NY00044	12-04-18 *
Maryland	State Program	3	294	03-31-19
Massachusetts	State Program	1	M-NY044	06-30-19
Michigan	State Program	5	9937	03-31-19
Minnesota	NELAP	5	036-999-337	12-31-18
New Hampshire	NELAP	1	2337	11-17-18 *
New Jersey	NELAP	2	NY455	06-30-19
New York	NELAP	2	10026	03-31-19
North Dakota	State Program	8	R-176	03-31-19
Oklahoma	State Program	6	9421	08-31-19
Oregon	NELAP	10	NY200003	06-09-19
Pennsylvania	NELAP	3	68-00281	07-31-19
Rhode Island	State Program	1	LAO00328	12-30-18
Tennessee	State Program	4	TN02970	03-31-19
Texas	NELAP	6	T104704412-15-6	07-31-19
USDA	Federal		P330-11-00386	02-06-21
Virginia	NELAP	3	460185	09-14-19
Washington	State Program	10	C784	02-10-19
Wisconsin	State Program	5	998310390	08-31-19

### Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Chicago

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax: 708.534.5211

## Chain of Custody Record

Lab Job #: 500-152758

Chain of Custody Number: \_\_\_\_\_

Page 1 of 1

Temperature °C of Cooler: 1.3

Report To (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

Bill To (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# 18174003

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Project Location/State		Lab Project #		Lab PM		Sampler		
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Comments	
AET		03-05510		1 1		PVOC + Naphthalene		VOCs 524.2		
Dairi Concepts		Chill, WF				Sandrie F		Michael Neal		
1		MW-1A	10-3-18	9:30	3	W	X			
2		MW-3A		11:30	3	W	X			
3		MW-4R		11:15	3	W	X			
4		MW-4A		11:00	3	W	X			
5		MW-5A		10:30	3	W	X			
6		MW-7		9:00	3	W	X			
7		MW-W		10:00	3	W	X			
8		MW-10		12:00	3	W	X			
9		Trip Blnk		-	1	W	X			
10		PW-1		12:30	3	W		X		



500-152758 COC

Turnaround Time Required (Business Days)  
 \_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days 15 Days \_\_\_ Other  
 Requested Due Date: \_\_\_\_\_

Sample Disposal  
 Return to Client  Disposal by Lab  Archive for \_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u> Company: AET Date: 10-3-18 Time: 15:00	Received By: <u>[Signature]</u> Company: Fed Ex Date: _____ Time: _____	Lab Courier: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: <u>[Signature]</u> Company: TAME Date: 10/06/18 Time: 1130	Shipped: <u>[Signature]</u>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MS - Miscellaneous
  - OL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments:

Lab Comments:

ORIGIN ID:GSXA (336) 740-3803  
VICKIE LINVILLE  
FEDEX EXPRESS  
6035 OLD OAK RIDGE ROAD  
GREENSBORO, NC 27410  
UNITED STATES US

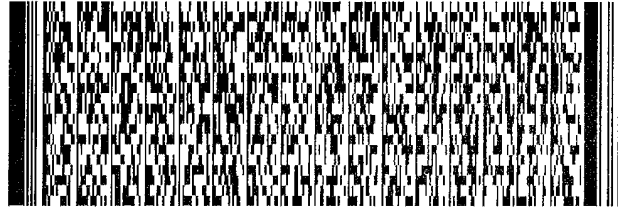
SHIP DATE: 05OCT18  
ACTWGT: 20.00 LB  
CAD: 107052636/INET4040  
DIMS: 24x13x14 IN  
BILL RECIPIENT

TO JEFF JAMES  
TEST AMERICA  
2417 BOND ST

552J1188FBDCA5

UNIVERSITY PARK IL 60484

(708) 534-5200 REF  
INV: PO: DEPT:



FedEx Ship Manager - Print Your Label(s)

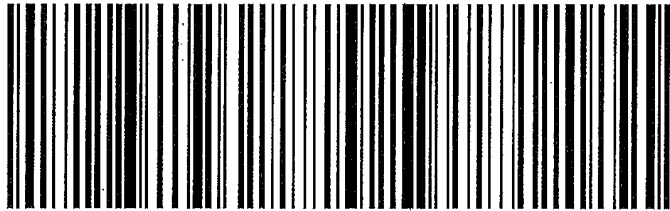
10/5/2018

SATURDAY 12:00P  
PRIORITY OVERNIGHT

TRK# 7734 0634 0028  
0201

X0 JOTA

60484  
IL-US ORD



500-152758 Waybill

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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**TestAmerica Chicago**  
 2417 Bond Street  
 University Park, IL 60484  
 Phone (708) 534-5200 Fax (708) 534-5211

**Chain of Custody Record**



<b>Client Information (Sub Contract Lab)</b>		Sampler: Fredrick, Sandie J		Lab PM: Fredrick, Sandie J		Carrier Tracking No(s): 500-111530.1		COC No: 500-111530.1	
Client Contact: Sandie Fredrick		Phone: sandie.fredrick@testamericainc.com		E-Mail: sandie.fredrick@testamericainc.com		State of Origin: Wisconsin		Page: Page 1 of 1	
Shipping/Receiving		Company: TestAmerica Laboratories, Inc.		Address: 10 Hazelwood Drive, Amherst, NY, 14228-2298		Accreditations Required (See note): State Program - Wisconsin		Job #: 500-152758-1	
Due Date Requested: 10/18/2018		TAT Requested (days):		Field Filled Sample (Yes or No):		Perform MS/MSD (Yes or No):		Analysis Requested:	
PO #:	WO #:	Sample Date: 10/3/18	Sample Time: 12:30 Central	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=tissue, A=Air)	524.2, Preserved/ Standard Analyte list		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project #: 50007204	SSOW#:	Sample Identification - Client ID (Lab ID): PW-1 (500-152758-10)	Preservation Code:	Water	Water	Field Filled Sample (Yes or No):		Special Instructions/Note:	
Total Number of Containers: 3		Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/ests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.							
<b>Possible Hazard Identification</b>									
Unconfirmed									
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2									
Empty Kit Relinquished by:									
Relinquished by: <i>[Signature]</i> Date: 10/8/18									
Relinquished by: <i>[Signature]</i> Date: 10/8/18									
Relinquished by: <i>[Signature]</i> Date: 10/8/18									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Custody Seal No.: 316 #1 FCE									
Cooler Temperature(s) °C and Other Remarks:									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months									
Special Instructions/QC Requirements:									
Method of Shipment:									
Received by: <i>[Signature]</i> Date: 10/9/18									
Received by: <i>[Signature]</i> Date: 10/9/18									
Received by: <i>[Signature]</i> Date: 10/9/18									
Company: TA Company									
Company: TA Company									
Company: TA Company									

Ver: 09/20/2016



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING  
Nashville, TN

## COOLER RECEIPT FORM



500-152758 Chain of Custody

Cooler Received/Opened On 10/9/2018 @ 10:35

Time Samples Removed From Cooler (2:29) Time Samples Placed In Storage (2:36) (2 Hour Window)

1. Tracking # 5121 (last 4 digits, FedEx) Courier: FedEx  
IR Gun ID 17960353 pH Strip Lot \_\_\_\_\_ Chlorine Strip Lot \_\_\_\_\_

2. Temperature of rep. sample or temp blank when opened: 2.7 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front / Back

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) ACE

7. Were custody seals on containers: YES  NO  and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used?  Bubblewrap  Plastic bag  Peanuts  Vermiculite  Foam Insert  Paper  Other  None

9. Cooling process:  Ice  Ice-pack  Ice (direct contact)  Dry ice  Other  None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # 22

I certify that I unloaded the cooler and answered questions 7-14 (initial) 22

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used? YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) 22

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) 22

I certify that I attached a label with the unique LIMS number to each container (initial) 22

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#

TestAmerica Chicago  
2417 Bond Street  
University Park, IL 60484  
Phone (708) 534-5200 Fax (708) 534-5211

### Chain of Custody Record

# 500-152758



**Client Information (Sub Contract Lab)**  
 Client Contact: Shipping/Receiving  
 Lab P/W: Fredrick, Sandle J  
 E-Mail: sandie.fredrick@testamericainc.com  
 State of Origin: Wisconsin  
 Company: TestAmerica Laboratories, Inc  
 Address: 2960 Foster Creighton Drive, Nashville, TN, 37204  
 Phone: 615-726-0177 (Tel) 615-726-3404 (Fax)  
 Email:  
 Project Name: Dairy Concepts - 03-05510  
 Site:  
 Due Date Requested: 10/16/2018  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #: 50007204  
 SSOW#:

**Accreditations Required (See note):**  
 Slate Program - Wisconsin  
 Preservation Codes:  
 A - HCL  
 B - NaOH  
 C - Zn Acetate  
 D - Nitric Acid  
 E - NaHSO4  
 F - MeOH  
 G - Arsenic Acid  
 H - Ascorbic Acid  
 I - Ice  
 J - DI Water  
 K - EDTA  
 L - EDA  
 Other:  
 M - Hexane  
 N - None  
 O - AsNaO2  
 P - Na2O4S  
 Q - Na2SO3  
 R - Na2SO3  
 S - H2SO4  
 T - TSP Dodecahydrate  
 U - Acetone  
 V - MCAA  
 W - pH 4-5  
 Z - other (specify)

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/oli, EN=Trace, Asab)	Frid Filtered Sample (Yes or No)	Patrom MS/MSD (Yes or No)	MI GR0/5030B PVC+NAP	Analysis Requested	Total Number of Containers	Special Instructions/Note:
MW-1A (500-152758-1)	10/3/18	09:30 Central	Water	Water	X	X	X		3	
MW-3A (500-152758-2)	10/3/18	11:30 Central	Water	Water	X	X	X		3	
MW-4R (500-152758-3)	10/3/18	11:15 Central	Water	Water	X	X	X		3	
MW-4A (500-152758-4)	10/3/18	11:00 Central	Water	Water	X	X	X		3	
MW-5A (500-152758-5)	10/3/18	10:30 Central	Water	Water	X	X	X		3	
MW-7 (500-152758-6)	10/3/18	09:00 Central	Water	Water	X	X	X		3	
MW-W (500-152758-7)	10/3/18	10:00 Central	Water	Water	X	X	X		3	
MW-10 (500-152758-8)	10/3/18	12:00 Central	Water	Water	X	X	X		3	
Trip Blank (500-152758-9)	10/3/18	Central	Water	Water	X	X	X		1	

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify)  
 Primary Deliverable Rank: 2  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

**Empty Kit Relinquished by:** \_\_\_\_\_ Date: \_\_\_\_\_  
**Relinquished by:** *[Signature]* Date Time: 10/18/18 1600  
 Company: TA  
**Relinquished by:** \_\_\_\_\_ Date Time: \_\_\_\_\_  
 Company: \_\_\_\_\_  
**Relinquished by:** \_\_\_\_\_ Date Time: \_\_\_\_\_  
 Company: \_\_\_\_\_  
**Custody Seals Intact:** \_\_\_\_\_  
 Custody Seal No.: \_\_\_\_\_  
 Cooler Temperature(s) °C and Other Remarks: 7.7  
 Ver: 09/20/2016



### Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-152758-1

**Login Number: 152758**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Sanchez, Ariel M**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-152758-1

**Login Number: 152758****List Number: 3****Creator: Hulbert, Michael J****List Source: TestAmerica Buffalo****List Creation: 10/10/18 02:21 PM**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6 #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	False	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

TestAmerica Job ID: 500-152759-1  
Client Project/Site: Dairi Concepts - 03-05510

For:  
American Engineering Testing Inc.  
1837 Cty Hwy OO  
Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal



Authorized for release by:  
10/18/2018 5:43:52 PM

Sandie Fredrick, Project Manager II  
(920)261-1660  
sandie.fredrick@testamericainc.com

**REVIEWED**

**By mneal at 8:34 am, Oct 19, 2018**

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



LINKS

Review your project results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

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# Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

**Job ID: 500-152759-1**

**Laboratory: TestAmerica Chicago**

## Narrative

**Job Narrative  
500-152759-1**

## Comments

No additional comments.

## Receipt

The samples were received on 10/6/2018 11:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.3° C.

## General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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### Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

**Client Sample ID: MW-11A**

**Lab Sample ID: 500-152759-1**

No Detections.

**Client Sample ID: MW-11B**

**Lab Sample ID: 500-152759-2**

No Detections.

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This Detection Summary does not include radiochemical test results.

# Method Summary

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

Method	Method Description	Protocol	Laboratory
9060A	Organic Carbon, Total (TOC)	SW846	TAL NSH

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



# Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-152759-1	MW-11A	Solid	10/01/18 10:00	10/06/18 11:30
500-152759-2	MW-11B	Solid	10/01/18 10:30	10/06/18 11:30

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# Client Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

**Client Sample ID: MW-11A**

Date Collected: 10/01/18 10:00

Date Received: 10/06/18 11:30

**Lab Sample ID: 500-152759-1**

Matrix: Solid

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	<600		1000	600	mg/Kg			10/17/18 10:59	1

**Client Sample ID: MW-11B**

Date Collected: 10/01/18 10:30

Date Received: 10/06/18 11:30

**Lab Sample ID: 500-152759-2**

Matrix: Solid

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	<600		1000	600	mg/Kg			10/17/18 10:59	1

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## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

### General Chemistry

#### Analysis Batch: 550752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-152759-1	MW-11A	Total/NA	Solid	9060A	
500-152759-2	MW-11B	Total/NA	Solid	9060A	
MB 490-550752/3	Method Blank	Total/NA	Solid	9060A	
LCS 490-550752/2	Lab Control Sample	Total/NA	Solid	9060A	
500-152759-2 DU	MW-11B	Total/NA	Solid	9060A	

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# QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

## Method: 9060A - Organic Carbon, Total (TOC)

**Lab Sample ID: MB 490-550752/3**  
**Matrix: Solid**  
**Analysis Batch: 550752**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	<600		1000	600	mg/Kg	-		10/17/18 10:59	1

**Lab Sample ID: LCS 490-550752/2**  
**Matrix: Solid**  
**Analysis Batch: 550752**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	44000	47400		mg/Kg	-	108	80 - 120

**Lab Sample ID: 500-152759-2 DU**  
**Matrix: Solid**  
**Analysis Batch: 550752**

**Client Sample ID: MW-11B**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon - Duplicates	<600		<600		mg/Kg	-	NC	20



# Lab Chronicle

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

**Client Sample ID: MW-11A**  
**Date Collected: 10/01/18 10:00**  
**Date Received: 10/06/18 11:30**

**Lab Sample ID: 500-152759-1**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	550752	10/17/18 10:59	VRP	TAL NSH

**Client Sample ID: MW-11B**  
**Date Collected: 10/01/18 10:30**  
**Date Received: 10/06/18 11:30**

**Lab Sample ID: 500-152759-2**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060A		1	550752	10/17/18 10:59	VRP	TAL NSH

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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# Accreditation/Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-152759-1

## Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19

## Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-19

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Report To \_\_\_\_\_ (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

Bill To \_\_\_\_\_ (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# 18174003

## Chain of Custody Record

Lab Job #: 500-152759  
 Chain of Custody Number: \_\_\_\_\_  
 Page 1 of 1  
 Temperature °C of Cooler: 1.3

Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Preservative	Parameter	Project Name	Project Location/State	Sampler	Client Project #	Client	Comments
			Date	Time										
1		MW-11A	10-1-18	10:00	1	S	8	Total Organic Carbon AS ALPOC	Dairi Concepts	Chili, WI	Michael K. Neal	03-05510	AET	
2		MW-11B	10-1-18	10:30	1	S								



500-152759 COC

Turnaround Time Required (Business Days)  
 \_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days  15 Days \_\_\_ Other

Requested Due Date \_\_\_\_\_

Sample Disposal  
 Return to Client  Disposal by Lab  Archive for \_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u> Company <u>AET</u> Date _____ Time _____	Received By <u>FedEx</u> Company _____ Date _____ Time _____
Relinquished By _____ Company _____ Date _____ Time _____	Received By <u>Chris Sen</u> Company <u>TAMM</u> Date <u>10/06/18</u> Time <u>1130</u>
Relinquished By _____ Company _____ Date _____ Time _____	Received By _____ Company _____ Date _____ Time _____

Lab Courier: \_\_\_\_\_  
 Shipped: Ex Saturday  
 Hand Delivered: \_\_\_\_\_

- Matrix Key
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MS - Miscellaneous
  - OL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments: \_\_\_\_\_

Lab Comments: \_\_\_\_\_

ORIGIN ID:GSXA (336) 740-3803  
VICKIE LINVILLE  
FEDEX EXPRESS  
6035 OLD OAK RIDGE ROAD

SHIP DATE: 05OCT18  
ACTWGT: 20.00 LB  
CAD: 107052636/NET4040  
DIMS: 24x13x14 IN

GREENSBORO, NC 27410  
UNITED STATES US

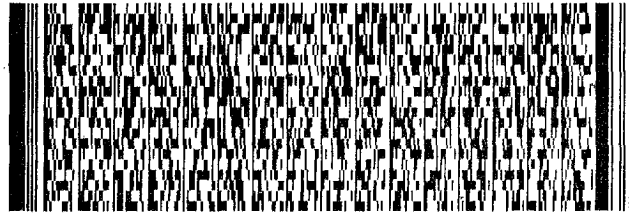
BILL RECIPIENT

TO **JEFF JAMES**  
**TEST AMERICA**  
**2417 BOND ST**

552J188FBIDCA5

**UNIVERSITY PARK IL 60484**

(708) 534-5200 REF  
INV DEPT.  
PO



FedEx Ship Manager - Print Your Label(s)

10/5/2018

**SATURDAY 12:00P**

**PRIORITY OVERNIGHT**

TRK# 7734 0634 0028  
0201

**X0 JOTA**

**60484**

IL-US **ORD**



**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

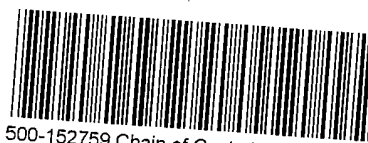






THE LEADER IN ENVIRONMENTAL TESTING  
Nashville, TN

### COOLER RECEIPT FORM



500-152759 Chain of Custody

Cooler Received/Opened On 10/9/2018 @ 10:35

Time Samples Removed From Cooler 12:20 Time Samples Placed In Storage 12:36 (2 Hour Window)

1. Tracking # 5121 (last 4 digits, FedEx) Courier: FedEx  
IR Gun ID 17960353 pH Strip Lot \_\_\_\_\_ Chlorine Strip Lot \_\_\_\_\_

2. Temperature of rep. sample or temp blank when opened: 27 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 Front / Back

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) ACE

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) dd

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) dd

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) dd

I certify that I attached a label with the unique LIMS number to each container (initial) dd

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO # \_\_\_\_\_

<b>Client Information (Sub Contract Lab)</b>		Lab PM: Fredrick, Sandie J		JC No: J0-111534.1	
Client Contact: Shipping/Receiving		E-Mail: sandie.fredrick@testamericainc.com		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): State Program - Wisconsin		Job #: 500-152759-1	
Address: 2960 Foster Creighton Drive, Nashville, TN, 37204		State of Origin: Wisconsin		Preservation Codes: M - Hexane N - None O - AS/GO2 P - Na2SO4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:	
Due Date Requested: 10/18/2018		<b>Analysis Requested</b>			
TAT Requested (days):					
PO #:	Project #:	906A/ Total Organic Carbon (Average Duplicate)		Total Number of Containers	
WO #:	SSOW#:	Perform MS/MSB (Yes or No)			
Project Name: Dairi Concepts - 03-05510	Site:	Field Filled Sample (Yes or No)		Special Instructions/Note:	
Sample Identification - Client ID (Lab ID)		Preservation Code			
MW-11A (500-152759-1)	10/1/18	10:00 Central	Solid	X	
MW-11B (500-152759-2)	10/1/18	10:30 Central	Solid	X	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.					
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2					
Empty Kit Relinquished by:		Date:		Time:	
Relinquished by: <i>[Signature]</i>		Date: 10/18/18		Time: 1600	
Relinquished by:		Date/Time:		Company: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.7	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months					
Special Instructions/QC Requirements:					



## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-152759-1

**Login Number: 152759****List Source: TestAmerica Chicago****List Number: 1****Creator: Sanchez, Ariel M**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Treatability Report for American Engineering Testing

ASL Report #: R4347

Project ID: 921913.OTC

**Attn: Michael K Kneal**

**REVISED**

*1:24 pm, Jan 09, 2019*

Authorized and Released By:

A handwritten signature in black ink that reads 'Kathy McKinley'.

Laboratory Manager  
Kathy McKinley  
541.243.0974  
Sept 28, 2018

**TestAmerica ASL Treatability Report #: R4347**

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**CASE NARRATIVE  
SPECIAL ANALYTICS**

Lab Name: TestAmerica ASL

ASL SDG: R4347

Project Name: American Engineering Testing

Project #: 921913.OTC

---

Method(s):

ASTM D971-12 Interfacial tension of Oil Against water by the Ring Method

ASTM D1217 Density and Relative Density of Liquids by Bingham Pycnometer

ASTM D445 Kinematic Viscosity of Transparent and Opaque liquids

Exception(s):

Viscosity times were below the 200 second minimum.

Overview:

Interfacial Tension was measured on 10/11/2018. DI water/air was measured first, followed by NAPL/air, and NAPL/DI water. All measurements were made at room temperature in a fume hood.

Density and Viscosity were measure on 10/12/2018. Viscosity was measured using a size 100 Cannon-Fenske routine viscometer. Both measurements were made at room temperature.

**Density by ASTM D1217 and Viscosity by ASTM D445***American Engineering Testing*

Sample ID: R4347

Analyst: EG

Date/Time: 10/12/2018 14:00

Sample Name	Matrix	Temperature	Density	Viscosity
		°C	g/mL	cP
AET_NAPL	NAPL	66	0.75	0.64

Quality Control	
<i>Density of millipore water measured at 70° F</i>	
<b>Measured Density (g/mL):</b>	0.9946
<b>Published Density (g/mL):</b>	0.9983
<b>RPD:</b>	-0.3723



**Interfacial Tension by ASTM D971**

American Engineering Testing

Sample ID: R4347

Analyst: EG

Date/Time: 10/12/2018 14:00

Phase Pair				Temperature °F	Interfacial Tension Dynes/centimeter
Phase One		Phase Two			
Sample ID	Matrix	Sample ID	Matrix		
DI Water	Water	Air	Air	70	68.2
AET_NAPL	NAPL	Air	Air	70	20.8
DI Water	Water	AET_NAPL	NAPL	68	25.1

Quality Control					
DI Water	Water	Air	Air	70	67.7
				<b>Published Value:</b>	72.8
				<b>RPD:</b>	4.04



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax: 708.534.5211

Report To \_\_\_\_\_ (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

Bill To \_\_\_\_\_ (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# 18174188

## Chain of Custody Record

Page 56 of 145  
 Lab Job #: R4347  
 Chain of Custody Number: \_\_\_\_\_  
 Page 1 of 1  
 Temperature °C of Cooler: \_\_\_\_\_

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name		Lab Project #		Date		Time		# of Containers			
Project Location/State		Lab PM		Date		Time		# of Containers			
<u>AET</u>		<u>03-05510</u>		<u>8</u>		<u>8</u>		<u>8</u>		Oil - water Surface Tension Air - Oil Surface Tension Air - Water Surface Tension Oil Density Oil Viscosity	
<u>Dairi Concepts</u>											
<u>Chili, WI</u>											
Sampler <u>Michael K. Neal</u>											
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix				Comments	
		<u>S-1</u>	<u>10-1-18</u>	<u>9:30</u>	<u>1</u>	<u>OL</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>-01</u>

Turnaround Time Required (Business Days)  
 \_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days X 15 Days \_\_\_ Other  
 Requested Due Date \_\_\_\_\_

Sample Disposal  
 Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>Michael Neal</u>	Company <u>AET</u>	Date <u>10-3-18</u>	Time <u>15:00</u>	Received By <u>Fed X</u>	Company _____	Date _____	Time _____
Relinquished By _____	Company _____	Date _____	Time _____	Received By <u>Ruthlasno</u>	Company <u>TA ABL</u>	Date <u>10/4/18</u>	Time <u>11:45</u>
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____

Lab Courier \_\_\_\_\_  
 Shipped \_\_\_\_\_  
 Hand Delivered \_\_\_\_\_

Matrix Key  
 WW - Wastewater SE - Sediment  
 W - Water SO - Soil  
 S - Soil L - Leachate  
 SL - Sludge WI - Wipe  
 MS - Miscellaneous DW - Drinking Water  
 OL - Oil O - Other  
 A - Air

Client Comments

Lab Comments: TH 173 DOS: 21.6°C Cor: 20.9°C

# TestAmerica ASL



## Sample Receipt Record

SDG ID: R4347

Date Received: 10/4/2018

Client/Project: AET

Received by: PC

Were custody seals intact and on the outside of the cooler?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Shipping Record:	<input type="checkbox"/> Hand Delivered	<input checked="" type="checkbox"/> On File	<input type="checkbox"/> COC
Radiological Screening for DoD	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Packing Material:	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice <input type="checkbox"/> Box
Temp OK? (<6C) Therm ID: TH173 Exp. 10/21/18	20.9 °C	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Was a Chain of Custody (CoC) Provided?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Was the CoC correctly filled out (If No, document below)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did sample labels agree with COC? (If No, document below)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did the CoC list a correct bottle count and the preservative types (No=Correct on CoC)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Were the sample containers in good condition (not broken or leaking)?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Was enough sample volume provided for analysis? (If No, document below)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Containers supplied by ASL?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Any sample with < 1/2 holding time remaining? If so contact LPM and document below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Samples have multi-phase? If yes, document on SRER	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
All water VOCs free of air bubbles? No, document on SRER	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
pH of all samples met criteria on receipt? If "No", preserve and document below.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Dissolved/Soluble metals filtered in the field?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Dissolved/Soluble metals have sediment in bottom of container? If so document below.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A

### Preservation Adjustment

Sample ID	Reagent	Reagent Lot Number	Volume Added	Initials/Date-Time	24 hour pH check Initials/Time

Did pH of all metals samples preserved upon receipt meet criteria 24 hours after preservation?  Yes  No

### Sample Exception Report (The following exceptions were noted)

Client was notified on:	Client contact:
Resolution to Exception:	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

TestAmerica Job ID: 500-157246-1  
Client Project/Site: Dairi Concepts - 03-05510

For:  
American Engineering Testing Inc.  
1837 Cty Hwy OO  
Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal



Authorized for release by:  
1/14/2019 10:32:07 AM

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

**REVIEWED**

**By mneal at 11:44 am, Jan 14, 2019**

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*



### LINKS

Review your project results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

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# Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

**Job ID: 500-157246-1**

**Laboratory: TestAmerica Chicago**

## Narrative

**Job Narrative  
500-157246-1**

### Comments

No additional comments.

### Receipt

The samples were received on 1/9/2019 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

### GC VOA

Method(s) WI-GRO: Surrogate recovery for the following samples were outside control limits: MW-3A (500-157246-2), MW-4R (500-157246-3), MW-4A (500-157246-4), MW-5A (500-157246-5) and MW-10 (500-157246-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

### Client Sample ID: MW-1A

### Lab Sample ID: 500-157246-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.25	J	0.50	0.24	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-3A

### Lab Sample ID: 500-157246-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1800		25	15	ug/L	50		WDNR	Total/NA
1,3,5-Trimethylbenzene	550		25	15	ug/L	50		WDNR	Total/NA
Benzene	2800		25	18	ug/L	50		WDNR	Total/NA
Ethylbenzene	1400		25	19	ug/L	50		WDNR	Total/NA
Methyl tert-butyl ether	270		25	12	ug/L	50		WDNR	Total/NA
Naphthalene	580		250	120	ug/L	50		WDNR	Total/NA
Toluene	11000		25	17	ug/L	50		WDNR	Total/NA
Xylenes, Total	8300		75	29	ug/L	50		WDNR	Total/NA

### Client Sample ID: MW-4R

### Lab Sample ID: 500-157246-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1200		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	330		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	440		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	970		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	160		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	440		50	24	ug/L	10		WDNR	Total/NA
Toluene	760		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	3200		15	5.8	ug/L	10		WDNR	Total/NA

### Client Sample ID: MW-4A

### Lab Sample ID: 500-157246-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	850		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	300		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	220		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	440		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	220		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	300		50	24	ug/L	10		WDNR	Total/NA
Toluene	80		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	1100		15	5.8	ug/L	10		WDNR	Total/NA

### Client Sample ID: MW-5A

### Lab Sample ID: 500-157246-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	780		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	280		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	210		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	390		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	190		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	260		50	24	ug/L	10		WDNR	Total/NA
Toluene	65		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	1000		15	5.8	ug/L	10		WDNR	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Detection Summary

Client: American Engineering Testing Inc.  
 Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

## Client Sample ID: MW-7

## Lab Sample ID: 500-157246-6

No Detections.

## Client Sample ID: MW-W

## Lab Sample ID: 500-157246-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5		0.50	0.36	ug/L	1		WDNR	Total/NA

## Client Sample ID: MW-10

## Lab Sample ID: 500-157246-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	5100		13	7.5	ug/L	25		WDNR	Total/NA
1,3,5-Trimethylbenzene	1800		13	7.5	ug/L	25		WDNR	Total/NA
Benzene	1400		13	9.0	ug/L	25		WDNR	Total/NA
Ethylbenzene	2100		13	9.3	ug/L	25		WDNR	Total/NA
Methyl tert-butyl ether	1700		13	6.0	ug/L	25		WDNR	Total/NA
Naphthalene	2300		130	60	ug/L	25		WDNR	Total/NA
Toluene	2200		13	8.3	ug/L	25		WDNR	Total/NA
Xylenes, Total	6400		38	15	ug/L	25		WDNR	Total/NA

## Client Sample ID: TRIP BLANK

## Lab Sample ID: 500-157246-9

No Detections.

This Detection Summary does not include radiochemical test results.

## Method Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

Method	Method Description	Protocol	Laboratory
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.  
WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



# Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-157246-1	MW-1A	Water	01/07/19 11:30	01/09/19 09:30
500-157246-2	MW-3A	Water	01/07/19 14:15	01/09/19 09:30
500-157246-3	MW-4R	Water	01/07/19 14:00	01/09/19 09:30
500-157246-4	MW-4A	Water	01/07/19 13:30	01/09/19 09:30
500-157246-5	MW-5A	Water	01/07/19 13:00	01/09/19 09:30
500-157246-6	MW-7	Water	01/07/19 12:00	01/09/19 09:30
500-157246-7	MW-W	Water	01/07/19 12:30	01/09/19 09:30
500-157246-8	MW-10	Water	01/07/19 14:30	01/09/19 09:30
500-157246-9	TRIP BLANK	Water	01/07/19 00:00	01/09/19 09:30

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

## Client Sample ID: MW-1A

Date Collected: 01/07/19 11:30

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-1

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 03:56	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 03:56	1
Benzene	<0.36		0.50	0.36	ug/L			01/12/19 03:56	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			01/12/19 03:56	1
Methyl tert-butyl ether	0.25	J	0.50	0.24	ug/L			01/12/19 03:56	1
Naphthalene	<2.4		5.0	2.4	ug/L			01/12/19 03:56	1
Toluene	<0.33		0.50	0.33	ug/L			01/12/19 03:56	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			01/12/19 03:56	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	101		80 - 120					01/12/19 03:56	1

## Client Sample ID: MW-3A

Date Collected: 01/07/19 14:15

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-2

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1800		25	15	ug/L			01/12/19 11:03	50
1,3,5-Trimethylbenzene	550		25	15	ug/L			01/12/19 11:03	50
Benzene	2800		25	18	ug/L			01/12/19 11:03	50
Ethylbenzene	1400		25	19	ug/L			01/12/19 11:03	50
Methyl tert-butyl ether	270		25	12	ug/L			01/12/19 11:03	50
Naphthalene	580		250	120	ug/L			01/12/19 11:03	50
Toluene	11000		25	17	ug/L			01/12/19 11:03	50
Xylenes, Total	8300		75	29	ug/L			01/12/19 11:03	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	135	X	80 - 120					01/12/19 11:03	50

## Client Sample ID: MW-4R

Date Collected: 01/07/19 14:00

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-3

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1200		5.0	3.0	ug/L			01/12/19 06:59	10
1,3,5-Trimethylbenzene	330		5.0	3.0	ug/L			01/12/19 06:59	10
Benzene	440		5.0	3.6	ug/L			01/12/19 06:59	10
Ethylbenzene	970		5.0	3.7	ug/L			01/12/19 06:59	10
Methyl tert-butyl ether	160		5.0	2.4	ug/L			01/12/19 06:59	10
Naphthalene	440		50	24	ug/L			01/12/19 06:59	10
Toluene	760		5.0	3.3	ug/L			01/12/19 06:59	10
Xylenes, Total	3200		15	5.8	ug/L			01/12/19 06:59	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	201	X	80 - 120					01/12/19 06:59	10

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

## Client Sample ID: MW-4A

Date Collected: 01/07/19 13:30

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-4

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	850		5.0	3.0	ug/L			01/12/19 08:31	10
1,3,5-Trimethylbenzene	300		5.0	3.0	ug/L			01/12/19 08:31	10
Benzene	220		5.0	3.6	ug/L			01/12/19 08:31	10
Ethylbenzene	440		5.0	3.7	ug/L			01/12/19 08:31	10
Methyl tert-butyl ether	220		5.0	2.4	ug/L			01/12/19 08:31	10
Naphthalene	300		50	24	ug/L			01/12/19 08:31	10
Toluene	80		5.0	3.3	ug/L			01/12/19 08:31	10
Xylenes, Total	1100		15	5.8	ug/L			01/12/19 08:31	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	146	X	80 - 120		01/12/19 08:31	10

## Client Sample ID: MW-5A

Date Collected: 01/07/19 13:00

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-5

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	780		5.0	3.0	ug/L			01/12/19 09:01	10
1,3,5-Trimethylbenzene	280		5.0	3.0	ug/L			01/12/19 09:01	10
Benzene	210		5.0	3.6	ug/L			01/12/19 09:01	10
Ethylbenzene	390		5.0	3.7	ug/L			01/12/19 09:01	10
Methyl tert-butyl ether	190		5.0	2.4	ug/L			01/12/19 09:01	10
Naphthalene	260		50	24	ug/L			01/12/19 09:01	10
Toluene	65		5.0	3.3	ug/L			01/12/19 09:01	10
Xylenes, Total	1000		15	5.8	ug/L			01/12/19 09:01	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	130	X	80 - 120		01/12/19 09:01	10

## Client Sample ID: MW-7

Date Collected: 01/07/19 12:00

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-6

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 05:58	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 05:58	1
Benzene	<0.36		0.50	0.36	ug/L			01/12/19 05:58	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			01/12/19 05:58	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			01/12/19 05:58	1
Naphthalene	<2.4		5.0	2.4	ug/L			01/12/19 05:58	1
Toluene	<0.33		0.50	0.33	ug/L			01/12/19 05:58	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			01/12/19 05:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		80 - 120		01/12/19 05:58	1

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

## Client Sample ID: MW-W

Date Collected: 01/07/19 12:30

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-7

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 06:28	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 06:28	1
<b>Benzene</b>	<b>1.5</b>		0.50	0.36	ug/L			01/12/19 06:28	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			01/12/19 06:28	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			01/12/19 06:28	1
Naphthalene	<2.4		5.0	2.4	ug/L			01/12/19 06:28	1
Toluene	<0.33		0.50	0.33	ug/L			01/12/19 06:28	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			01/12/19 06:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	99		80 - 120		01/12/19 06:28	1

## Client Sample ID: MW-10

Date Collected: 01/07/19 14:30

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-8

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>5100</b>		13	7.5	ug/L			01/12/19 09:32	25
<b>1,3,5-Trimethylbenzene</b>	<b>1800</b>		13	7.5	ug/L			01/12/19 09:32	25
<b>Benzene</b>	<b>1400</b>		13	9.0	ug/L			01/12/19 09:32	25
<b>Ethylbenzene</b>	<b>2100</b>		13	9.3	ug/L			01/12/19 09:32	25
<b>Methyl tert-butyl ether</b>	<b>1700</b>		13	6.0	ug/L			01/12/19 09:32	25
<b>Naphthalene</b>	<b>2300</b>		130	60	ug/L			01/12/19 09:32	25
<b>Toluene</b>	<b>2200</b>		13	8.3	ug/L			01/12/19 09:32	25
<b>Xylenes, Total</b>	<b>6400</b>		38	15	ug/L			01/12/19 09:32	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	458	X	80 - 120		01/12/19 09:32	25

## Client Sample ID: TRIP BLANK

Date Collected: 01/07/19 00:00

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-9

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 01:23	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 01:23	1
Benzene	<0.36		0.50	0.36	ug/L			01/12/19 01:23	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			01/12/19 01:23	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			01/12/19 01:23	1
Naphthalene	<2.4		5.0	2.4	ug/L			01/12/19 01:23	1
Toluene	<0.33		0.50	0.33	ug/L			01/12/19 01:23	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			01/12/19 01:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	99		80 - 120		01/12/19 01:23	1

TestAmerica Chicago

## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

### Qualifiers

#### GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

**QC Association Summary**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

**GC VOA****Analysis Batch: 568987**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-157246-1	MW-1A	Total/NA	Water	WDNR	
500-157246-2	MW-3A	Total/NA	Water	WDNR	
500-157246-3	MW-4R	Total/NA	Water	WDNR	
500-157246-4	MW-4A	Total/NA	Water	WDNR	
500-157246-5	MW-5A	Total/NA	Water	WDNR	
500-157246-6	MW-7	Total/NA	Water	WDNR	
500-157246-7	MW-W	Total/NA	Water	WDNR	
500-157246-8	MW-10	Total/NA	Water	WDNR	
500-157246-9	TRIP BLANK	Total/NA	Water	WDNR	
MB 490-568987/33	Method Blank	Total/NA	Water	WDNR	
LCS 490-568987/32	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-568987/56	Lab Control Sample Dup	Total/NA	Water	WDNR	
500-157246-1 MS	MW-1A	Total/NA	Water	WDNR	
500-157246-1 MSD	MW-1A	Total/NA	Water	WDNR	

## Surrogate Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

**Matrix: Water**

**Prep Type: Total/NA**

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT (80-120)
500-157246-1	MW-1A	101
500-157246-1 MS	MW-1A	100
500-157246-1 MSD	MW-1A	98
500-157246-2	MW-3A	135 X
500-157246-3	MW-4R	201 X
500-157246-4	MW-4A	146 X
500-157246-5	MW-5A	130 X
500-157246-6	MW-7	99
500-157246-7	MW-W	99
500-157246-8	MW-10	458 X
500-157246-9	TRIP BLANK	99
LCS 490-568987/32	Lab Control Sample	100
LCSD 490-568987/56	Lab Control Sample Dup	99
MB 490-568987/33	Method Blank	101

#### Surrogate Legend

TFT = a,a,a-Trifluorotoluene

### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

#### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-568987/33

Matrix: Water

Analysis Batch: 568987

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 00:53	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			01/12/19 00:53	1
Benzene	<0.36		0.50	0.36	ug/L			01/12/19 00:53	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			01/12/19 00:53	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			01/12/19 00:53	1
Naphthalene	<2.4		5.0	2.4	ug/L			01/12/19 00:53	1
Toluene	<0.33		0.50	0.33	ug/L			01/12/19 00:53	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			01/12/19 00:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	101		80 - 120		01/12/19 00:53	1

Lab Sample ID: LCS 490-568987/32

Matrix: Water

Analysis Batch: 568987

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	19.6		ug/L		98	60 - 131
1,3,5-Trimethylbenzene	20.0	19.7		ug/L		98	70 - 130
Benzene	20.0	19.8		ug/L		99	69 - 129
Ethylbenzene	20.0	19.5		ug/L		97	70 - 130
Methyl tert-butyl ether	20.0	23.1		ug/L		115	57 - 138
Naphthalene	20.0	19.5		ug/L		97	69 - 133
Toluene	20.0	19.6		ug/L		98	66 - 127
Xylenes, Total	60.0	59.3		ug/L		99	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	100		80 - 120

Lab Sample ID: LCSD 490-568987/56

Matrix: Water

Analysis Batch: 568987

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	19.7		ug/L		99	60 - 131	1	43
1,3,5-Trimethylbenzene	20.0	19.8		ug/L		99	70 - 130	1	20
Benzene	20.0	19.6		ug/L		98	69 - 129	1	33
Ethylbenzene	20.0	19.3		ug/L		97	70 - 130	1	35
Methyl tert-butyl ether	20.0	23.1		ug/L		116	57 - 138	0	40
Naphthalene	20.0	19.7		ug/L		98	69 - 133	1	48
Toluene	20.0	19.9		ug/L		100	66 - 127	2	34
Xylenes, Total	60.0	59.4		ug/L		99		0	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-Trifluorotoluene	99		80 - 120



### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

#### Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: 500-157246-1 MS

Matrix: Water

Analysis Batch: 568987

Client Sample ID: MW-1A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	<0.30		20.0	19.6		ug/L		98	40 - 165
1,3,5-Trimethylbenzene	<0.30		20.0	19.9		ug/L		100	60 - 140
Benzene	<0.36		20.0	20.6		ug/L		103	29 - 176
Ethylbenzene	<0.37		20.0	20.1		ug/L		100	30 - 170
Methyl tert-butyl ether	0.25	J	20.0	23.9		ug/L		118	23 - 165
Naphthalene	<2.4		20.0	19.3		ug/L		97	10 - 175
Toluene	<0.33		20.0	20.4		ug/L		102	30 - 167
Xylenes, Total	<0.58		60.0	61.4		ug/L		102	

Surrogate	MS %Recovery	MS Qualifier	MS Limits
a,a,a-Trifluorotoluene	100		80 - 120

Lab Sample ID: 500-157246-1 MSD

Matrix: Water

Analysis Batch: 568987

Client Sample ID: MW-1A

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	<0.30		20.0	21.5		ug/L		108	40 - 165	9	43
1,3,5-Trimethylbenzene	<0.30		20.0	21.9		ug/L		110	60 - 140	9	20
Benzene	<0.36		20.0	22.4		ug/L		112	29 - 176	9	33
Ethylbenzene	<0.37		20.0	21.8		ug/L		109	30 - 170	8	35
Methyl tert-butyl ether	0.25	J	20.0	26.0		ug/L		129	23 - 165	8	40
Naphthalene	<2.4		20.0	21.3		ug/L		107	10 - 175	10	48
Toluene	<0.33		20.0	22.2		ug/L		111	30 - 167	8	34
Xylenes, Total	<0.58		60.0	66.9		ug/L		112		9	

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
a,a,a-Trifluorotoluene	98		80 - 120

# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

## Client Sample ID: MW-1A

Date Collected: 01/07/19 11:30

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	568987	01/12/19 03:56	S1S	TAL NSH

## Client Sample ID: MW-3A

Date Collected: 01/07/19 14:15

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		50	568987	01/12/19 11:03	S1S	TAL NSH

## Client Sample ID: MW-4R

Date Collected: 01/07/19 14:00

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	568987	01/12/19 06:59	S1S	TAL NSH

## Client Sample ID: MW-4A

Date Collected: 01/07/19 13:30

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	568987	01/12/19 08:31	S1S	TAL NSH

## Client Sample ID: MW-5A

Date Collected: 01/07/19 13:00

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	568987	01/12/19 09:01	S1S	TAL NSH

## Client Sample ID: MW-7

Date Collected: 01/07/19 12:00

Date Received: 01/09/19 09:30

## Lab Sample ID: 500-157246-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	568987	01/12/19 05:58	S1S	TAL NSH

# Lab Chronicle

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

**Client Sample ID: MW-W**

**Lab Sample ID: 500-157246-7**

**Date Collected: 01/07/19 12:30**

**Matrix: Water**

**Date Received: 01/09/19 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	568987	01/12/19 06:28	S1S	TAL NSH

**Client Sample ID: MW-10**

**Lab Sample ID: 500-157246-8**

**Date Collected: 01/07/19 14:30**

**Matrix: Water**

**Date Received: 01/09/19 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		25	568987	01/12/19 09:32	S1S	TAL NSH

**Client Sample ID: TRIP BLANK**

**Lab Sample ID: 500-157246-9**

**Date Collected: 01/07/19 00:00**

**Matrix: Water**

**Date Received: 01/09/19 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	568987	01/12/19 01:23	S1S	TAL NSH

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



# Accreditation/Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-157246-1

## Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19

## Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-19

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

Bill To (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: 500-157246 COC  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# 18174003

## Chain of Custody Record

Lab Job #: 500-157246  
 Chain of Custody Number: \_\_\_\_\_  
 Page 1 of 1  
 Temperature °C of Cooler: 1.8

Client		Client Project #		Preservative		Parameter		Project Location/State		Lab Project #		Sampler		Lab PM		Preservative Key	
AET		03-05510		1				Chili, WI				Michael K. Neal		Sandie F.		1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	PLOC + Naphthalene										Comments
			Date	Time													
1		MW-1A	1-7-19	11:30	3	W	X										
2		MW-3A		14:15	3	W	X										
3		MW-4R		14:00	3	W	X										
4		MW-4A		13:30	3	W	X										
5		MW-5A		13:00	3	W	X										
6		MW-7		12:00	3	W	X										
7		MW-W		12:30	3	W	X										
8		MW-10		14:30	3	W	X										
9		Trip Blank		-	-	1	W	X									

Turnaround Time Required (Business Days) \_\_\_\_\_  
 Requested Due Date \_\_\_\_\_  
 Sample Disposal:  Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <i>[Signature]</i>	Company: AET	Date: 1-8-19	Time: 15:00	Received By: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date: 1-9-19	Time: 0925
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

Matrix Key  
 WW - Wastewater SE - Sediment  
 W - Water SO - Soil  
 S - Soil L - Leachate  
 SL - Sludge WI - Wipe  
 MS - Miscellaneous DW - Drinking Water  
 OL - Oil O - Other  
 A - Air

Client Comments  
 PELFA

Lab Comments:  
 30 qt

ORIGIN ID:EAUJ (715) 861-5045  
MICHAEL NEAL  
1837 COUNTY HIGHWAY OO  
CHIPPEWA FALLS, WI 54729  
UNITED STATES US

SHIP DATE: 08JAN19  
ACTWGT: 17.16 LB  
CAD: 104342606/NET4040  
BILL THIRD PARTY

TO **SAMPLE RECEIPT  
TEST AMERICA  
2417 BOND STREET**



552.02D74C/DCA5

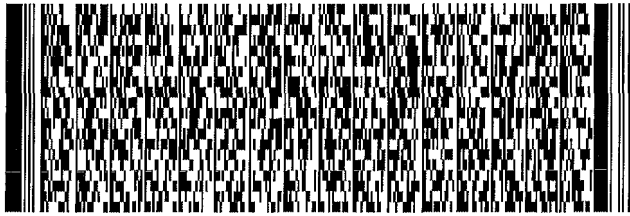
**UNIVERSITY PARK IL 60484**

(708) 534-5200  
INV:  
PO:

REF:

500-157246 Waybill

DEPT:

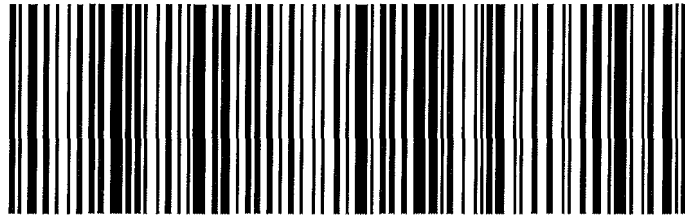


**WED - 09 JAN 3:00P  
STANDARD OVERNIGHT**

TRK# 7741 4233 4018  
0201

**GE JOTA**

60484  
IL-US ORD



FedEx Ship Manager - Print Your Label(s)

**After printing this label:**

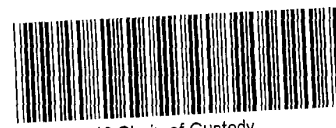
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

30 qt





COOLER RECEIPT FORM

Cooler Received/Opened On 1/10/2019 @ 10:35

Time Samples Removed From Cooler 1200 Time Samples Placed In Storage 1224 (2 Hour Window)

1. Tracking # 8800 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot ✓ Chlorine Strip Lot ✓

2. Temperature of rep. sample or temp blank when opened: 0.7 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES..NO...NA

If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) TR

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES..NO...NA

12. Did all container labels and tags agree with custody papers? YES..NO...NA

13a. Were VOA vials received? YES..NO...NA

b. Was there any observable headspace present in any VOA vial? YES..NO...NA



14. Was there a Trip Blank in this cooler? YES..NOz..NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) TR

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES..NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) TR

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES..NO...NA

20. Was sufficient amount of sample sent in each container? YES..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) TR

I certify that I attached a label with the unique LIMS number to each container (initial) TR

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..# \_\_\_\_\_

BIS = Broken in shipment  
Cooler Receipt Form.doc

**TestAmerica Chicago**  
 2417 Bond Street  
 University Park, IL 60484  
 Phone (708) 534-5200 Fax (708) 534-5211

**Chain of Custody Record**

Loc: 500  
**157246**



<b>Client Information (Sub Contract Lab)</b>		Lab Pmt: Fredrick, Sandie J		COC No: 500-116143.1	
Client Contact: Shipping/Receiving		E-Mail: sandie.fredrick@testamericainc.com		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): State Program - Wisconsin		Job #: 500-157246-1	
Address: 2960 Foster Creighton Drive, Nashville, TN, 37204		Due Date Requested: 1/17/2019		Preservation Codes:	
City: Nashville		TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: TN, 37204		PO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (Specify)	
Phone: 615-726-0177(Tel) 615-726-3404(Fax)		WO #:			
Email:		Project #:			
2960 Foster Creighton Drive, Nashville, TN, 37204		50007204			
Site:		SSOW#:			
Dairi Concepts - 03-05510					
Special Instructions/Note:					
Total Number of Containers					
Field Filled Sample (Yes or No)					
Perform MS/MSD (Yes or No)					
WI_GRO/50308 PVOC+NAP					
Analysis Requested					
Sample Identification - Client ID (Lab ID)					
Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Water, Sewage, Overwater, EST Issue, A=As)	Preservation Code	
1/17/19	11:30 Central	Water	Water		
1/17/19	14:15 Central	Water	Water		
1/17/19	14:00 Central	Water	Water		
1/17/19	13:30 Central	Water	Water		
1/17/19	13:00 Central	Water	Water		
1/17/19	12:00 Central	Water	Water		
1/17/19	12:30 Central	Water	Water		
1/17/19	14:30 Central	Water	Water		
1/17/19	Central	Water	Water		
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.					
<b>Possible Hazard Identification</b>					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 2					
Empty Kit Relinquished by:					
Relinquished by: <i>M. E. Dwyer</i>					
Relinquished by:					
Relinquished by:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Custody Seal No.:					
Cooler Temperature(s) °C and Other Remarks: <i>0.7</i>					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months					
Special Instructions/QC Requirements:					
Method of Shipment:					
Received by: <i>AA</i> Company: <i>AA</i>					
Date/Time: <i>1/16/19 17:00</i>					
Received by: <i>AA</i> Company: <i>AA</i>					
Date/Time: <i>1/16/19 10:15</i>					
Received by: <i>AA</i> Company: <i>AA</i>					
Date/Time: <i>1/16/19 10:15</i>					
Cooler Temperature(s) °C and Other Remarks: <i>0.7</i>					

Ver: 09/20/2016





### Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-157246-1

**Login Number: 157246**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: James, Jeff A**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Environment Testing  
TestAmerica

**REVIEWED**  
By mneal at 11:36 am, May 13, 2019

## ANALYTICAL REPORT

Eurofins TestAmerica, Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

Laboratory Job ID: 500-162469-1  
Client Project/Site: Dairi Concepts - 03-05510

For:  
American Engineering Testing Inc.  
1837 Cty Hwy OO  
Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal

Authorized for release by:  
5/13/2019 11:22:36 AM

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)



### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

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## Job ID: 500-162469-1

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Laboratory: Eurofins TestAmerica, Chicago

### Narrative

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#### Job Narrative 500-162469-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 4/30/2019 11:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.7° C.

#### GC VOA

Method(s) WI-GRO: Surrogate recovery for the following samples were outside control limits: MW-3A (500-162469-2), MW-4R (500-162469-3), MW-4A (500-162469-4), MW-5A (500-162469-5) and MW-10 (500-162469-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) WI-GRO: The following sample was diluted due to the nature of the sample matrix: MW-5A (500-162469-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-162469-1

### Client Sample ID: MW-1A

### Lab Sample ID: 500-162469-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	0.50	0.36	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-3A

### Lab Sample ID: 500-162469-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2600		13	7.5	ug/L	25		WDNR	Total/NA
1,3,5-Trimethylbenzene	830		13	7.5	ug/L	25		WDNR	Total/NA
Benzene	2700		13	9.0	ug/L	25		WDNR	Total/NA
Ethylbenzene	1500		13	9.3	ug/L	25		WDNR	Total/NA
Methyl tert-butyl ether	580		13	6.0	ug/L	25		WDNR	Total/NA
Naphthalene	1800		130	60	ug/L	25		WDNR	Total/NA
Toluene	9400		25	17	ug/L	50		WDNR	Total/NA
Xylenes, Total	8000		38	15	ug/L	25		WDNR	Total/NA

### Client Sample ID: MW-4R

### Lab Sample ID: 500-162469-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2200		13	7.5	ug/L	25		WDNR	Total/NA
1,3,5-Trimethylbenzene	680		13	7.5	ug/L	25		WDNR	Total/NA
Benzene	310		13	9.0	ug/L	25		WDNR	Total/NA
Ethylbenzene	810		13	9.3	ug/L	25		WDNR	Total/NA
Methyl tert-butyl ether	26		13	6.0	ug/L	25		WDNR	Total/NA
Naphthalene	1300		130	60	ug/L	25		WDNR	Total/NA
Toluene	48		13	8.3	ug/L	25		WDNR	Total/NA
Xylenes, Total	2500		38	15	ug/L	25		WDNR	Total/NA

### Client Sample ID: MW-4A

### Lab Sample ID: 500-162469-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	20		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	13		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	120		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	49		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	17		0.50	0.24	ug/L	1		WDNR	Total/NA
Naphthalene	39		5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	20		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	67		1.5	0.58	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-5A

### Lab Sample ID: 500-162469-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	500		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	220		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	89		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	72		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	62		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	140		50	24	ug/L	10		WDNR	Total/NA
Toluene	6.2		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	390		15	5.8	ug/L	10		WDNR	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

### Client Sample ID: MW-7

### Lab Sample ID: 500-162469-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5.6		0.50	0.36	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-W

### Lab Sample ID: 500-162469-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.6		0.50	0.36	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	1.7		0.50	0.24	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-10

### Lab Sample ID: 500-162469-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	4600		13	7.5	ug/L	25		WDNR	Total/NA
1,3,5-Trimethylbenzene	1700		13	7.5	ug/L	25		WDNR	Total/NA
Benzene	1100		13	9.0	ug/L	25		WDNR	Total/NA
Ethylbenzene	1800		13	9.3	ug/L	25		WDNR	Total/NA
Methyl tert-butyl ether	320		13	6.0	ug/L	25		WDNR	Total/NA
Naphthalene	2100		130	60	ug/L	25		WDNR	Total/NA
Toluene	1500		13	8.3	ug/L	25		WDNR	Total/NA
Xylenes, Total	6100		38	15	ug/L	25		WDNR	Total/NA

### Client Sample ID: TRIP BLANK

### Lab Sample ID: 500-162469-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

## Method Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

Method	Method Description	Protocol	Laboratory
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.  
WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

**Laboratory References:**

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

# Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-162469-1	MW-1A	Water	04/26/19 11:15	04/30/19 11:40
500-162469-2	MW-3A	Water	04/26/19 13:00	04/30/19 11:40
500-162469-3	MW-4R	Water	04/26/19 12:45	04/30/19 11:40
500-162469-4	MW-4A	Water	04/26/19 12:15	04/30/19 11:40
500-162469-5	MW-5A	Water	04/26/19 12:30	04/30/19 11:40
500-162469-6	MW-7	Water	04/26/19 11:45	04/30/19 11:40
500-162469-7	MW-W	Water	04/26/19 12:00	04/30/19 11:40
500-162469-8	MW-10	Water	04/26/19 13:30	04/30/19 11:40
500-162469-9	TRIP BLANK	Water	04/26/19 00:00	04/30/19 11:40



## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

## Client Sample ID: MW-1A

Date Collected: 04/26/19 11:15

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-1

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 09:04	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 09:04	1
<b>Benzene</b>	<b>0.41</b>	<b>J</b>	0.50	0.36	ug/L			05/02/19 09:04	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/02/19 09:04	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/02/19 09:04	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/02/19 09:04	1
Toluene	<0.33		0.50	0.33	ug/L			05/02/19 09:04	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/02/19 09:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	96		80 - 120		05/02/19 09:04	1

## Client Sample ID: MW-3A

Date Collected: 04/26/19 13:00

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-2

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>2600</b>		13	7.5	ug/L			05/02/19 15:57	25
<b>1,3,5-Trimethylbenzene</b>	<b>830</b>		13	7.5	ug/L			05/02/19 15:57	25
<b>Benzene</b>	<b>2700</b>		13	9.0	ug/L			05/02/19 15:57	25
<b>Ethylbenzene</b>	<b>1500</b>		13	9.3	ug/L			05/02/19 15:57	25
<b>Methyl tert-butyl ether</b>	<b>580</b>		13	6.0	ug/L			05/02/19 15:57	25
<b>Naphthalene</b>	<b>1800</b>		130	60	ug/L			05/02/19 15:57	25
<b>Toluene</b>	<b>9400</b>		25	17	ug/L			05/02/19 17:31	50
<b>Xylenes, Total</b>	<b>8000</b>		38	15	ug/L			05/02/19 15:57	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	185	X	80 - 120		05/02/19 15:57	25
<i>a,a,a-Trifluorotoluene</i>	123	X	80 - 120		05/02/19 17:31	50

## Client Sample ID: MW-4R

Date Collected: 04/26/19 12:45

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-3

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>2200</b>		13	7.5	ug/L			05/02/19 18:34	25
<b>1,3,5-Trimethylbenzene</b>	<b>680</b>		13	7.5	ug/L			05/02/19 18:34	25
<b>Benzene</b>	<b>310</b>		13	9.0	ug/L			05/02/19 18:34	25
<b>Ethylbenzene</b>	<b>810</b>		13	9.3	ug/L			05/02/19 18:34	25
<b>Methyl tert-butyl ether</b>	<b>26</b>		13	6.0	ug/L			05/02/19 18:34	25
<b>Naphthalene</b>	<b>1300</b>		130	60	ug/L			05/02/19 18:34	25
<b>Toluene</b>	<b>48</b>		13	8.3	ug/L			05/02/19 18:34	25
<b>Xylenes, Total</b>	<b>2500</b>		38	15	ug/L			05/02/19 18:34	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	201	X	80 - 120		05/02/19 18:34	25

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

## Client Sample ID: MW-4A

Date Collected: 04/26/19 12:15

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-4

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	20		0.50	0.30	ug/L			05/02/19 09:35	1
1,3,5-Trimethylbenzene	13		0.50	0.30	ug/L			05/02/19 09:35	1
Benzene	120		0.50	0.36	ug/L			05/02/19 09:35	1
Ethylbenzene	49		0.50	0.37	ug/L			05/02/19 09:35	1
Methyl tert-butyl ether	17		0.50	0.24	ug/L			05/02/19 09:35	1
Naphthalene	39		5.0	2.4	ug/L			05/02/19 09:35	1
Toluene	20		0.50	0.33	ug/L			05/02/19 09:35	1
Xylenes, Total	67		1.5	0.58	ug/L			05/02/19 09:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	130	X	80 - 120		05/02/19 09:35	1

## Client Sample ID: MW-5A

Date Collected: 04/26/19 12:30

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-5

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	500		5.0	3.0	ug/L			05/02/19 13:19	10
1,3,5-Trimethylbenzene	220		5.0	3.0	ug/L			05/02/19 13:19	10
Benzene	89		5.0	3.6	ug/L			05/02/19 13:19	10
Ethylbenzene	72		5.0	3.7	ug/L			05/02/19 13:19	10
Methyl tert-butyl ether	62		5.0	2.4	ug/L			05/02/19 13:19	10
Naphthalene	140		50	24	ug/L			05/02/19 13:19	10
Toluene	6.2		5.0	3.3	ug/L			05/02/19 13:19	10
Xylenes, Total	390		15	5.8	ug/L			05/02/19 13:19	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	145	X	80 - 120		05/02/19 13:19	10

## Client Sample ID: MW-7

Date Collected: 04/26/19 11:45

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-6

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 12:16	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 12:16	1
Benzene	5.6		0.50	0.36	ug/L			05/02/19 12:16	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/02/19 12:16	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/02/19 12:16	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/02/19 12:16	1
Toluene	<0.33		0.50	0.33	ug/L			05/02/19 12:16	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/02/19 12:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		80 - 120		05/02/19 12:16	1

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

## Client Sample ID: MW-W

Date Collected: 04/26/19 12:00

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-7

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 12:47	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 12:47	1
<b>Benzene</b>	<b>2.6</b>		0.50	0.36	ug/L			05/02/19 12:47	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/02/19 12:47	1
<b>Methyl tert-butyl ether</b>	<b>1.7</b>		0.50	0.24	ug/L			05/02/19 12:47	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/02/19 12:47	1
Toluene	<0.33		0.50	0.33	ug/L			05/02/19 12:47	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/02/19 12:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	93		80 - 120		05/02/19 12:47	1

## Client Sample ID: MW-10

Date Collected: 04/26/19 13:30

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-8

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>4600</b>		13	7.5	ug/L			05/02/19 21:11	25
<b>1,3,5-Trimethylbenzene</b>	<b>1700</b>		13	7.5	ug/L			05/02/19 21:11	25
<b>Benzene</b>	<b>1100</b>		13	9.0	ug/L			05/02/19 21:11	25
<b>Ethylbenzene</b>	<b>1800</b>		13	9.3	ug/L			05/02/19 21:11	25
<b>Methyl tert-butyl ether</b>	<b>320</b>		13	6.0	ug/L			05/02/19 21:11	25
<b>Naphthalene</b>	<b>2100</b>		130	60	ug/L			05/02/19 21:11	25
<b>Toluene</b>	<b>1500</b>		13	8.3	ug/L			05/02/19 21:11	25
<b>Xylenes, Total</b>	<b>6100</b>		38	15	ug/L			05/02/19 21:11	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	164	X	80 - 120		05/02/19 21:11	25

## Client Sample ID: TRIP BLANK

Date Collected: 04/26/19 00:00

Date Received: 04/30/19 11:40

## Lab Sample ID: 500-162469-9

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 08:33	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 08:33	1
Benzene	<0.36		0.50	0.36	ug/L			05/02/19 08:33	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/02/19 08:33	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/02/19 08:33	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/02/19 08:33	1
Toluene	<0.33		0.50	0.33	ug/L			05/02/19 08:33	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/02/19 08:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>a,a,a-Trifluorotoluene</i>	86		80 - 120		05/02/19 08:33	1

## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

### Qualifiers

#### GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

**QC Association Summary**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

**GC VOA****Analysis Batch: 592081**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-162469-1	MW-1A	Total/NA	Water	WDNR	
500-162469-2	MW-3A	Total/NA	Water	WDNR	
500-162469-2	MW-3A	Total/NA	Water	WDNR	
500-162469-3	MW-4R	Total/NA	Water	WDNR	
500-162469-4	MW-4A	Total/NA	Water	WDNR	
500-162469-5	MW-5A	Total/NA	Water	WDNR	
500-162469-6	MW-7	Total/NA	Water	WDNR	
500-162469-7	MW-W	Total/NA	Water	WDNR	
500-162469-8	MW-10	Total/NA	Water	WDNR	
500-162469-9	TRIP BLANK	Total/NA	Water	WDNR	
MB 490-592081/4	Method Blank	Total/NA	Water	WDNR	
LCS 490-592081/3	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-592081/32	Lab Control Sample Dup	Total/NA	Water	WDNR	
500-162469-1 MS	MW-1A	Total/NA	Water	WDNR	
500-162469-1 MSD	MW-1A	Total/NA	Water	WDNR	

## Surrogate Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT (80-120)
500-162469-1	MW-1A	96
500-162469-1 MS	MW-1A	98
500-162469-1 MSD	MW-1A	88
500-162469-2	MW-3A	185 X
500-162469-2	MW-3A	123 X
500-162469-3	MW-4R	201 X
500-162469-4	MW-4A	130 X
500-162469-5	MW-5A	145 X
500-162469-6	MW-7	95
500-162469-7	MW-W	93
500-162469-8	MW-10	164 X
500-162469-9	TRIP BLANK	86
LCS 490-592081/3	Lab Control Sample	94
LCSD 490-592081/32	Lab Control Sample Dup	89
MB 490-592081/4	Method Blank	94

#### Surrogate Legend

TFT = a,a,a-Trifluorotoluene

### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairy Concepts - 03-05510

Job ID: 500-162469-1

#### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

**Lab Sample ID: MB 490-592081/4**  
**Matrix: Water**  
**Analysis Batch: 592081**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 08:01	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			05/02/19 08:01	1
Benzene	<0.36		0.50	0.36	ug/L			05/02/19 08:01	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			05/02/19 08:01	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			05/02/19 08:01	1
Naphthalene	<2.4		5.0	2.4	ug/L			05/02/19 08:01	1
Toluene	<0.33		0.50	0.33	ug/L			05/02/19 08:01	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			05/02/19 08:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		80 - 120		05/02/19 08:01	1

**Lab Sample ID: LCS 490-592081/3**  
**Matrix: Water**  
**Analysis Batch: 592081**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	20.0	18.8		ug/L		94	60 - 131
1,3,5-Trimethylbenzene	20.0	18.7		ug/L		93	70 - 130
Benzene	20.0	17.0		ug/L		85	69 - 129
Ethylbenzene	20.0	18.0		ug/L		90	70 - 130
Methyl tert-butyl ether	20.0	17.5		ug/L		88	57 - 138
Naphthalene	20.0	18.6		ug/L		93	69 - 133
Toluene	20.0	17.7		ug/L		89	66 - 127
Xylenes, Total	60.0	55.1		ug/L		92	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
a,a,a-Trifluorotoluene	94		80 - 120

**Lab Sample ID: LCSD 490-592081/32**  
**Matrix: Water**  
**Analysis Batch: 592081**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	20.0	18.9		ug/L		95	60 - 131	1	43
1,3,5-Trimethylbenzene	20.0	18.8		ug/L		94	70 - 130	1	20
Benzene	20.0	17.2		ug/L		86	69 - 129	1	33
Ethylbenzene	20.0	18.0		ug/L		90	70 - 130	0	35
Methyl tert-butyl ether	20.0	17.8		ug/L		89	57 - 138	2	40
Naphthalene	20.0	19.5		ug/L		97	69 - 133	4	48
Toluene	20.0	17.9		ug/L		90	66 - 127	1	34
Xylenes, Total	60.0	55.3		ug/L		92		0	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
a,a,a-Trifluorotoluene	89		80 - 120

### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairy Concepts - 03-05510

Job ID: 500-162469-1

#### Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

**Lab Sample ID: 500-162469-1 MS**  
**Matrix: Water**  
**Analysis Batch: 592081**

**Client Sample ID: MW-1A**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	<0.30		20.0	21.5		ug/L		107	40 - 165
1,3,5-Trimethylbenzene	<0.30		20.0	21.8		ug/L		109	60 - 140
Benzene	0.41	J	20.0	20.5		ug/L		100	29 - 176
Ethylbenzene	<0.37		20.0	20.9		ug/L		105	30 - 170
Methyl tert-butyl ether	<0.24		20.0	19.9		ug/L		99	23 - 165
Naphthalene	<2.4		20.0	21.4		ug/L		107	10 - 175
Toluene	<0.33		20.0	20.6		ug/L		103	30 - 167
Xylenes, Total	<0.58		60.0	63.8		ug/L		106	
<b>MS MS</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
<i>a,a,a-Trifluorotoluene</i>	98		80 - 120						

**Lab Sample ID: 500-162469-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 592081**

**Client Sample ID: MW-1A**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	<0.30		20.0	20.9		ug/L		105	40 - 165	2	43
1,3,5-Trimethylbenzene	<0.30		20.0	21.1		ug/L		106	60 - 140	3	20
Benzene	0.41	J	20.0	20.1		ug/L		98	29 - 176	2	33
Ethylbenzene	<0.37		20.0	20.6		ug/L		103	30 - 170	2	35
Methyl tert-butyl ether	<0.24		20.0	20.3		ug/L		102	23 - 165	2	40
Naphthalene	<2.4		20.0	21.9		ug/L		109	10 - 175	2	48
Toluene	<0.33		20.0	20.1		ug/L		101	30 - 167	3	34
Xylenes, Total	<0.58		60.0	62.4		ug/L		104		2	
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
<i>a,a,a-Trifluorotoluene</i>	88		80 - 120								



# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

**Client Sample ID: MW-1A**

Date Collected: 04/26/19 11:15

Date Received: 04/30/19 11:40

**Lab Sample ID: 500-162469-1**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	592081	05/02/19 09:04	S1S	TAL NSH

**Client Sample ID: MW-3A**

Date Collected: 04/26/19 13:00

Date Received: 04/30/19 11:40

**Lab Sample ID: 500-162469-2**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		25	592081	05/02/19 15:57	S1S	TAL NSH
Total/NA	Analysis	WDNR		50	592081	05/02/19 17:31	S1S	TAL NSH

**Client Sample ID: MW-4R**

Date Collected: 04/26/19 12:45

Date Received: 04/30/19 11:40

**Lab Sample ID: 500-162469-3**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		25	592081	05/02/19 18:34	S1S	TAL NSH

**Client Sample ID: MW-4A**

Date Collected: 04/26/19 12:15

Date Received: 04/30/19 11:40

**Lab Sample ID: 500-162469-4**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	592081	05/02/19 09:35	S1S	TAL NSH

**Client Sample ID: MW-5A**

Date Collected: 04/26/19 12:30

Date Received: 04/30/19 11:40

**Lab Sample ID: 500-162469-5**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	592081	05/02/19 13:19	S1S	TAL NSH

**Client Sample ID: MW-7**

Date Collected: 04/26/19 11:45

Date Received: 04/30/19 11:40

**Lab Sample ID: 500-162469-6**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	592081	05/02/19 12:16	S1S	TAL NSH

**Client Sample ID: MW-W**

Date Collected: 04/26/19 12:00

Date Received: 04/30/19 11:40

**Lab Sample ID: 500-162469-7**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	592081	05/02/19 12:47	S1S	TAL NSH

# Lab Chronicle

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

**Client Sample ID: MW-10**  
**Date Collected: 04/26/19 13:30**  
**Date Received: 04/30/19 11:40**

**Lab Sample ID: 500-162469-8**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		25	592081	05/02/19 21:11	S1S	TAL NSH

**Client Sample ID: TRIP BLANK**  
**Date Collected: 04/26/19 00:00**  
**Date Received: 04/30/19 11:40**

**Lab Sample ID: 500-162469-9**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	592081	05/02/19 08:33	S1S	TAL NSH

**Laboratory References:**

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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## Accreditation/Certification Summary

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-162469-1

### Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19 *

### Laboratory: Eurofins TestAmerica, Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-19

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\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

(optional)

Report To: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

(optional)

Bill To: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: 500-162469 COC  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# 18174003



## Chain of Custody Record

Lab Job #: 500-162469  
 Chain of Custody Number: \_\_\_\_\_  
 Page 1 of 1 5.7  
 Temperature °C of Cooler: \_\_\_\_\_

Client		Client Project #		Preservative		Parameter		Project Name		Project Location/State		Lab Project #		Sampler		Lab PM		Preservative Key			
AET		03-05510		1				Dairy Concepts		Chili, WI				Michael K Neal		Sandra F.		1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Comments														
			Date	Time																	
1		MW-1A	4-26-19	11:15	3	W	X														
2		MW-3A		13:00	3	W	X														
3		MW-4R		12:45	3	W	X														
4		MW-4A		12:15	3	W	X														
5		MW-5A		12:30	3	W	X														
6		MW-7		11:45	3	W	X														
7		MW-W		12:00	3	W	X														
8		MW-10		13:30	3	W	X														
9		Trip Blmk.		-	1	W	X														

Turnaround Time Required (Business Days)

\_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days  15 Days \_\_\_ Other

Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>Michael Neal</u> Company: <u>AET</u> Date: <u>4-29-19</u> Time: <u>15:30</u>	Received By: <u>Fred</u> Company: _____ Date: _____ Time: _____	Lab Courier: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: <u>[Signature]</u> Company: _____ Date: <u>4-30-19</u> Time: <u>09:05</u>	Shipped: _____
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Hand Delivered: _____

Matrix Key

- WW - Wastewater
- W - Water
- S - Soil
- SL - Sludge
- MS - Miscellaneous
- OL - Oil
- A - Air
- SE - Sediment
- SO - Soil
- L - Leachate
- WI - Wipe
- DW - Drinking Water
- O - Other

Client Comments

PELFA

Lab Comments:

ORIGIN ID:EAUJ (715) 861-5045  
MICHAEL NEAL

1837 COUNTY HIGHWAY OO

CHIPPEWA FALLS, WI 54729  
UNITED STATES US

SHIP DATE: 29APR19  
ACTWGT: 20.22 LB  
CAD: 104737534/INET4100

BILL THIRD PARTY

TO **SAMPLE RECEIPT**  
**TEST AMERICA**  
**2417 BOND STREET**



555J1D66CZ3AD

**UNIVERSITY PARK IL 60484**

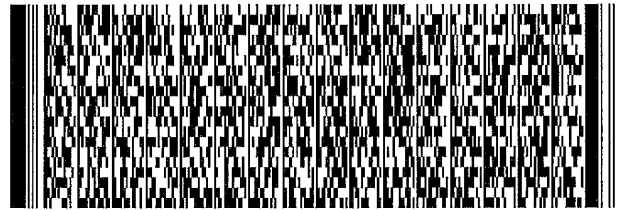
(708) 534-5200

REF:

500-162469 Waybill

INV:  
PC:

DEPT:



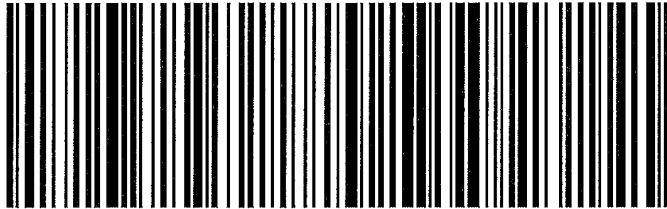
**TUE - 30 APR 3:00P**

**STANDARD OVERNIGHT**

TRK# **7750 8813 6102**  
0201

**GE JOTA**

**60484**  
IL-US **ORD**



*48 qt*

FedEx Ship Manager - Print Your Label(s)

4/29/2019

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING  
Nashville, TN

## COOLER RECEIPT FORM



500-162469 Chain of Custody

Cooler Received/Opened On 5/1/2019 @ 1020

Time Samples Removed From Cooler 16244 Time Samples Placed In Storage 16150 (2 Hour Window)

1. Tracking # 8106 (last 4 digits, FedEx) Courier: FedEx  
IR Gun ID 17960358 pH Strip Lot MA Chlorine Strip Lot MA

2. Temperature of rep. sample or temp blank when opened: 17 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) J.J.

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) ACE

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ACE

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) ACE

I certify that I attached a label with the unique LIMS number to each container (initial) ACE

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO..# \_\_\_\_\_

**Client Information (Sub Contract Lab)**  
 Shipping/Receiving  
 TestAmerica Laboratories, Inc  
 Address: 2960 Foster Creighton Drive,  
 City: Nashville  
 State, Zip: TN, 37204  
 Phone: 615-726-0177(Tel) 615-726-3404(Fax)  
 Email:  
 Project Name: Dairi Concepts - 03-05510  
 Dairi Concepts - 03-05510  
 Site:

**Sampler:** Lab PM: Fredrick, Sandie  
 Phone: E-Mail: sandie.fredrick@testamericainc.com  
 Wisconsin  
 Accreditations Required (See note): State Program - Wisconsin  
 Due Date Requested: 5/8/2019  
 TAT Requested (days):  
 PO #:  
 WO #:  
 Project #: 50007204  
 SSOW#:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/oil, B=BI, T=Table, A=AU)	Field Filtered Sample (Yes or No)	Patron MS/MSD (Yes or No)	WL_GRO/5030B PVC+NAP	Analysis Requested	Preservation Codes	Total Number of Containers	Special Instructions/Note:
MW-1A (500-162469-1)	4/26/19	11:15 Central	Water	Water	X	X	X		A - HCL M - Hexane B - NaOH N - None O - AsN8O2 C - Zn Acetate D - Nitric Acid P - Na2O4S E - NaHSO4 G - Amchlor R - Na2SO3 S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate U - Acetone I - Ice J - DI Water K - EDTA V - MCAA W - pH 4-5 L - EDA Other:	3	
MW-3A (500-162469-2)	4/26/19	13:00 Central	Water	Water	X	X	X			3	
MW-4R (500-162469-3)	4/26/19	12:45 Central	Water	Water	X	X	X			3	
MW-4A (500-162469-4)	4/26/19	12:15 Central	Water	Water	X	X	X			3	
MW-5A (500-162469-5)	4/26/19	12:30 Central	Water	Water	X	X	X			3	
MW-7 (500-162469-6)	4/26/19	11:45 Central	Water	Water	X	X	X			3	
MW-W (500-162469-7)	4/26/19	12:00 Central	Water	Water	X	X	X			3	
MW-10 (500-162469-8)	4/26/19	13:30 Central	Water	Water	X	X	X			3	
TRIP BLANK (500-162469-9)	4/26/19	Central	Water	Water	X	X	X			1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For Months

Empty Kit Requiring by: Date: Time: Method of Shipment:  
 Relinquished by: *Ann Scott* Date: 4/30/19 Time: 14:45 Company: TH Corp  
 Relinquished by: Date: Time: Company:  
 Relinquished by: Date: Time: Company:  
 Custody Seals Intact:  Yes  No  
 Custody Seal No.:  
 Cooler Temperature(s) °C and Other Remarks: 1.7

## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-162469-1

**Login Number: 162469****List Source: Eurofins TestAmerica, Chicago****List Number: 1****Creator: James, Jeff A**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Environment Testing  
TestAmerica

**REVIEWED**

By mneal at 8:43 am, Jul 16, 2019

## ANALYTICAL REPORT

Eurofins TestAmerica, Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

Laboratory Job ID: 500-166427-1  
Client Project/Site: Dairi Concepts - 03-05510

For:

American Engineering Testing Inc.  
1837 Cty Hwy OO  
Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal

Authorized for release by:  
7/16/2019 8:23:35 AM

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)



### LINKS

Review your project results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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## Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

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**Job ID: 500-166427-1**

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**Laboratory: Eurofins TestAmerica, Chicago****Narrative****Job Narrative  
500-166427-1****Comments**

No additional comments.

**Receipt**

The samples were received on 7/10/2019 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 10.1° C.

**Receipt Exceptions**

The following samples were received at the laboratory outside the required temperature criteria: MW-1A (500-166427-1), MW-3A (500-166427-2), MW-4R (500-166427-3), MW-4A (500-166427-4), MW-5A (500-166427-5), MW-7 (500-166427-6), MW-10 (500-166427-7), MW-W (500-166427-8), Trip Blank (500-166427-9), PW-1 (500-166427-10), PW-4 (500-166427-11), PW-5 (500-166427-12) and Strey Well (500-166427-13).

**GC/MS VOA**

Method(s) 524.2: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 480-481777 recovered outside control limits for the following analyte: Acetone. This analyte was biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

Method(s) 524.2: The low level laboratory control sample (LLCS) for analytical batch 480-481777 recovered outside control limits for the following analytes: Acetone and Methylene Chloride. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 524.2: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 480-481777 recovered outside control limits for the following analyte: Acetone.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**GC VOA**

Method(s) WI-GRO: The method blank for analytical batch 490-606298 contained Methyl tert-butyl ether above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) WI-GRO: Surrogate recovery for the following samples were outside control limits: MW-3A (500-166427-2), MW-4R (500-166427-3), MW-4A (500-166427-4) and MW-10 (500-166427-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

**VOA Prep**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

### Client Sample ID: MW-1A

### Lab Sample ID: 500-166427-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.2		0.50	0.36	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	0.35	J B	0.50	0.24	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-3A

### Lab Sample ID: 500-166427-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	250		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	85		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	150		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	120		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	15	B	0.50	0.24	ug/L	1		WDNR	Total/NA
Naphthalene	90		5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	14000		50	33	ug/L	100		WDNR	Total/NA
Xylenes, Total	680		1.5	0.58	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-4R

### Lab Sample ID: 500-166427-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	3000		13	7.5	ug/L	25		WDNR	Total/NA
1,3,5-Trimethylbenzene	990		13	7.5	ug/L	25		WDNR	Total/NA
Benzene	760		13	9.0	ug/L	25		WDNR	Total/NA
Ethylbenzene	1000		13	9.3	ug/L	25		WDNR	Total/NA
Methyl tert-butyl ether	540	B	13	6.0	ug/L	25		WDNR	Total/NA
Naphthalene	1300		130	60	ug/L	25		WDNR	Total/NA
Toluene	230		13	8.3	ug/L	25		WDNR	Total/NA
Xylenes, Total	3200		38	15	ug/L	25		WDNR	Total/NA

### Client Sample ID: MW-4A

### Lab Sample ID: 500-166427-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	30		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	24		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	32		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	50		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	14	B	0.50	0.24	ug/L	1		WDNR	Total/NA
Naphthalene	58		5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	15		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	67		1.5	0.58	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-5A

### Lab Sample ID: 500-166427-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	42		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	13		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	6.3		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	6.8		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	4.7	B	0.50	0.24	ug/L	1		WDNR	Total/NA
Naphthalene	40		5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	0.78		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	22		1.5	0.58	ug/L	1		WDNR	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

### Client Sample ID: MW-7

Lab Sample ID: 500-166427-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.2		0.50	0.36	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	0.27	J B	0.50	0.24	ug/L	1		WDNR	Total/NA

### Client Sample ID: MW-10

Lab Sample ID: 500-166427-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	3100		13	7.5	ug/L	25		WDNR	Total/NA
1,3,5-Trimethylbenzene	1000		13	7.5	ug/L	25		WDNR	Total/NA
Benzene	570		13	9.0	ug/L	25		WDNR	Total/NA
Ethylbenzene	1200		13	9.3	ug/L	25		WDNR	Total/NA
Methyl tert-butyl ether	460	B	13	6.0	ug/L	25		WDNR	Total/NA
Naphthalene	1400		130	60	ug/L	25		WDNR	Total/NA
Toluene	890		13	8.3	ug/L	25		WDNR	Total/NA
Xylenes, Total	3700		38	15	ug/L	25		WDNR	Total/NA

### Client Sample ID: MW-W

Lab Sample ID: 500-166427-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.65		0.50	0.36	ug/L	1		WDNR	Total/NA

### Client Sample ID: Trip Blank

Lab Sample ID: 500-166427-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.27	J B	0.50	0.24	ug/L	1		WDNR	Total/NA

### Client Sample ID: PW-1

Lab Sample ID: 500-166427-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.5	J*	5.0	1.0	ug/L	1		524.2	Total/NA
Chloroform	0.28	J	0.50	0.14	ug/L	1		524.2	Total/NA

### Client Sample ID: PW-4

Lab Sample ID: 500-166427-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.0	J*	5.0	1.0	ug/L	1		524.2	Total/NA

### Client Sample ID: PW-5

Lab Sample ID: 500-166427-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J*	5.0	1.0	ug/L	1		524.2	Total/NA

### Client Sample ID: Strey Well

Lab Sample ID: 500-166427-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.8	J*	5.0	1.0	ug/L	1		524.2	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

## Method Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL BUF
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH

### Protocol References:

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.  
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.  
WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

### Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600  
TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-166427-1	MW-1A	Water	07/09/19 09:30	07/10/19 09:10	
500-166427-2	MW-3A	Water	07/09/19 12:30	07/10/19 09:10	
500-166427-3	MW-4R	Water	07/09/19 12:00	07/10/19 09:10	
500-166427-4	MW-4A	Water	07/09/19 11:30	07/10/19 09:10	
500-166427-5	MW-5A	Water	07/09/19 11:00	07/10/19 09:10	
500-166427-6	MW-7	Water	07/09/19 10:00	07/10/19 09:10	
500-166427-7	MW-10	Water	07/09/19 13:00	07/10/19 09:10	
500-166427-8	MW-W	Water	07/09/19 10:30	07/10/19 09:10	
500-166427-9	Trip Blank	Water	07/09/19 00:00	07/10/19 09:10	
500-166427-10	PW-1	Water	07/09/19 14:00	07/10/19 09:10	
500-166427-11	PW-4	Water	07/09/19 13:30	07/10/19 09:10	
500-166427-12	PW-5	Water	07/09/19 13:45	07/10/19 09:10	
500-166427-13	Strey Well	Water	07/09/19 14:15	07/10/19 09:10	

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

## Client Sample ID: MW-1A

Date Collected: 07/09/19 09:30

Date Received: 07/10/19 09:10

## Lab Sample ID: 500-166427-1

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 18:52	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 18:52	1
<b>Benzene</b>	<b>1.2</b>		0.50	0.36	ug/L			07/12/19 18:52	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/12/19 18:52	1
<b>Methyl tert-butyl ether</b>	<b>0.35</b>	<b>J B</b>	0.50	0.24	ug/L			07/12/19 18:52	1
Naphthalene	<2.4		5.0	2.4	ug/L			07/12/19 18:52	1
Toluene	<0.33		0.50	0.33	ug/L			07/12/19 18:52	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/12/19 18:52	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-Trifluorotoluene</i>	97		80 - 120					07/12/19 18:52	1

## Client Sample ID: MW-3A

Date Collected: 07/09/19 12:30

Date Received: 07/10/19 09:10

## Lab Sample ID: 500-166427-2

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	250		0.50	0.30	ug/L			07/13/19 02:42	1
1,3,5-Trimethylbenzene	85		0.50	0.30	ug/L			07/13/19 02:42	1
<b>Benzene</b>	<b>150</b>		0.50	0.36	ug/L			07/13/19 02:42	1
Ethylbenzene	120		0.50	0.37	ug/L			07/13/19 02:42	1
<b>Methyl tert-butyl ether</b>	<b>15</b>	<b>B</b>	0.50	0.24	ug/L			07/13/19 02:42	1
Naphthalene	90		5.0	2.4	ug/L			07/13/19 02:42	1
Toluene	14000		50	33	ug/L			07/13/19 04:16	100
Xylenes, Total	680		1.5	0.58	ug/L			07/13/19 02:42	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-Trifluorotoluene</i>	211	X	80 - 120					07/13/19 02:42	1
<i>a,a,a-Trifluorotoluene</i>	138	X	80 - 120					07/13/19 04:16	100

## Client Sample ID: MW-4R

Date Collected: 07/09/19 12:00

Date Received: 07/10/19 09:10

## Lab Sample ID: 500-166427-3

Matrix: Water

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	3000		13	7.5	ug/L			07/13/19 05:18	25
1,3,5-Trimethylbenzene	990		13	7.5	ug/L			07/13/19 05:18	25
<b>Benzene</b>	<b>760</b>		13	9.0	ug/L			07/13/19 05:18	25
Ethylbenzene	1000		13	9.3	ug/L			07/13/19 05:18	25
<b>Methyl tert-butyl ether</b>	<b>540</b>	<b>B</b>	13	6.0	ug/L			07/13/19 05:18	25
Naphthalene	1300		130	60	ug/L			07/13/19 05:18	25
Toluene	230		13	8.3	ug/L			07/13/19 05:18	25
Xylenes, Total	3200		38	15	ug/L			07/13/19 05:18	25
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>a,a,a-Trifluorotoluene</i>	186	X	80 - 120					07/13/19 05:18	25



## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

Client Sample ID: MW-4A

Lab Sample ID: 500-166427-4

Date Collected: 07/09/19 11:30

Matrix: Water

Date Received: 07/10/19 09:10

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	30		0.50	0.30	ug/L			07/12/19 19:55	1
1,3,5-Trimethylbenzene	24		0.50	0.30	ug/L			07/12/19 19:55	1
Benzene	32		0.50	0.36	ug/L			07/12/19 19:55	1
Ethylbenzene	50		0.50	0.37	ug/L			07/12/19 19:55	1
Methyl tert-butyl ether	14	B	0.50	0.24	ug/L			07/12/19 19:55	1
Naphthalene	58		5.0	2.4	ug/L			07/12/19 19:55	1
Toluene	15		0.50	0.33	ug/L			07/12/19 19:55	1
Xylenes, Total	67		1.5	0.58	ug/L			07/12/19 19:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	154	X	80 - 120		07/12/19 19:55	1

Client Sample ID: MW-5A

Lab Sample ID: 500-166427-5

Date Collected: 07/09/19 11:00

Matrix: Water

Date Received: 07/10/19 09:10

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	42		0.50	0.30	ug/L			07/12/19 21:29	1
1,3,5-Trimethylbenzene	13		0.50	0.30	ug/L			07/12/19 21:29	1
Benzene	6.3		0.50	0.36	ug/L			07/12/19 21:29	1
Ethylbenzene	6.8		0.50	0.37	ug/L			07/12/19 21:29	1
Methyl tert-butyl ether	4.7	B	0.50	0.24	ug/L			07/12/19 21:29	1
Naphthalene	40		5.0	2.4	ug/L			07/12/19 21:29	1
Toluene	0.78		0.50	0.33	ug/L			07/12/19 21:29	1
Xylenes, Total	22		1.5	0.58	ug/L			07/12/19 21:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		80 - 120		07/12/19 21:29	1

Client Sample ID: MW-7

Lab Sample ID: 500-166427-6

Date Collected: 07/09/19 10:00

Matrix: Water

Date Received: 07/10/19 09:10

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 19:24	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 19:24	1
Benzene	3.2		0.50	0.36	ug/L			07/12/19 19:24	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/12/19 19:24	1
Methyl tert-butyl ether	0.27	J B	0.50	0.24	ug/L			07/12/19 19:24	1
Naphthalene	<2.4		5.0	2.4	ug/L			07/12/19 19:24	1
Toluene	<0.33		0.50	0.33	ug/L			07/12/19 19:24	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/12/19 19:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		80 - 120		07/12/19 19:24	1

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

Client Sample ID: MW-10

Lab Sample ID: 500-166427-7

Date Collected: 07/09/19 13:00

Matrix: Water

Date Received: 07/10/19 09:10

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	3100		13	7.5	ug/L			07/13/19 00:06	25
1,3,5-Trimethylbenzene	1000		13	7.5	ug/L			07/13/19 00:06	25
Benzene	570		13	9.0	ug/L			07/13/19 00:06	25
Ethylbenzene	1200		13	9.3	ug/L			07/13/19 00:06	25
Methyl tert-butyl ether	460	B	13	6.0	ug/L			07/13/19 00:06	25
Naphthalene	1400		130	60	ug/L			07/13/19 00:06	25
Toluene	890		13	8.3	ug/L			07/13/19 00:06	25
Xylenes, Total	3700		38	15	ug/L			07/13/19 00:06	25
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	157	X	80 - 120					07/13/19 00:06	25

Client Sample ID: MW-W

Lab Sample ID: 500-166427-8

Date Collected: 07/09/19 10:30

Matrix: Water

Date Received: 07/10/19 09:10

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 16:46	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 16:46	1
Benzene	0.65		0.50	0.36	ug/L			07/12/19 16:46	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/12/19 16:46	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			07/12/19 16:46	1
Naphthalene	<2.4		5.0	2.4	ug/L			07/12/19 16:46	1
Toluene	<0.33		0.50	0.33	ug/L			07/12/19 16:46	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/12/19 16:46	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	101		80 - 120					07/12/19 16:46	1

Client Sample ID: Trip Blank

Lab Sample ID: 500-166427-9

Date Collected: 07/09/19 00:00

Matrix: Water

Date Received: 07/10/19 09:10

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 16:15	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 16:15	1
Benzene	<0.36		0.50	0.36	ug/L			07/12/19 16:15	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/12/19 16:15	1
Methyl tert-butyl ether	0.27	J B	0.50	0.24	ug/L			07/12/19 16:15	1
Naphthalene	<2.4		5.0	2.4	ug/L			07/12/19 16:15	1
Toluene	<0.33		0.50	0.33	ug/L			07/12/19 16:15	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/12/19 16:15	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	96		80 - 120					07/12/19 16:15	1

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

Client Sample ID: PW-1

Lab Sample ID: 500-166427-10

Date Collected: 07/09/19 14:00

Matrix: Water

Date Received: 07/10/19 09:10

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.14		0.50	0.14	ug/L			07/12/19 12:08	1
1,1,1-Trichloroethane	<0.21		0.50	0.21	ug/L			07/12/19 12:08	1
1,1,2,2-Tetrachloroethane	<0.070		0.50	0.070	ug/L			07/12/19 12:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.17		0.50	0.17	ug/L			07/12/19 12:08	1
1,1,2-Trichloroethane	<0.17		0.50	0.17	ug/L			07/12/19 12:08	1
1,1-Dichloroethane	<0.18		0.50	0.18	ug/L			07/12/19 12:08	1
1,1-Dichloroethene	<0.16		0.50	0.16	ug/L			07/12/19 12:08	1
1,1-Dichloropropene	<0.063		0.50	0.063	ug/L			07/12/19 12:08	1
1,2,3-Trichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:08	1
1,2,3-Trichloropropane	<0.12		0.50	0.12	ug/L			07/12/19 12:08	1
1,2,4-Trichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
1,2,4-Trimethylbenzene	<0.090		0.50	0.090	ug/L			07/12/19 12:08	1
1,2-Dichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:08	1
1,2-Dichloroethane	<0.14		0.50	0.14	ug/L			07/12/19 12:08	1
1,2-Dichloropropane	<0.11		0.50	0.11	ug/L			07/12/19 12:08	1
1,3,5-Trimethylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
1,3-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
1,3-Dichloropropane	<0.15		0.50	0.15	ug/L			07/12/19 12:08	1
1,4-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
2,2-Dichloropropane	<0.35		0.50	0.35	ug/L			07/12/19 12:08	1
2-Butanone (MEK)	<1.0		5.0	1.0	ug/L			07/12/19 12:08	1
2-Chlorotoluene	<0.12		0.50	0.12	ug/L			07/12/19 12:08	1
2-Hexanone	<1.0		5.0	1.0	ug/L			07/12/19 12:08	1
4-Chlorotoluene	<0.15		0.50	0.15	ug/L			07/12/19 12:08	1
4-Isopropyltoluene	<0.063		0.50	0.063	ug/L			07/12/19 12:08	1
4-Methyl-2-pentanone (MIBK)	<1.0		5.0	1.0	ug/L			07/12/19 12:08	1
<b>Acetone</b>	<b>2.5</b>	<b>J *</b>	5.0	1.0	ug/L			07/12/19 12:08	1
Acrylonitrile	<2.2		10	2.2	ug/L			07/12/19 12:08	1
Allyl chloride	<0.22		0.50	0.22	ug/L			07/12/19 12:08	1
Benzene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
Bromobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
Bromochloromethane	<0.11		0.50	0.11	ug/L			07/12/19 12:08	1
Bromoform	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
Bromomethane	<0.23		0.50	0.23	ug/L			07/12/19 12:08	1
Carbon disulfide	<0.15		0.50	0.15	ug/L			07/12/19 12:08	1
Carbon tetrachloride	<0.21		0.50	0.21	ug/L			07/12/19 12:08	1
Chlorobenzene	<0.12		0.50	0.12	ug/L			07/12/19 12:08	1
Chlorodibromomethane	<0.16		0.50	0.16	ug/L			07/12/19 12:08	1
Chloroethane	<0.20		0.50	0.20	ug/L			07/12/19 12:08	1
<b>Chloroform</b>	<b>0.28</b>	<b>J</b>	0.50	0.14	ug/L			07/12/19 12:08	1
Chloromethane	<0.17		0.50	0.17	ug/L			07/12/19 12:08	1
cis-1,2-Dichloroethene	<0.12		0.50	0.12	ug/L			07/12/19 12:08	1
cis-1,3-Dichloropropene	<0.080		0.50	0.080	ug/L			07/12/19 12:08	1
Dibromomethane	<0.17		0.50	0.17	ug/L			07/12/19 12:08	1
Dichlorobromomethane	<0.14		0.50	0.14	ug/L			07/12/19 12:08	1
Dichlorodifluoromethane	<0.15		0.50	0.15	ug/L			07/12/19 12:08	1
Dichlorofluoromethane	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
Ethyl ether	<0.12		0.50	0.12	ug/L			07/12/19 12:08	1
Ethylbenzene	<0.11		0.50	0.11	ug/L			07/12/19 12:08	1

Eurofins TestAmerica, Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

Client Sample ID: PW-1

Lab Sample ID: 500-166427-10

Date Collected: 07/09/19 14:00

Matrix: Water

Date Received: 07/10/19 09:10

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.11		0.50	0.11	ug/L			07/12/19 12:08	1
Iodomethane	<0.15		0.50	0.15	ug/L			07/12/19 12:08	1
Isopropylbenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:08	1
Methyl tert-butyl ether	<0.12		0.50	0.12	ug/L			07/12/19 12:08	1
Methylene Chloride	<0.99	*	2.5	0.99	ug/L			07/12/19 12:08	1
m-Xylene & p-Xylene	<0.30		1.0	0.30	ug/L			07/12/19 12:08	1
Naphthalene	<0.15		0.50	0.15	ug/L			07/12/19 12:08	1
n-Butylbenzene	<0.081		0.50	0.081	ug/L			07/12/19 12:08	1
N-Propylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
o-Xylene	<0.12		0.50	0.12	ug/L			07/12/19 12:08	1
sec-Butylbenzene	<0.068		0.50	0.068	ug/L			07/12/19 12:08	1
Styrene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
t-Butanol	<2.5		10	2.5	ug/L			07/12/19 12:08	1
tert-Butylbenzene	<0.060		0.50	0.060	ug/L			07/12/19 12:08	1
Tetrachloroethene	<0.20		0.50	0.20	ug/L			07/12/19 12:08	1
Toluene	<0.10		0.50	0.10	ug/L			07/12/19 12:08	1
trans-1,2-Dichloroethene	<0.13		0.50	0.13	ug/L			07/12/19 12:08	1
trans-1,3-Dichloropropene	<0.10		0.50	0.10	ug/L			07/12/19 12:08	1
trans-1,4-Dichloro-2-butene	<1.3		2.5	1.3	ug/L			07/12/19 12:08	1
Trichloroethene	<0.18		0.50	0.18	ug/L			07/12/19 12:08	1
Trichlorofluoromethane	<0.19		0.50	0.19	ug/L			07/12/19 12:08	1
Trihalomethanes, Total	<1.0		2.0	1.0	ug/L			07/12/19 12:08	1
Vinyl acetate	<0.45		2.5	0.45	ug/L			07/12/19 12:08	1
Vinyl chloride	<0.18		0.50	0.18	ug/L			07/12/19 12:08	1
Xylenes, Total	<0.12		1.0	0.12	ug/L			07/12/19 12:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	102		80 - 120		07/12/19 12:08	1
4-Bromofluorobenzene (Surr)	91		80 - 120		07/12/19 12:08	1

Client Sample ID: PW-4

Lab Sample ID: 500-166427-11

Date Collected: 07/09/19 13:30

Matrix: Water

Date Received: 07/10/19 09:10

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.14		0.50	0.14	ug/L			07/12/19 12:33	1
1,1,1-Trichloroethane	<0.21		0.50	0.21	ug/L			07/12/19 12:33	1
1,1,2,2-Tetrachloroethane	<0.070		0.50	0.070	ug/L			07/12/19 12:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.17		0.50	0.17	ug/L			07/12/19 12:33	1
1,1,2-Trichloroethane	<0.17		0.50	0.17	ug/L			07/12/19 12:33	1
1,1-Dichloroethane	<0.18		0.50	0.18	ug/L			07/12/19 12:33	1
1,1-Dichloroethene	<0.16		0.50	0.16	ug/L			07/12/19 12:33	1
1,1-Dichloropropene	<0.063		0.50	0.063	ug/L			07/12/19 12:33	1
1,2,3-Trichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:33	1
1,2,3-Trichloropropane	<0.12		0.50	0.12	ug/L			07/12/19 12:33	1
1,2,4-Trichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
1,2,4-Trimethylbenzene	<0.090		0.50	0.090	ug/L			07/12/19 12:33	1
1,2-Dichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:33	1
1,2-Dichloroethane	<0.14		0.50	0.14	ug/L			07/12/19 12:33	1

Eurofins TestAmerica, Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

Client Sample ID: PW-4

Lab Sample ID: 500-166427-11

Date Collected: 07/09/19 13:30

Matrix: Water

Date Received: 07/10/19 09:10

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<0.11		0.50	0.11	ug/L			07/12/19 12:33	1
1,3,5-Trimethylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
1,3-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
1,3-Dichloropropane	<0.15		0.50	0.15	ug/L			07/12/19 12:33	1
1,4-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
2,2-Dichloropropane	<0.35		0.50	0.35	ug/L			07/12/19 12:33	1
2-Butanone (MEK)	<1.0		5.0	1.0	ug/L			07/12/19 12:33	1
2-Chlorotoluene	<0.12		0.50	0.12	ug/L			07/12/19 12:33	1
2-Hexanone	<1.0		5.0	1.0	ug/L			07/12/19 12:33	1
4-Chlorotoluene	<0.15		0.50	0.15	ug/L			07/12/19 12:33	1
4-Isopropyltoluene	<0.063		0.50	0.063	ug/L			07/12/19 12:33	1
4-Methyl-2-pentanone (MIBK)	<1.0		5.0	1.0	ug/L			07/12/19 12:33	1
Acetone	2.0	J *	5.0	1.0	ug/L			07/12/19 12:33	1
Acrylonitrile	<2.2		10	2.2	ug/L			07/12/19 12:33	1
Allyl chloride	<0.22		0.50	0.22	ug/L			07/12/19 12:33	1
Benzene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
Bromobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
Bromochloromethane	<0.11		0.50	0.11	ug/L			07/12/19 12:33	1
Bromoform	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
Bromomethane	<0.23		0.50	0.23	ug/L			07/12/19 12:33	1
Carbon disulfide	<0.15		0.50	0.15	ug/L			07/12/19 12:33	1
Carbon tetrachloride	<0.21		0.50	0.21	ug/L			07/12/19 12:33	1
Chlorobenzene	<0.12		0.50	0.12	ug/L			07/12/19 12:33	1
Chlorodibromomethane	<0.16		0.50	0.16	ug/L			07/12/19 12:33	1
Chloroethane	<0.20		0.50	0.20	ug/L			07/12/19 12:33	1
Chloroform	<0.14		0.50	0.14	ug/L			07/12/19 12:33	1
Chloromethane	<0.17		0.50	0.17	ug/L			07/12/19 12:33	1
cis-1,2-Dichloroethene	<0.12		0.50	0.12	ug/L			07/12/19 12:33	1
cis-1,3-Dichloropropene	<0.080		0.50	0.080	ug/L			07/12/19 12:33	1
Dibromomethane	<0.17		0.50	0.17	ug/L			07/12/19 12:33	1
Dichlorobromomethane	<0.14		0.50	0.14	ug/L			07/12/19 12:33	1
Dichlorodifluoromethane	<0.15		0.50	0.15	ug/L			07/12/19 12:33	1
Dichlorofluoromethane	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
Ethyl ether	<0.12		0.50	0.12	ug/L			07/12/19 12:33	1
Ethylbenzene	<0.11		0.50	0.11	ug/L			07/12/19 12:33	1
Hexachlorobutadiene	<0.11		0.50	0.11	ug/L			07/12/19 12:33	1
Iodomethane	<0.15		0.50	0.15	ug/L			07/12/19 12:33	1
Isopropylbenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:33	1
Methyl tert-butyl ether	<0.12		0.50	0.12	ug/L			07/12/19 12:33	1
Methylene Chloride	<0.99 *		2.5	0.99	ug/L			07/12/19 12:33	1
m-Xylene & p-Xylene	<0.30		1.0	0.30	ug/L			07/12/19 12:33	1
Naphthalene	<0.15		0.50	0.15	ug/L			07/12/19 12:33	1
n-Butylbenzene	<0.081		0.50	0.081	ug/L			07/12/19 12:33	1
N-Propylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
o-Xylene	<0.12		0.50	0.12	ug/L			07/12/19 12:33	1
sec-Butylbenzene	<0.068		0.50	0.068	ug/L			07/12/19 12:33	1
Styrene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
t-Butanol	<2.5		10	2.5	ug/L			07/12/19 12:33	1
tert-Butylbenzene	<0.060		0.50	0.060	ug/L			07/12/19 12:33	1

Eurofins TestAmerica, Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

Client Sample ID: PW-4

Lab Sample ID: 500-166427-11

Date Collected: 07/09/19 13:30

Matrix: Water

Date Received: 07/10/19 09:10

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	<0.20		0.50	0.20	ug/L			07/12/19 12:33	1
Toluene	<0.10		0.50	0.10	ug/L			07/12/19 12:33	1
trans-1,2-Dichloroethene	<0.13		0.50	0.13	ug/L			07/12/19 12:33	1
trans-1,3-Dichloropropene	<0.10		0.50	0.10	ug/L			07/12/19 12:33	1
trans-1,4-Dichloro-2-butene	<1.3		2.5	1.3	ug/L			07/12/19 12:33	1
Trichloroethene	<0.18		0.50	0.18	ug/L			07/12/19 12:33	1
Trichlorofluoromethane	<0.19		0.50	0.19	ug/L			07/12/19 12:33	1
Trihalomethanes, Total	<1.0		2.0	1.0	ug/L			07/12/19 12:33	1
Vinyl acetate	<0.45		2.5	0.45	ug/L			07/12/19 12:33	1
Vinyl chloride	<0.18		0.50	0.18	ug/L			07/12/19 12:33	1
Xylenes, Total	<0.12		1.0	0.12	ug/L			07/12/19 12:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	103		80 - 120					07/12/19 12:33	1
4-Bromofluorobenzene (Surr)	90		80 - 120					07/12/19 12:33	1

Client Sample ID: PW-5

Lab Sample ID: 500-166427-12

Date Collected: 07/09/19 13:45

Matrix: Water

Date Received: 07/10/19 09:10

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.14		0.50	0.14	ug/L			07/12/19 12:58	1
1,1,1-Trichloroethane	<0.21		0.50	0.21	ug/L			07/12/19 12:58	1
1,1,2,2-Tetrachloroethane	<0.070		0.50	0.070	ug/L			07/12/19 12:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.17		0.50	0.17	ug/L			07/12/19 12:58	1
1,1,2-Trichloroethane	<0.17		0.50	0.17	ug/L			07/12/19 12:58	1
1,1-Dichloroethane	<0.18		0.50	0.18	ug/L			07/12/19 12:58	1
1,1-Dichloroethene	<0.16		0.50	0.16	ug/L			07/12/19 12:58	1
1,1-Dichloropropene	<0.063		0.50	0.063	ug/L			07/12/19 12:58	1
1,2,3-Trichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:58	1
1,2,3-Trichloropropane	<0.12		0.50	0.12	ug/L			07/12/19 12:58	1
1,2,4-Trichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
1,2,4-Trimethylbenzene	<0.090		0.50	0.090	ug/L			07/12/19 12:58	1
1,2-Dichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:58	1
1,2-Dichloroethane	<0.14		0.50	0.14	ug/L			07/12/19 12:58	1
1,2-Dichloropropane	<0.11		0.50	0.11	ug/L			07/12/19 12:58	1
1,3,5-Trimethylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
1,3-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
1,3-Dichloropropane	<0.15		0.50	0.15	ug/L			07/12/19 12:58	1
1,4-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
2,2-Dichloropropane	<0.35		0.50	0.35	ug/L			07/12/19 12:58	1
2-Butanone (MEK)	<1.0		5.0	1.0	ug/L			07/12/19 12:58	1
2-Chlorotoluene	<0.12		0.50	0.12	ug/L			07/12/19 12:58	1
2-Hexanone	<1.0		5.0	1.0	ug/L			07/12/19 12:58	1
4-Chlorotoluene	<0.15		0.50	0.15	ug/L			07/12/19 12:58	1
4-Isopropyltoluene	<0.063		0.50	0.063	ug/L			07/12/19 12:58	1
4-Methyl-2-pentanone (MIBK)	<1.0		5.0	1.0	ug/L			07/12/19 12:58	1
Acetone	1.5	J *	5.0	1.0	ug/L			07/12/19 12:58	1
Acrylonitrile	<2.2		10	2.2	ug/L			07/12/19 12:58	1

Eurofins TestAmerica, Chicago



## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

Client Sample ID: PW-5

Lab Sample ID: 500-166427-12

Date Collected: 07/09/19 13:45

Matrix: Water

Date Received: 07/10/19 09:10

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Allyl chloride	<0.22		0.50	0.22	ug/L			07/12/19 12:58	1
Benzene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
Bromobenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
Bromochloromethane	<0.11		0.50	0.11	ug/L			07/12/19 12:58	1
Bromoform	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
Bromomethane	<0.23		0.50	0.23	ug/L			07/12/19 12:58	1
Carbon disulfide	<0.15		0.50	0.15	ug/L			07/12/19 12:58	1
Carbon tetrachloride	<0.21		0.50	0.21	ug/L			07/12/19 12:58	1
Chlorobenzene	<0.12		0.50	0.12	ug/L			07/12/19 12:58	1
Chlorodibromomethane	<0.16		0.50	0.16	ug/L			07/12/19 12:58	1
Chloroethane	<0.20		0.50	0.20	ug/L			07/12/19 12:58	1
Chloroform	<0.14		0.50	0.14	ug/L			07/12/19 12:58	1
Chloromethane	<0.17		0.50	0.17	ug/L			07/12/19 12:58	1
cis-1,2-Dichloroethene	<0.12		0.50	0.12	ug/L			07/12/19 12:58	1
cis-1,3-Dichloropropene	<0.080		0.50	0.080	ug/L			07/12/19 12:58	1
Dibromomethane	<0.17		0.50	0.17	ug/L			07/12/19 12:58	1
Dichlorobromomethane	<0.14		0.50	0.14	ug/L			07/12/19 12:58	1
Dichlorodifluoromethane	<0.15		0.50	0.15	ug/L			07/12/19 12:58	1
Dichlorofluoromethane	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
Ethyl ether	<0.12		0.50	0.12	ug/L			07/12/19 12:58	1
Ethylbenzene	<0.11		0.50	0.11	ug/L			07/12/19 12:58	1
Hexachlorobutadiene	<0.11		0.50	0.11	ug/L			07/12/19 12:58	1
Iodomethane	<0.15		0.50	0.15	ug/L			07/12/19 12:58	1
Isopropylbenzene	<0.16		0.50	0.16	ug/L			07/12/19 12:58	1
Methyl tert-butyl ether	<0.12		0.50	0.12	ug/L			07/12/19 12:58	1
Methylene Chloride	<0.99 *		2.5	0.99	ug/L			07/12/19 12:58	1
m-Xylene & p-Xylene	<0.30		1.0	0.30	ug/L			07/12/19 12:58	1
Naphthalene	<0.15		0.50	0.15	ug/L			07/12/19 12:58	1
n-Butylbenzene	<0.081		0.50	0.081	ug/L			07/12/19 12:58	1
N-Propylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
o-Xylene	<0.12		0.50	0.12	ug/L			07/12/19 12:58	1
sec-Butylbenzene	<0.068		0.50	0.068	ug/L			07/12/19 12:58	1
Styrene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
t-Butanol	<2.5		10	2.5	ug/L			07/12/19 12:58	1
tert-Butylbenzene	<0.060		0.50	0.060	ug/L			07/12/19 12:58	1
Tetrachloroethene	<0.20		0.50	0.20	ug/L			07/12/19 12:58	1
Toluene	<0.10		0.50	0.10	ug/L			07/12/19 12:58	1
trans-1,2-Dichloroethene	<0.13		0.50	0.13	ug/L			07/12/19 12:58	1
trans-1,3-Dichloropropene	<0.10		0.50	0.10	ug/L			07/12/19 12:58	1
trans-1,4-Dichloro-2-butene	<1.3		2.5	1.3	ug/L			07/12/19 12:58	1
Trichloroethene	<0.18		0.50	0.18	ug/L			07/12/19 12:58	1
Trichlorofluoromethane	<0.19		0.50	0.19	ug/L			07/12/19 12:58	1
Trihalomethanes, Total	<1.0		2.0	1.0	ug/L			07/12/19 12:58	1
Vinyl acetate	<0.45		2.5	0.45	ug/L			07/12/19 12:58	1
Vinyl chloride	<0.18		0.50	0.18	ug/L			07/12/19 12:58	1
Xylenes, Total	<0.12		1.0	0.12	ug/L			07/12/19 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	105		80 - 120		07/12/19 12:58	1
4-Bromofluorobenzene (Surr)	89		80 - 120		07/12/19 12:58	1

Eurofins TestAmerica, Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

Client Sample ID: Strey Well

Lab Sample ID: 500-166427-13

Date Collected: 07/09/19 14:15

Matrix: Water

Date Received: 07/10/19 09:10

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.14		0.50	0.14	ug/L			07/12/19 13:22	1
1,1,1-Trichloroethane	<0.21		0.50	0.21	ug/L			07/12/19 13:22	1
1,1,2,2-Tetrachloroethane	<0.070		0.50	0.070	ug/L			07/12/19 13:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.17		0.50	0.17	ug/L			07/12/19 13:22	1
1,1,2-Trichloroethane	<0.17		0.50	0.17	ug/L			07/12/19 13:22	1
1,1-Dichloroethane	<0.18		0.50	0.18	ug/L			07/12/19 13:22	1
1,1-Dichloroethene	<0.16		0.50	0.16	ug/L			07/12/19 13:22	1
1,1-Dichloropropene	<0.063		0.50	0.063	ug/L			07/12/19 13:22	1
1,2,3-Trichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 13:22	1
1,2,3-Trichloropropane	<0.12		0.50	0.12	ug/L			07/12/19 13:22	1
1,2,4-Trichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
1,2,4-Trimethylbenzene	<0.090		0.50	0.090	ug/L			07/12/19 13:22	1
1,2-Dichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 13:22	1
1,2-Dichloroethane	<0.14		0.50	0.14	ug/L			07/12/19 13:22	1
1,2-Dichloropropane	<0.11		0.50	0.11	ug/L			07/12/19 13:22	1
1,3,5-Trimethylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
1,3-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
1,3-Dichloropropane	<0.15		0.50	0.15	ug/L			07/12/19 13:22	1
1,4-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
2,2-Dichloropropane	<0.35		0.50	0.35	ug/L			07/12/19 13:22	1
2-Butanone (MEK)	<1.0		5.0	1.0	ug/L			07/12/19 13:22	1
2-Chlorotoluene	<0.12		0.50	0.12	ug/L			07/12/19 13:22	1
2-Hexanone	<1.0		5.0	1.0	ug/L			07/12/19 13:22	1
4-Chlorotoluene	<0.15		0.50	0.15	ug/L			07/12/19 13:22	1
4-Isopropyltoluene	<0.063		0.50	0.063	ug/L			07/12/19 13:22	1
4-Methyl-2-pentanone (MIBK)	<1.0		5.0	1.0	ug/L			07/12/19 13:22	1
<b>Acetone</b>	<b>1.8</b>	<b>J*</b>	5.0	1.0	ug/L			07/12/19 13:22	1
Acrylonitrile	<2.2		10	2.2	ug/L			07/12/19 13:22	1
Allyl chloride	<0.22		0.50	0.22	ug/L			07/12/19 13:22	1
Benzene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
Bromobenzene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
Bromochloromethane	<0.11		0.50	0.11	ug/L			07/12/19 13:22	1
Bromoform	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
Bromomethane	<0.23		0.50	0.23	ug/L			07/12/19 13:22	1
Carbon disulfide	<0.15		0.50	0.15	ug/L			07/12/19 13:22	1
Carbon tetrachloride	<0.21		0.50	0.21	ug/L			07/12/19 13:22	1
Chlorobenzene	<0.12		0.50	0.12	ug/L			07/12/19 13:22	1
Chlorodibromomethane	<0.16		0.50	0.16	ug/L			07/12/19 13:22	1
Chloroethane	<0.20		0.50	0.20	ug/L			07/12/19 13:22	1
Chloroform	<0.14		0.50	0.14	ug/L			07/12/19 13:22	1
Chloromethane	<0.17		0.50	0.17	ug/L			07/12/19 13:22	1
cis-1,2-Dichloroethene	<0.12		0.50	0.12	ug/L			07/12/19 13:22	1
cis-1,3-Dichloropropene	<0.080		0.50	0.080	ug/L			07/12/19 13:22	1
Dibromomethane	<0.17		0.50	0.17	ug/L			07/12/19 13:22	1
Dichlorobromomethane	<0.14		0.50	0.14	ug/L			07/12/19 13:22	1
Dichlorodifluoromethane	<0.15		0.50	0.15	ug/L			07/12/19 13:22	1
Dichlorofluoromethane	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
Ethyl ether	<0.12		0.50	0.12	ug/L			07/12/19 13:22	1
Ethylbenzene	<0.11		0.50	0.11	ug/L			07/12/19 13:22	1

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### Client Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

**Client Sample ID: Strey Well**

**Lab Sample ID: 500-166427-13**

**Date Collected: 07/09/19 14:15**

**Matrix: Water**

**Date Received: 07/10/19 09:10**

**Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.11		0.50	0.11	ug/L			07/12/19 13:22	1
Iodomethane	<0.15		0.50	0.15	ug/L			07/12/19 13:22	1
Isopropylbenzene	<0.16		0.50	0.16	ug/L			07/12/19 13:22	1
Methyl tert-butyl ether	<0.12		0.50	0.12	ug/L			07/12/19 13:22	1
Methylene Chloride	<0.99	*	2.5	0.99	ug/L			07/12/19 13:22	1
m-Xylene & p-Xylene	<0.30		1.0	0.30	ug/L			07/12/19 13:22	1
Naphthalene	<0.15		0.50	0.15	ug/L			07/12/19 13:22	1
n-Butylbenzene	<0.081		0.50	0.081	ug/L			07/12/19 13:22	1
N-Propylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
o-Xylene	<0.12		0.50	0.12	ug/L			07/12/19 13:22	1
sec-Butylbenzene	<0.068		0.50	0.068	ug/L			07/12/19 13:22	1
Styrene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
t-Butanol	<2.5		10	2.5	ug/L			07/12/19 13:22	1
tert-Butylbenzene	<0.060		0.50	0.060	ug/L			07/12/19 13:22	1
Tetrachloroethene	<0.20		0.50	0.20	ug/L			07/12/19 13:22	1
Toluene	<0.10		0.50	0.10	ug/L			07/12/19 13:22	1
trans-1,2-Dichloroethene	<0.13		0.50	0.13	ug/L			07/12/19 13:22	1
trans-1,3-Dichloropropene	<0.10		0.50	0.10	ug/L			07/12/19 13:22	1
trans-1,4-Dichloro-2-butene	<1.3		2.5	1.3	ug/L			07/12/19 13:22	1
Trichloroethene	<0.18		0.50	0.18	ug/L			07/12/19 13:22	1
Trichlorofluoromethane	<0.19		0.50	0.19	ug/L			07/12/19 13:22	1
Trihalomethanes, Total	<1.0		2.0	1.0	ug/L			07/12/19 13:22	1
Vinyl acetate	<0.45		2.5	0.45	ug/L			07/12/19 13:22	1
Vinyl chloride	<0.18		0.50	0.18	ug/L			07/12/19 13:22	1
Xylenes, Total	<0.12		1.0	0.12	ug/L			07/12/19 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	102		80 - 120		07/12/19 13:22	1
4-Bromofluorobenzene (Surr)	91		80 - 120		07/12/19 13:22	1

## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

### GC/MS VOA

#### Analysis Batch: 481777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-166427-10	PW-1	Total/NA	Water	524.2	
500-166427-11	PW-4	Total/NA	Water	524.2	
500-166427-12	PW-5	Total/NA	Water	524.2	
500-166427-13	Strey Well	Total/NA	Water	524.2	
MB 480-481777/7	Method Blank	Total/NA	Water	524.2	
LCS 480-481777/4	Lab Control Sample	Total/NA	Water	524.2	
LCSD 480-481777/5	Lab Control Sample Dup	Total/NA	Water	524.2	
LLCS 480-481777/6	Lab Control Sample	Total/NA	Water	524.2	

### GC VOA

#### Analysis Batch: 606298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-166427-1	MW-1A	Total/NA	Water	WDNR	
500-166427-2	MW-3A	Total/NA	Water	WDNR	
500-166427-2	MW-3A	Total/NA	Water	WDNR	
500-166427-3	MW-4R	Total/NA	Water	WDNR	
500-166427-4	MW-4A	Total/NA	Water	WDNR	
500-166427-5	MW-5A	Total/NA	Water	WDNR	
500-166427-6	MW-7	Total/NA	Water	WDNR	
500-166427-7	MW-10	Total/NA	Water	WDNR	
500-166427-8	MW-W	Total/NA	Water	WDNR	
500-166427-9	Trip Blank	Total/NA	Water	WDNR	
MB 490-606298/4	Method Blank	Total/NA	Water	WDNR	
LCS 490-606298/3	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-606298/34	Lab Control Sample Dup	Total/NA	Water	WDNR	
500-166427-8 MS	MW-W	Total/NA	Water	WDNR	
500-166427-8 MSD	MW-W	Total/NA	Water	WDNR	

## Surrogate Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

### Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCZ (80-120)	BFB (80-120)
500-166427-10	PW-1	102	91
500-166427-11	PW-4	103	90
500-166427-12	PW-5	105	89
500-166427-13	Strey Well	102	91
LCS 480-481777/4	Lab Control Sample	102	98
LCSD 480-481777/5	Lab Control Sample Dup	101	98
LLCS 480-481777/6	Lab Control Sample	100	95
MB 480-481777/7	Method Blank	103	91

#### Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4

BFB = 4-Bromofluorobenzene (Surr)

### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TFT
		(80-120)
500-166427-1	MW-1A	97
500-166427-2	MW-3A	211 X
500-166427-2	MW-3A	138 X
500-166427-3	MW-4R	186 X
500-166427-4	MW-4A	154 X
500-166427-5	MW-5A	98
500-166427-6	MW-7	98
500-166427-7	MW-10	157 X
500-166427-8	MW-W	101
500-166427-8 MS	MW-W	104
500-166427-8 MSD	MW-W	104
500-166427-9	Trip Blank	96
LCS 490-606298/3	Lab Control Sample	99
LCSD 490-606298/34	Lab Control Sample Dup	97
MB 490-606298/4	Method Blank	97

#### Surrogate Legend

TFT = a,a,a-Trifluorotoluene

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-481777/7

Matrix: Water

Analysis Batch: 481777

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.14		0.50	0.14	ug/L			07/12/19 11:01	1
1,1,1-Trichloroethane	<0.21		0.50	0.21	ug/L			07/12/19 11:01	1
1,1,2,2-Tetrachloroethane	<0.070		0.50	0.070	ug/L			07/12/19 11:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.17		0.50	0.17	ug/L			07/12/19 11:01	1
1,1,2-Trichloroethane	<0.17		0.50	0.17	ug/L			07/12/19 11:01	1
1,1-Dichloroethane	<0.18		0.50	0.18	ug/L			07/12/19 11:01	1
1,1-Dichloroethene	<0.16		0.50	0.16	ug/L			07/12/19 11:01	1
1,1-Dichloropropene	<0.063		0.50	0.063	ug/L			07/12/19 11:01	1
1,2,3-Trichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 11:01	1
1,2,3-Trichloropropane	<0.12		0.50	0.12	ug/L			07/12/19 11:01	1
1,2,4-Trichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
1,2,4-Trimethylbenzene	<0.090		0.50	0.090	ug/L			07/12/19 11:01	1
1,2-Dichlorobenzene	<0.16		0.50	0.16	ug/L			07/12/19 11:01	1
1,2-Dichloroethane	<0.14		0.50	0.14	ug/L			07/12/19 11:01	1
1,2-Dichloropropane	<0.11		0.50	0.11	ug/L			07/12/19 11:01	1
1,3,5-Trimethylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
1,3-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
1,3-Dichloropropane	<0.15		0.50	0.15	ug/L			07/12/19 11:01	1
1,4-Dichlorobenzene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
2,2-Dichloropropane	<0.35		0.50	0.35	ug/L			07/12/19 11:01	1
2-Butanone (MEK)	<1.0		5.0	1.0	ug/L			07/12/19 11:01	1
2-Chlorotoluene	<0.12		0.50	0.12	ug/L			07/12/19 11:01	1
2-Hexanone	<1.0		5.0	1.0	ug/L			07/12/19 11:01	1
4-Chlorotoluene	<0.15		0.50	0.15	ug/L			07/12/19 11:01	1
4-Isopropyltoluene	<0.063		0.50	0.063	ug/L			07/12/19 11:01	1
4-Methyl-2-pentanone (MIBK)	<1.0		5.0	1.0	ug/L			07/12/19 11:01	1
Acetone	<1.0		5.0	1.0	ug/L			07/12/19 11:01	1
Acrylonitrile	<2.2		10	2.2	ug/L			07/12/19 11:01	1
Allyl chloride	<0.22		0.50	0.22	ug/L			07/12/19 11:01	1
Benzene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
Bromobenzene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
Bromochloromethane	<0.11		0.50	0.11	ug/L			07/12/19 11:01	1
Bromoform	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
Bromomethane	<0.23		0.50	0.23	ug/L			07/12/19 11:01	1
Carbon disulfide	<0.15		0.50	0.15	ug/L			07/12/19 11:01	1
Carbon tetrachloride	<0.21		0.50	0.21	ug/L			07/12/19 11:01	1
Chlorobenzene	<0.12		0.50	0.12	ug/L			07/12/19 11:01	1
Chlorodibromomethane	<0.16		0.50	0.16	ug/L			07/12/19 11:01	1
Chloroethane	<0.20		0.50	0.20	ug/L			07/12/19 11:01	1
Chloroform	<0.14		0.50	0.14	ug/L			07/12/19 11:01	1
Chloromethane	<0.17		0.50	0.17	ug/L			07/12/19 11:01	1
cis-1,2-Dichloroethene	<0.12		0.50	0.12	ug/L			07/12/19 11:01	1
cis-1,3-Dichloropropene	<0.080		0.50	0.080	ug/L			07/12/19 11:01	1
Dibromomethane	<0.17		0.50	0.17	ug/L			07/12/19 11:01	1
Dichlorobromomethane	<0.14		0.50	0.14	ug/L			07/12/19 11:01	1
Dichlorodifluoromethane	<0.15		0.50	0.15	ug/L			07/12/19 11:01	1
Dichlorofluoromethane	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
Ethyl ether	<0.12		0.50	0.12	ug/L			07/12/19 11:01	1

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### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

#### Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-481777/7  
 Matrix: Water  
 Analysis Batch: 481777

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.11		0.50	0.11	ug/L			07/12/19 11:01	1
Hexachlorobutadiene	<0.11		0.50	0.11	ug/L			07/12/19 11:01	1
Iodomethane	<0.15		0.50	0.15	ug/L			07/12/19 11:01	1
Isopropylbenzene	<0.16		0.50	0.16	ug/L			07/12/19 11:01	1
Methyl tert-butyl ether	<0.12		0.50	0.12	ug/L			07/12/19 11:01	1
Methylene Chloride	<0.99		2.5	0.99	ug/L			07/12/19 11:01	1
m-Xylene & p-Xylene	<0.30		1.0	0.30	ug/L			07/12/19 11:01	1
Naphthalene	<0.15		0.50	0.15	ug/L			07/12/19 11:01	1
n-Butylbenzene	<0.081		0.50	0.081	ug/L			07/12/19 11:01	1
N-Propylbenzene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
o-Xylene	<0.12		0.50	0.12	ug/L			07/12/19 11:01	1
sec-Butylbenzene	<0.068		0.50	0.068	ug/L			07/12/19 11:01	1
Styrene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
t-Butanol	<2.5		10	2.5	ug/L			07/12/19 11:01	1
tert-Butylbenzene	<0.060		0.50	0.060	ug/L			07/12/19 11:01	1
Tetrachloroethene	<0.20		0.50	0.20	ug/L			07/12/19 11:01	1
Toluene	<0.10		0.50	0.10	ug/L			07/12/19 11:01	1
trans-1,2-Dichloroethene	<0.13		0.50	0.13	ug/L			07/12/19 11:01	1
trans-1,3-Dichloropropene	<0.10		0.50	0.10	ug/L			07/12/19 11:01	1
trans-1,4-Dichloro-2-butene	<1.3		2.5	1.3	ug/L			07/12/19 11:01	1
Trichloroethene	<0.18		0.50	0.18	ug/L			07/12/19 11:01	1
Trichlorofluoromethane	<0.19		0.50	0.19	ug/L			07/12/19 11:01	1
Trihalomethanes, Total	<1.0		2.0	1.0	ug/L			07/12/19 11:01	1
Vinyl acetate	<0.45		2.5	0.45	ug/L			07/12/19 11:01	1
Vinyl chloride	<0.18		0.50	0.18	ug/L			07/12/19 11:01	1
Xylenes, Total	<0.12		1.0	0.12	ug/L			07/12/19 11:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	103		80 - 120		07/12/19 11:01	1
4-Bromofluorobenzene (Surr)	91		80 - 120		07/12/19 11:01	1

Lab Sample ID: LCS 480-481777/4  
 Matrix: Water  
 Analysis Batch: 481777

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	4.00	3.74		ug/L		94	70 - 130
1,1,1-Trichloroethane	4.00	3.98		ug/L		99	70 - 130
1,1,2,2-Tetrachloroethane	4.00	3.98		ug/L		100	70 - 130
1,1,2-Trichloroethane	4.00	4.09		ug/L		102	70 - 130
1,1-Dichloroethane	4.00	3.97		ug/L		99	70 - 130
1,1-Dichloroethene	4.00	4.01		ug/L		100	70 - 130
1,1-Dichloropropene	4.00	3.93		ug/L		98	70 - 130
1,2,3-Trichlorobenzene	4.00	4.07		ug/L		102	70 - 130
1,2,3-Trichloropropane	4.00	3.98		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	4.00	4.02		ug/L		101	70 - 130
1,2,4-Trimethylbenzene	4.00	3.81		ug/L		95	70 - 130
1,2-Dichlorobenzene	4.00	4.03		ug/L		101	70 - 130

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-481777/4

Matrix: Water

Analysis Batch: 481777

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	4.00	4.15		ug/L		104	70 - 130
1,2-Dichloropropane	4.00	3.98		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	4.00	3.72		ug/L		93	70 - 130
1,3-Dichlorobenzene	4.00	4.13		ug/L		103	70 - 130
1,3-Dichloropropane	4.00	4.09		ug/L		102	70 - 130
1,4-Dichlorobenzene	4.00	4.23		ug/L		106	70 - 130
2,2-Dichloropropane	4.00	4.30		ug/L		107	70 - 130
2-Butanone (MEK)	20.0	21.5		ug/L		107	70 - 130
2-Chlorotoluene	4.00	3.67		ug/L		92	70 - 130
2-Hexanone	20.0	19.4		ug/L		97	70 - 130
4-Chlorotoluene	4.00	3.72		ug/L		93	70 - 130
4-Isopropyltoluene	4.00	3.78		ug/L		94	70 - 130
4-Methyl-2-pentanone (MIBK)	20.0	18.7		ug/L		93	70 - 130
Acetone	20.0	26.6	*	ug/L		133	70 - 130
Benzene	4.00	3.99		ug/L		100	70 - 130
Bromobenzene	4.00	3.92		ug/L		98	70 - 130
Bromochloromethane	4.00	4.22		ug/L		105	70 - 130
Bromoform	4.00	3.76		ug/L		94	70 - 130
Bromomethane	4.00	4.19		ug/L		105	70 - 130
Carbon disulfide	4.00	3.80		ug/L		95	70 - 130
Carbon tetrachloride	4.00	4.12		ug/L		103	70 - 130
Chlorobenzene	4.00	4.13		ug/L		103	70 - 130
Chlorodibromomethane	4.00	3.89		ug/L		97	70 - 130
Chloroethane	4.00	3.86		ug/L		96	70 - 130
Chloroform	4.00	3.94		ug/L		99	70 - 130
Chloromethane	4.00	3.61		ug/L		90	70 - 130
cis-1,2-Dichloroethene	4.00	4.09		ug/L		102	70 - 130
cis-1,3-Dichloropropene	4.00	3.54		ug/L		88	70 - 130
Dibromomethane	4.00	4.26		ug/L		107	70 - 130
Dichlorobromomethane	4.00	3.78		ug/L		95	70 - 130
Dichlorodifluoromethane	4.00	3.43		ug/L		86	70 - 130
Ethylbenzene	4.00	3.79		ug/L		95	70 - 130
Hexachlorobutadiene	4.00	4.06		ug/L		102	70 - 130
Isopropylbenzene	4.00	3.89		ug/L		97	70 - 130
Methyl tert-butyl ether	4.00	3.85		ug/L		96	70 - 130
Methylene Chloride	4.00	4.76		ug/L		119	70 - 130
Naphthalene	4.00	3.59		ug/L		90	70 - 130
n-Butylbenzene	4.00	3.70		ug/L		93	70 - 130
N-Propylbenzene	4.00	3.68		ug/L		92	70 - 130
sec-Butylbenzene	4.00	3.76		ug/L		94	70 - 130
Styrene	4.00	3.99		ug/L		100	70 - 130
tert-Butylbenzene	4.00	3.62		ug/L		90	70 - 130
Tetrachloroethene	4.00	4.26		ug/L		106	70 - 130
Toluene	4.00	3.85		ug/L		96	70 - 130
trans-1,2-Dichloroethene	4.00	4.11		ug/L		103	70 - 130
trans-1,3-Dichloropropene	4.00	3.18		ug/L		79	70 - 130
Trichloroethene	4.00	4.08		ug/L		102	70 - 130
Trichlorofluoromethane	4.00	4.21		ug/L		105	70 - 130
Vinyl chloride	4.00	3.68		ug/L		92	70 - 130

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### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

#### Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 480-481777/4**  
**Matrix: Water**  
**Analysis Batch: 481777**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	8.00	7.59		ug/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichlorobenzene-d4	102		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

**Lab Sample ID: LCSD 480-481777/5**  
**Matrix: Water**  
**Analysis Batch: 481777**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	4.00	3.92		ug/L		98	70 - 130	4	20
1,1,1-Trichloroethane	4.00	4.20		ug/L		105	70 - 130	6	20
1,1,2,2-Tetrachloroethane	4.00	4.02		ug/L		100	70 - 130	1	20
1,1,2-Trichloroethane	4.00	4.24		ug/L		106	70 - 130	3	20
1,1-Dichloroethane	4.00	3.99		ug/L		100	70 - 130	0	20
1,1-Dichloroethene	4.00	4.06		ug/L		101	70 - 130	1	20
1,1-Dichloropropene	4.00	4.03		ug/L		101	70 - 130	3	20
1,2,3-Trichlorobenzene	4.00	4.05		ug/L		101	70 - 130	1	20
1,2,3-Trichloropropane	4.00	3.89		ug/L		97	70 - 130	2	20
1,2,4-Trichlorobenzene	4.00	3.91		ug/L		98	70 - 130	3	20
1,2,4-Trimethylbenzene	4.00	3.73		ug/L		93	70 - 130	2	20
1,2-Dichlorobenzene	4.00	4.03		ug/L		101	70 - 130	0	20
1,2-Dichloroethane	4.00	4.23		ug/L		106	70 - 130	2	20
1,2-Dichloropropane	4.00	4.00		ug/L		100	70 - 130	1	20
1,3,5-Trimethylbenzene	4.00	3.72		ug/L		93	70 - 130	0	20
1,3-Dichlorobenzene	4.00	4.22		ug/L		106	70 - 130	2	20
1,3-Dichloropropane	4.00	4.03		ug/L		101	70 - 130	2	20
1,4-Dichlorobenzene	4.00	4.11		ug/L		103	70 - 130	3	20
2,2-Dichloropropane	4.00	4.54		ug/L		114	70 - 130	6	20
2-Butanone (MEK)	20.0	19.3		ug/L		96	70 - 130	11	20
2-Chlorotoluene	4.00	3.68		ug/L		92	70 - 130	0	20
2-Hexanone	20.0	18.5		ug/L		93	70 - 130	5	20
4-Chlorotoluene	4.00	3.75		ug/L		94	70 - 130	1	20
4-Isopropyltoluene	4.00	3.75		ug/L		94	70 - 130	1	20
4-Methyl-2-pentanone (MIBK)	20.0	18.6		ug/L		93	70 - 130	0	20
Acetone	20.0	21.3	*	ug/L		106	70 - 130	22	20
Benzene	4.00	4.11		ug/L		103	70 - 130	3	20
Bromobenzene	4.00	3.95		ug/L		99	70 - 130	1	20
Bromochloromethane	4.00	4.22		ug/L		106	70 - 130	0	20
Bromoform	4.00	3.59		ug/L		90	70 - 130	5	20
Bromomethane	4.00	4.53		ug/L		113	70 - 130	8	20
Carbon disulfide	4.00	3.86		ug/L		97	70 - 130	2	20
Carbon tetrachloride	4.00	4.16		ug/L		104	70 - 130	1	20
Chlorobenzene	4.00	4.24		ug/L		106	70 - 130	3	20
Chlorodibromomethane	4.00	3.76		ug/L		94	70 - 130	3	20
Chloroethane	4.00	3.86		ug/L		97	70 - 130	0	20
Chloroform	4.00	4.07		ug/L		102	70 - 130	3	20



## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-481777/5

Matrix: Water

Analysis Batch: 481777

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	4.00	3.61		ug/L		90	70 - 130	0	20
cis-1,2-Dichloroethene	4.00	4.12		ug/L		103	70 - 130	1	20
cis-1,3-Dichloropropene	4.00	3.56		ug/L		89	70 - 130	1	20
Dibromomethane	4.00	4.35		ug/L		109	70 - 130	2	20
Dichlorobromomethane	4.00	3.82		ug/L		95	70 - 130	1	20
Dichlorodifluoromethane	4.00	3.53		ug/L		88	70 - 130	3	20
Ethylbenzene	4.00	3.94		ug/L		99	70 - 130	4	20
Hexachlorobutadiene	4.00	4.19		ug/L		105	70 - 130	3	20
Isopropylbenzene	4.00	3.96		ug/L		99	70 - 130	2	20
Methyl tert-butyl ether	4.00	3.82		ug/L		95	70 - 130	1	20
Methylene Chloride	4.00	4.46		ug/L		111	70 - 130	7	20
Naphthalene	4.00	3.53		ug/L		88	70 - 130	2	20
n-Butylbenzene	4.00	3.71		ug/L		93	70 - 130	0	20
N-Propylbenzene	4.00	3.77		ug/L		94	70 - 130	2	20
sec-Butylbenzene	4.00	3.82		ug/L		95	70 - 130	1	20
Styrene	4.00	4.09		ug/L		102	70 - 130	2	20
tert-Butylbenzene	4.00	3.72		ug/L		93	70 - 130	3	20
Tetrachloroethene	4.00	4.47		ug/L		112	70 - 130	5	20
Toluene	4.00	4.06		ug/L		102	70 - 130	5	20
trans-1,2-Dichloroethene	4.00	4.10		ug/L		103	70 - 130	0	20
trans-1,3-Dichloropropene	4.00	3.20		ug/L		80	70 - 130	1	20
Trichloroethene	4.00	4.34		ug/L		108	70 - 130	6	20
Trichlorofluoromethane	4.00	4.46		ug/L		111	70 - 130	6	20
Vinyl chloride	4.00	3.81		ug/L		95	70 - 130	4	20
Xylenes, Total	8.00	7.76		ug/L		97	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichlorobenzene-d4	101		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

Lab Sample ID: LLCS 480-481777/6

Matrix: Water

Analysis Batch: 481777

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.500	0.496	J	ug/L		99	50 - 150
1,1,1-Trichloroethane	0.500	0.543		ug/L		109	50 - 150
1,1,2,2-Tetrachloroethane	0.500	0.521		ug/L		104	50 - 150
1,1,2-Trichloroethane	0.500	0.557		ug/L		111	50 - 150
1,1-Dichloroethane	0.500	0.550		ug/L		110	50 - 150
1,1-Dichloroethene	0.500	0.552		ug/L		110	50 - 150
1,1-Dichloropropene	0.500	0.549		ug/L		110	50 - 150
1,2,3-Trichlorobenzene	0.500	0.576		ug/L		115	50 - 150
1,2,3-Trichloropropane	0.500	0.544		ug/L		109	50 - 150
1,2,4-Trichlorobenzene	0.500	0.551		ug/L		110	50 - 150
1,2,4-Trimethylbenzene	0.500	0.487	J	ug/L		97	50 - 150
1,2-Dichlorobenzene	0.500	0.558		ug/L		112	50 - 150
1,2-Dichloroethane	0.500	0.563		ug/L		113	50 - 150

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## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 480-481777/6

Matrix: Water

Analysis Batch: 481777

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloropropane	0.500	0.541		ug/L		108	50 - 150
1,3,5-Trimethylbenzene	0.500	0.463	J	ug/L		93	50 - 150
1,3-Dichlorobenzene	0.500	0.566		ug/L		113	50 - 150
1,3-Dichloropropane	0.500	0.526		ug/L		105	50 - 150
1,4-Dichlorobenzene	0.500	0.569		ug/L		114	50 - 150
2,2-Dichloropropane	0.500	0.605		ug/L		121	50 - 150
2-Butanone (MEK)	2.50	2.79	J	ug/L		111	50 - 150
2-Chlorotoluene	0.500	0.499	J	ug/L		100	50 - 150
2-Hexanone	2.50	2.42	J	ug/L		97	50 - 150
4-Chlorotoluene	0.500	0.491	J	ug/L		98	50 - 150
4-Isopropyltoluene	0.500	0.479	J	ug/L		96	50 - 150
4-Methyl-2-pentanone (MIBK)	2.50	2.42	J	ug/L		97	50 - 150
Acetone	2.50	3.96	J *	ug/L		158	50 - 150
Benzene	0.500	0.592		ug/L		118	50 - 150
Bromobenzene	0.500	0.521		ug/L		104	50 - 150
Bromochloromethane	0.500	0.589		ug/L		118	50 - 150
Bromoform	0.500	0.442	J	ug/L		88	50 - 150
Bromomethane	0.500	0.477	J	ug/L		95	50 - 150
Carbon disulfide	0.500	0.546		ug/L		109	50 - 150
Carbon tetrachloride	0.500	0.509		ug/L		102	50 - 150
Chlorobenzene	0.500	0.558		ug/L		112	50 - 150
Chlorodibromomethane	0.500	0.457	J	ug/L		91	50 - 150
Chloroethane	0.500	0.500		ug/L		100	50 - 150
Chloroform	0.500	0.603		ug/L		121	50 - 150
Chloromethane	0.500	0.476	J	ug/L		95	50 - 150
cis-1,2-Dichloroethene	0.500	0.574		ug/L		115	50 - 150
cis-1,3-Dichloropropene	0.500	0.408	J	ug/L		82	50 - 150
Dibromomethane	0.500	0.574		ug/L		115	50 - 150
Dichlorobromomethane	0.500	0.486	J	ug/L		97	50 - 150
Dichlorodifluoromethane	0.500	0.419	J	ug/L		84	50 - 150
Ethylbenzene	0.500	0.512		ug/L		102	50 - 150
Hexachlorobutadiene	0.500	0.610		ug/L		122	50 - 150
Isopropylbenzene	0.500	0.497	J	ug/L		99	50 - 150
Methyl tert-butyl ether	0.500	0.502		ug/L		100	50 - 150
Methylene Chloride	0.500	1.16	J *	ug/L		233	50 - 150
Naphthalene	0.500	0.454	J	ug/L		91	50 - 150
n-Butylbenzene	0.500	0.478	J	ug/L		96	50 - 150
N-Propylbenzene	0.500	0.480	J	ug/L		96	50 - 150
sec-Butylbenzene	0.500	0.479	J	ug/L		96	50 - 150
Styrene	0.500	0.493	J	ug/L		99	50 - 150
tert-Butylbenzene	0.500	0.486	J	ug/L		97	50 - 150
Tetrachloroethene	0.500	0.579		ug/L		116	50 - 150
Toluene	0.500	0.534		ug/L		107	50 - 150
trans-1,2-Dichloroethene	0.500	0.554		ug/L		111	50 - 150
trans-1,3-Dichloropropene	0.500	0.368	J	ug/L		74	50 - 150
Trichloroethene	0.500	0.570		ug/L		114	50 - 150
Trichlorofluoromethane	0.500	0.518		ug/L		104	50 - 150
Vinyl chloride	0.500	0.495	J	ug/L		99	50 - 150
Xylenes, Total	1.00	0.966	J	ug/L		97	50 - 150

Eurofins TestAmerica, Chicago

### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

#### Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	LLCS	LLCS	Limits
	%Recovery	Qualifier	
1,2-Dichlorobenzene-d4	100		80 - 120
4-Bromofluorobenzene (Surr)	95		80 - 120

#### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-606298/4  
 Matrix: Water  
 Analysis Batch: 606298

Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 15:44	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			07/12/19 15:44	1
Benzene	<0.36		0.50	0.36	ug/L			07/12/19 15:44	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			07/12/19 15:44	1
Methyl tert-butyl ether	0.264	J	0.50	0.24	ug/L			07/12/19 15:44	1
Naphthalene	<2.4		5.0	2.4	ug/L			07/12/19 15:44	1
Toluene	<0.33		0.50	0.33	ug/L			07/12/19 15:44	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			07/12/19 15:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
a,a,a-Trifluorotoluene	97		80 - 120		07/12/19 15:44	1

Lab Sample ID: LCS 490-606298/3  
 Matrix: Water  
 Analysis Batch: 606298

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trimethylbenzene	20.0	18.7		ug/L		93	70 - 130
Benzene	20.0	18.4		ug/L		92	69 - 129
Ethylbenzene	20.0	18.4		ug/L		92	70 - 130
Methyl tert-butyl ether	20.0	18.8		ug/L		94	57 - 138
Naphthalene	20.0	18.9		ug/L		95	69 - 133
Toluene	20.0	18.6		ug/L		93	66 - 127
Xylenes, Total	60.0	56.0		ug/L		93	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
a,a,a-Trifluorotoluene	99		80 - 120

Lab Sample ID: LCSD 490-606298/34  
 Matrix: Water  
 Analysis Batch: 606298

Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	20.0	18.3		ug/L		92	70 - 130	2	20
Benzene	20.0	18.3		ug/L		91	69 - 129	1	33
Ethylbenzene	20.0	17.9		ug/L		90	70 - 130	2	35
Methyl tert-butyl ether	20.0	17.8		ug/L		89	57 - 138	5	40
Naphthalene	20.0	17.4		ug/L		87	69 - 133	9	48
Toluene	20.0	18.3		ug/L		91	66 - 127	2	34

### QC Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

#### Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

**Lab Sample ID: LCSD 490-606298/34**  
**Matrix: Water**  
**Analysis Batch: 606298**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	60.0	55.3		ug/L		92		1	
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
<i>a,a,a-Trifluorotoluene</i>	97		80 - 120						

**Lab Sample ID: 500-166427-8 MS**  
**Matrix: Water**  
**Analysis Batch: 606298**

**Client Sample ID: MW-W**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	<0.30		20.0	20.0		ug/L		100	40 - 165
1,3,5-Trimethylbenzene	<0.30		20.0	20.1		ug/L		101	60 - 140
Benzene	0.65		20.0	20.8		ug/L		101	29 - 176
Ethylbenzene	<0.37		20.0	20.2		ug/L		101	30 - 170
Methyl tert-butyl ether	<0.24		20.0	20.0		ug/L		100	23 - 165
Naphthalene	<2.4		20.0	19.6		ug/L		98	10 - 175
Toluene	<0.33		20.0	20.2		ug/L		101	30 - 167
Xylenes, Total	<0.58		60.0	60.7		ug/L		101	
<b>Surrogate</b>	<b>%Recovery</b>	<b>MS Qualifier</b>	<b>Limits</b>						
<i>a,a,a-Trifluorotoluene</i>	104		80 - 120						

**Lab Sample ID: 500-166427-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 606298**

**Client Sample ID: MW-W**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	<0.30		20.0	23.0		ug/L		115	40 - 165	14	43
1,3,5-Trimethylbenzene	<0.30		20.0	23.2		ug/L		116	60 - 140	14	20
Benzene	0.65		20.0	23.8		ug/L		116	29 - 176	13	33
Ethylbenzene	<0.37		20.0	23.2		ug/L		116	30 - 170	14	35
Methyl tert-butyl ether	<0.24		20.0	22.9		ug/L		114	23 - 165	14	40
Naphthalene	<2.4		20.0	22.8		ug/L		114	10 - 175	15	48
Toluene	<0.33		20.0	23.3		ug/L		116	30 - 167	14	34
Xylenes, Total	<0.58		60.0	69.7		ug/L		116		14	
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>Limits</b>								
<i>a,a,a-Trifluorotoluene</i>	104		80 - 120								

# Lab Chronicle

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

**Client Sample ID: MW-1A**

**Lab Sample ID: 500-166427-1**

Date Collected: 07/09/19 09:30

Matrix: Water

Date Received: 07/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	606298	07/12/19 18:52	S1S	TAL NSH

**Client Sample ID: MW-3A**

**Lab Sample ID: 500-166427-2**

Date Collected: 07/09/19 12:30

Matrix: Water

Date Received: 07/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	606298	07/13/19 02:42	S1S	TAL NSH
Total/NA	Analysis	WDNR		100	606298	07/13/19 04:16	S1S	TAL NSH

**Client Sample ID: MW-4R**

**Lab Sample ID: 500-166427-3**

Date Collected: 07/09/19 12:00

Matrix: Water

Date Received: 07/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		25	606298	07/13/19 05:18	S1S	TAL NSH

**Client Sample ID: MW-4A**

**Lab Sample ID: 500-166427-4**

Date Collected: 07/09/19 11:30

Matrix: Water

Date Received: 07/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	606298	07/12/19 19:55	S1S	TAL NSH

**Client Sample ID: MW-5A**

**Lab Sample ID: 500-166427-5**

Date Collected: 07/09/19 11:00

Matrix: Water

Date Received: 07/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	606298	07/12/19 21:29	S1S	TAL NSH

**Client Sample ID: MW-7**

**Lab Sample ID: 500-166427-6**

Date Collected: 07/09/19 10:00

Matrix: Water

Date Received: 07/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	606298	07/12/19 19:24	S1S	TAL NSH

**Client Sample ID: MW-10**

**Lab Sample ID: 500-166427-7**

Date Collected: 07/09/19 13:00

Matrix: Water

Date Received: 07/10/19 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		25	606298	07/13/19 00:06	S1S	TAL NSH

# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: Dairy Concepts - 03-05510

Job ID: 500-166427-1

**Client Sample ID: MW-W**

Date Collected: 07/09/19 10:30

Date Received: 07/10/19 09:10

**Lab Sample ID: 500-166427-8**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	606298	07/12/19 16:46	S1S	TAL NSH

**Client Sample ID: Trip Blank**

Date Collected: 07/09/19 00:00

Date Received: 07/10/19 09:10

**Lab Sample ID: 500-166427-9**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	606298	07/12/19 16:15	S1S	TAL NSH

**Client Sample ID: PW-1**

Date Collected: 07/09/19 14:00

Date Received: 07/10/19 09:10

**Lab Sample ID: 500-166427-10**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	481777	07/12/19 12:08	RJF	TAL BUF

**Client Sample ID: PW-4**

Date Collected: 07/09/19 13:30

Date Received: 07/10/19 09:10

**Lab Sample ID: 500-166427-11**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	481777	07/12/19 12:33	RJF	TAL BUF

**Client Sample ID: PW-5**

Date Collected: 07/09/19 13:45

Date Received: 07/10/19 09:10

**Lab Sample ID: 500-166427-12**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	481777	07/12/19 12:58	RJF	TAL BUF

**Client Sample ID: Strey Well**

Date Collected: 07/09/19 14:15

Date Received: 07/10/19 09:10

**Lab Sample ID: 500-166427-13**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	481777	07/12/19 13:22	RJF	TAL BUF

**Laboratory References:**

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL NSH = Eurofins TestAmerica, Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Accreditation/Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

### Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-19 *

### Laboratory: Eurofins TestAmerica, Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998310390	08-31-19

### Laboratory: Eurofins TestAmerica, Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	09-30-19
Arizona	State Program	9	AZ0473	05-05-20
Arkansas DEQ	State Program	6	88-0737	04-25-20
California	State Program	9	2938	06-30-19 *
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-20
Georgia	State Program	4	E87358(FI)/453.07(A2L A)	06-30-20
Illinois	NELAP	5	200010	12-09-19
Iowa	State Program	7	131	04-01-20
Kansas	NELAP	7	E-10229	10-31-19
Kentucky (UST)	State Program	4	19	06-30-20
Kentucky (WW)	State Program	4	90038	12-31-19
Louisiana	NELAP	6	30613	06-30-20
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-20
Massachusetts	State Program	1	M-TN032	06-30-20
Minnesota	NELAP	5	047-999-345	12-31-19
Mississippi	State Program	4	N/A	06-30-19 *
Nevada	State Program	9	TN00032	07-31-19 *
New Hampshire	NELAP	1	2963	10-09-19
New Jersey	NELAP	2	TN965	06-30-20
New York	NELAP	2	11342	03-31-20
North Carolina (WW/SW)	State Program	4	387	12-31-19
North Dakota	State Program	8	R-146	06-30-19 *
Oklahoma	State Program	6	9412	08-31-19 *
Oregon	NELAP	10	TN200001	04-26-20
Pennsylvania	NELAP	3	68-00585	07-31-19 *
Rhode Island	State Program	1	LAO00268	12-30-19
South Carolina	State Program	4	84009 (001)	02-28-19 *
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-19
USDA	Federal		P330-13-00306	04-10-20
Utah	NELAP	8	TN00032	07-31-19
Virginia	NELAP	3	460152	06-14-20
Washington	State Program	10	C789	07-19-19 *
West Virginia DEP	State Program	3	219	02-28-20

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Chicago

## Accreditation/Certification Summary

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

Job ID: 500-166427-1

### Laboratory: Eurofins TestAmerica, Nashville (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-19 *
Wyoming (UST)	A2LA	8	453.07	12-31-19

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\* Accreditation/Certification renewal pending - accreditation/certification considered valid.



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax: 708.534.5211

Report To \_\_\_\_\_ (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

Bill To \_\_\_\_\_ (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# 18174003

## Chain of Custody Record

Lab Job #: 500766427  
 Chain of Custody Number: \_\_\_\_\_  
 Page 1 of 2  
 Temperature °C of Cooler: 10-1

Client		Client Project #		Preservative															
<u>AET</u>		<u>03-05510</u>		<u>1</u>															
Project Name				Parameter															
<u>Damri Concepts</u>				<u>PVCL + Naphthalene</u>															
Project Location/State				Lab Project #															
<u>Chili, WI</u>																			
Sampler				Lab PM															
<u>Michael K. Neal</u>				<u>Sandra F</u>															
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix													
			Date	Time															
1		<u>MW-1A</u>	<u>7-9-19</u>	<u>9:30</u>	<u>3</u>	<u>N</u>	<u>X</u>												
2		<u>MW-3A</u>		<u>12:30</u>	<u>3</u>	<u>W</u>	<u>X</u>												
3		<u>MW-4R</u>		<u>12:00</u>	<u>3</u>	<u>W</u>	<u>X</u>												
4		<u>MW-4A</u>		<u>11:20</u>	<u>3</u>	<u>W</u>	<u>X</u>												
5		<u>MW-5A</u>		<u>11:00</u>	<u>3</u>	<u>W</u>	<u>X</u>												
6		<u>MW-7</u>		<u>10:00</u>	<u>3</u>	<u>W</u>	<u>X</u>												
7		<u>MW-10</u>		<u>13:00</u>	<u>3</u>	<u>W</u>	<u>X</u>												
8		<u>MW-W</u>		<u>10:30</u>	<u>3</u>	<u>W</u>	<u>X</u>												
9		<u>Trip Blank</u>		<u>-</u>	<u>1</u>	<u>W</u>	<u>X</u>												

- Preservative Key
1. HCL, Cool to 4°
  2. H2SO4, Cool to 4°
  3. HNO3, Cool to 4°
  4. NaOH, Cool to 4°
  5. NaOH/Zn, Cool to 4°
  6. NaHSO4
  7. Cool to 4°
  8. None
  9. Other



500-166427 COC

Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company <u>AET</u>	Date <u>7-9-19</u>	Time <u>15:00</u>	Received By <u>FedEx</u>	Company <u></u>	Date <u></u>	Time <u></u>
Relinquished By <u></u>	Company <u></u>	Date <u></u>	Time <u></u>	Received By <u>David Fioravanti</u>	Company <u>TRUHE</u>	Date <u>07/10/19</u>	Time <u>0910</u>
Relinquished By <u></u>	Company <u></u>	Date <u></u>	Time <u></u>	Received By <u></u>	Company <u></u>	Date <u></u>	Time <u></u>

Lab Courier: \_\_\_\_\_  
 Shipped: Ex Priority  
 Hand Delivered: \_\_\_\_\_

- Matrix Key
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MS - Miscellaneous
  - OL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments  
PCLFA

Lab Comments:  
\_\_\_\_\_

Report To _____ (optional)	Bill To _____ (optional)
Contact: _____	Contact: _____
Company: _____	Company: _____
Address: _____	Address: _____
Address: _____	Address: _____
Phone: _____	Phone: _____
Fax: _____	Fax: _____
E-Mail: _____	PO#/Reference# <u>18174003</u>

**Chain of Custody Record**

Lab Job #: 500766427

Chain of Custody Number: \_\_\_\_\_

Page 2 of 2

Temperature °C of Cooler: 10-1

Client <u>AET</u>		Client Project # <u>03-05510</u>		Preservative <u>1</u>														Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name <u>Dairi Concepts</u>		Project Location/State <u>Chil, WI</u>		Parameter																
Sampler <u>Michael K. Neel</u>		Lab Project #		Lab PM <u>Sandra F.</u>																
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOCs 524.2	VOCs 524.2	P.A.H.s 524.2										Comments	
			Date	Time																
10		PW-1	29-19	14:00	3	DW	X													
11		PW-4		12:30	3	DW	X													
12		PW-5		12:45	3	DW	X													
13		Stacy Well		14:15	3	DW	X													

Turnaround Time Required (Business Days) \_\_\_\_\_ 1 Day \_\_\_\_\_ 2 Days \_\_\_\_\_ 5 Days \_\_\_\_\_ 7 Days \_\_\_\_\_ 10 Days \_\_\_\_\_ 15 Days \_\_\_\_\_ Other \_\_\_\_\_

Requested Due Date \_\_\_\_\_

Sample Disposal:  Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>[Signature]</u>	Company <u>AET</u>	Date <u>29-19</u>	Time <u>15:00</u>	Received By <u>FedEx</u>	Company _____	Date _____	Time _____	Lab Courier _____
Relinquished By _____	Company _____	Date _____	Time _____	Received By <u>Shil [Signature]</u>	Company <u>TAUTE</u>	Date <u>07/10/19</u>	Time <u>0910</u>	Shipped <u>FX Priority</u>
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Hand Delivered _____

- Matrix Key**
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MS - Miscellaneous
  - OL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments: PELFA

Lab Comments: \_\_\_\_\_

ORIGIN: 10-11111 (330) 888-8877  
MICHAEL NEAL  
AGENT/RECORDING ENGINEER TESTING INC.  
1837 COUNTY HIGHWAY 00  
CHIPPEWA FALLS, WI 547295348  
UNITED STATES US

SHIP DATE: 06/20/19  
ACTIVITY: 10:00 LB  
DATE: 05/20/19, CAFFEINE

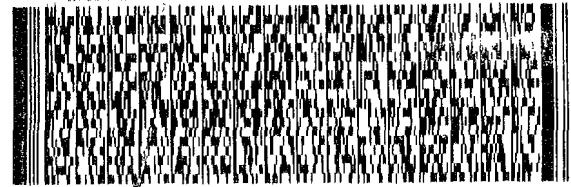
TO

**EUROFINS TESTAMERICA CHICAGO**  
**2417 BOND STREET**

**UNIVERSITY PARK IL 604843101**

(708) 634-6200  
**REF: 5600-73361**

RMA: ||| ||| |||

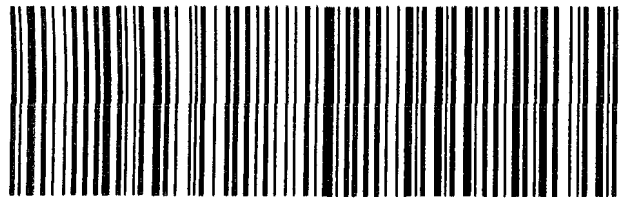


**FedEx**  
TRK# 1054 5424 2019  
0221

**WED - 10 JUL 10:30A**  
**PRIORITY OVERNIGHT**

**GE JOTA**

**60484**  
**IL-US ORD**



#316109 07/09 565J2/86F9/23AD



500-166427 Wayt

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2417 Bond Street  
University Park, IL 60484  
Phone: 708-534-5200 Fax: 708-534-5211



**Chain of Custody Record**

Environment Testing  
TestAmerica

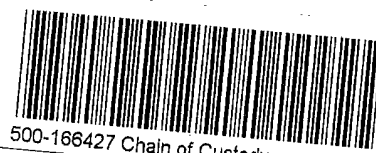
<b>Client Information (Sub Contract Lab)</b> Client Contact: Fredrick, Sandie Shipping/Receiving: sandie.fredrick@testamericainc.com Company: TestAmerica Laboratories, Inc. Address: 10 Hazelwood Drive, Amherst, NY, 14228-2298 Phone: 716-691-2600(Tel) 716-691-7991(Fax) Email:		Lab PM: Fredrick, Sandie E-Mail: sandie.fredrick@testamericainc.com State of Origin: Wisconsin Carrier Tracking No(s): COC No: 500-123126.1 Page: Page 1 of 1 Job #: 500-166427-1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)								
Due Date Requested: 7/22/2019 TAT Requested (days):		Analysis Requested:								
PO #:		524_2_Preserved/ Standard Analyte list								
WO #:		Field Filtered Sample (Yes or No)								
Project #: 50007204 SSOHW#:		Perform MS/MSD (Yes or No)								
Project Name: Soils & Waters Site:		Total Number of Containers								
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=tissue, AA/Ab)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	524_2_Preserved/ Standard Analyte list	Total Number of Containers	Special Instructions/Note:
PW-1 (500-166427-10)	7/9/19	14:00 Central		Water		X	X		3	
PW-4 (500-166427-11)	7/9/19	13:30 Central		Water		X	X		3	
PW-5 (500-166427-12)	7/9/19	13:45 Central		Water		X	X		3	
Strey Well (500-166427-13)	7/9/19	14:15 Central		Water		X	X		3	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.										
<b>Possible Hazard Identification</b> Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months										
Empty Kit Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature] Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:										
Date/Time: 7/16/19 1608 Date/Time: 7/16/19 0915 Date/Time: [Blank] Date/Time: [Blank] Date/Time: [Blank] Date/Time: [Blank]										
Company: TA Company: [Blank] Company: [Blank] Company: [Blank]										
Method of Shipment:										
Cooler Temperature(s) °C and Other Remarks: # 3.1										



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING  
Nashville, TN

## COOLER RECEIPT FORM



Cooler Received/Opened On 7/11/2019@ 920

Time Samples Removed From Cooler \_\_\_\_\_ Time Samples Placed In Storage \_\_\_\_\_ (2 Hour Window)

1. Tracking # 8699 (last 4 digits, FedEx) Courier: FedEx  
IR Gun ID 31470368 pH Strip Lot N/A Chlorine Strip Lot N/A

2. Temperature of rep. sample or temp blank when opened: 3.0 Degrees Celsius  
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO  NA

4. Were custody seals on outside of cooler? YES...NO...NA  
If yes, how many and where: 1 front

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) EA

7. Were custody seals on containers: YES  NO and Intact YES...NO...NA  
Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process:  Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA  
b. Was there any observable headspace present in any VOA vial? YES...NO...NA



14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) KA

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA  
b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) KA

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) KA  
I certify that I attached a label with the unique LIMS number to each container (initial) KA

21. Were there Non-Conformance issues at login? YES...NO...NA Was a NCM generated? YES...NO...NA # \_\_\_\_\_

BIS = Broken in shipment  
Cooler Receipt Form.doc



**Eurofins TestAmerica, Chicago**  
 2417 Bond Street  
 University Park, IL 60484  
 Phone: 708-534-5200 Fax: 708-534-5211

**Chain of Custody Record**

**Loc: 500  
166427**

**eurofins**  
 Environment Testing  
 TestAmerica

<b>Client Information (Sub Contract Lab)</b>		Sampler: Fredrick, Sandie		Lab PM: Fredrick, Sandie	
Client Contact: University Park, IL 60484		Phone: sandie.fredrick@testamericainc.com		E-Mail: sandie.fredrick@testamericainc.com	
Shipping/Receiving		Company: TestAmerica Laboratories, Inc		Address: 2960 Foster Creighton Drive, Nashville, TN, 37204	
Due Date Requested: 7/18/2019		TAT Requested (days):		PO #:	
Project Name: Soils & Waters		Project #: 50007204		SSOW#:	
City: Nashville		State: TN		Zip: 37204	
Phone: 615-726-0177(Tel) 615-726-3404(Fax)		Email:		WO #:	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time	
MW-1A (500-166427-1)		7/9/19		09:30	
MW-3A (500-166427-2)		7/9/19		12:30	
MW-4R (500-166427-3)		7/9/19		12:00	
MW-4A (500-166427-4)		7/9/19		11:30	
MW-5A (500-166427-5)		7/9/19		11:00	
MW-7 (500-166427-6)		7/9/19		10:00	
MW-10 (500-166427-7)		7/9/19		13:00	
MW-1W (500-166427-8)		7/9/19		10:30	
Trip Blank (500-166427-9)		7/9/19		Central	
Matrix (W=Water, S=Soil, O=Water/Oil, G=Grab)		Sample Type (C=Comp, G=Grab)		Preservation Code	
MW-1A: Water		Central		W1_GRO/5030B PVOC+NAP	
MW-3A: Water		Central		X	
MW-4R: Water		Central		X	
MW-4A: Water		Central		X	
MW-5A: Water		Central		X	
MW-7: Water		Central		X	
MW-10: Water		Central		X	
MW-1W: Water		Central		X	
Trip Blank: Water		Central		X	
Field Filled Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	
MW-1A: X		X		3	
MW-3A: X		X		3	
MW-4R: X		X		3	
MW-4A: X		X		3	
MW-5A: X		X		3	
MW-7: X		X		3	
MW-10: X		X		3	
MW-1W: X		X		3	
Trip Blank: X		X		1	
Special Instructions/Note:		Analysis Requested		Preservation Codes:	
				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Special Instructions/Note:		Analysis Requested		Preservation Codes:	
				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/CC Requirements:	
Unconfirmed		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2			
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: [Signature]		Date: 7/19/19		Received by: [Signature]	
Relinquished by: [Signature]		Date: 7/19/19		Received by: [Signature]	
Relinquished by:		Date/Time:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 3.0	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.



### Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-166427-1

**Login Number: 166427**

**List Source: Eurofins TestAmerica, Chicago**

**List Number: 1**

**Creator: Fioravanti, Ariel M**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	10.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



### Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-166427-1

**Login Number: 166427**

**List Number: 2**

**Creator: Hulbert, Michael J**

**List Source: Eurofins TestAmerica, Buffalo**

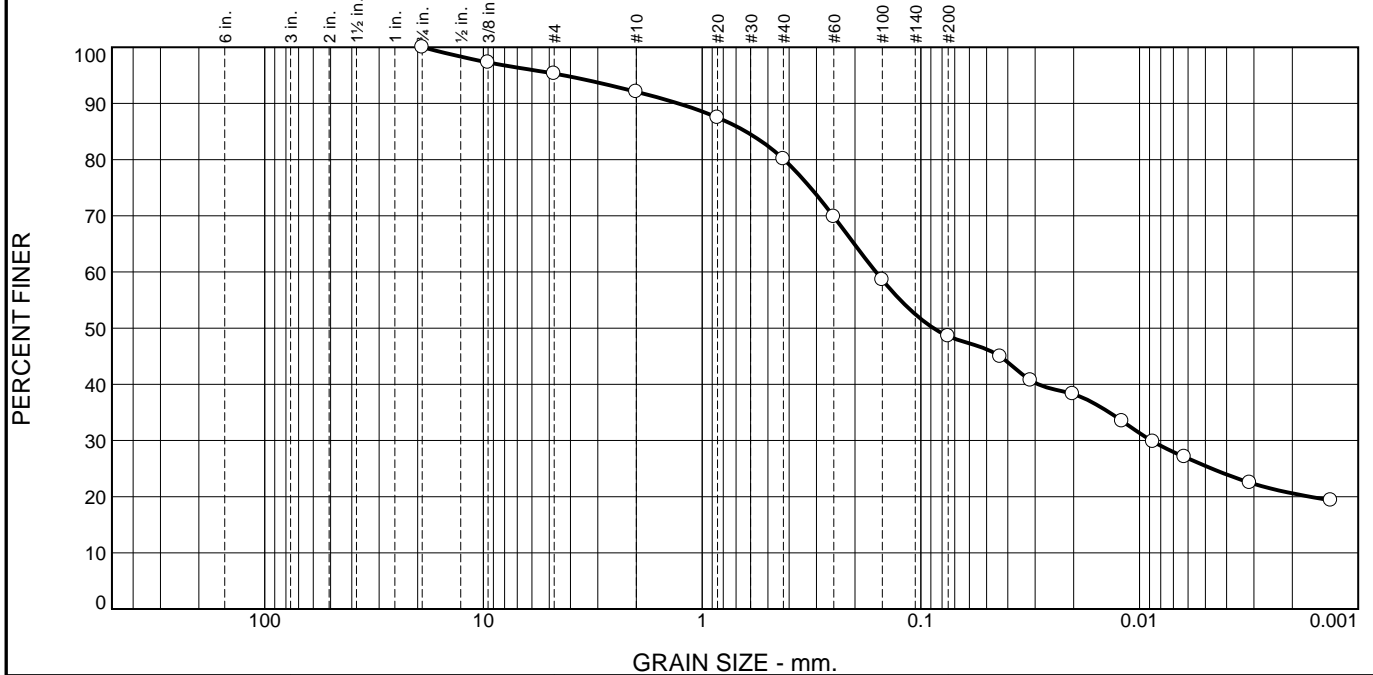
**List Creation: 07/11/19 04:58 PM**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1 #1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	





# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	4.7	3.2	12.0	31.5	23.1	25.5

Test Results (ASTM D422 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
.375	97.3		
#4	95.3		
#10	92.1		
#20	87.5		
#40	80.1		
#60	69.8		
#100	58.6		
#200	48.6		
0.0433 mm.	44.9		
0.0315 mm.	40.7		
0.0202 mm.	38.3		
0.0120 mm.	33.5		
0.0087 mm.	29.8		
0.0062 mm.	27.1		
0.0031 mm.	22.5		
0.0013 mm.	19.4		

\* (no specification provided)

**Material Description**

Clayey Sand, a little gravel, reddish brown

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= SC      AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 1.2847      D<sub>85</sub>= 0.6307      D<sub>60</sub>= 0.1605  
 D<sub>50</sub>= 0.0876      D<sub>30</sub>= 0.0088      D<sub>15</sub>= \_\_\_\_\_  
 D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

Remarks

Date Received: 10-1-18      Date Tested: 10-2-18  
 Tested By: Troy Tabor  
 Checked By: Joel Guanella  
 Title: CME Dept. Manager

Location: MW 11-A

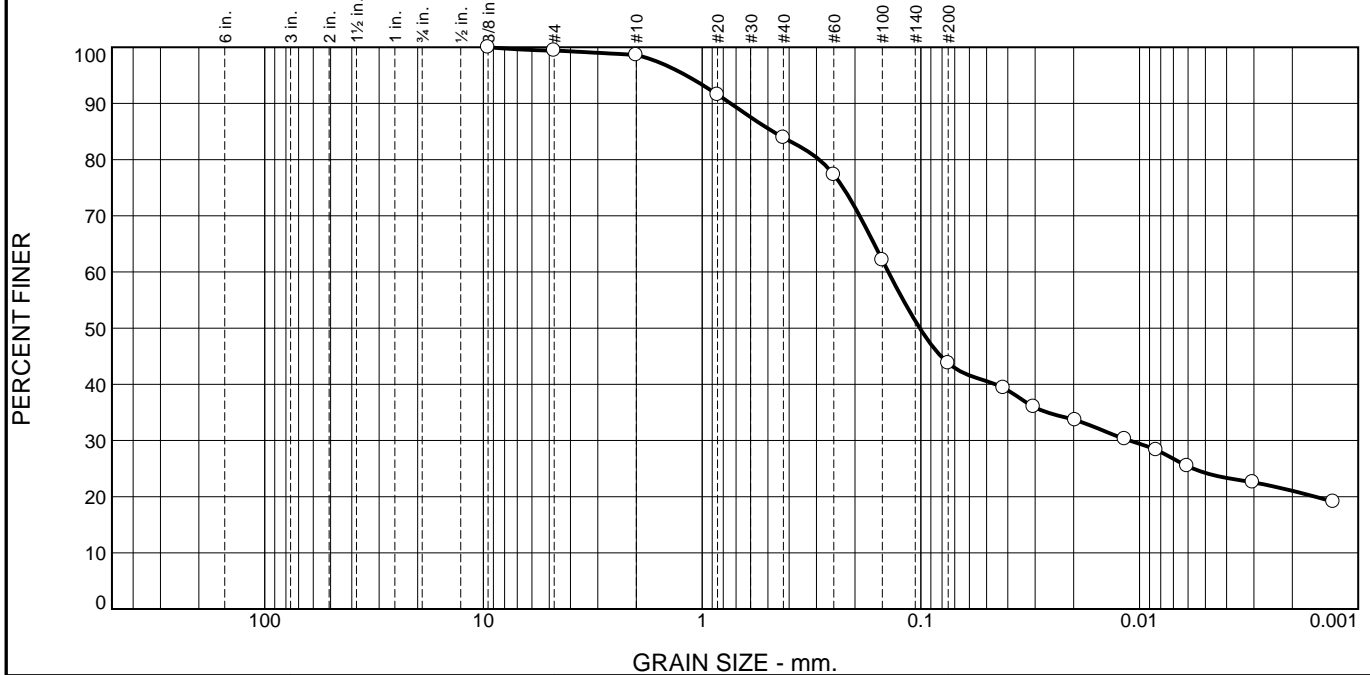
Date Sampled: 10-1-18

**AMERICAN ENGINEERING  
TESTING, INC.  
Chippewa Falls, Wisconsin**

Client: DFA  
 Project: DariConcepts  
 Chili, Wisconsin  
 Project No: 03-05510

Figure

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.6	0.8	14.7	40.1	19.6	24.2

Test Results (ASTM D422 & ASTM C117)			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.375	100.0		
#4	99.4		
#10	98.6		
#20	91.6		
#40	83.9		
#60	77.3		
#100	62.1		
#200	43.8		
0.0419 mm.	39.4		
0.0305 mm.	36.0		
0.0197 mm.	33.6		
0.0117 mm.	30.3		
0.0084 mm.	28.3		
0.0061 mm.	25.5		
0.0030 mm.	22.6		
0.0013 mm.	19.1		

\* (no specification provided)

**Material Description**

Clayey Sand, brown

**Atterberg Limits (ASTM D 4318)**

PL= \_\_\_\_\_ LL= \_\_\_\_\_ PI= \_\_\_\_\_

**Classification**

USCS (D 2487)= SC      AASHTO (M 145)= \_\_\_\_\_

**Coefficients**

D<sub>90</sub>= 0.7412      D<sub>85</sub>= 0.4746      D<sub>60</sub>= 0.1407  
 D<sub>50</sub>= 0.1011      D<sub>30</sub>= 0.0111      D<sub>15</sub>= \_\_\_\_\_  
 D<sub>10</sub>= \_\_\_\_\_      C<sub>u</sub>= \_\_\_\_\_      C<sub>c</sub>= \_\_\_\_\_

Remarks

Date Received: 10-1-18      Date Tested: 10-2-18  
 Tested By: Troy Tabor  
 Checked By: Joel Guanella  
 Title: CME Dept. Manager

Location: MW 11-B

Date Sampled: 10-1-18

**AMERICAN ENGINEERING  
TESTING, INC.  
Chippewa Falls, Wisconsin**

Client: DFA  
 Project: DariConcepts  
 Chili, Wisconsin  
 Project No: 03-05510

Figure

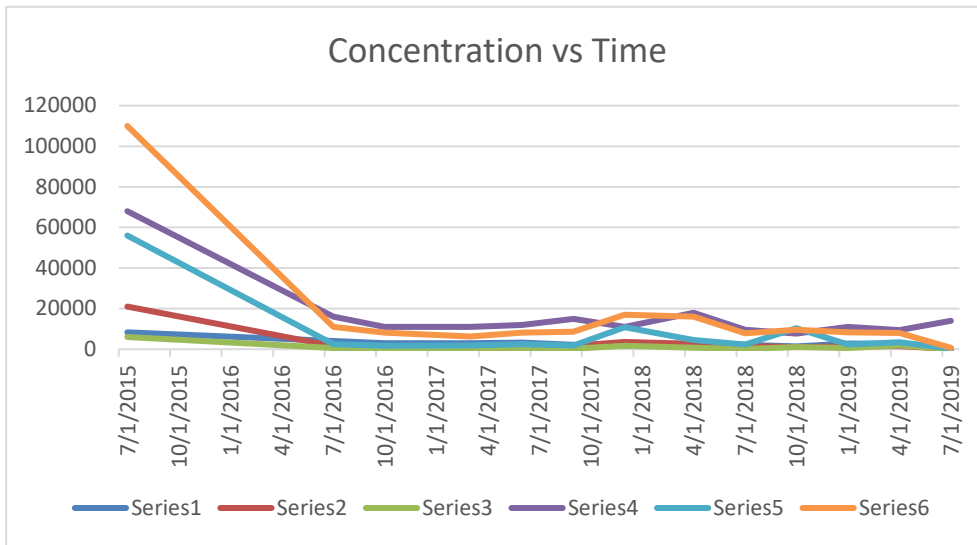
# Appendix E

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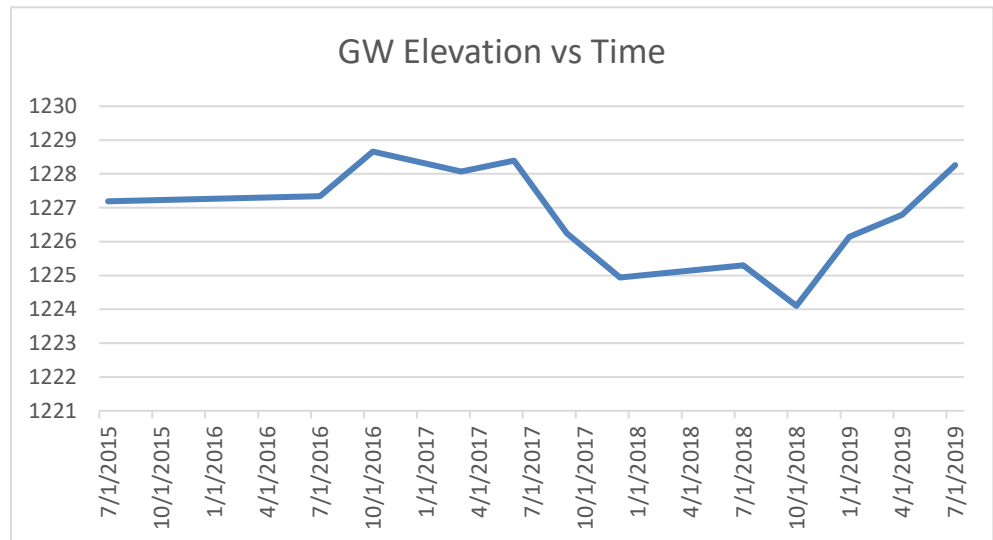
Concentration versus Time Graphs

### DairiConcepts, Chili, WI - MW-3A - Post Remediation

Date	Series 1 Benzene	Series 2 Ethylbenzene	Series 3 Naphthalene	Series 4 Toluene	Series 5 Total TMBs	Series 6 Total Xylenes
7/7/2015	8300	21000	6000	68000	56000	110000
7/11/2016	4000	1600	530	16000	2470	11000
10/17/2016	3000	1500	400	11000	1670	8100
3/22/2017	2900	1200	260	11000	1790	6300
6/1/2017	3200	1600	450	12000	2430	8100
9/8/2017	2200	1700	340	15000	1840	8700
12/4/2017	1700	3600	1700	11000	10900	17000
4/30/2018	2900	2600	750	18000	4600	16000
7/9/2018	2100	1500	110	9500	2350	7900
10/3/2018	1400	1000	1100	7700	10300	9600
1/7/2019	2800	1400	580	11000	2350	8300
4/26/2019	2700	1500	1800	9400	3430	8000
7/9/2019	150	120	90	14000	335	680

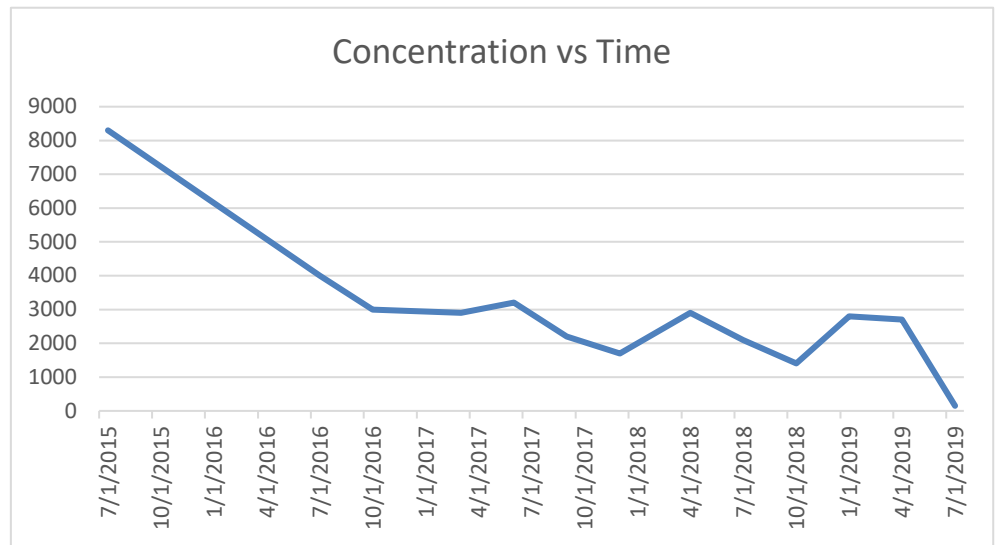


Date	Series 1 Groundwater Elevation
7/7/2015	1227.19
7/11/2016	1227.34
10/17/2016	1228.66
3/22/2017	1228.07
6/1/2017	1228.39
9/8/2017	1226.24
12/4/2017	1224.94
7/9/2018	1225.30
10/3/2018	1224.10
1/7/2019	1226.14
4/26/2019	1226.79
7/9/2019	1228.26

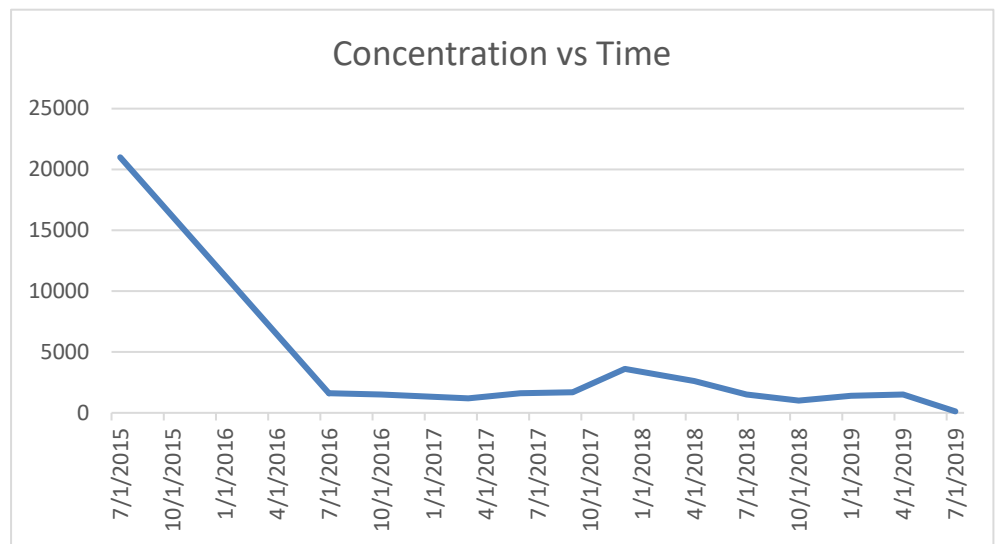


### DairiConcepts, Chili, WI - MW-3A - Post Remediation

Date	Series 1 Benzene
7/7/2015	8300
7/11/2016	4000
10/17/2016	3000
3/22/2017	2900
6/1/2017	3200
9/8/2017	2200
12/4/2017	1700
4/30/2018	2900
7/9/2018	2100
10/3/2018	1400
1/7/2019	2800
4/26/2019	2700
7/9/2019	150

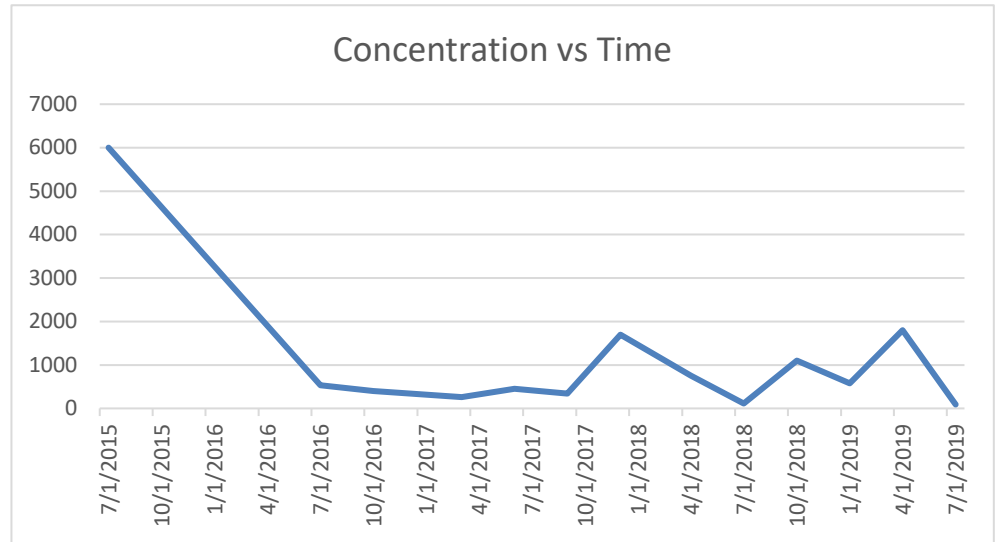


Date	Series 2 Ethylbenzene
7/7/2015	21000
7/11/2016	1600
10/17/2016	1500
3/22/2017	1200
6/1/2017	1600
9/8/2017	1700
12/4/2017	3600
4/30/2018	2600
7/9/2018	1500
10/3/2018	1000
1/7/2019	1400
4/26/2019	1500
7/9/2019	120

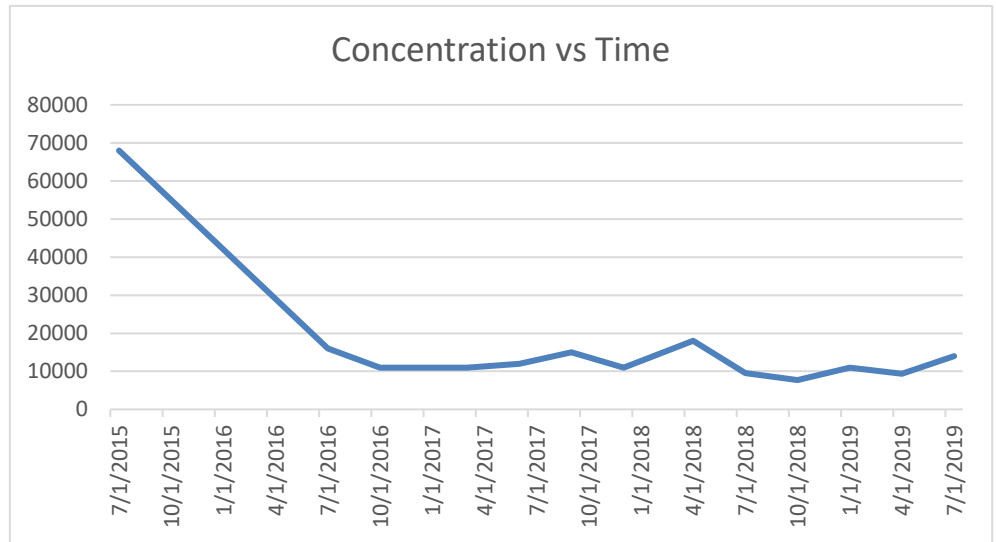


### DairiConcepts, Chili, WI - MW-3A - Post Remediation

Date	Series 3 Naphthalene
7/7/2015	6000
7/11/2016	530
10/17/2016	400
3/22/2017	260
6/1/2017	450
9/8/2017	340
12/4/2017	1700
4/30/2018	750
7/9/2018	110
10/3/2018	1100
1/7/2019	580
4/26/2019	1800
7/9/2019	90

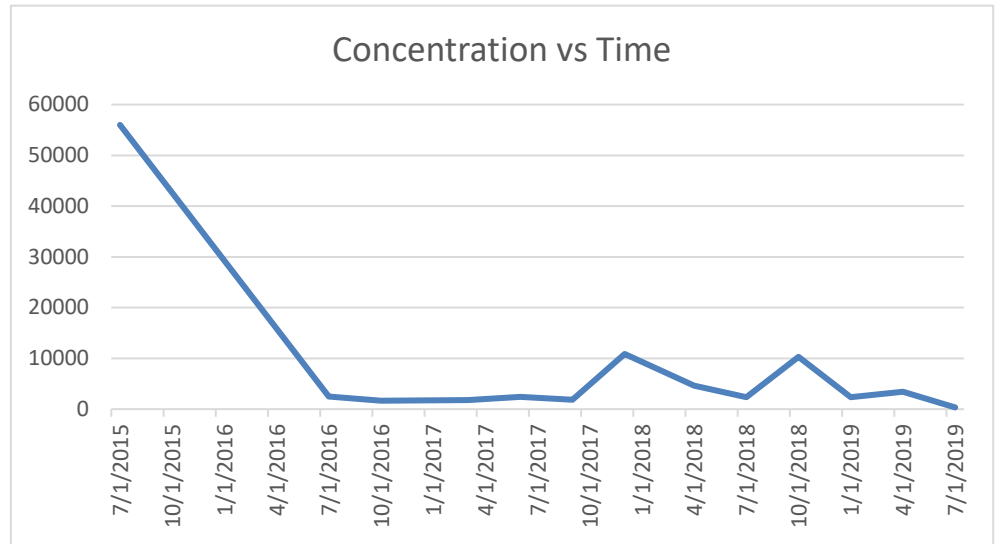


Date	Series 4 Toluene
7/7/2015	68000
7/11/2016	16000
10/17/2016	11000
3/22/2017	11000
6/1/2017	12000
9/8/2017	15000
12/4/2017	11000
4/30/2018	18000
7/9/2018	9500
10/3/2018	7700
1/7/2019	11000
4/26/2019	9400
7/9/2019	14000

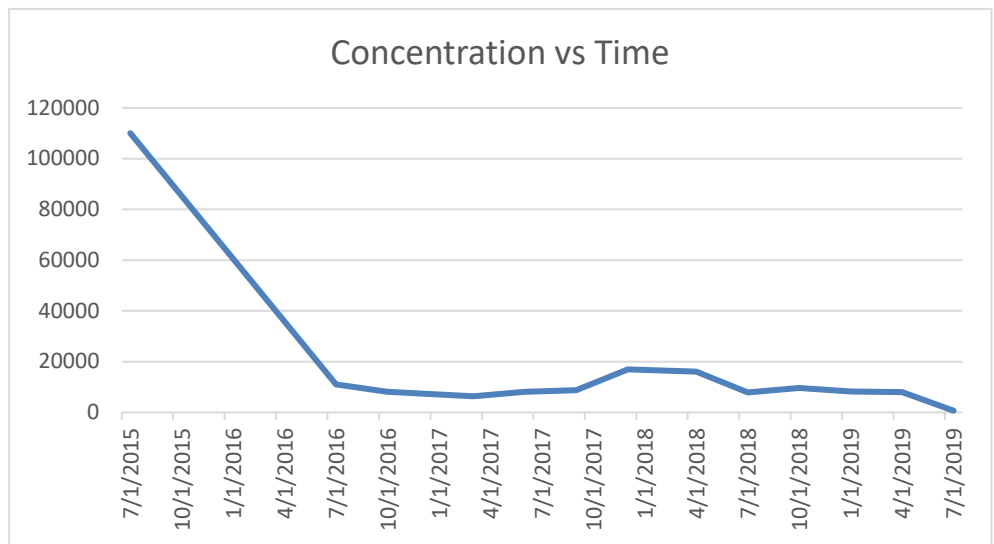


### DairiConcepts, Chili, WI - MW-3A - Post Remediation

Date	Series 5 Total TMBs
7/7/2015	56000
7/11/2016	2470
10/17/2016	1670
3/22/2017	1790
6/1/2017	2430
9/8/2017	1840
12/4/2017	10900
4/30/2018	4600
7/9/2018	2350
10/3/2018	10300
1/7/2019	2350
4/26/2019	3430
7/9/2019	335

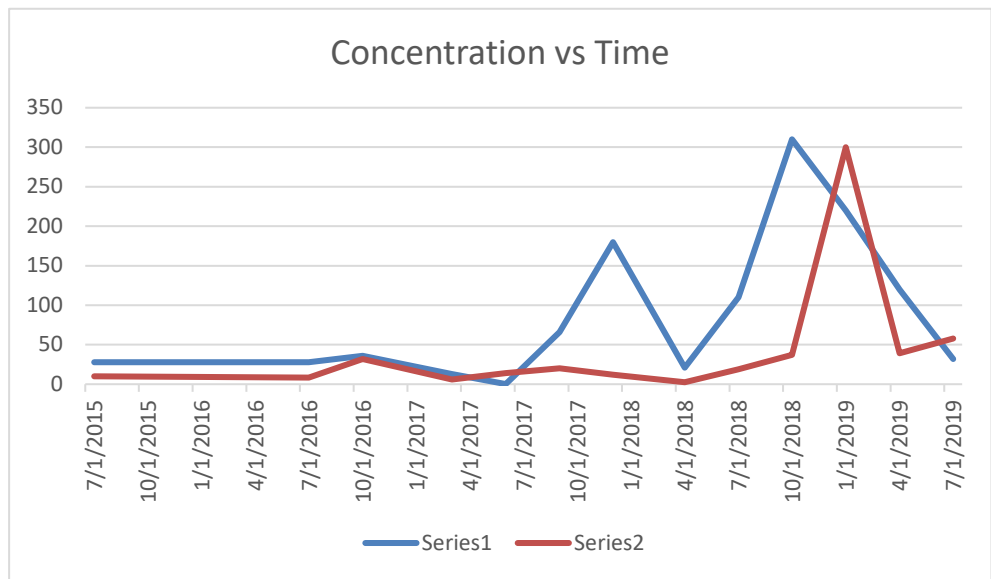


Date	Series 6 Total Xylenes
7/7/2015	110000
7/11/2016	11000
10/17/2016	8100
3/22/2017	6300
6/1/2017	8100
9/8/2017	8700
12/4/2017	17000
4/30/2018	16000
7/9/2018	7900
10/3/2018	9600
1/7/2019	8300
4/26/2019	8000
7/9/2019	680

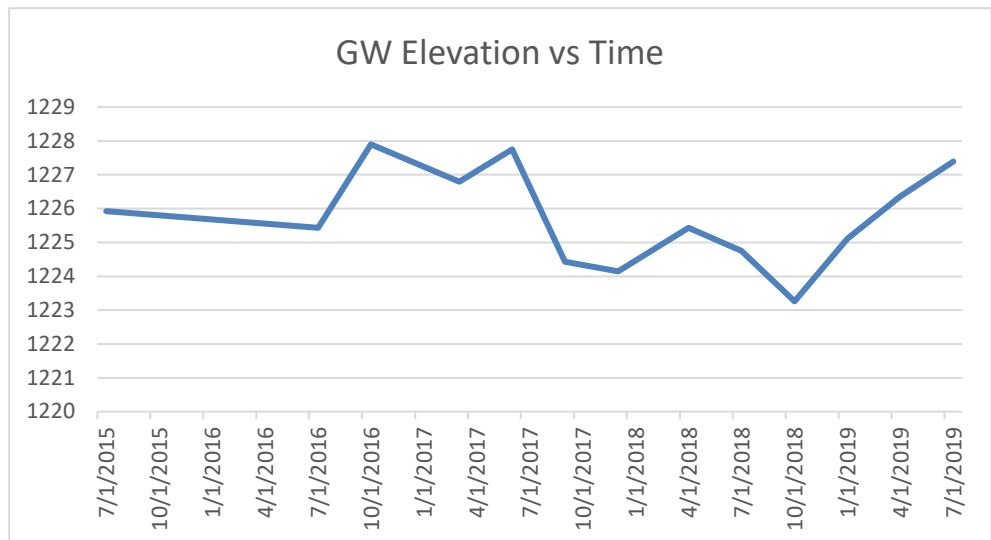


### DairiConcepts, Chili, WI - MW-4A - Post Remediation

Date	Series 1 Benzene	Series 2 Naphthalene
7/7/2015	28	10
7/11/2016	28	8.2
10/17/2016	36	32
3/22/2017	13	5.9
6/1/2017	0.18	14
9/8/2017	66	20
12/4/2017	180	12
4/30/2018	21	2.5
7/9/2018	110	19
10/3/2018	310	37
1/7/2019	220	300
4/26/2019	120	39
7/9/2019	32	58



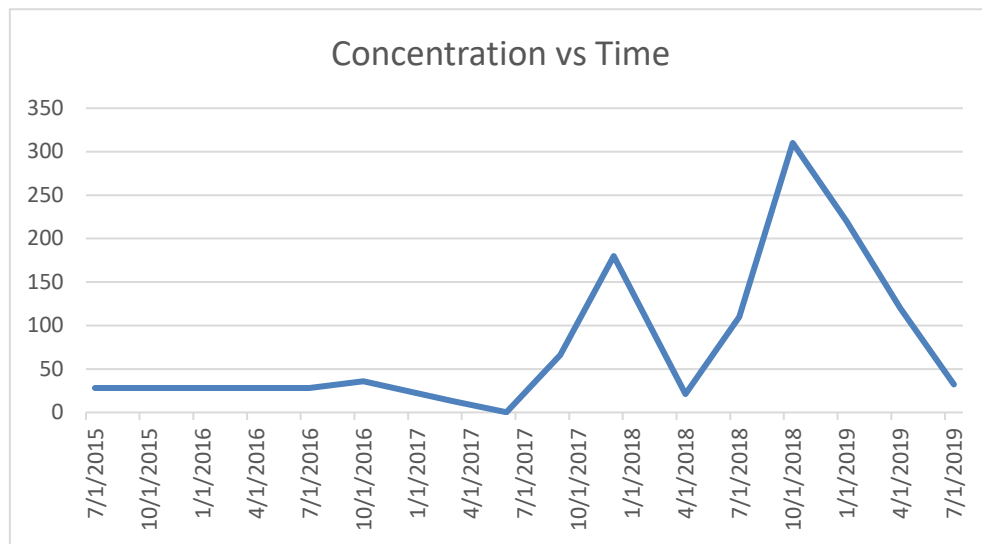
Date	Series 1 Groundwater Elevation
7/7/2015	1225.93
7/11/2016	1225.43
10/17/2016	1227.90
3/22/2017	1226.80
6/1/2017	1227.75
9/8/2017	1224.43
12/4/2017	1224.15
4/30/2018	1225.43
7/9/2018	1224.75
10/3/2018	1223.26
1/7/2019	1225.11
4/26/2019	1226.36
7/9/2019	1227.39



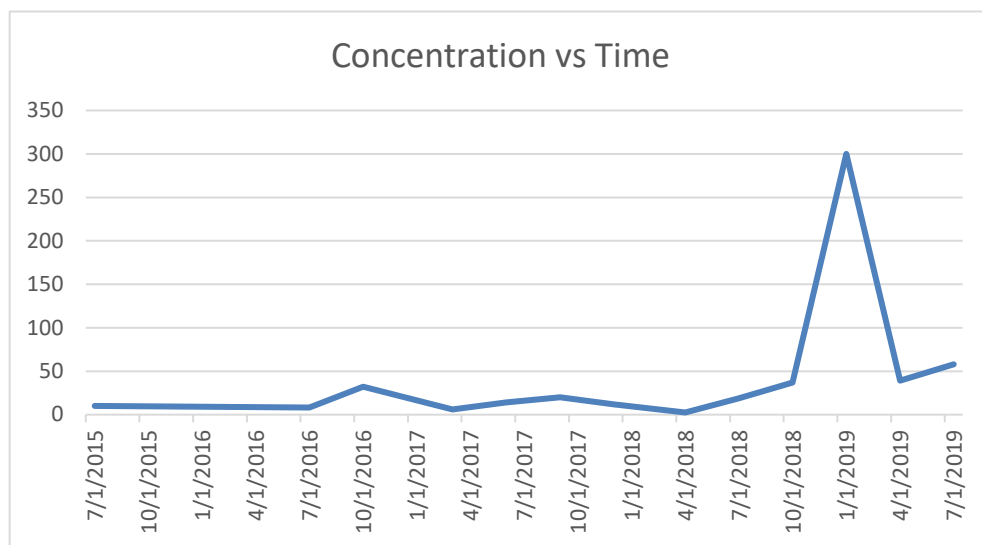


### DairiConcepts, Chili, WI - MW-4A - Post Remediation

Date	Series 1 Benzene
7/7/2015	28
7/11/2016	28
10/17/2016	36
3/22/2017	13
6/1/2017	0.18
9/8/2017	66
12/4/2017	180
4/30/2018	21
7/9/2018	110
10/3/2018	310
1/7/2019	220
4/26/2019	120
7/9/2019	32

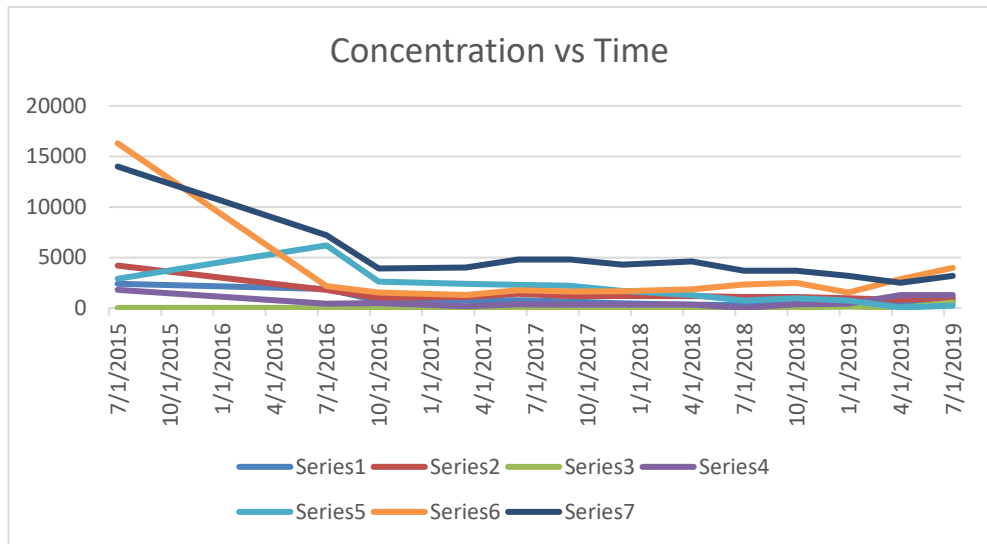


Date	Series 2 Naphthalene
7/7/2015	10
7/11/2016	8.2
10/17/2016	32
3/22/2017	5.9
6/1/2017	14
9/8/2017	20
12/4/2017	12
4/30/2018	2.5
7/9/2018	19
10/3/2018	37
1/7/2019	300
4/26/2019	39
7/9/2019	58

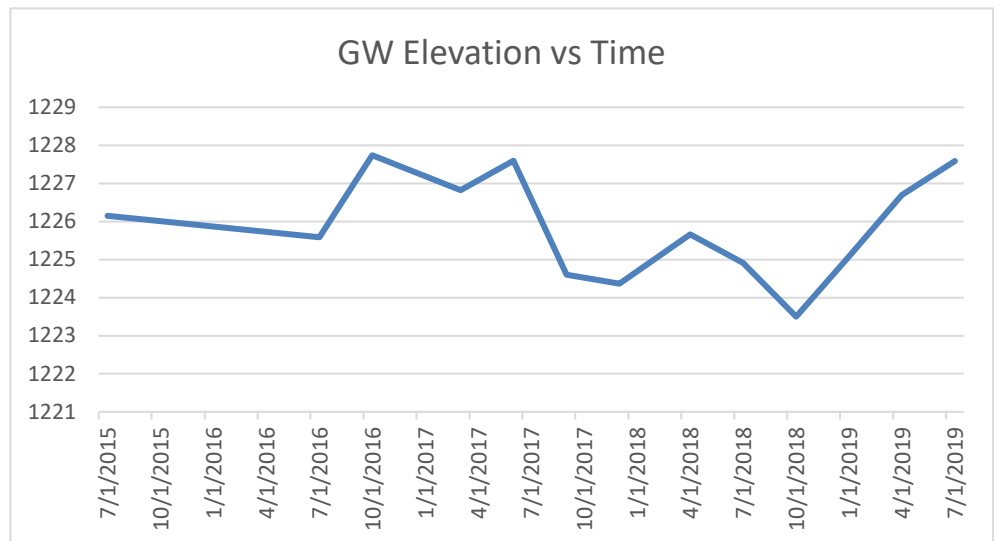


### DairiConcepts, Chili, WI - MW-4/4R - Post Remediation

Date	Series 1 Benzene	Series 2 Ethylbenzene	Series 3 MTBE	Series 4 Naphthalene	Series 5 Toluene	Series 6 Total TMBs	Series 7 Total Xylenes
7/7/2015	2400	4200	24	1800	2900	16300	14000
7/11/2016	1900	1800	1.95	430	6200	2180	7200
10/17/2016	700	1000	4.25	500	2600	1550	3900
3/22/2017	740	1100	1	190	2400	1290	4000
6/1/2017	780	1400	0.395	360	2300	1770	4800
9/8/2017	660	1200	1	320	2200	1620	4800
12/4/2017	450	1200	1.95	320	1700	1680	4300
4/30/2018	350	1200	0.395	340	1300	1850	4600
7/9/2018	300	1100	0.395	14	740	2320	3700
10/3/2018	440	1100	87	380	960	2500	3700
1/7/2019	440	970	160	440	760	1530	3200
4/26/2019	310	810	26	1300	48	2880	2500
7/9/2019	760	1000	540	1300	230	3990	3200

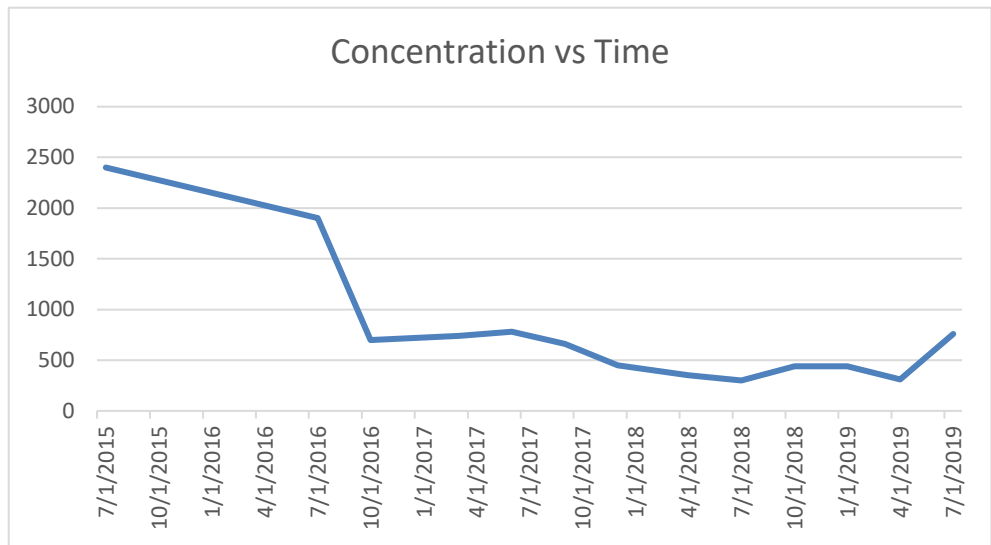


Date	Series 1 Groundwater Elevation
7/7/2015	1226.15
7/11/2016	1225.59
10/17/2016	1227.74
3/22/2017	1226.82
6/1/2017	1227.60
9/8/2017	1224.60
12/4/2017	1224.37
4/30/2018	1225.66
7/9/2018	1224.91
10/3/2018	1223.50
1/7/2019	1225.08
4/26/2019	1226.70
7/9/2019	1227.59

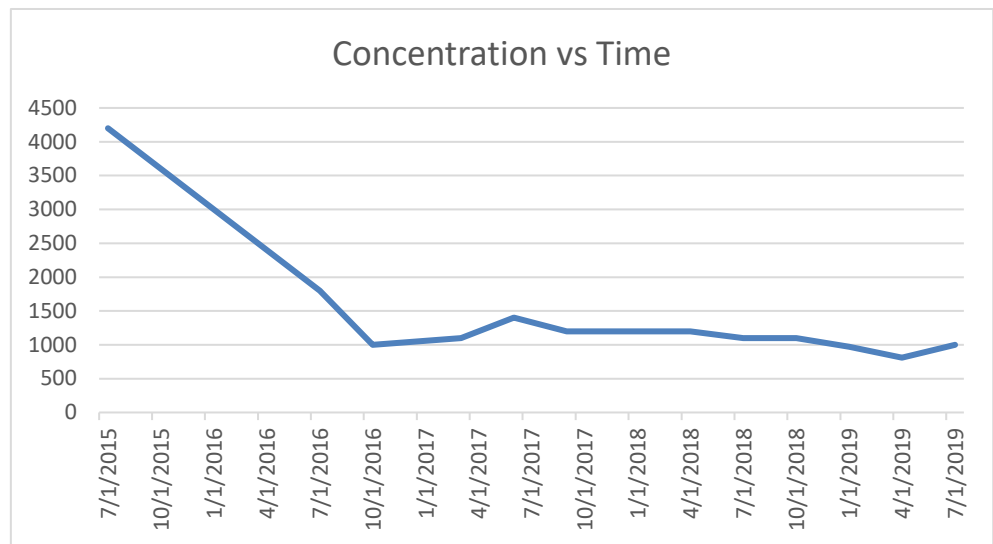


## DairiConcepts, Chili, WI - MW-4/4R - Post Remediation

Date	Series 1 Benzene
7/7/2015	2400
7/11/2016	1900
10/17/2016	700
3/22/2017	740
6/1/2017	780
9/8/2017	660
12/4/2017	450
4/30/2018	350
7/9/2018	300
10/3/2018	440
1/7/2019	440
4/26/2019	310
7/9/2019	760



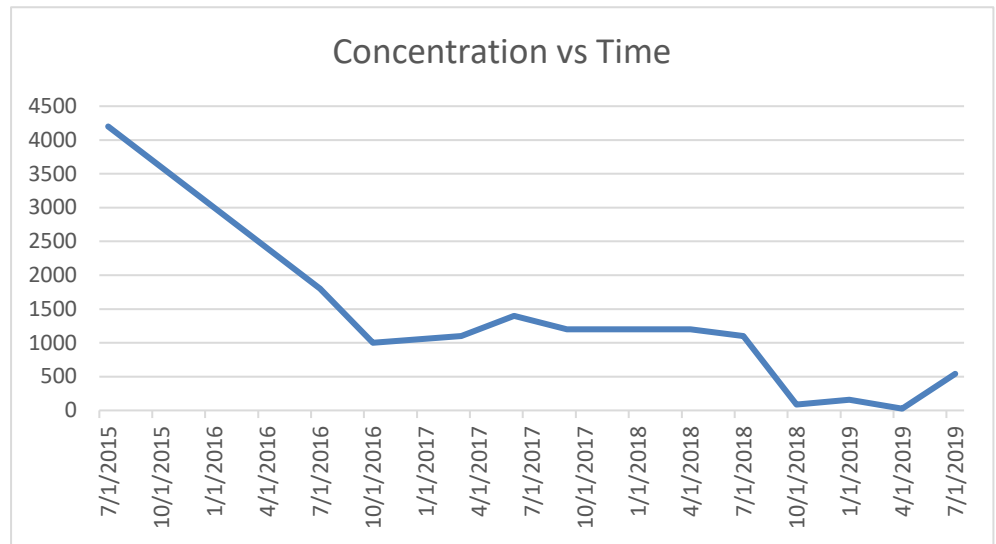
Date	Series 2 Ethylbenzene
7/7/2015	4200
7/11/2016	1800
10/17/2016	1000
3/22/2017	1100
6/1/2017	1400
9/8/2017	1200
12/4/2017	1200
4/30/2018	1200
7/9/2018	1100
10/3/2018	1100
1/7/2019	970
4/26/2019	810
7/9/2019	1000



### DairiConcepts, Chili, WI - MW-4/4R - Post Remediation

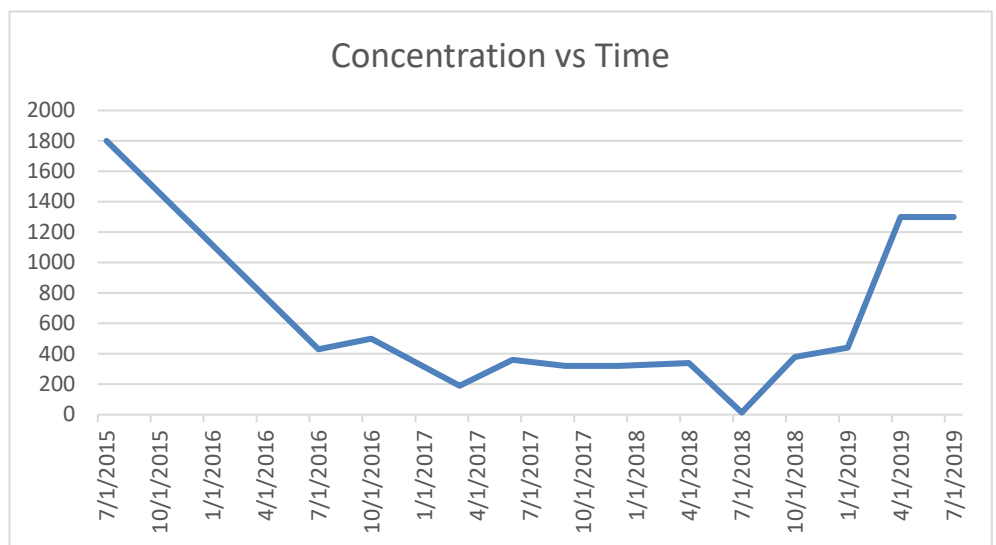
Series 3  
MTBE

Date	MTBE
7/7/2015	4200
7/11/2016	1800
10/17/2016	1000
3/22/2017	1100
6/1/2017	1400
9/8/2017	1200
12/4/2017	1200
4/30/2018	1200
7/9/2018	1100
10/3/2018	87
1/7/2019	160
4/26/2019	26
7/9/2019	540



Series 4  
Naphthalene

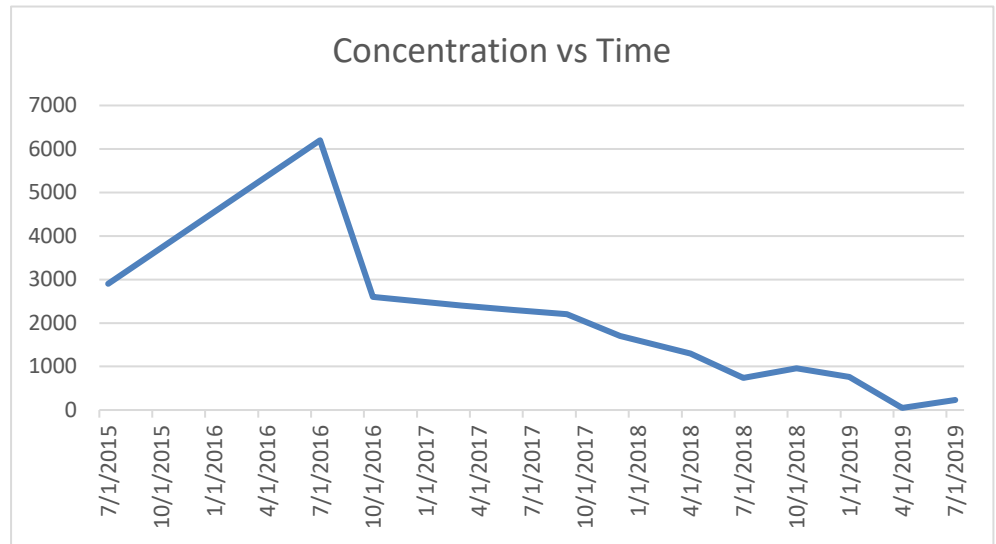
Date	Naphthalene
7/7/2015	1800
7/11/2016	430
10/17/2016	500
3/22/2017	190
6/1/2017	360
9/8/2017	320
12/4/2017	320
4/30/2018	340
7/9/2018	14
10/3/2018	380
1/7/2019	440
4/26/2019	1300
7/9/2019	1300



### DairiConcepts, Chili, WI - MW-4/4R - Post Remediation

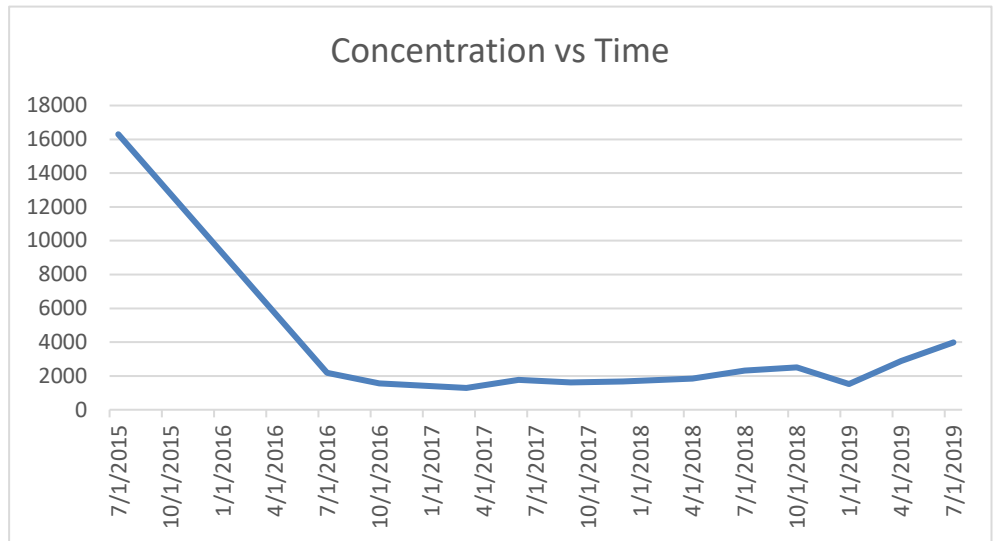
Series 5  
Toluene

Date	Concentration
7/7/2015	2900
7/11/2016	6200
10/17/2016	2600
3/22/2017	2400
6/1/2017	2300
9/8/2017	2200
12/4/2017	1700
4/30/2018	1300
7/9/2018	740
10/3/2018	960
1/7/2019	760
4/26/2019	48
7/9/2019	230



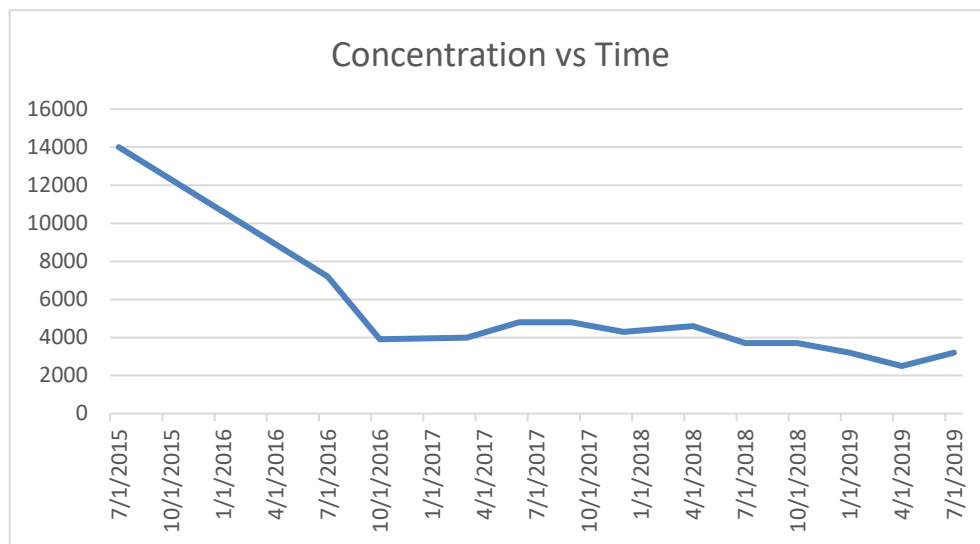
Series 6  
Total TMBs

Date	Concentration
7/7/2015	16300
7/11/2016	2180
10/17/2016	1550
3/22/2017	1290
6/1/2017	1770
9/8/2017	1620
12/4/2017	1680
4/30/2018	1850
7/9/2018	2320
10/3/2018	2500
1/7/2019	1530
4/26/2019	2880
7/9/2019	3990



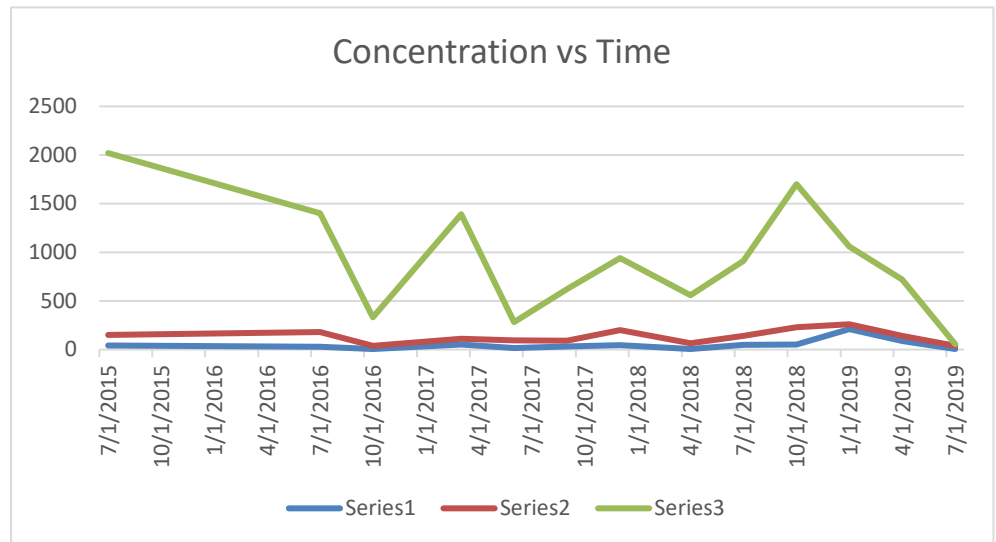
### DairiConcepts, Chili, WI - MW-4/4R - Post Remediation

Date	Series 7 Total Xylenes
7/7/2015	14000
7/11/2016	7200
10/17/2016	3900
3/22/2017	4000
6/1/2017	4800
9/8/2017	4800
12/4/2017	4300
4/30/2018	4600
7/9/2018	3700
10/3/2018	3700
1/7/2019	3200
4/26/2019	2500
7/9/2019	3200



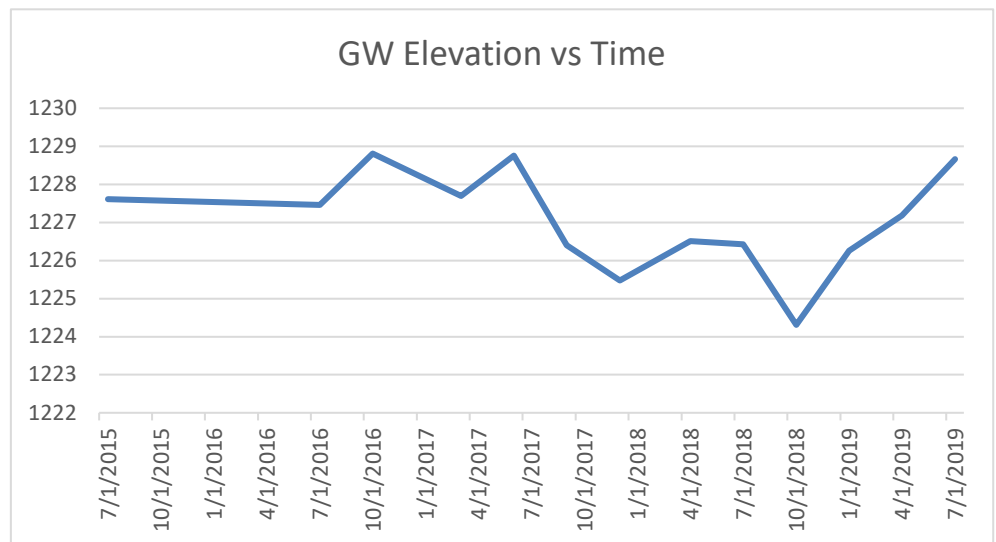
### DairiConcepts, Chili, WI - MW-5A - Post Remediation

Date	Series 1 Benzene	Series 2 Naphthalene	Series 3 TMB
7/7/2015	42	150	2020
7/11/2016	30	180	1400
10/17/2016	6	38	332
3/22/2017	51	110	1390
6/1/2017	16	96	283
9/8/2017	32	92	620
12/4/2017	46	200	940
4/30/2018	5.6	65	560
7/9/2018	48	140	910
10/3/2018	53	230	1700
1/7/2019	210	260	1060
4/26/2019	89	140	720
7/9/2019	6.3	40	55



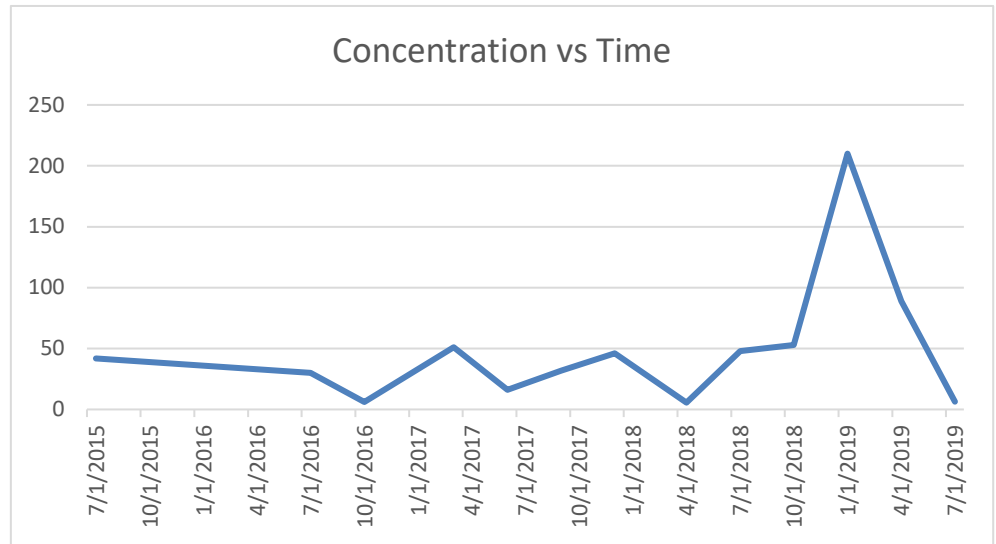
Series 1  
Date Groundwater Elevation

7/7/2015	1227.61
7/11/2016	1227.46
10/17/2016	1228.81
3/22/2017	1227.70
6/1/2017	1228.76
9/8/2017	1226.40
12/4/2017	1225.48
4/30/2018	1226.51
7/9/2018	1226.43
10/3/2018	1224.31
1/7/2019	1226.26
4/26/2019	1227.18
7/9/2019	1228.66

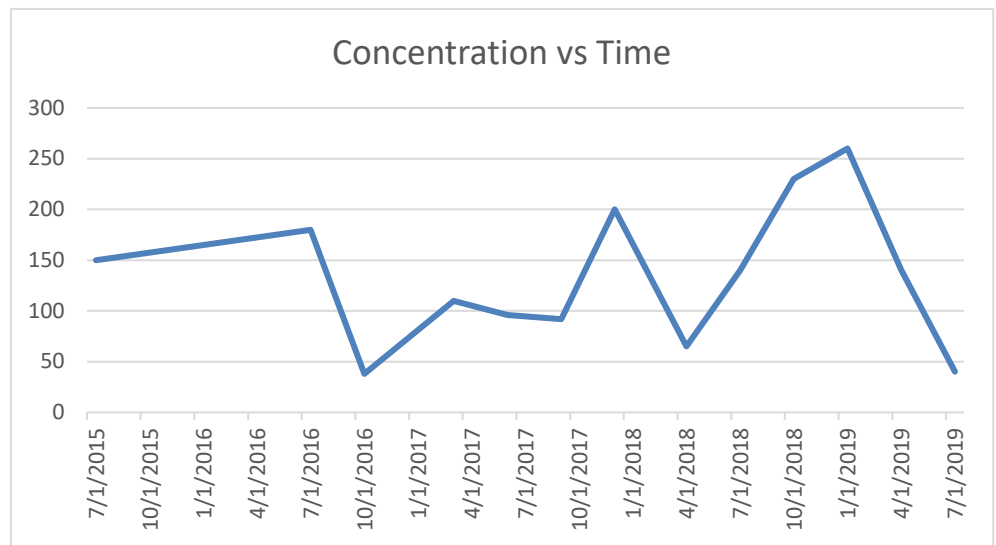


# DairiConcepts, Chili, WI - MW-5A - Post Remediation

Date	Series 1 Benzene
7/7/2015	42
7/11/2016	30
10/17/2016	6
3/22/2017	51
6/1/2017	16
9/8/2017	32
12/4/2017	46
4/30/2018	5.6
7/9/2018	48
10/3/2018	53
1/7/2019	210
4/26/2019	89
7/9/2019	6.3



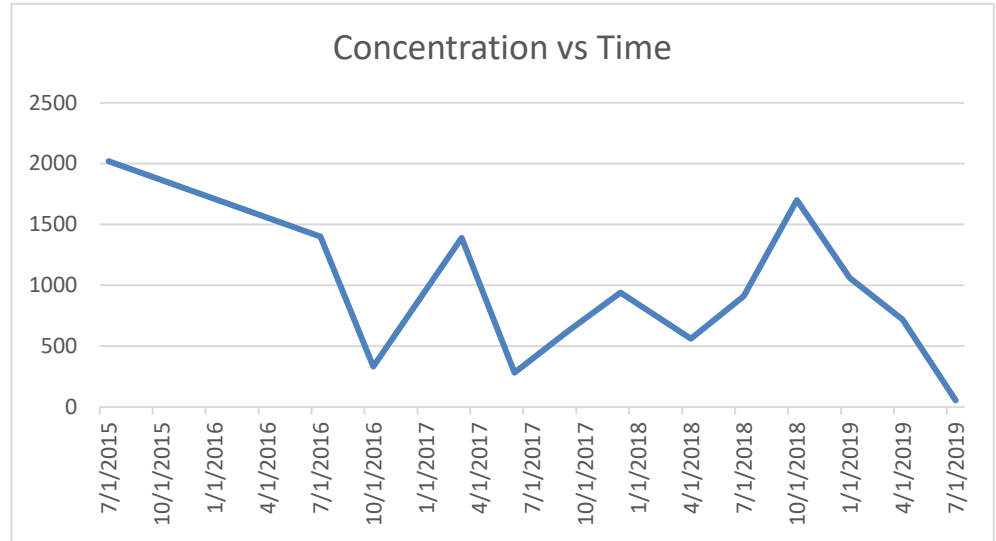
Date	Series 2 Naphthalene
7/7/2015	150
7/11/2016	180
10/17/2016	38
3/22/2017	110
6/1/2017	96
9/8/2017	92
12/4/2017	200
4/30/2018	65
7/9/2018	140
10/3/2018	230
1/7/2019	260
4/26/2019	140
7/9/2019	40





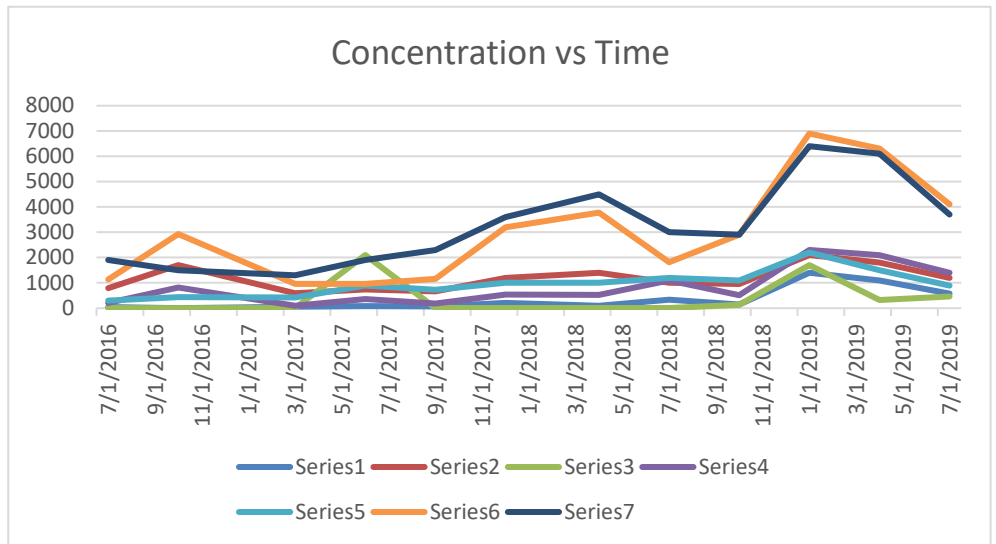
### DairiConcepts, Chili, WI - MW-5A - Post Remediation

Date	Series 3 TMB
7/7/2015	2020
7/11/2016	1400
10/17/2016	332
3/22/2017	1390
6/1/2017	283
9/8/2017	620
12/4/2017	940
4/30/2018	560
7/9/2018	910
10/3/2018	1700
1/7/2019	1060
4/26/2019	720
7/9/2019	55

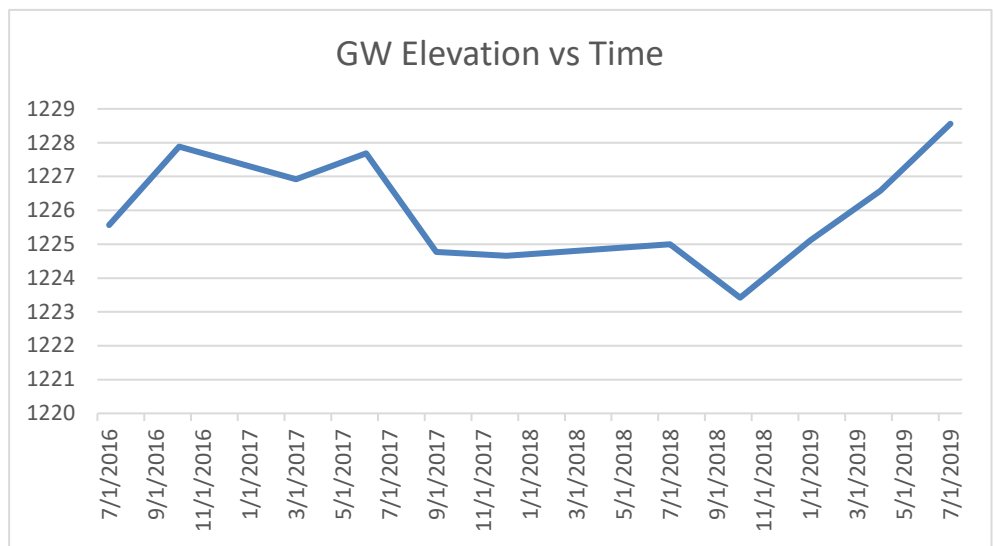


### DairiConcepts, Chili, WI - MW-10 - Post Remediation

Date	Series 1 Benzene	Series 2 Ethylbenzene	Series 3 MTBE	Series 4 Naphthalene	Series 5 Toluene	Series 6 TMBs	Series 7 Xylenes
7/11/2016	49	790	1	210	300	1130	1900
10/17/2016	1	1700	0.85	820	440	2930	1500
3/22/2017	54	590	1	97	420	960	1300
6/1/2017	87	740	2100	360	890	960	1900
9/8/2017	64	670	1	180	730	1160	2300
12/4/2017	210	1200	1.95	540	1000	3190	3600
4/30/2018	100	1400	3.95	530	1000	3780	4500
7/9/2018	340	1000	3.95	1100	1200	1820	3000
10/3/2018	140	960	130	510	1100	2900	2900
1/7/2019	1400	2100	1700	2300	2200	6900	6400
4/26/2019	1100	1800	320	2100	1500	6300	6100
7/9/2019	570	1200	460	1400	890	4100	3700

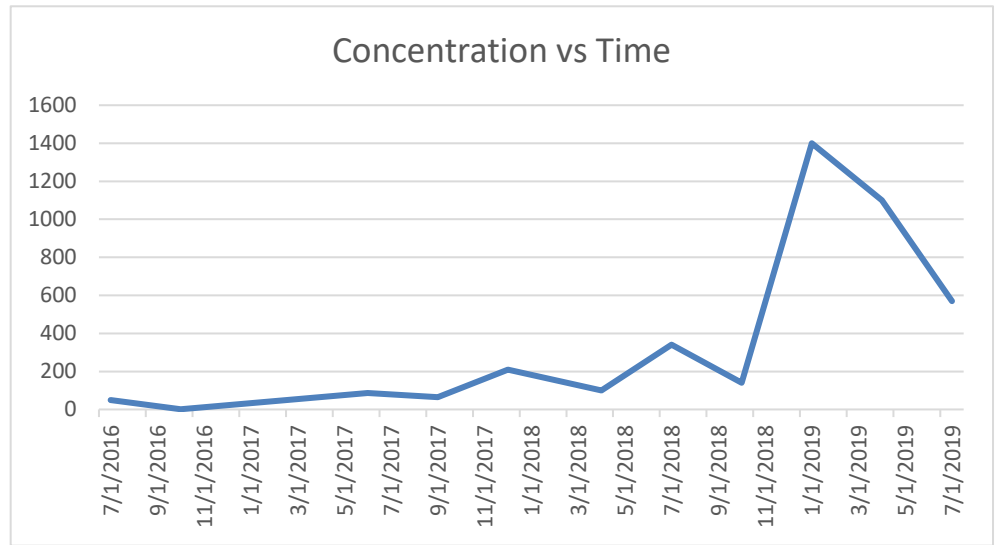


Date	Series 1 Groundwater Elevation
7/11/2016	1225.57
10/17/2016	1227.88
3/22/2017	1226.92
6/1/2017	1227.69
9/8/2017	1224.77
12/4/2017	1224.66
7/9/2018	1225.00
10/3/2018	1223.42
1/7/2019	1225.11
4/26/2019	1226.58
7/9/2019	1228.56

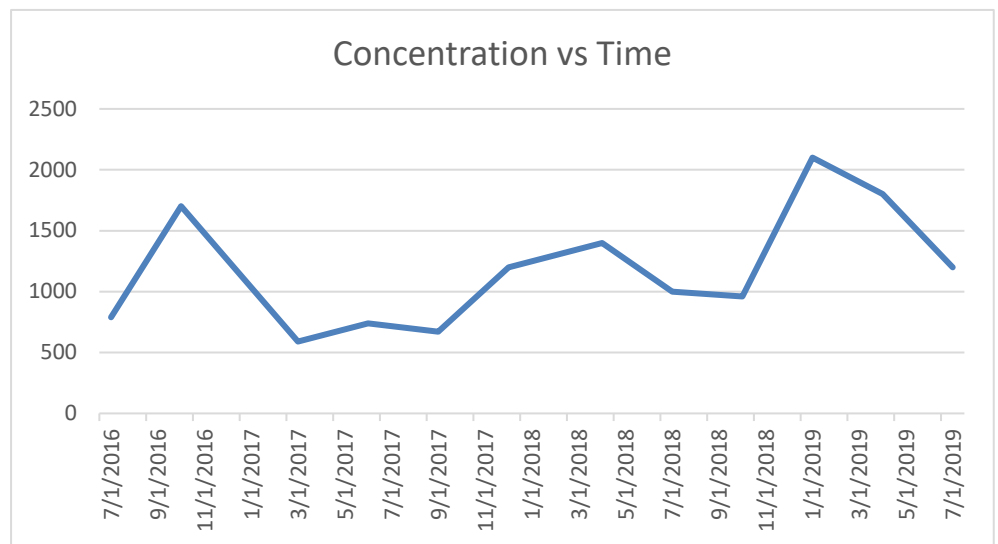


### DairiConcepts, Chili, WI - MW-10 - Post Remediation

Date	Series 1 Benzene
7/11/2016	49
10/17/2016	1
3/22/2017	54
6/1/2017	87
9/8/2017	64
12/4/2017	210
4/30/2018	100
7/9/2018	340
10/3/2018	140
1/7/2019	1400
4/26/2019	1100
7/9/2019	570

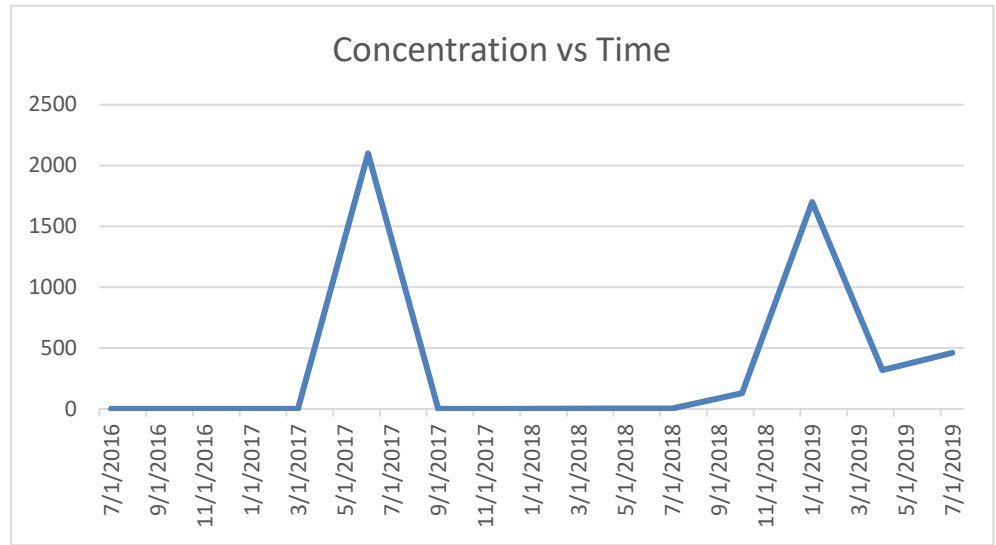


Date	Series 2 Ethylbenzene
7/11/2016	790
10/17/2016	1700
3/22/2017	590
6/1/2017	740
9/8/2017	670
12/4/2017	1200
4/30/2018	1400
7/9/2018	1000
10/3/2018	960
1/7/2019	2100
4/26/2019	1800
7/9/2019	1200

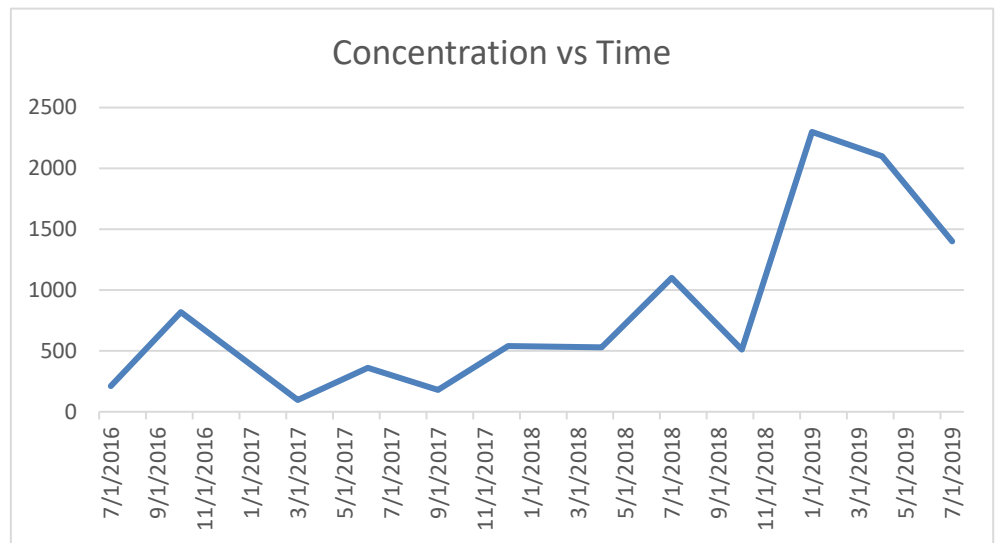


### DairiConcepts, Chili, WI - MW-10 - Post Remediation

Date	Series 3 MTBE
7/11/2016	1
10/17/2016	0.85
3/22/2017	1
6/1/2017	2100
9/8/2017	1
12/4/2017	1.95
4/30/2018	3.95
7/9/2018	3.95
10/3/2018	130
1/7/2019	1700
4/26/2019	320
7/9/2019	460

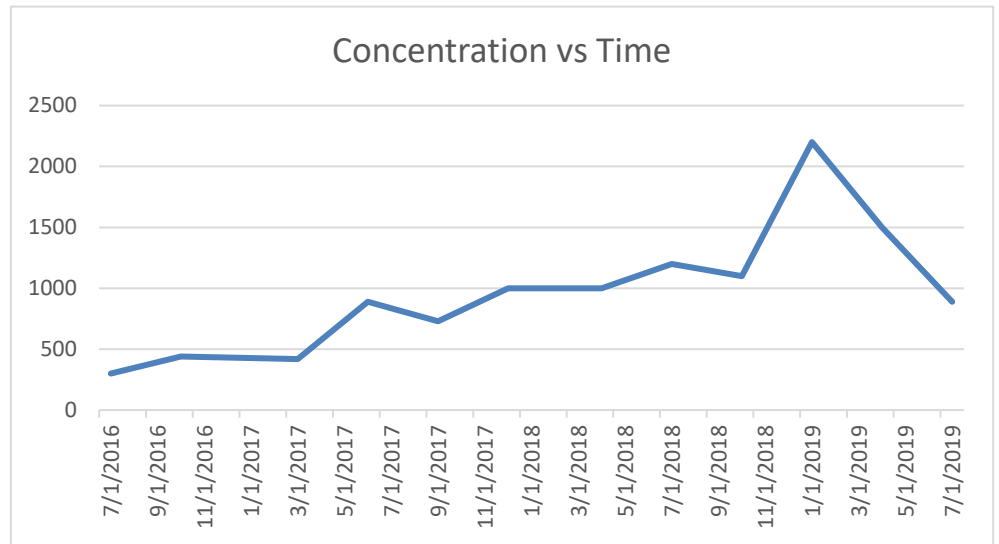


Date	Series 4 Naphthalene
7/11/2016	210
10/17/2016	820
3/22/2017	97
6/1/2017	360
9/8/2017	180
12/4/2017	540
4/30/2018	530
7/9/2018	1100
10/3/2018	510
1/7/2019	2300
4/26/2019	2100
7/9/2019	1400

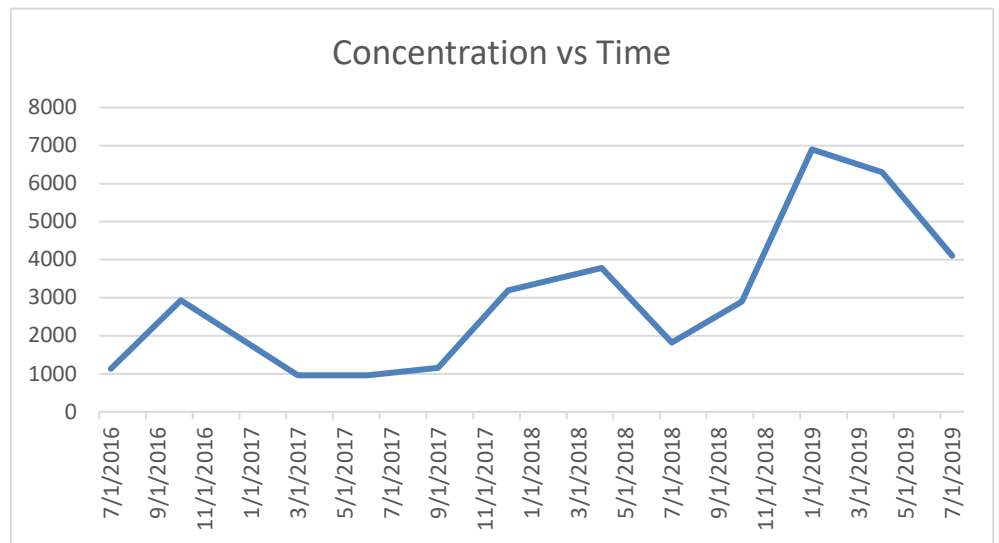


### DairiConcepts, Chili, WI - MW-10 - Post Remediation

Date	Series 5 Toluene
7/11/2016	300
10/17/2016	440
3/22/2017	420
6/1/2017	890
9/8/2017	730
12/4/2017	1000
4/30/2018	1000
7/9/2018	1200
10/3/2018	1100
1/7/2019	2200
4/26/2019	1500
7/9/2019	890



Date	Series 6 TMBs
7/11/2016	1130
10/17/2016	2930
3/22/2017	960
6/1/2017	960
9/8/2017	1160
12/4/2017	3190
4/30/2018	3780
7/9/2018	1820
10/3/2018	2900
1/7/2019	6900
4/26/2019	6300
7/9/2019	4100



### DairiConcepts, Chili, WI - MW-10 - Post Remediation

Date	Series 7 Xylenes
7/11/2016	1900
10/17/2016	1500
3/22/2017	1300
6/1/2017	1900
9/8/2017	2300
12/4/2017	3600
4/30/2018	4500
7/9/2018	3000
10/3/2018	2900
1/7/2019	6400
4/26/2019	6100
7/9/2019	3700

